



Epidemiology of HIV in Los Angeles County

Division of HIV and STD Programs (DHSP)



Ending the HIV Epidemic in Los Angeles County





Tracking achievements in national targets for the EHE initiative, 2022-2023

	EHE 2025 targets	EHE 2030 targets	LAC results
Estimated number of new infections (including diagnosed and undiagnosed infections) ¹	380	150	1,400 [900-1,900] (2022)
Estimated number of persons living with undiagnosed HIV in LAC	n/a	n/a	6,800 [4,900-8,600] (2022)
Number of new HIV diagnoses ²	450	180	1,641 (2022)
Estimated percentage of people with knowledge of their HIV-positive status ¹	95%	95%	89% [86% - 91%] (2022)
Percentage of newly diagnosed persons linked to HIV care within 1 month of diagnosis ²	95%	95%	76% (2022)
Percentage of PLWDH with viral suppression ²	95%	95%	64% (2023)
Estimated percentage of HIV-negative persons with indications for PrEP who have been prescribed PrEP ³	35%	50%	35% (2022)

¹ Using the CD4-based depletion model developed by the CDC modified for use by LAC. Knowledge of status is the estimated percentage of people with HIV who have received an HIV diagnosis EHE targets are calculated from the baseline of 1,500 estimated HIV infections in the year 2017 among persons aged ≥13 years, as reported to CDC's National HIV Surveillance System through December 2019. 2022 estimates are provisional using 2021 results from the CD4-based model.

² Using LAC HIV surveillance data in the CDC Enhanced HIV/AIDS Reporting system (eHARS). New HIV diagnoses: 2022 HIV infections confirmed by laboratory or clinical evidence and entered into eHARS; Percentage linked to HIV care: percent of persons newly diagnosed in 2022 with ≥1 reported CD4, VL or Genotype test performed within 1 month of HIV diagnosis; Viral suppression: Numerator is PLWDH, diagnosed through 2022 and living in LAC at year-end 2023 (based on most recent residence) whose most recent reported VL in 2023 was suppressed (HIV-1 RNA < 200 copies/mL). Denominator is PLWDH, diagnosed through 2022 and living in LAC at year-end 2023 (based on most recent residence). Note, PLWDH with no reported VL in 2023 are assumed to be virally unsuppressed. PLWDH with no reported VL in 2023 represent 31% of the denominator; EHE targets are calculated from a baseline of 1,799 HIV infections in the year 2017 among persons aged ≥13 years, as reported to CDC's National HIV Surveillance System through December 2019.

³ Using CDC's most recent report - Core Indicators for Monitoring the Ending the HIV Epidemic Initiative (Preliminary Data): Table 3c. Number of persons prescribed PrEP, number of persons with PrEP indications, and PrEP coverage during January 2019 through June 2023, among persons aged ≥ 16 years, by area of residence—Ending the HIV Epidemic Phase I jurisdictions (preliminary). <https://www.cdc.gov/hiv/library/reports/surveillance-data-tables/>. Published December 2023. Accessed 9/25/24.

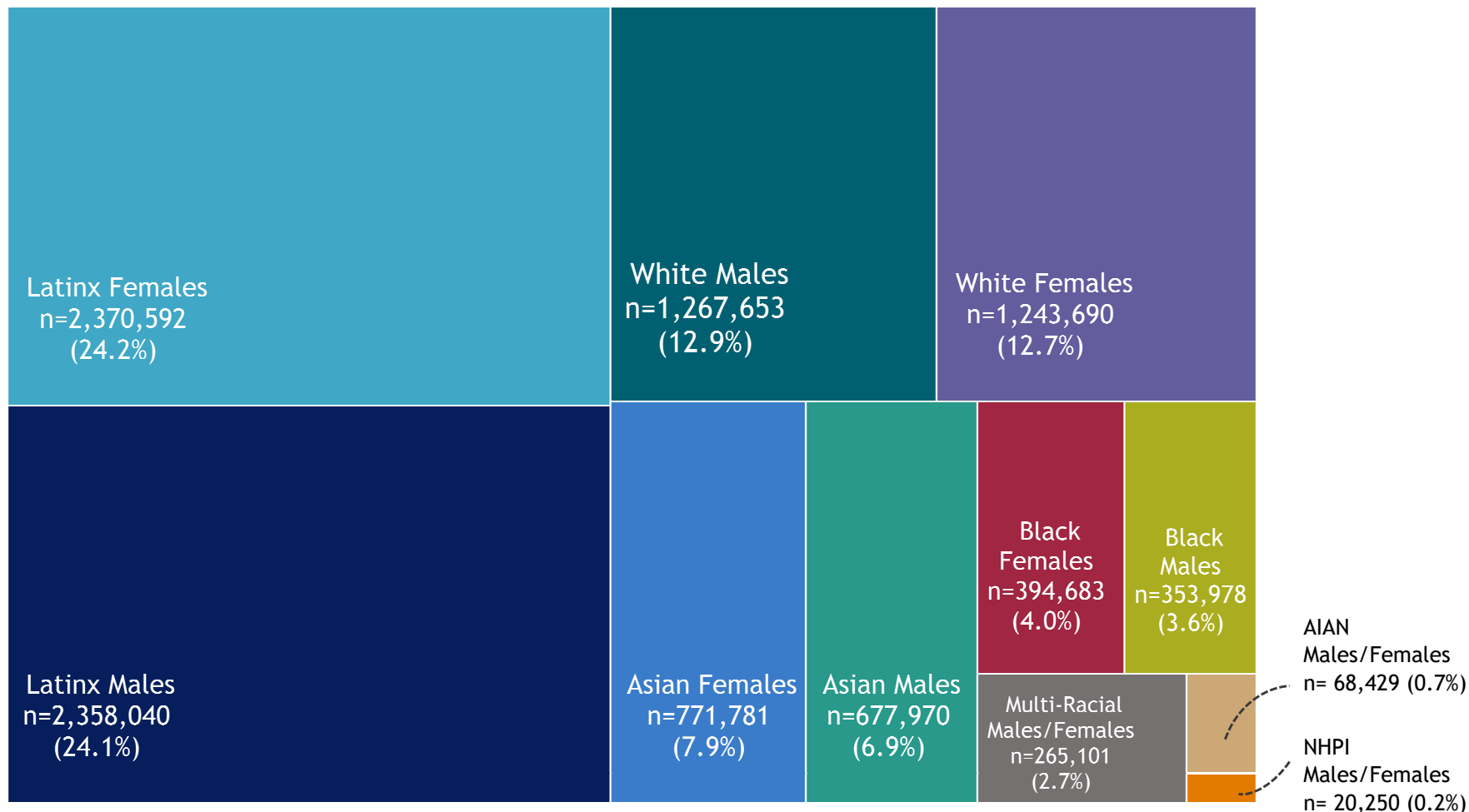


HIV Epidemic Monitoring





Distribution of sex¹ and race/ethnicity² among Los Angeles County residents in 2022 (N=9,792,167)



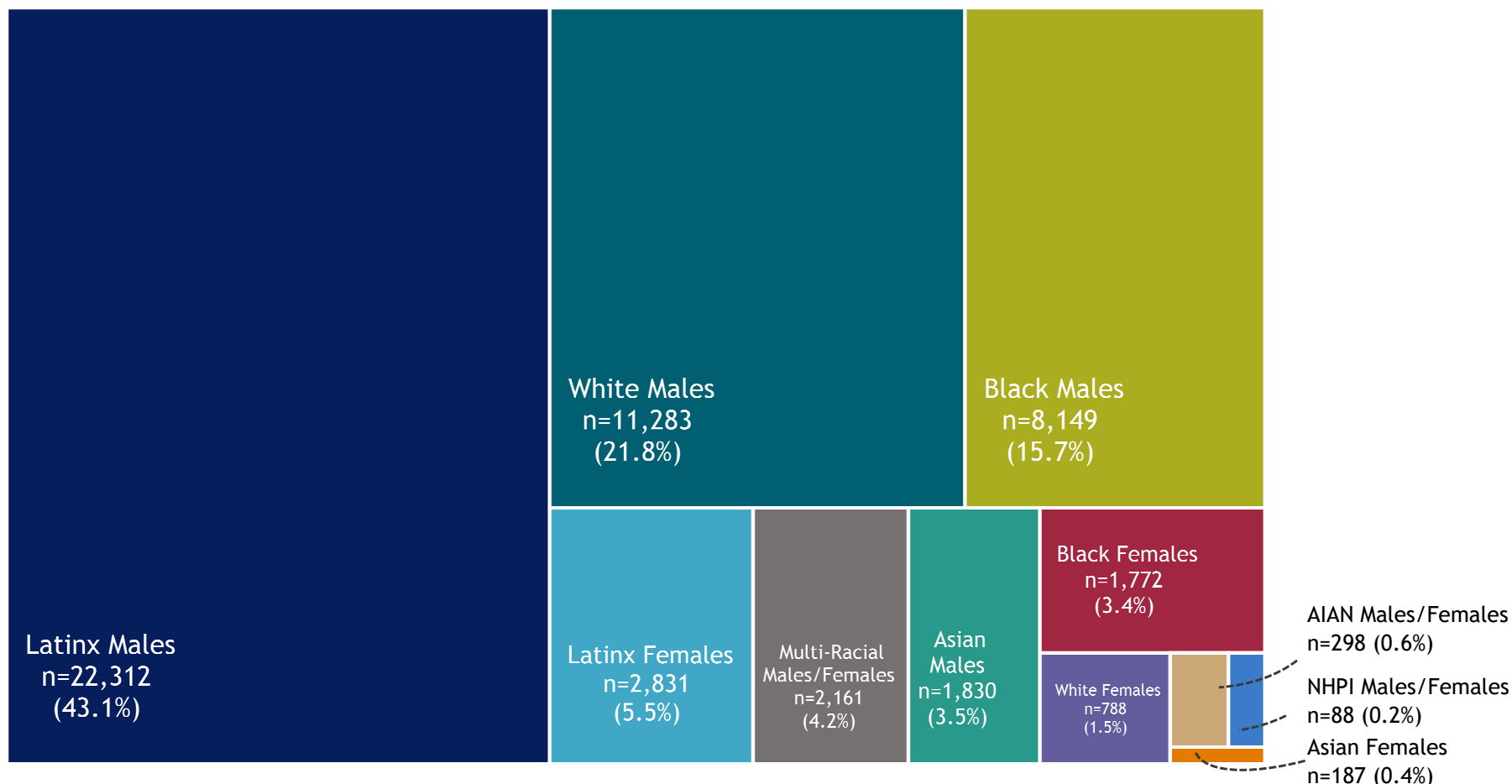
Abbreviations: AI/AN = American Indian/Alaskan Native; NHPI = Native Hawaiian and Pacific Islander

¹ Population estimates are not currently available for transgender persons, therefore male and female categories are based on sex at birth.

² Based on adjusted Population Estimates for 2022 prepared by County of Los Angeles, Internal Services Department, Information Technology Service, Urban Research-GIS Section. Original estimates were adjusted to reflect AIAN alone and in combination with other race using U.S. Census Bureau American Community Survey PUMS 1-year estimates for 2022. Adjusted estimates were produced by LAC DPH OHAE, Vital Records and Demography Unit.



Distribution of sex¹ and race/ethnicity² among persons living with diagnosed HIV at year-end 2023, Los Angeles County (N=51,796)



Abbreviations: AI/AN = American Indian/Alaskan Native; NHPI = Native Hawaiian and Pacific Islander

¹ Population estimates are not currently available for transgender persons, therefore male and female categories are based on sex at birth.

² Based on adjusted Population Estimates for 2022 prepared by County of Los Angeles, Internal Services Department, Information Technology Service, Urban Research-GIS Section. Original estimates were adjusted to reflect AIAN alone and in combination with other race using U.S. Census Bureau American Community Survey PUMS 1-year estimates for 2022. Adjusted estimates were produced by LAC DPH OHAE, Vital Records and Demography Unit.



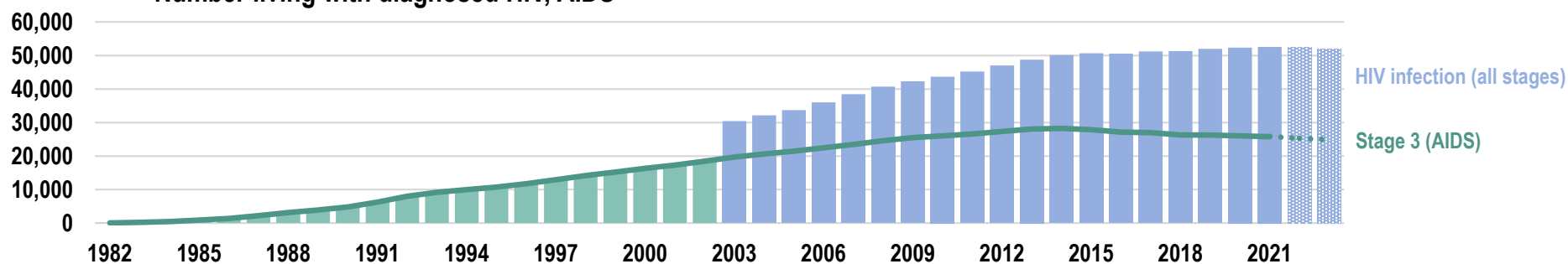
History of HIV disease surveillance in Los Angeles County (LAC)

- 1982** Stage 3 HIV Disease (AIDS) case surveillance began in LAC
- 2002** Non-AIDS HIV case surveillance began in California using a non-name, code-based system
- 2006** California law revised to require reporting of HIV cases and laboratory test results indicative of HIV infection by name
- 2008** CD4+ T-cell test result reporting mandated by California law
- 2011** California law changed to allow use of HIV surveillance data for public health purposes – such as linking newly infected persons to care
- 2013** Use of new HIV testing algorithm for California laboratories was approved by a State Emergency Public Health Regulation to allow for better identification of acute HIV
- 2016** California law required reporting of acute HIV infection within one day of diagnosis

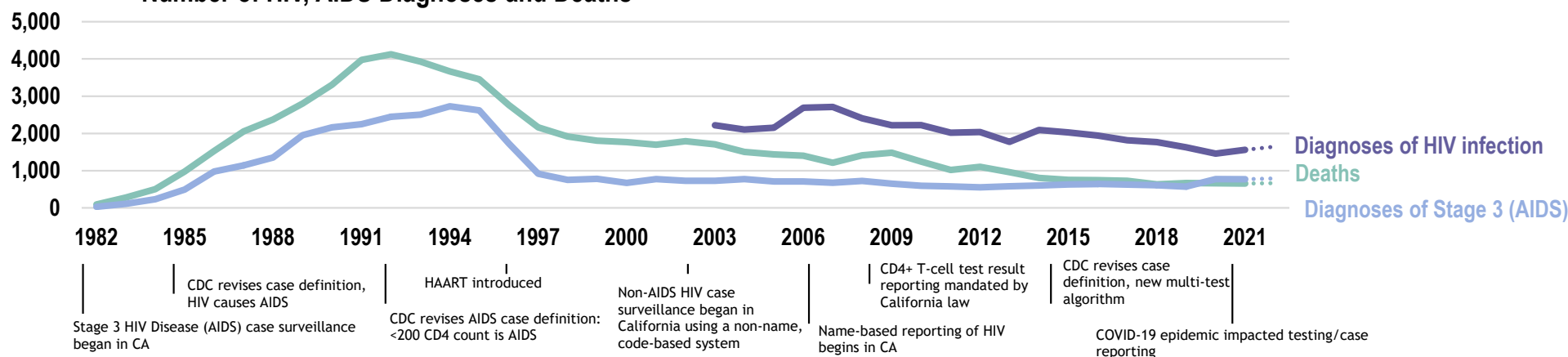


HIV diagnoses, AIDS diagnoses, persons living with diagnosed HIV infection and AIDS, and deaths among persons reported with diagnosed HIV, Los Angeles County 1982-2023^{1,2,3}

Number living with diagnosed HIV, AIDS



Number of HIV, AIDS Diagnoses and Deaths



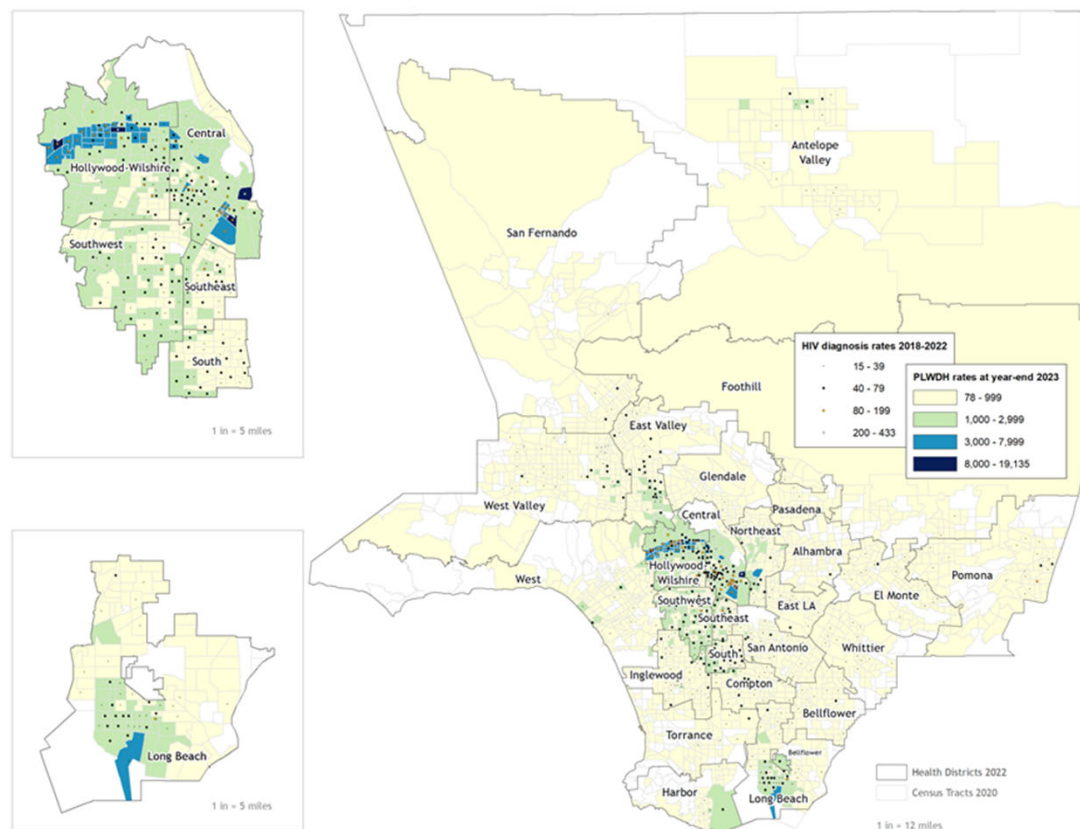
In the past decade, diagnosed cases of HIV, Stage 3 (AIDS), and deaths have gradually declined. The most recent increase in HIV diagnoses from 2020 to 2022 is likely due to the identification and reporting of missed diagnoses due to the impact of the COVID-19 pandemic. With prescribed antiretroviral therapy or ART, people with HIV can live long and healthy lives. Thus, the prevalence of HIV has slowly increased. The decrease in the prevalence of Stage 3 (AIDS) since 2014 may be due to earlier detection of HIV infection among persons with HIV or the reduced efforts in diagnosing and reporting of AIDS-related opportunistic infections/conditions in recent years.

¹ Includes new diagnoses of HIV infection regardless of the disease stage at time of diagnosis.

² Includes persons whose residence at death was in LAC or whose most recent known address before death was in LAC, when residence at death is missing.

³ 2022 data for diagnoses of HIV/AIDS and deaths and 2022/2023 data for persons living with non-AIDS HIV and AIDS are provisional as indicated by the dashed line and patterned bar. 2023 diagnoses of HIV/AIDS and deaths are underreported/unreliable due to significant reporting delay, and therefore are not shown.

Geographic distribution¹ of rates per 100,000 population for PLWDH aged ≥13 years at year-end 2023 and persons newly diagnosed with HIV in 2018-2022, LAC



The highest density of new HIV diagnoses occurred in the central and southern regions of LAC. Among all 26 Health Districts, the Hollywood-Wilshire, Central, and Long Beach Health Districts were identified as the epicenters for HIV, reporting the highest rates of new HIV diagnoses in 2018-2022 and persons living with diagnosed HIV at year-end 2023.

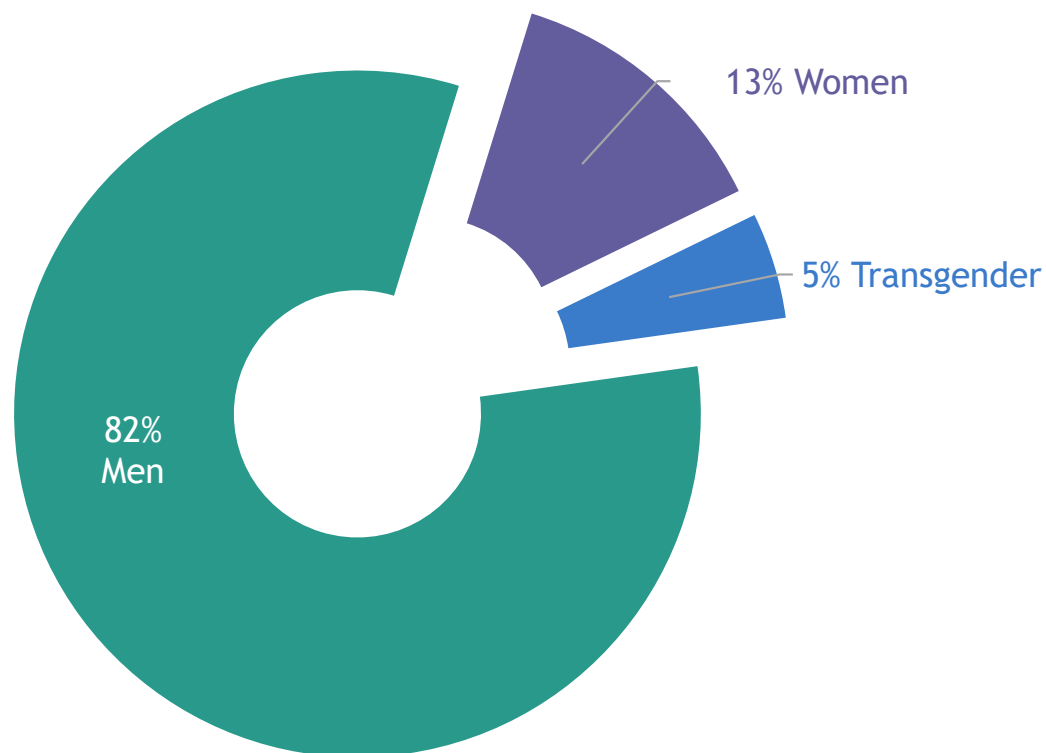
¹ Census tract information for new diagnoses is based on projected coordinates of residential address at diagnosis, the census tract information for PLWDH is assigned based on projected coordinates of the most recently reported residential addresses. Persons missing valid street address information were aggregated to the census tract level based on the corresponding ZIP Code using the HUD ZIP-TRACT file. PLWDH and diagnoses rates are based on provisional population estimates 2022 and are per 100,000 population, whereby rates for census tracts with < 5 numerator or < 500 population are suppressed. Source: HIV Surveillance data as of December 31, 2023; U.S. Department of Housing and Urban Development (HUD), Office of Policy Development and Research (PD&R). HUD United States Postal Service ZIP Code Crosswalk Files. https://www.huduser.gov/portal/datasets/usps_crosswalk.html; County of Los Angeles, Internal Services Department Enterprise GIS Section. 2023. 2020 Census Tracts. County of Los Angeles, California, Enterprise GIS Repository. Accessed 03/01/2024. <https://egis-lacounty.hub.arcgis.com/datasets/lacounty::2020-census-tracts-4/about>. County of Los Angeles, Department of Public Health. 2022. Health Districts 2022 (view). County of Los Angeles, California, Enterprise GIS Repository. Accessed 03/21/2023. <https://egis-lacounty.hub.arcgis.com/datasets/health-districts-2022-view/>; July 1, 2020 Population Estimates (Second Provisional), prepared by Hedderson Demographic Services for Los Angeles County Internal Services Department, released October 2022. SPA, HD and SD geographies integrated in by Population Health Assessment Team, Office of Health Assessment and Epidemiology. July 1, 2022 Population Estimates (Provisional), prepared by Hedderson Demographic Services for Los Angeles County Internal Services Department, released March 2023. SPA, HD and SD geographies integrated in by Population Health Assessment Team, Office of Health Assessment and Epidemiology.



Trend in HIV diagnosis

- This section presents information among persons newly diagnosed with HIV in LAC.
- Trends are presented from 2013 through 2022.
- Due to reporting delays, the 2022 HIV diagnosis data are provisional as indicated by dashed lines or patterned bars. Furthermore, all 2020-2022 data should be interpreted with caution due to the impact of the COVID-19 pandemic on HIV testing.

HIV diagnoses by gender among persons aged ≥ 13 years, LAC 2022^{1,2}



Note: Among the 81 transgender persons newly diagnosed with HIV in 2022, most identified as transgender women. Since transgender reporting relies on accurate gender classification from laboratories and health care providers, it is likely to be underreported.

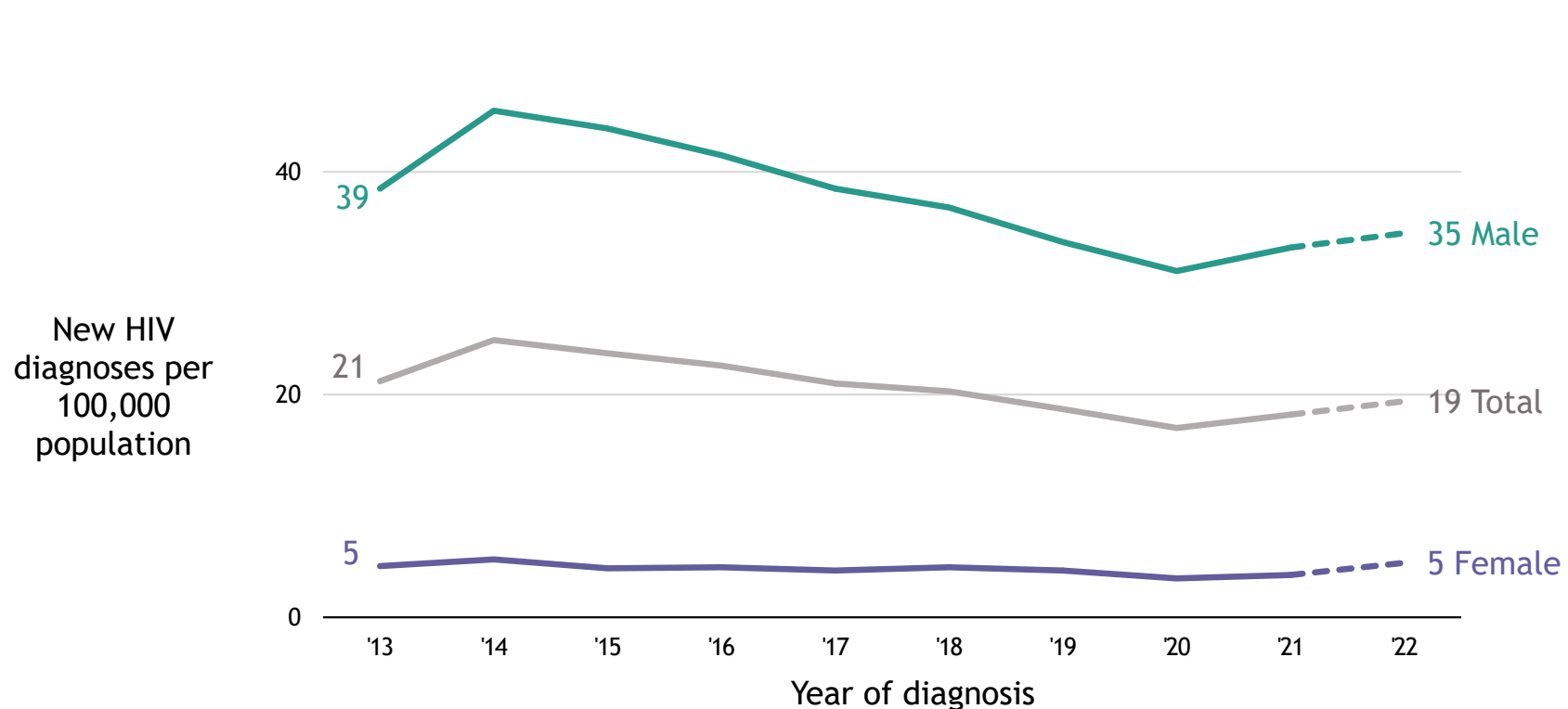
Consistent with prior years, men made up most of the new HIV diagnoses in 2022 (N=1,352, 82%). Women (N=208, 13%) and transgender persons (N=81, 5%) represented a much lower number and percentage of new HIV diagnoses in 2022.

¹Among the 81 transgender persons newly diagnosed with HIV in 2022, most identified as transgender women. Since transgender reporting relies on accurate gender classification from laboratories and health care providers, it is likely to be underreported.

²Rates are presented by sex at birth due to the unavailability of population size estimates in LAC by gender categories.



HIV diagnoses rates by sex¹ among persons aged ≥ 13 years, LAC 2013-2022^{2,3}



HIV diagnosis rates continue to be substantially higher among males compared with females. Over the past decade however, there has been a decline in HIV diagnosis rates among males, while rates among females have remained stable.

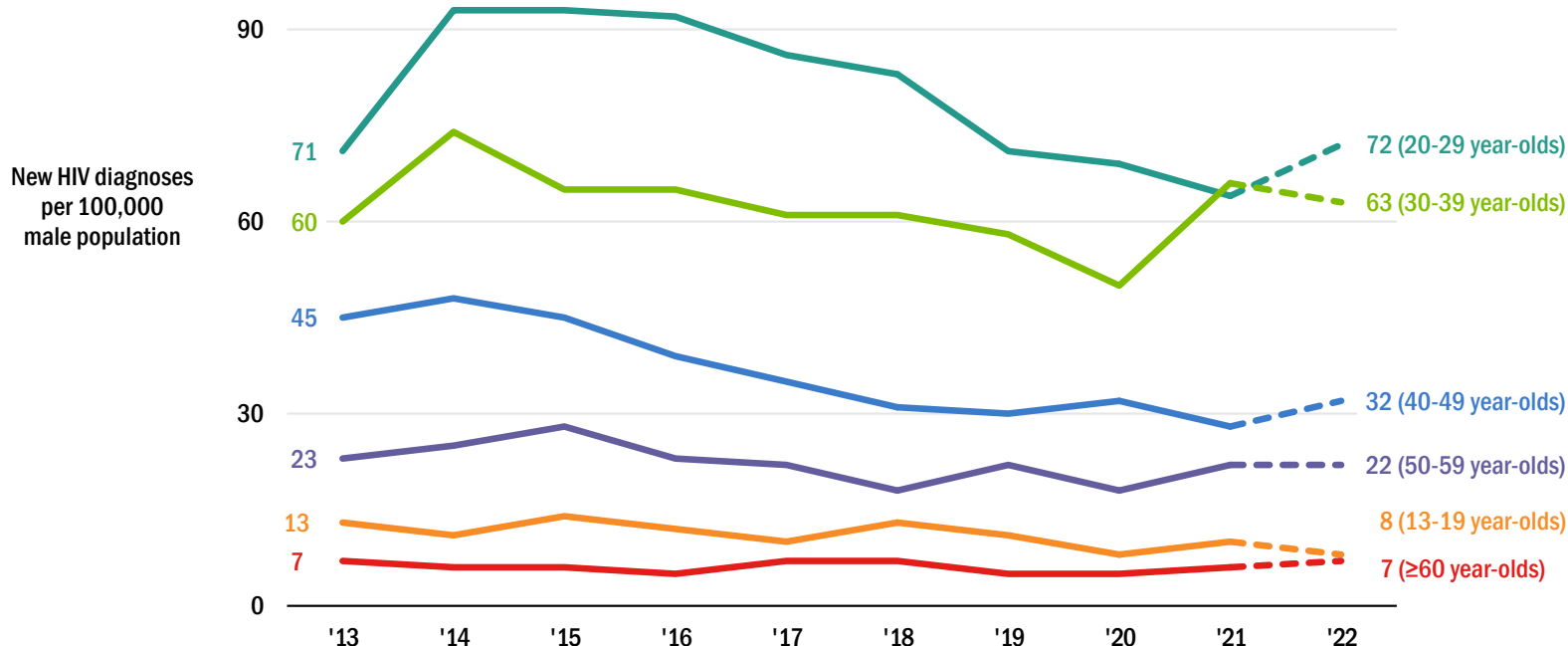
¹Rates are presented by sex at birth due to the unavailability of population size estimates in LAC by gender categories.

²Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line.

³The decline in HIV diagnoses rates observed in 2020, a year in which the COVID-19 pandemic may have depressed HIV testing and reporting, seems to have been followed by a rebound in diagnoses in 2021 and 2022.



HIV diagnoses rates among males¹ aged ≥ 13 years by age group, LAC 2013-2022^{2,3}



Over the past decade, HIV diagnoses rates have been on a declining trend for LAC males across all age groups. However, the rates among 20-29-year-old and 30-39-year-old males continue to be much higher than the average for males.

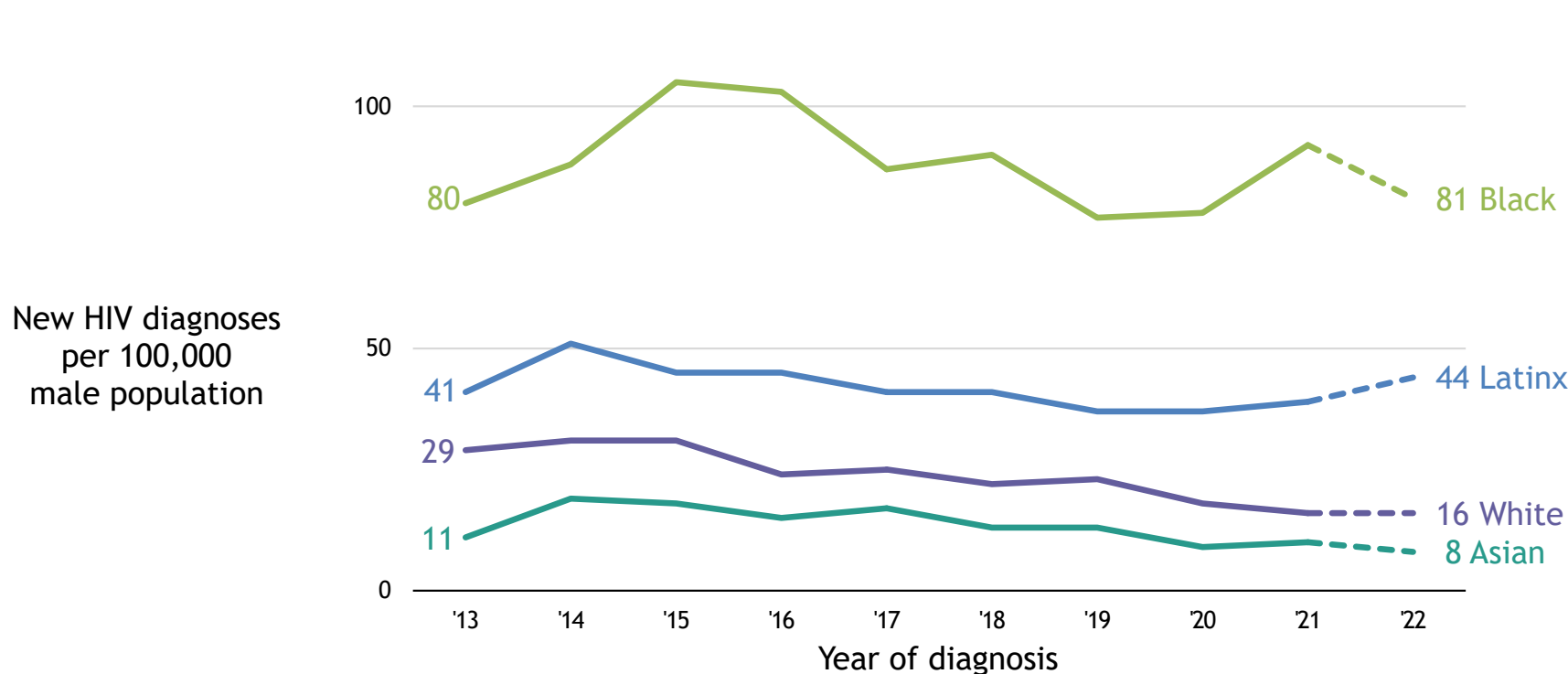
¹Based on sex at birth.

²Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line.

³The decline in HIV diagnoses rates observed in 2020, a year in which the COVID-19 pandemic may have depressed HIV testing and reporting, seems to have been followed by a rebound in diagnoses in 2021 and 2022.



HIV diagnoses rates among males¹ aged ≥ 13 years by race/ethnicity,² LAC 2013-2022^{3,4}



Over the past decade, HIV diagnoses rates have been on a declining trend for LAC males across all race/ethnicity groups. Stark disparities however persist. Black persons have markedly higher HIV diagnoses rates compared with other race/ethnicity groups.

¹Based on sex at birth.

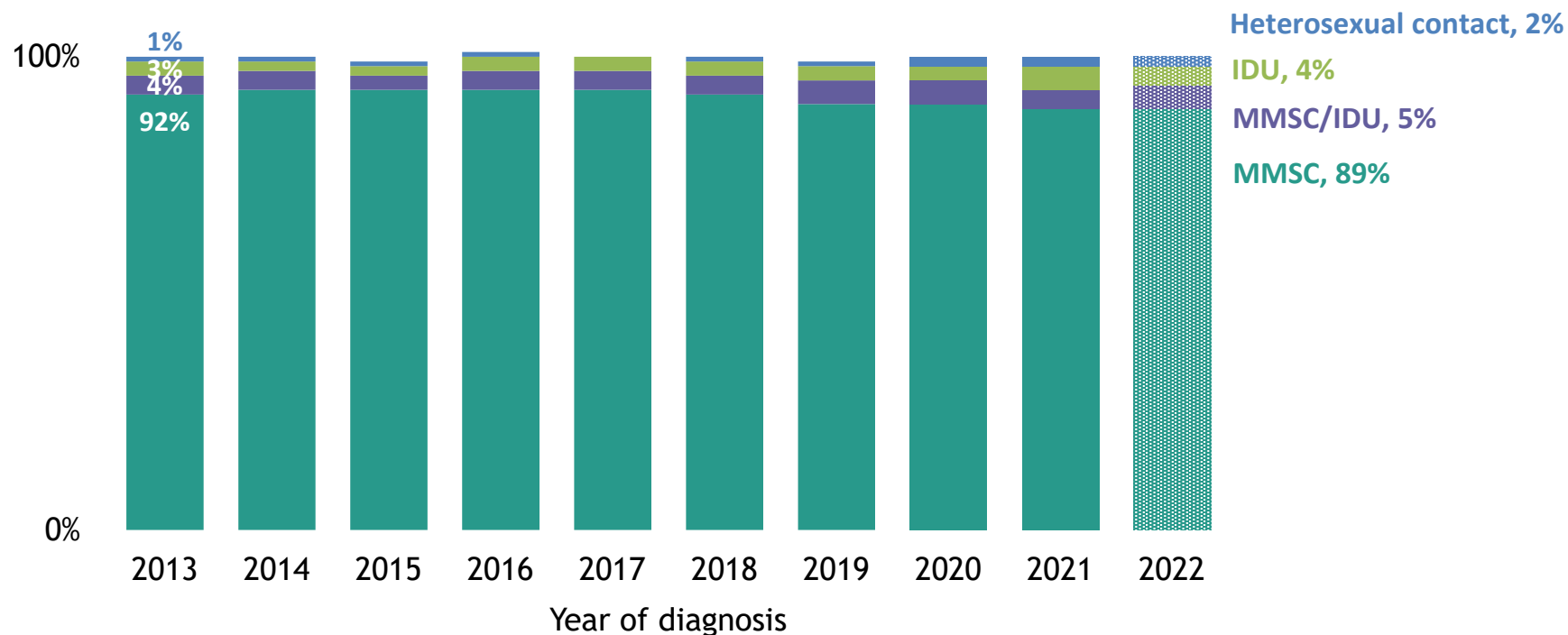
²Native Hawaiian and Pacific Islanders (NHPI) and American Indians and Alaska Natives (AIAN) were not included in the analysis due to small numbers, while persons of multiple race/ethnicities were not included due to lack of denominator data to calculate rates. In 2022, NHPI, AIAN and multi-racial persons represented 0.5%, 0.3%, and 1.8% of males newly diagnosed with HIV, respectively.

³Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line.

⁴The decline in HIV diagnoses rates observed in 2020, a year in which the COVID-19 pandemic may have depressed HIV testing and reporting, seems to have been followed by a rebound in diagnoses in 2021 and 2022.



Transmission risk¹ among males² newly diagnosed with HIV, LAC 2013-2022³



The primary HIV transmission risk among males newly diagnosed with HIV is having sex with men (89%).

Abbreviations: IDU = injection drug use; MSM = men who have sex with men

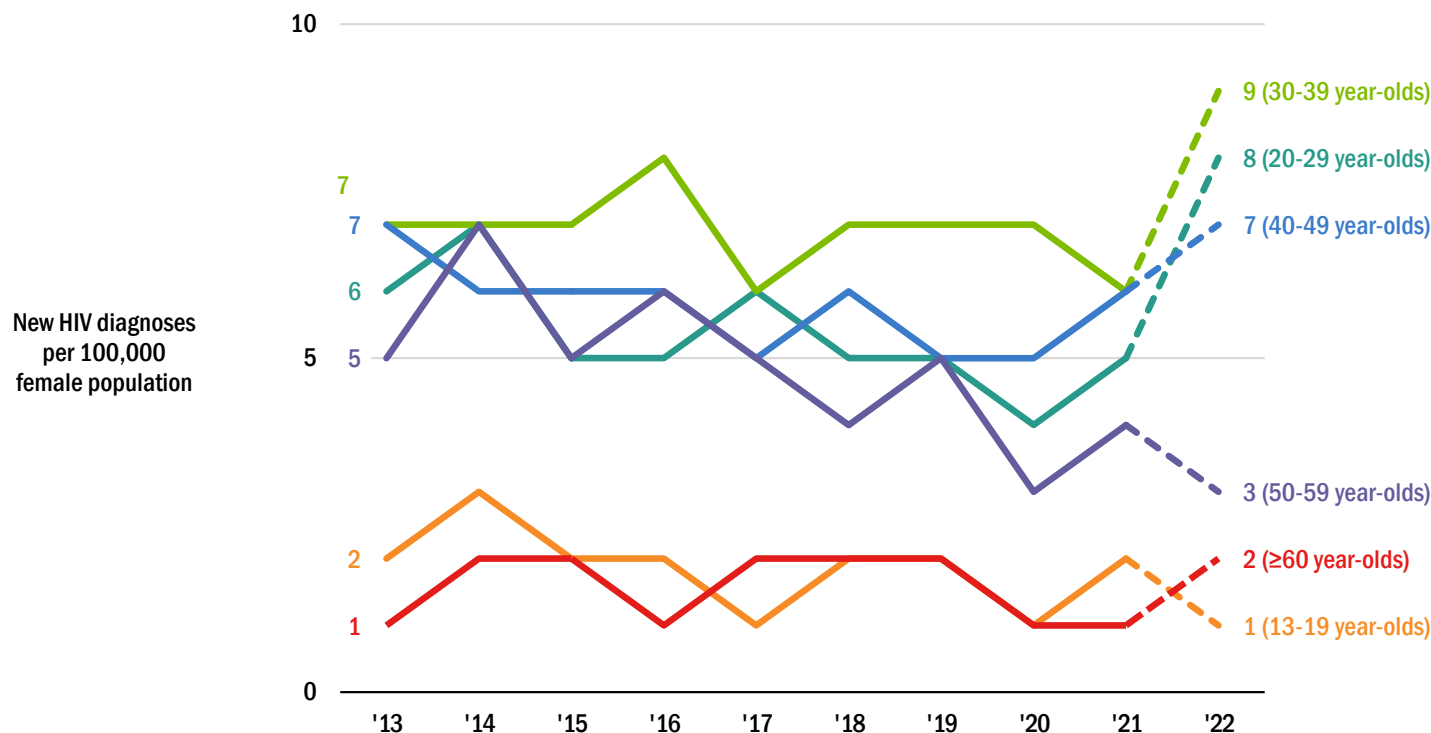
¹A diagnosis of HIV is counted only once in the hierarchy of transmission categories. Persons with more than one reported risk factor for HIV are classified in the transmission category listed first in the hierarchy. The exception is men who had sexual contact with other men and injected drugs; this group makes up a separate transmission category. Not presented in the chart are less than 1% other risks, which include perinatal exposure, hemophilia, coagulation disorder, blood transfusion, and risk factor not reported/identified, due to small numbers. Persons without an identified risk factor were assigned a risk factor using CDC-recommended multiple imputation methods.

²Based on sex at birth.

³Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the patterned bar.



HIV diagnoses rates among females¹ aged ≥ 13 years by age group, LAC 2013-2022^{2,3}



Over the past decade, overall HIV diagnosis rates for LAC females have been stable. However, this stability at the aggregate level belies stark differences in diagnosis trends by age. Diagnosis rates for females aged 20-49 years old are higher and appear to be rising, compared with rates for women 60 years and older or 19 years and younger which are lower and relatively stable.

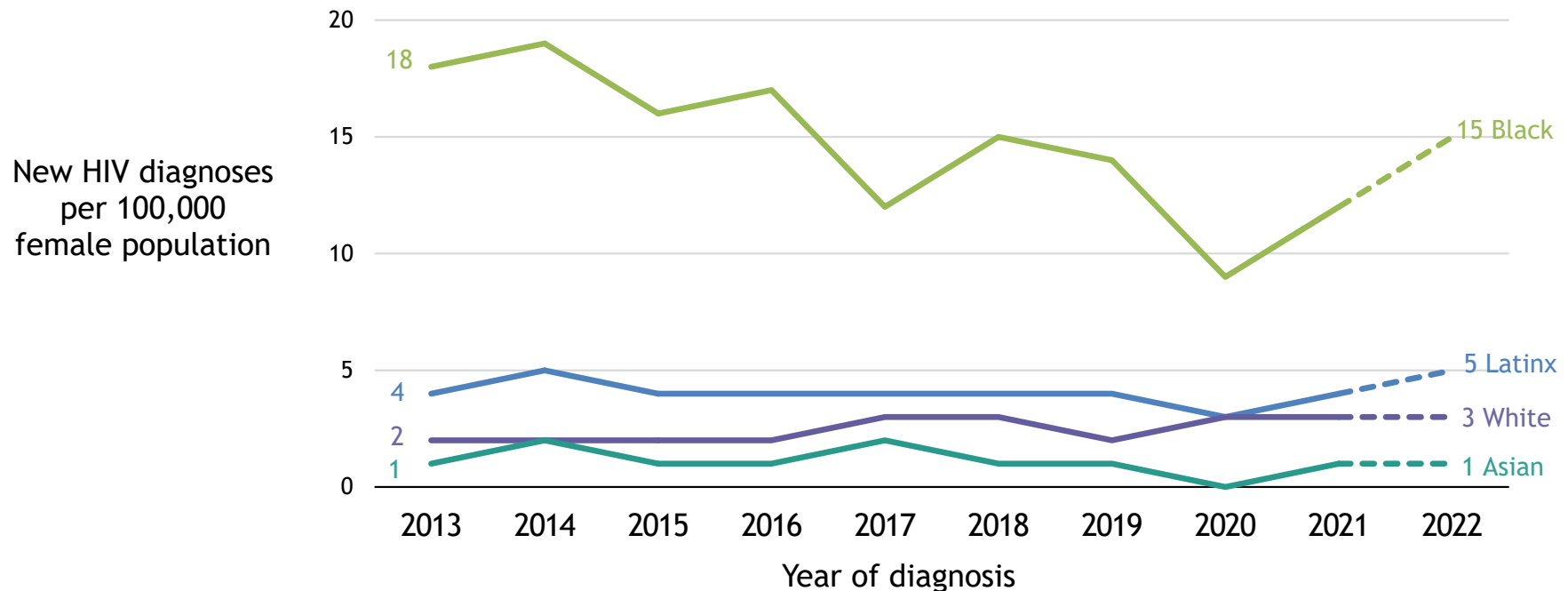
¹Based on sex at birth.

²Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line.

³The decline in HIV diagnoses rates observed in 2020, a year in which the COVID-19 pandemic may have depressed HIV testing and reporting, seems to have been followed by a rebound in diagnoses in 2021 and 2022.



HIV diagnoses rates among females¹ aged ≥ 13 years by race/ethnicity,² LAC 2013-2022^{3,4}



Over the past decade, HIV diagnosis rates have remained relatively low and stable among Latinx, White, and Asian women in LAC. By contrast, rates for Black women have declined to a 3-year average (2020-2022) of 12. Nonetheless, rates among Black women remain higher than other racial/ethnic groups.

¹ Based on sex at birth.

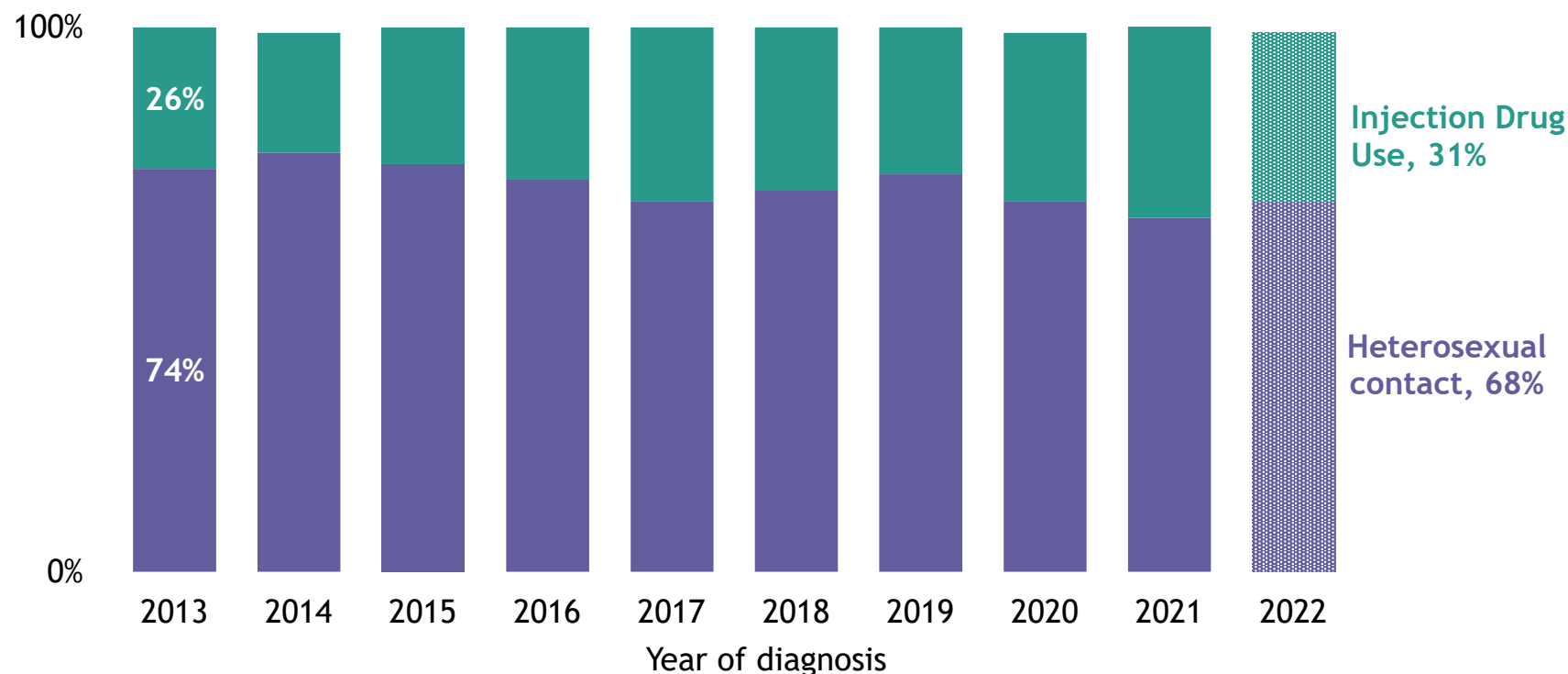
² Native Hawaiian and Pacific Islanders (NHPI) and American Indians and Alaska Natives (AIAN) were not included in the analysis due to small numbers, while persons of multiple race/ethnicities were not included due to lack of denominator data to calculate rates. In 2022, NHPI and AIAN represented 0% of females newly diagnosed with HIV, while multi-racial persons represented 3% of females newly diagnosed with HIV.

³ Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line.

⁴ The decline in HIV diagnoses rates observed in 2020, a year in which the COVID-19 pandemic may have depressed HIV testing and reporting, seems to have been followed by a rebound in diagnoses in 2021 and 2022.



Transmission risk¹ among females² newly diagnosed with HIV, LAC 2013-2022³



The primary HIV transmission route among females diagnosed with HIV in 2022 was heterosexual contact (68%), followed by injection drug use (31%).

Abbreviation: IDU = injection drug use

¹Not presented in the chart are less than 1% other risks, which include perinatal, hemophilia, coagulation disorder, blood transfusion, and risk factor not reported/identified, due to small numbers. Persons without an identified risk factor were assigned a risk factor using CDC-recommended multiple imputation methods.

²Based on sex at birth.

³Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the patterned bar.



HIV incidence and undiagnosed HIV

- Several indicators important for planning, monitoring, and evaluating the local HIV response are not directly measured through HIV surveillance, including:
 - the number of persons who acquired HIV each year (i.e., new HIV infections), regardless of whether they received an HIV diagnosis and
 - the number of people living with HIV (PLWH) who do not yet know they have HIV (i.e., undiagnosed HIV).
- An estimate of these indicators can be computed using a mathematical model developed by the US Centers for Disease Control and Prevention.
 - the model produces estimates (not true values).



HIV incidence and undiagnosed HIV - continued

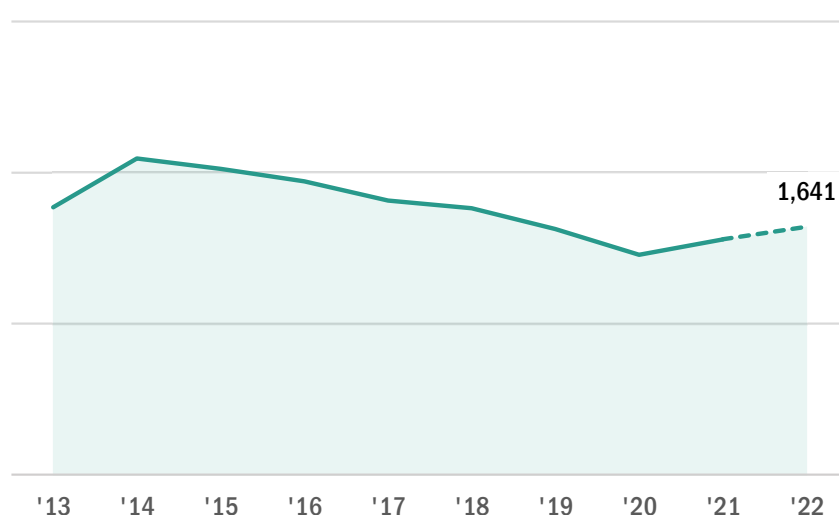
- The estimates are presented with their 95% confidence intervals that show the range of values likely to contain the true value.
- Estimates are subject to periodic revisions as a result of updates to the surveillance data and methodological refinements in CDC's model.
- The 2020-2022 estimates may be particularly unreliable due to disruptions in HIV testing and reporting during the COVID-19 pandemic.
- Here, we present estimates of newly acquired HIV (new HIV infection) and undiagnosed HIV among PLWH in LAC based on CDC's model.

Note that 2022 estimates are provisional using 2021 results from the CD4-based model v4.1 and will be updated upon availability of new model.



Number of persons newly diagnosed with HIV compared with the estimated number of persons with new HIV infection among PLWH aged ≥ 13 years, LAC 2013-2022^{1,2}

Number of new HIV diagnoses by year



Estimated number and 95% CI of new HIV infections by year



The number of persons newly diagnosed with HIV and the estimated number of persons who newly acquired HIV have been on a declining trend.

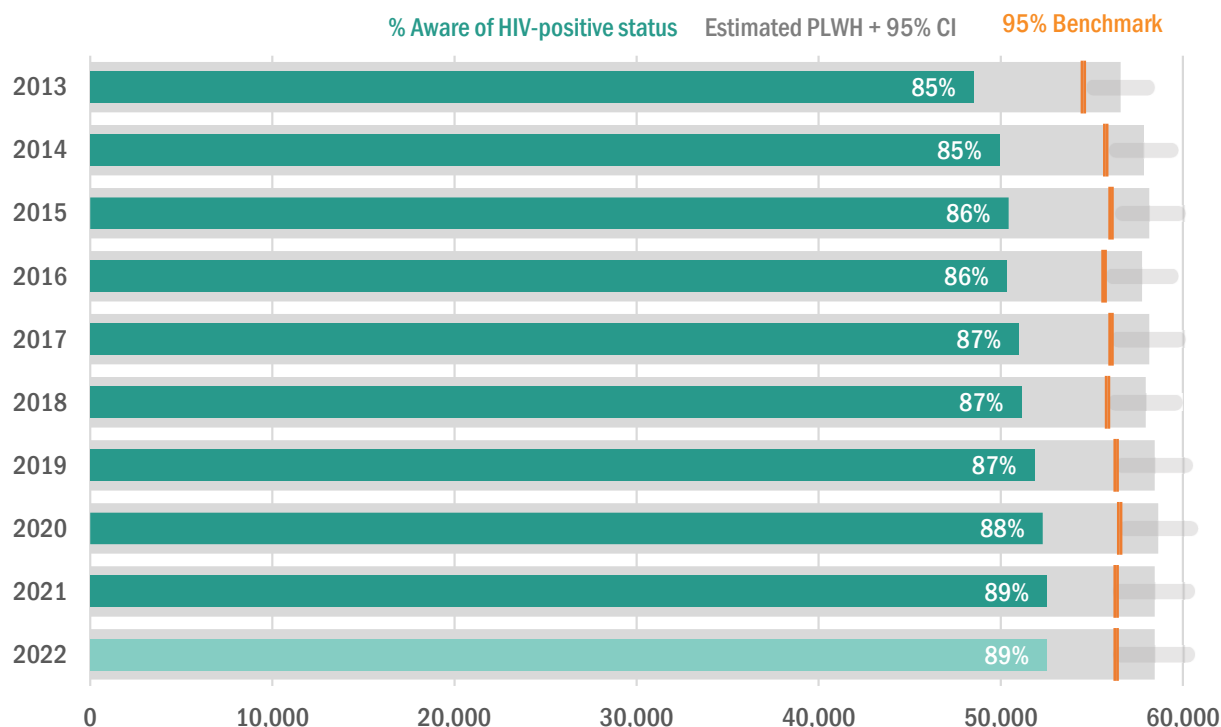
Abbreviation: PLWH = persons living with HIV

¹ Estimates based on the CD4-Based Model v4.1 developed by CDC, which derived by using HIV surveillance and CD4 data for persons aged ≥ 13 years at diagnosis. Estimates rounded to the nearest 100 for estimates of $>1,000$ and to the nearest 10 for estimates of $\leq 1,000$ to reflect model uncertainty.

² 2022 estimates are provisional using 2021 results from the CD4-based model v4.1



Awareness of HIV-positive status among PLWH aged ≥ 13 years, LAC 2013-2022^{1,2}



The percent of PLWH who are aware of their HIV-positive status has increased over the last 10 years from 85% to 89% but has yet to meet the EHE goal of 95% by 2025. In 2022, an estimated 6,800 PLWH remained unaware of their HIV-positive status.

Abbreviation: PLWH = persons living with HIV

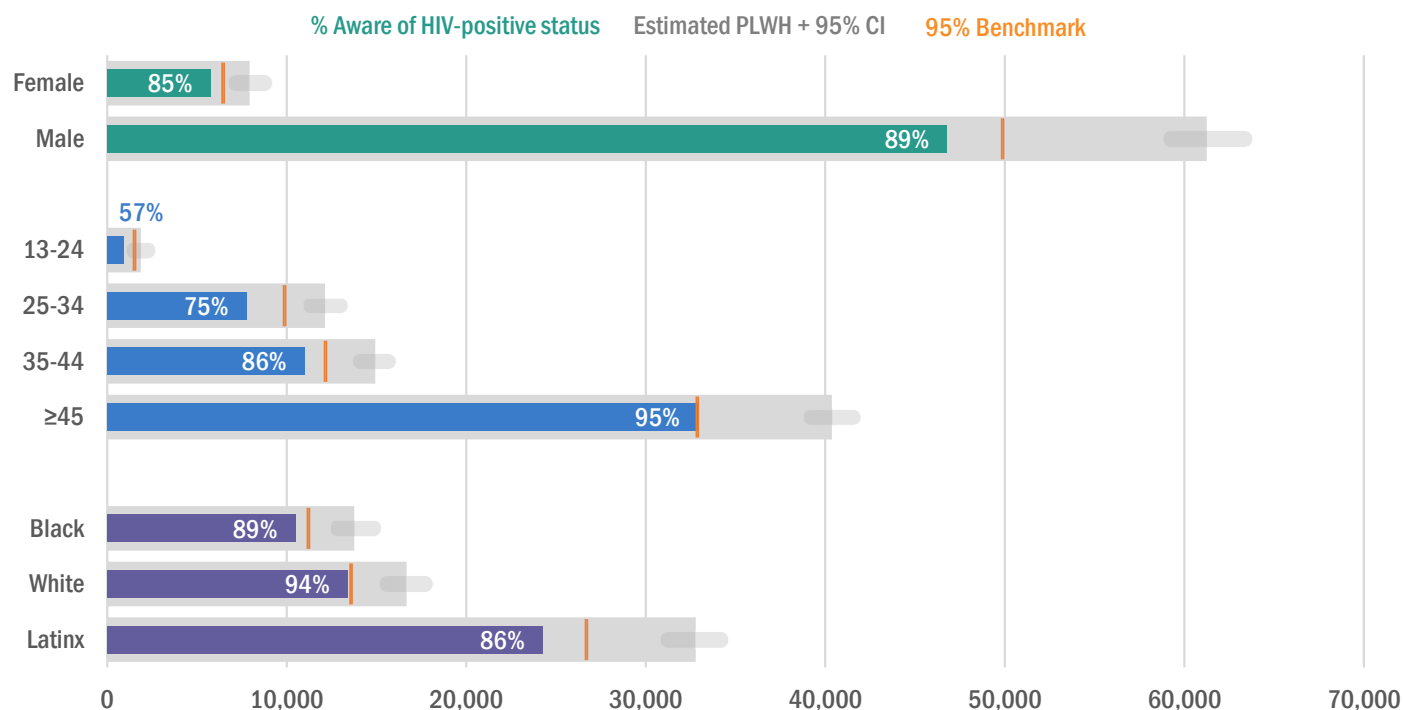
¹Estimates based on the CD4-Based Model v4.1 developed by CDC, which derived by using HIV surveillance and CD4 data for persons aged ≥ 13 years at diagnosis. Estimates rounded to the nearest 100 for estimates of $>1,000$ and to the nearest 10 for estimates of $\leq 1,000$ to reflect model uncertainty.

²2022 estimates are provisional using 2021 results from the CD4-based model v4.1.

Source: HIV Surveillance data as of December 2023



Awareness of HIV-positive status among PLWH aged ≥ 13 years by sex at birth, age group, and race/ethnicity, LAC 2022^{1,2,3}



Latinx PLWH (14% unaware) and young PLWH 13-24 years (43% unaware) are disproportionately unaware of their HIV-positive status.

Abbreviation: PLWH = persons living with HIV

¹Estimates based on the CD4-Based Model v4.1 developed by CDC, which derived by using HIV surveillance and CD4 data for persons aged ≥ 13 years at diagnosis. Estimates rounded to the nearest 100 for estimates of $>1,000$ and to the nearest 10 for estimates of $\leq 1,000$ to reflect model uncertainty.

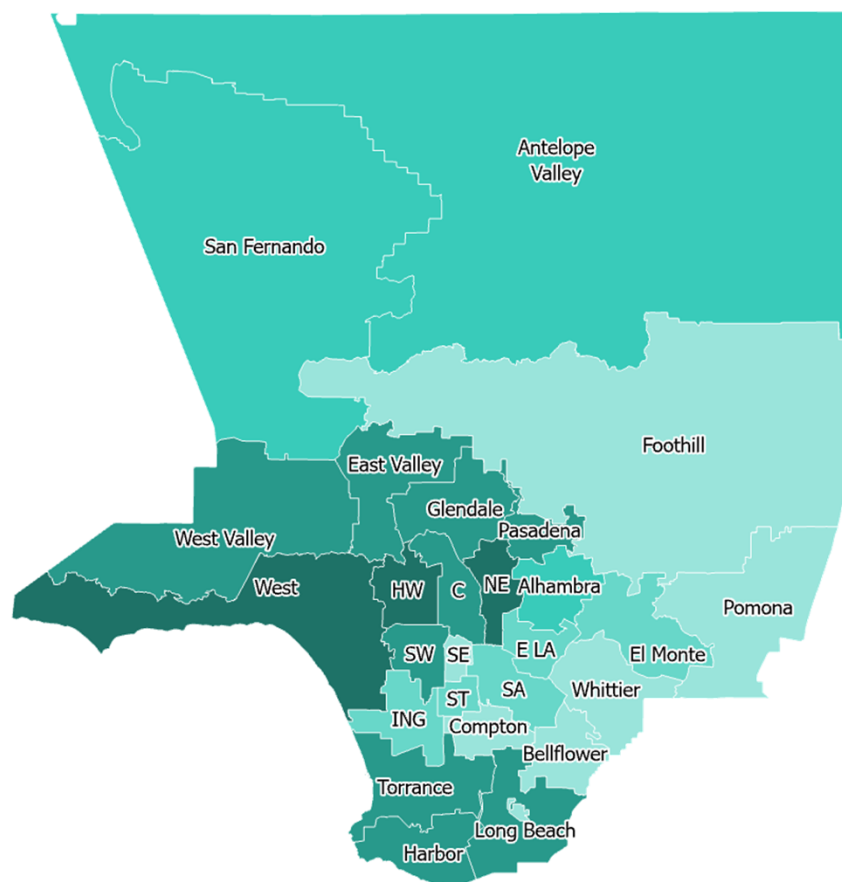
²2022 estimates are provisional using 2021 results from the CD4-based model v4.1.

³Asians, Native Hawaiian and Pacific Islanders, American Indians and Alaska Natives, and persons of multiple races/ethnicities were not included in the analysis due to small numbers.



Percentage of PLWH aged ≥ 13 years who were aware of their HIV-positive status by Health District, LAC 2022^{1,2,3}

Hollywood-Wilshire (HW)	94%
West	92%
Northeast (NE)	92%
Central (C)	90%
Pasadena	90%
Glendale	90%
Harbor	89%
Southwest (SW)	89%
Long Beach	89%
Torrance	89%
East Valley	89%
West Valley	88%
San Fernando	87%
Antelope Valley	87%
Alhambra	86%
Inglewood (ING)	86%
San Antonio (SA)	85%
East LA (E LA)	85%
El Monte	85%
South (ST)	85%
Foothill	84%
Bellflower	84%
Southeast (SE)	83%
Compton	83%
Pomona	83%
Whittier	82%



The percentage of persons living with HIV who are aware of their HIV-positive status varies by location. None of the 26 LAC Health Districts have met the EHE target (95%) for awareness of HIV-positive status among PLWH. However, Hollywood- Wilshire (94%), West (92%) and Northeast (92%) Health Districts are within 3 percentage points of the target, respectively.

¹Based on HIV surveillance data as of December 31, 2023, for persons aged ≥ 13 years at year-end 2022.

²Estimates based on the CD4-Based Model v4.1 developed by CDC, which derived by using HIV surveillance and CD4 data for persons aged ≥ 13 years at diagnosis. Estimates rounded to the nearest 100 for estimates of >1,000 and to the nearest 10 for estimates of ≤ 1,000 to reflect model uncertainty.

³2022 estimates are provisional using 2021 results from the CD4-based model v4.1



Stage of HIV disease at diagnosis

- Information on stage of HIV disease at the time of diagnosis provides direct insight into the timeliness of a HIV diagnosis.
- The HIV surveillance case definition of HIV has four stages: Stage 0, 1, 2, and 3. Stage 0 HIV disease indicates early infection which includes acute HIV (infection occurred within 60 days of HIV diagnosis) and early but not acute HIV (infection occurred within 61-180 days of HIV diagnosis).
- Stage 3 disease indicates a late or delayed diagnosis of HIV.



HIV disease staging for surveillance purposes

HIV disease stage	Acute HIV status	Staging criteria
Stage 0	Acute HIV	Based on the difference in days between the first HIV-positive test result and last documented HIV-negative test result. ¹ If the difference falls within 60 days, HIV is classified as stage 0 disease with acute HIV.
	Not Acute HIV or Unknown	Based on the difference in days between the first HIV-positive test result and last documented HIV-negative test result. ¹ If the difference falls between 61 and 180 days, HIV is classified stage 0 disease with “not acute HIV” or “unknown if acute HIV”.
Stage 1	N/A	Based on first CD4 test result within 90 days of HIV diagnosis. If $CD4 \geq 500$ cells/ μ L, HIV is classified as Stage 1 disease.
Stage 2	N/A	Based on first CD4 test result within 90 days of HIV diagnosis. If CD4 is between 200-499 cells/ μ L, HIV is classified as Stage 2 disease.
Stage 3	N/A	Based on either first CD4 test result or a diagnosis of an opportunistic illness within 90 days of HIV diagnosis. If $CD4 < 200$ cells/ μ L, HIV is classified as Stage 3 disease.
Unknown	N/A	Based on first CD4 test result within 90 days of HIV diagnosis. If there is no CD4 test result within this timeframe, HIV is classified as unknown stage.

¹The date of the last HIV-negative test is based on a laboratory result, or client’s self-report of last HIV-negative test date when laboratory information is not available.



HIV disease stage among persons aged ≥ 13 years newly diagnosed with HIV, LAC 2022

	New HIV Diagnoses	Stage 0 ¹				Stage 1 ²		Stage 2 ³		Stage 3 ⁴		Unknown ⁵	
		Acute HIV		Not Acute HIV		N	%	N	%	N	%	N	%
		N	%	N	%								
Total	1,641	140	9%	95	6%	352	21%	484	29%	294	18%	276	17%
Gender													
Man	1,352	119	9%	80	5%	284	21%	392	29%	255	19%	222	16%
Woman	208	14	7%	4	6%	53	25%	65	31%	32	15%	40	19%
Transgender	81	7	9%	11		15	19%	27	33%	7	9%	14	17%
Race/Ethnicity													
Asian	55	6	11%	<5		6	11%	19	35%	21	38%	<5	
Black	319	26	8%	20	6%	71	22%	90	28%	39	12%	73	23%
Latinx	960	86	9%	64	7%	191	20%	289	30%	184	19%	146	15%
White	238	19	8%	6	3%	67	28%	70	29%	33	14%	43	18%
Multiracial	33	<5		<5		8	24%	10	30%	9	27%	<5	
Other/Unknown	36	<5		<5		9	25%	6	17%	8	22%	<5	
Age at Diagnosis													
13-19	41	5	12%	<5		11	27%	8	20%	<5		11	27%
20-29	553	55	10%	41	7%	125	23%	167	30%	64	12%	101	18%
30-39	532	45	8%	34	6%	124	23%	168	32%	91	17%	70	13%
40-49	264	24	9%	13	5%	43	16%	73	28%	64	24%	47	18%
50-59	170168	6	4%	4	2%	33	20%	47	28%	45	27%	33	20%
60+	83	5	6%	<5		16	19%	21	25%	26	31%	14	17%
Transmission Category													
MMSC	1,267	109	9%	89	7%	266	21%	369	29%	230	18%	204	16%
IDU	120	12	10%	<5		27	23%	34	28%	22	18%	25	21%
MMSC/IDU	76	8	11%	<5		18	24%	27	36%	7	9%	13	17%
Heterosexual	165	9	5%	4	2%	38	23%	53	32%	30	18%	31	19%
Other/Unknown	13	<5		<5		<5		<5		5	38%	<5	

¹Stage 0 includes those with acute infection at diagnoses (Acute HIV) and those with no evidence of acute infection at diagnosis (Not Acute HIV). If the difference between first HIV-positive test result and last HIV-negative test result falls within 60 days, HIV is classified as acute HIV. If it falls between 61 and 180 days, HIV is classified as stage 0 disease, not acute. The number of newly diagnosed persons during stage 0 are likely underestimated due to under-reporting of HIV-negative test results.

² The criterion for Stage 1 disease is CD4 ≥ 500 cells/μL within 90 days of diagnosis.

³ The criterion for Stage 2 is CD4 between 200-499 cells/μL within 90 days of diagnosis.

⁴ Stage 3 criteria include either CD4 < 200 cells/μL within 90 days of HIV diagnosis or a diagnosis of an opportunistic illness within 90 days of HIV diagnosis.

⁵ Unknown stage includes persons without a CD4 test within 90 days of HIV diagnosis.

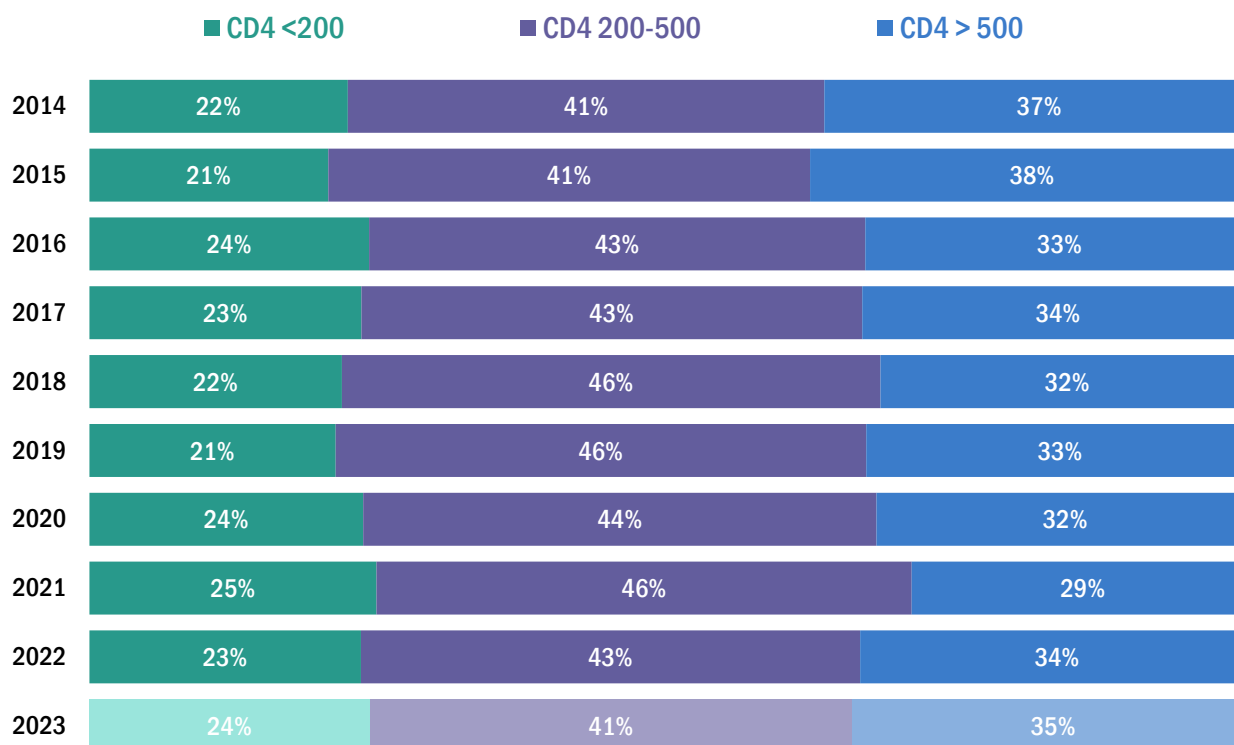


Monitoring trends in CD4 counts at diagnosis

- One way we evaluate the timeliness of a patient's HIV diagnosis is by assessing their CD4+ T-cell counts at the time of, or shortly after their HIV diagnosis.
- Patients with relatively low baseline CD4+ T-cell counts (CD4 < 200 cells/ μ L) within 1 month of diagnosis are defined as having late-stage disease while those with relatively high baseline CD4+ T-cell counts (CD4 > 500 cells/ μ L) within 1 month of HIV diagnosis are defined as having early-stage disease.
- We want to minimize late-stage diagnoses as late-stage diagnoses are associated with poorer outcomes and increased morbidity and mortality.



CD4+ T-cell count within 1 month of HIV diagnosis, LAC 2014-2023¹



Over the past 3 years, approximately one in four HIV diagnoses in LAC was at late-stage disease (stage 3 or AIDS). The percent of LAC HIV diagnoses that are late-stage has not decreased appreciably over the past decade.

¹Based on first CD4 test within 1 month of HIV diagnosis. Among persons who were 13 years of age or older and were newly diagnosed with HIV between 2014-2023, 50% had a CD4 test within this period. Data for 2023 are provisional and should be interpreted with caution.



Molecular HIV surveillance, transmitted drug resistance, and cluster detection

- Federal guidelines for the care and treatment of PLWDH recommend HIV viral genotype testing at initiation of HIV care to determine whether an individual's HIV strain is resistant to certain anti-retroviral drugs.
- The genotype testing, which results in a genetic sequence report reflecting an individual's HIV strain, is reported to Public Health along with other HIV laboratory and clinical test results.
- Through a comparison of the viral genotype reports of PLWDH in the local area, it can be determined if there are multiple people with a highly similar HIV strain.

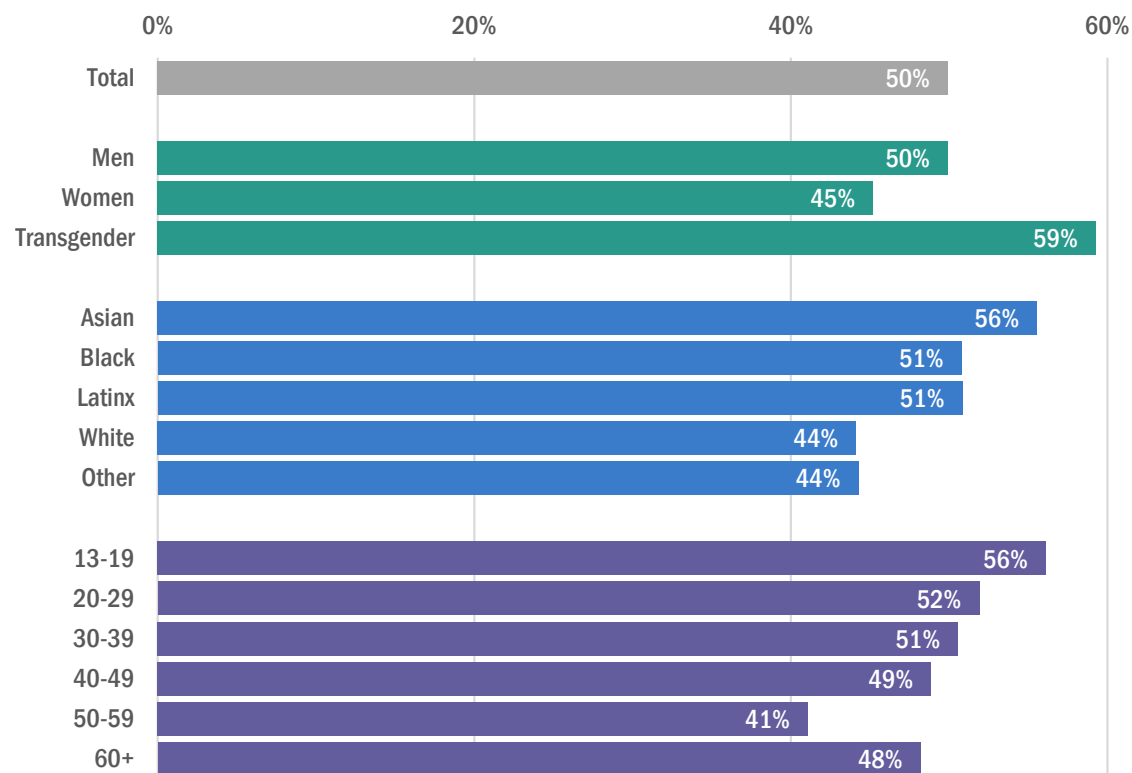


Molecular HIV surveillance, transmitted drug resistance, and cluster detection - continued

- Because HIV's genetic sequence constantly evolves, people whose viral strains are highly similar are likely to be in the same social HIV transmission network (i.e., transmission cluster); it is important to note that this information cannot be used to determine either direct transmission or the direction of transmission between any two individuals.
- Transmission clusters with numerous individuals newly diagnosed with HIV may indicate that recent and rapid HIV transmission is occurring among a group of individuals.
- When a cluster is identified, it can inform the delivery of services and interventions to minimize transmission in a geographic area and prioritize efforts to those who need them the most. However, only 50% of new HIV diagnoses receive a timely genotype test, indicating a need to improve completeness of genotype testing at initiation of HIV care.



Proportion of new HIV diagnoses¹ with a genotype resistance test within 90 days of HIV diagnosis,² LAC 2022



Note: Genotypic resistance testing is recommended at entry into HIV care to guide treatment.

Timely (i.e., within 90 days of diagnosis) genotype test results were reported for half (50%) of new HIV diagnoses in 2022.

¹Persons aged ≥ 13 years newly diagnosed with HIV in 2022. Data are provisional due to reporting delay.

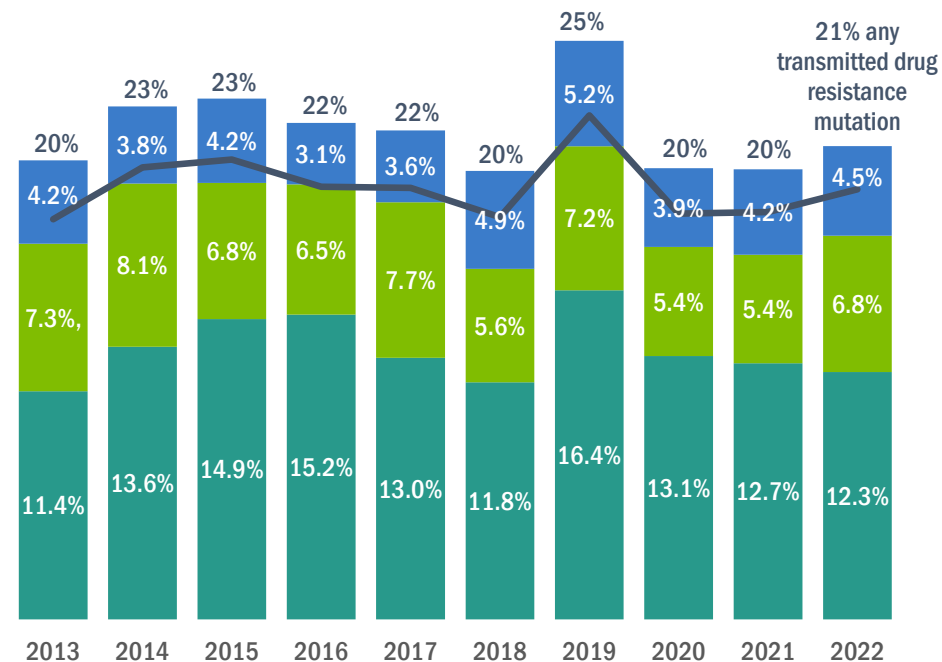
²Race/ethnicity categories with fewer than 10 diagnoses (Native Hawaiian and Other Pacific Islander and American Indian/Alaska Native), Multi-race, and unknown persons were included in Other.

Proportion of transmitted drug resistance (TDR) by drug class¹ among persons aged ≥ 13 years newly diagnosed with HIV with an eligible sequence,² LAC 2013-2022

PI = Protease Inhibitors
 NRTI = Nucleoside Reverse Transcriptase Inhibitors
 NNRTI = Non-Nucleoside Reverse Transcriptase Inhibitors

Note: In 2022, 40% of people newly diagnosed with HIV had a sequence eligible for drug resistance analysis.

The proportion of specimens with resistance to integrase inhibitors did not exceed more than 0.1% (data not shown).



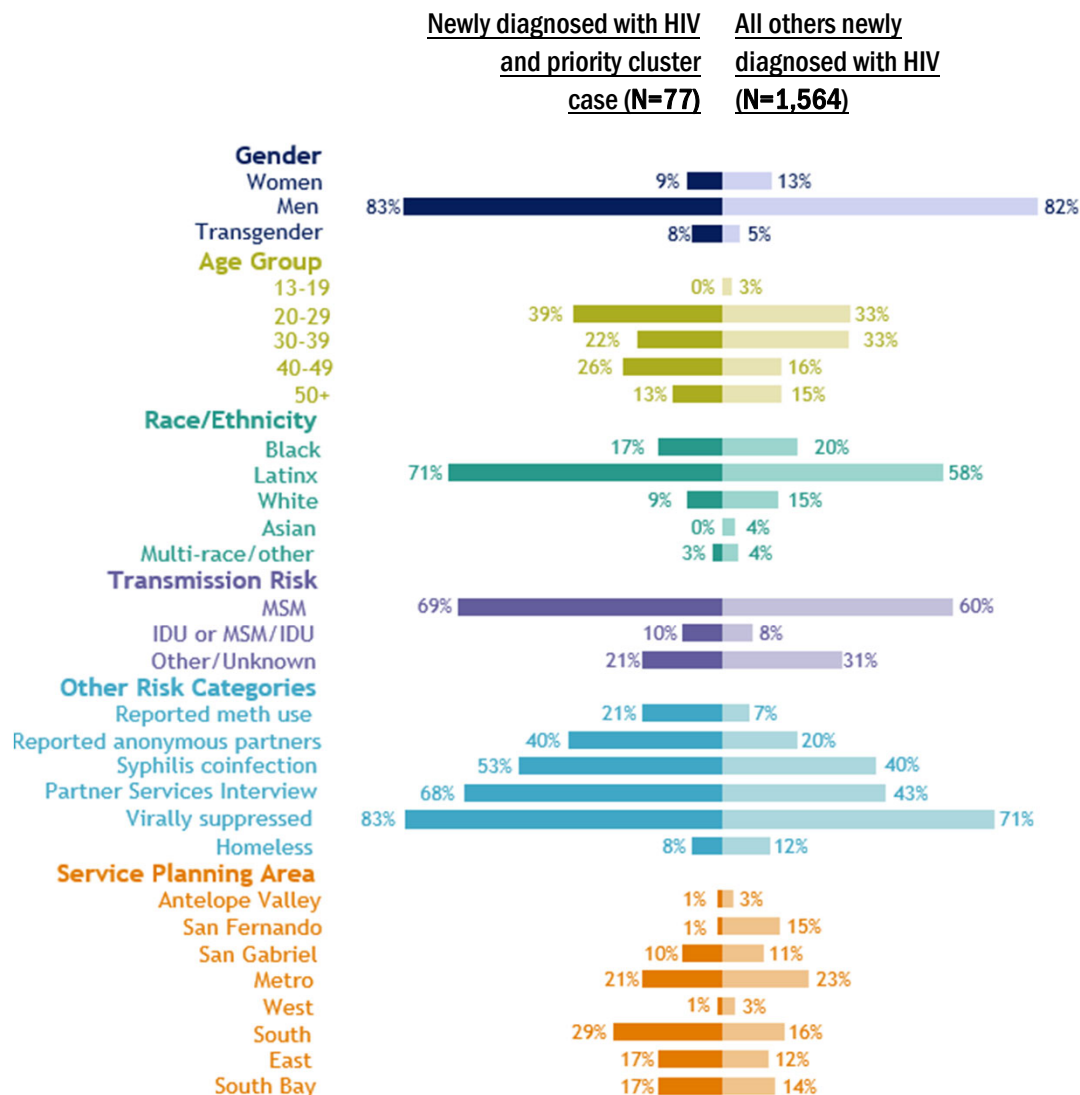
In 2022, 21% of new HIV diagnoses in LAC had a transmitted drug resistant mutation (TRDM). The prevalence of TRDM among new HIV diagnoses has remained relatively stable (Range: 20-25%) over the last 10 years. Transmitted drug resistance to NNRTI is consistently higher than transmitted drug resistance to NRTI or PI.

¹NNRTI= Non-nucleoside reverse transcriptase inhibitors; NRTI= Nucleoside reverse transcriptase inhibitor; PI= Protease inhibitor; TDRM= Transmitted drug resistance mutation; Resistance can include multi-drug classes and individuals may have been represented in more than one category.

²An eligible sequence is a genotypic resistance test which has met the following criteria: obtained within 3 months of HIV diagnosis and has a sequence length that is ≥ 100 bases. Cases who have a prior history of anti-retroviral use are excluded as eligible.



Priority¹ cluster diagnoses compared to non-cluster diagnoses among those newly diagnosed with HIV by selected characteristics,² LAC 2022



In 2022, 5% of people newly diagnosed with HIV were associated with a high priority transmission cluster. These persons were more likely to be men, aged 20-29 or 40-49, Latinx, or have male-to-male sexual contact compared with those not associated with high priority clusters. People who report methamphetamine use, anonymous partners, have syphilis co-infection, or live in the South, Metro, East, and South Bay were also more likely be part of a high priority cluster.

¹Priority transmission clusters are identified by HIV-TRACE and have at least five people diagnosed within the prior 12 months at a 0.5% genetic distance threshold.

²Age groups, race/ethnicity groups, and transmission risk categories with fewer than 5 persons are suppressed.

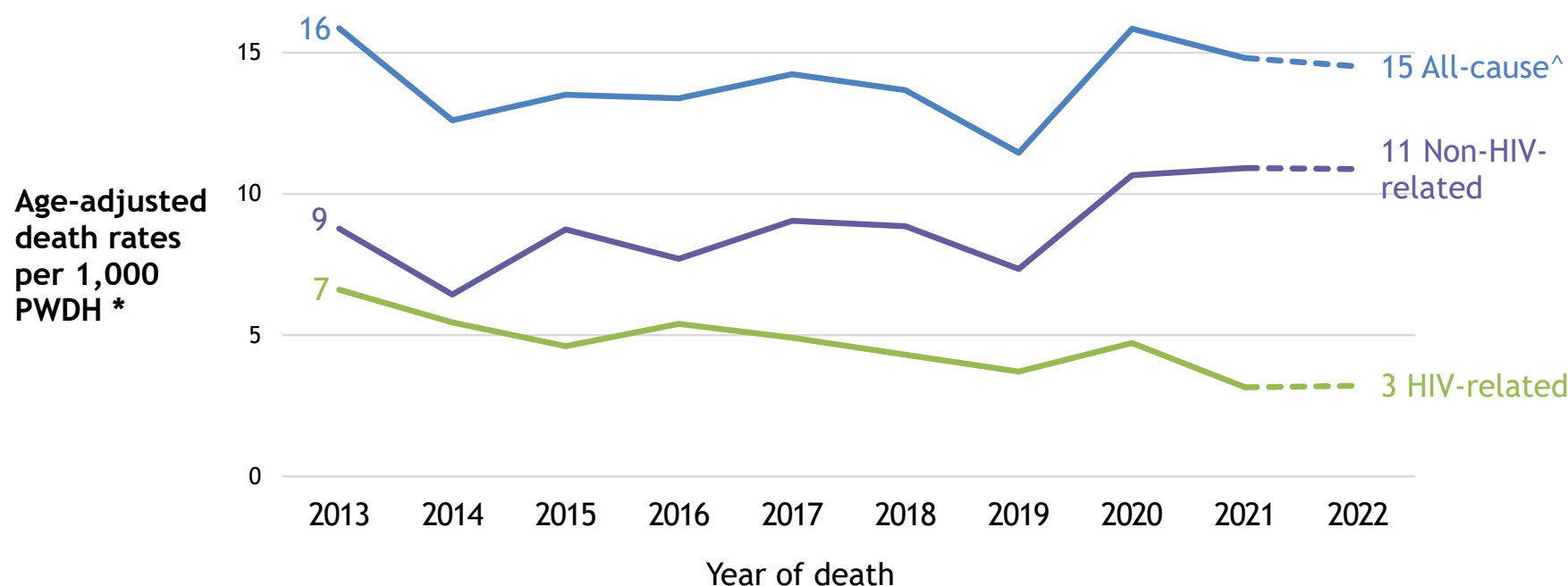


HIV Mortality

- Ultimately the most important goal in the public health response to HIV is for persons living with HIV to live long and healthy lives.
- Rapid access to and consistent use of high-quality services across the HIV care continuum is fundamental to achieving this goal.
- This section presents trends in cause of death and death rates among PLWDH.



Age-adjusted death rates among persons aged ≥ 13 years living with diagnosed HIV, by HIV-related and non-HIV related cause of death, LAC 2013-2022^{1,2,3}



Between 2013 and 2019, age-standardized death rates among persons with diagnosed HIV due to both HIV and non-HIV-related causes have been on a declining trend. With the onset of the COVID-19 pandemic in 2020, non-HIV-related death rates increased from 7 per 1,000 in 2019 to 11 per 1,000 in 2022, marking a 57% rise, while HIV-related death rates declined by 25% (from 4 per 1,000 in 2019 to 3 per 1,000 in 2022).

¹ Age-adjusted to the U.S. 2000 standard population.

² 2022 death rate data among PWDH are provisional due to reporting delay as indicated by the dashed line.

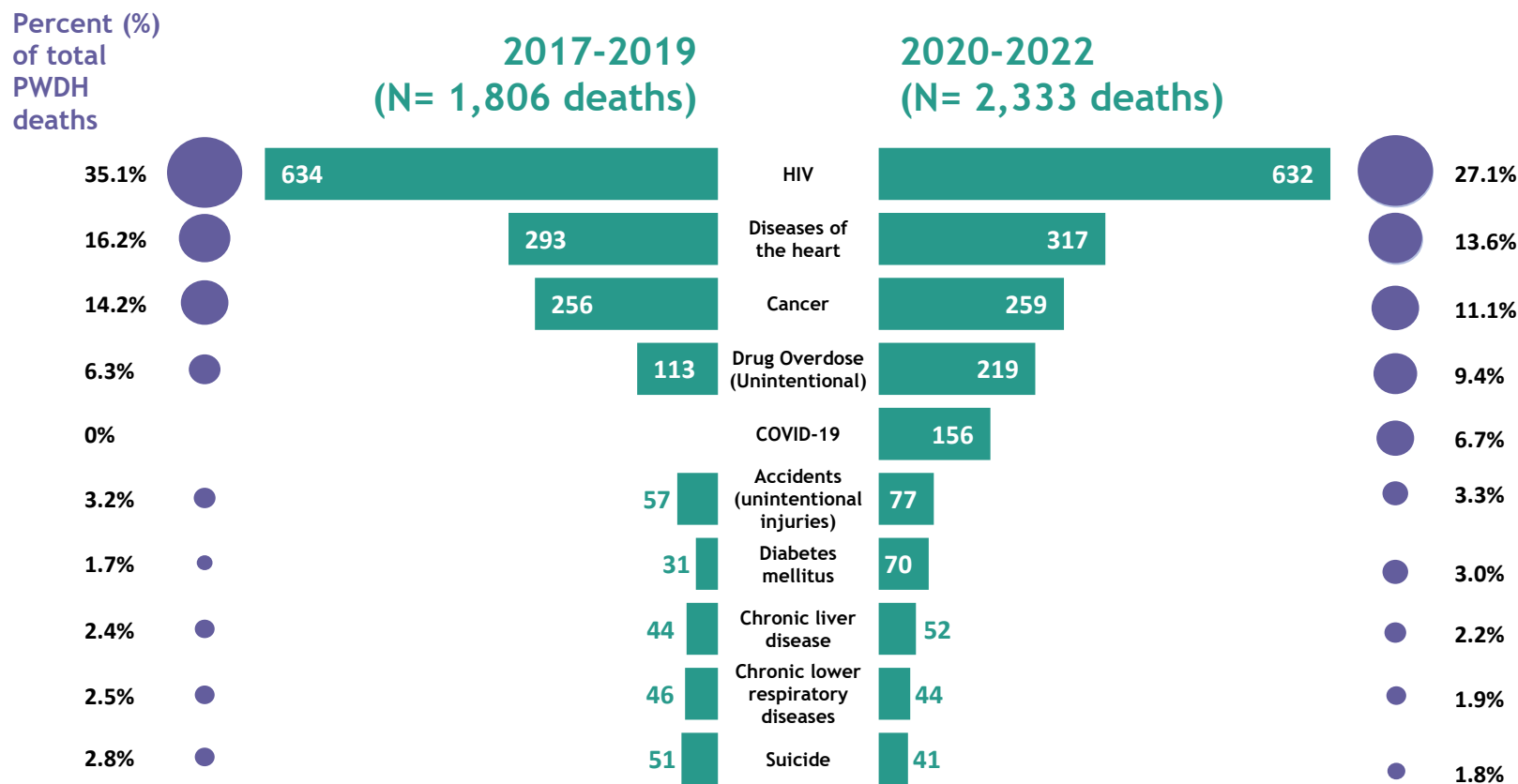
³ The decline in HIV diagnoses rates observed in 2020, a year in which the COVID-19 pandemic may have depressed HIV testing and reporting, seems to have been followed by a rebound in diagnoses in 2021 and 2022.

* For each calendar year in which the deaths occurred, PWDH includes persons living with HIV infection at the beginning of the calendar year plus persons newly diagnosed in the calendar year.

[^] All-causes death rates include persons with unknown causes of death (2.5 % of all deaths during this period (2013-2022)).



Underlying causes of death¹ among persons aged ≥ 13 years with diagnosed HIV, LAC 2017-2019 and 2020-2022²



Over the past decade, the number of deaths among PLWDH has remained stable at approximately 600 deaths per year but increased sharply in 2020 during the onset of the COVID-19 pandemic to nearly 800 deaths per year. HIV as the main cause of death among PWDH declined from 35% in 2017-2019 to 27% in 2020-2022. Conversely, deaths resulting from unintentional drug overdose and diabetes saw an uptick from 6% to 9% and 1.7% to 3% respectively during those comparative time frames.

¹The percentage of deaths among persons diagnosed with HIV was based on total deaths, which includes 62 (3%) individuals with unknown causes and 101 (6%) with other causes of death from 2017 to 2019. During the COVID-19 pandemic from 2020 to 2022, this figure comprises 171 (7%) individuals with unknown causes and 130 (6%) with other causes of death.

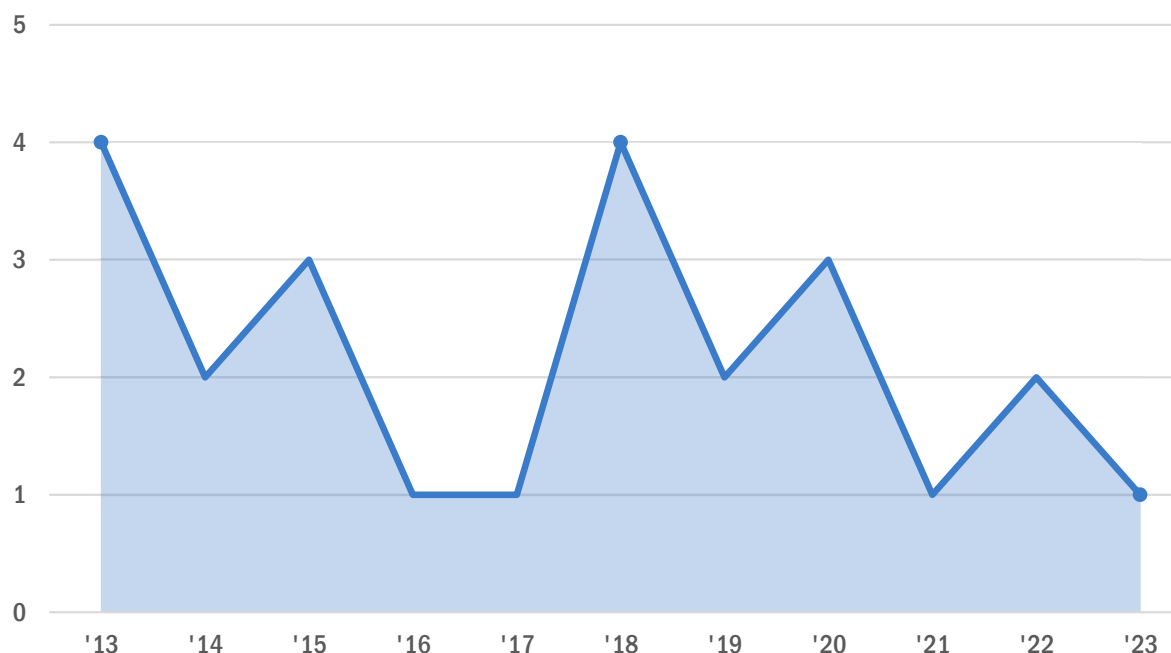


Vulnerable Populations





Number of children aged < 13 years newly diagnosed with HIV, LAC 2013-2023¹



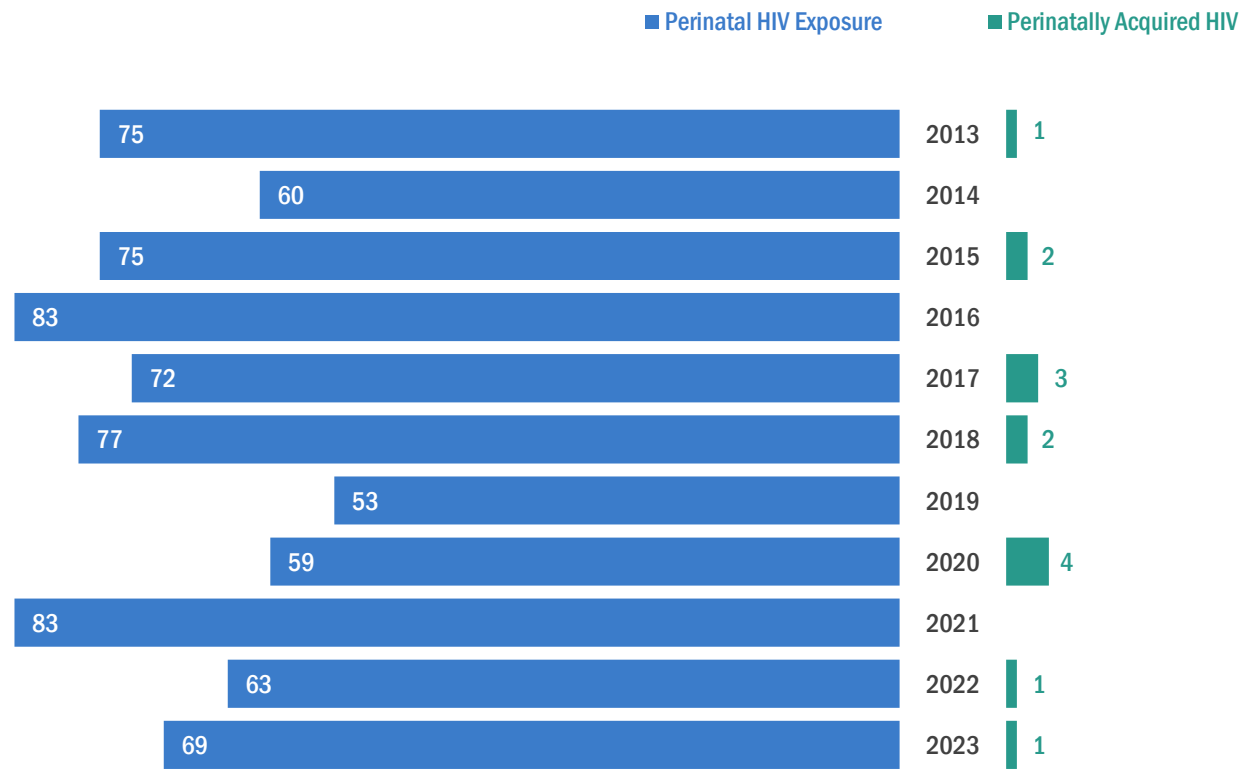
Note: Of the 24 children diagnosed with HIV since 2013, the majority had perinatally acquired HIV.

Over the past decade new HIV diagnoses in children have not exceeded 4 cases per year. In 2023, there was 1 child reported with newly diagnosed HIV.

¹ Year of diagnosis may not indicate year of birth, nor indicate infants newly diagnosed with HIV at birth. Data include children who were born in a foreign country and/or who may have first been diagnosed in a foreign country before moving to Los Angeles County.



Number of infants with perinatal HIV exposure and perinatally acquired HIV, LAC 2013-2023^{1,2}



From 2020 to 2023, 2% of all perinatal exposed cases resulted in perinatally acquired HIV.

¹ Due to reporting delay, 2022 and 2023 HIV data are provisional.

² The number of infants with perinatally acquired HIV includes perinatal transmissions among babies born and/or diagnosed in LAC for a given birth year. The number of infants with perinatal HIV exposure was derived from 7 pediatric HIV-specialty sites which serve over 90% of the HIV-exposed children and infected children seeking HIV evaluation and care in Los Angeles County as well as an annual birth registry match. This is an underestimate of the total number of infants with perinatal HIV exposure in the County since HIV exposure reporting is not mandated.



HIV incidence and perinatal transmission among infants aged < 18 months, LAC 2013-2023¹

Birth Year	Number of infants newly diagnosed with HIV	Live Births	Number of HIV-exposed infants	Perinatal HIV incidence rate per 100,000 live births	Perinatal HIV transmission rate per 100 HIV-exposed infants
2013	1	128,526	75	0.8	1.3
2014	0	130,150	60	0	0
2015	2	124,438	75	1.6	2.7
2016	0	123,092	83	0	0
2017	3	116,850	72	2.6	4.2
2018	2	116,063	77	1.7	2.6
2019	0	113,027	53	0	0
2020	4	102,610	57	3.9	7.0
2021	0	100,641	83	0	0
2022	1	100,057	63	1.0	1.6
2023	1	94,967	69	1.1	1.4

National targets for elimination of mother-to-child transmission of HIV

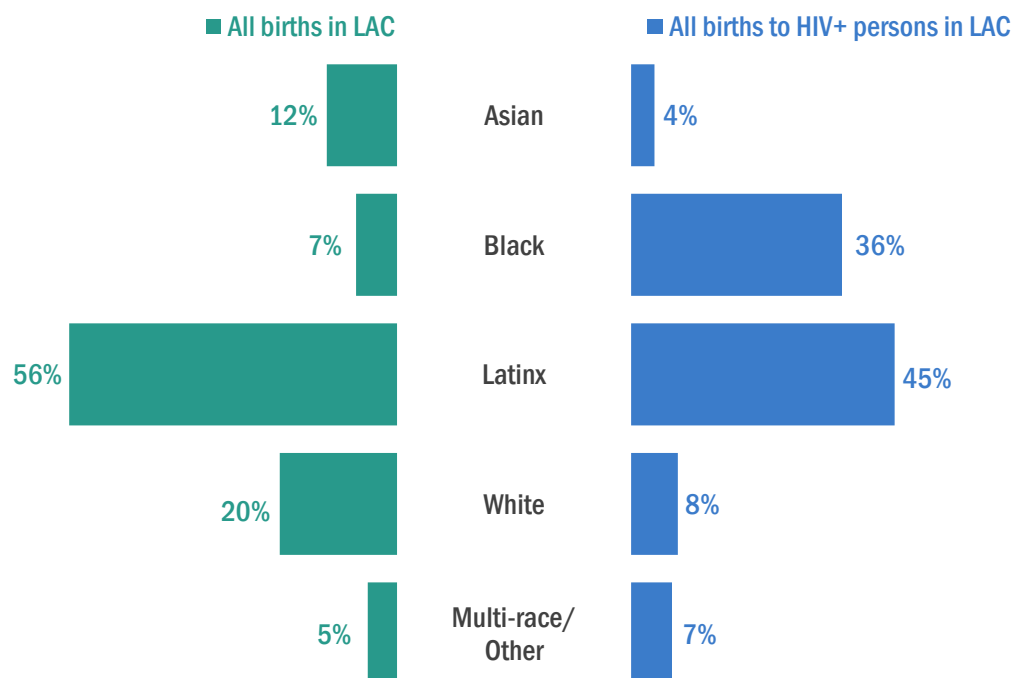
1. Perinatal HIV incidence <1 per 100,000 live births
2. Perinatal transmission rate <1 per 100 HIV-exposed infants

In 2023, LAC fell short of the perinatal incidence and perinatal HIV transmission national targets for elimination of mother-to-child transmission.

¹ Over 90% of the HIV exposed and infected infants identified in birth years 2022 and 2023 were born at and/or received care at one of the 7 pediatric HIV-specialty sites. Additionally, since 2018 the CA SOA has conducted a birth registry match with HIV+ women in eHARS and LAC birth certificates. This is an underestimate of the total number of infants with a perinatal HIV exposure in Los Angeles County since perinatal HIV exposure reporting is not mandated in California. For this reason, perinatal HIV transmission rates are not generalizable to Los Angeles County. Data for 2022 and 2023 are provisional due to reporting delay. Live birth data for 2013-2017 were derived from the Los Angeles Almanac and live birth data after 2017 were derived from the California Department of Public Health-California Vital Data (Cal-ViDa) Query Tool since this tool was not available for birth years prior to 2018.



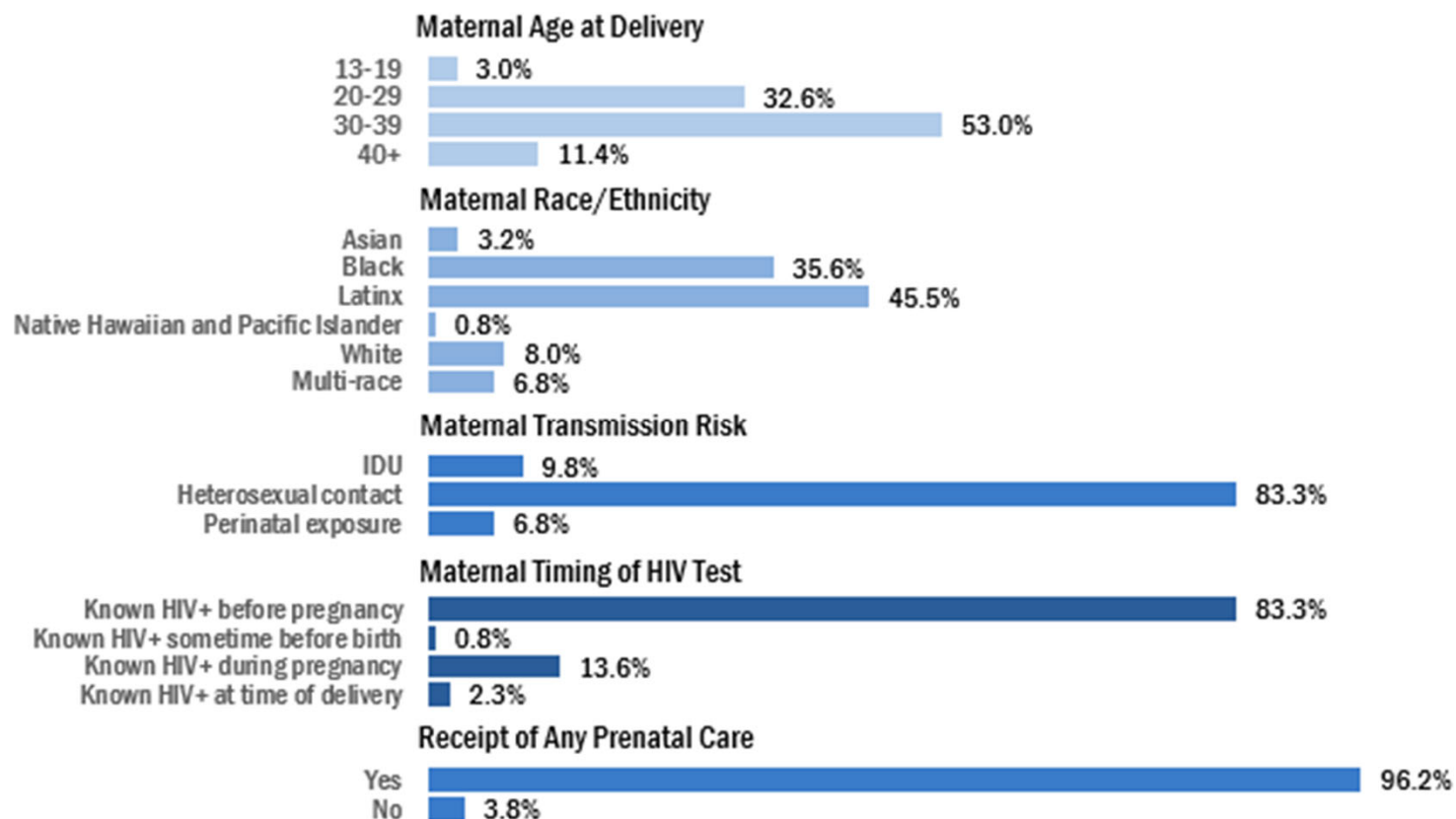
Rate of all LAC births vs perinatal HIV-exposed births in LAC by race/ethnicity, LAC 2022-2023



Black persons are disproportionately impacted by perinatal HIV risk. Black infants accounted for 7% of all births in the general LAC population but made up 36% of all HIV-exposed births in 2022-2023.



Demographic and clinical characteristics of pregnant persons with diagnosed HIV and exposed infants, LAC 2022-2023¹

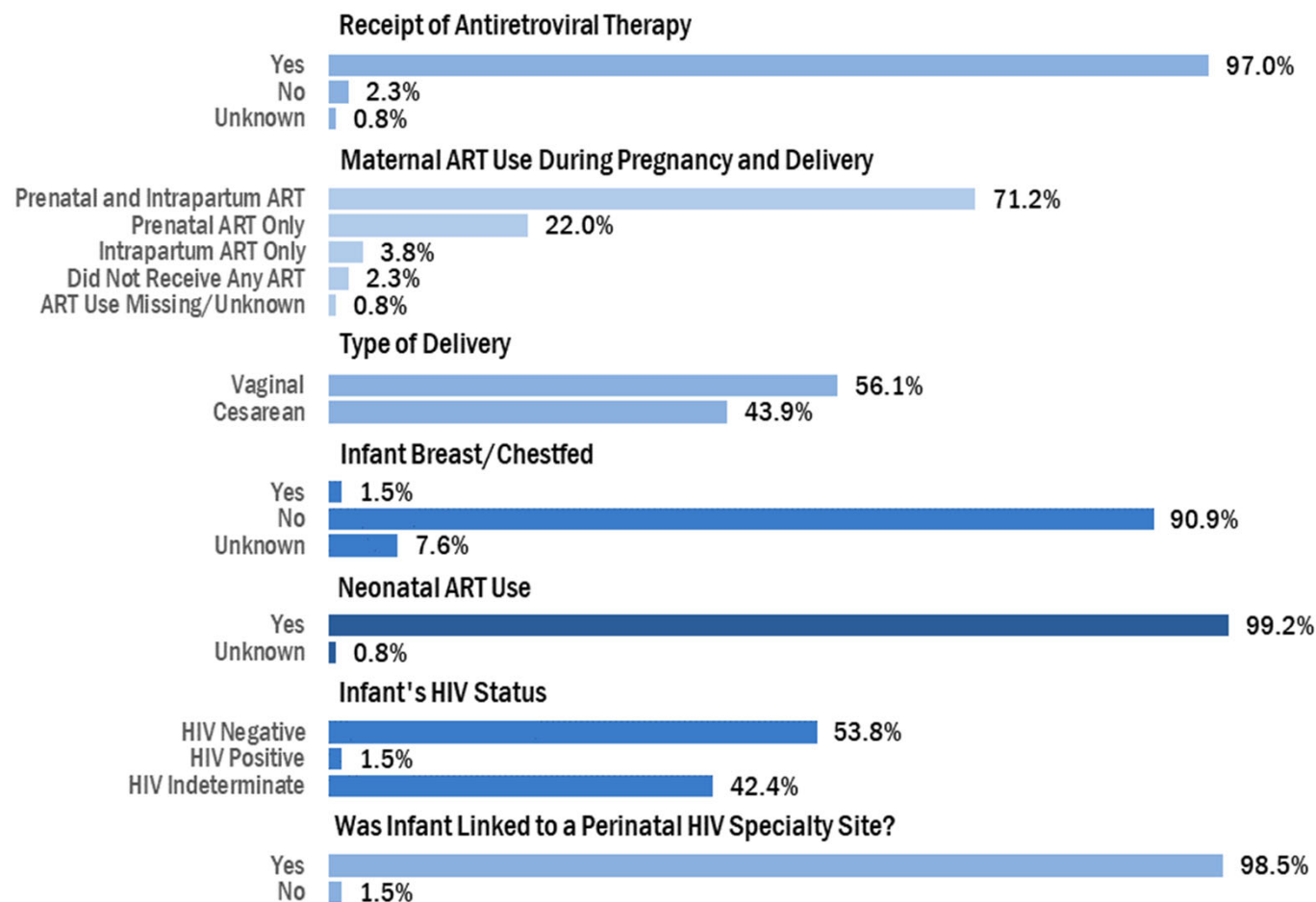


Prenatal care and ART use during pregnancy and labor and delivery are an essential component of prevention of perinatal HIV transmission.

¹Data are provisional due to reporting delay.



Demographic and clinical characteristics of pregnant persons with diagnosed HIV and exposed infants, LAC 2022-2023¹- continued

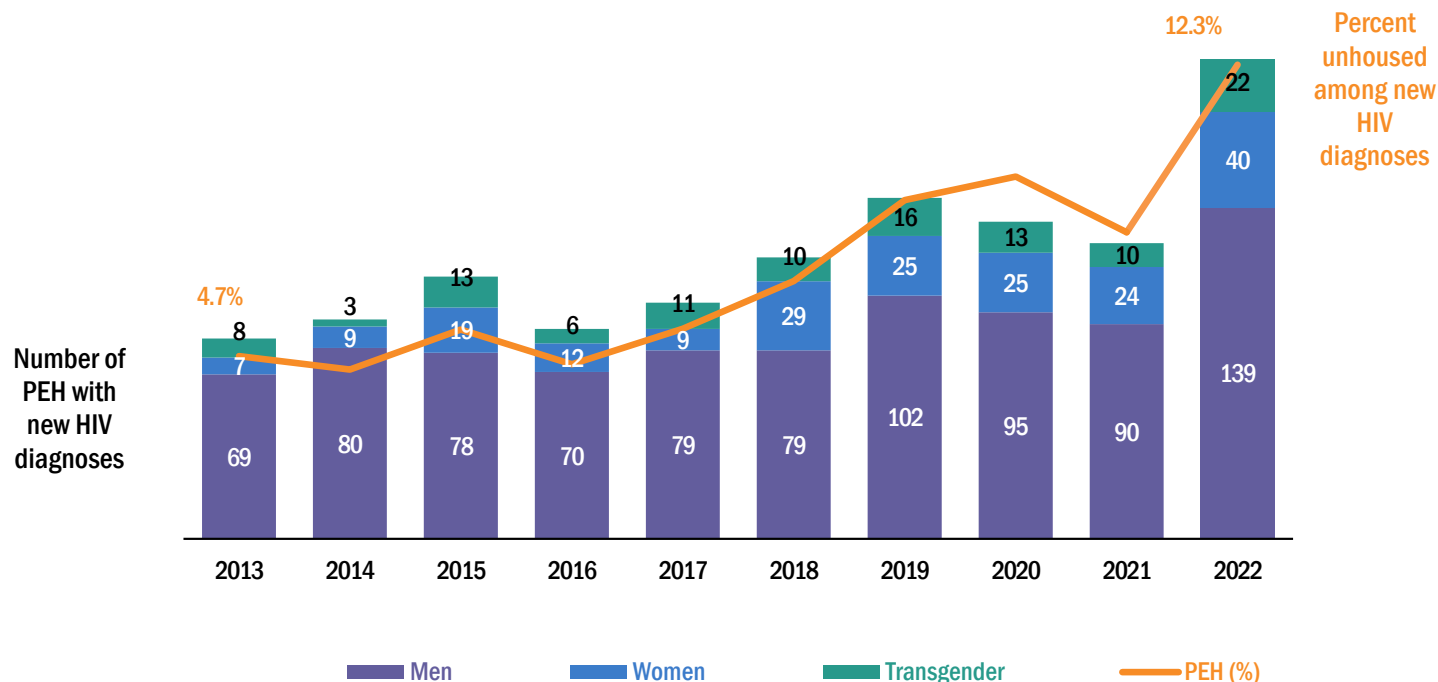


Prenatal care and ART use during pregnancy and labor and delivery are an essential component of prevention of perinatal HIV transmission.

¹Data are provisional due to reporting delay.



Number of persons experiencing homelessness and newly diagnosed with HIV,¹ by gender and percentage of persons aged \geq 13 years newly diagnosed with HIV, LAC 2013-2022²



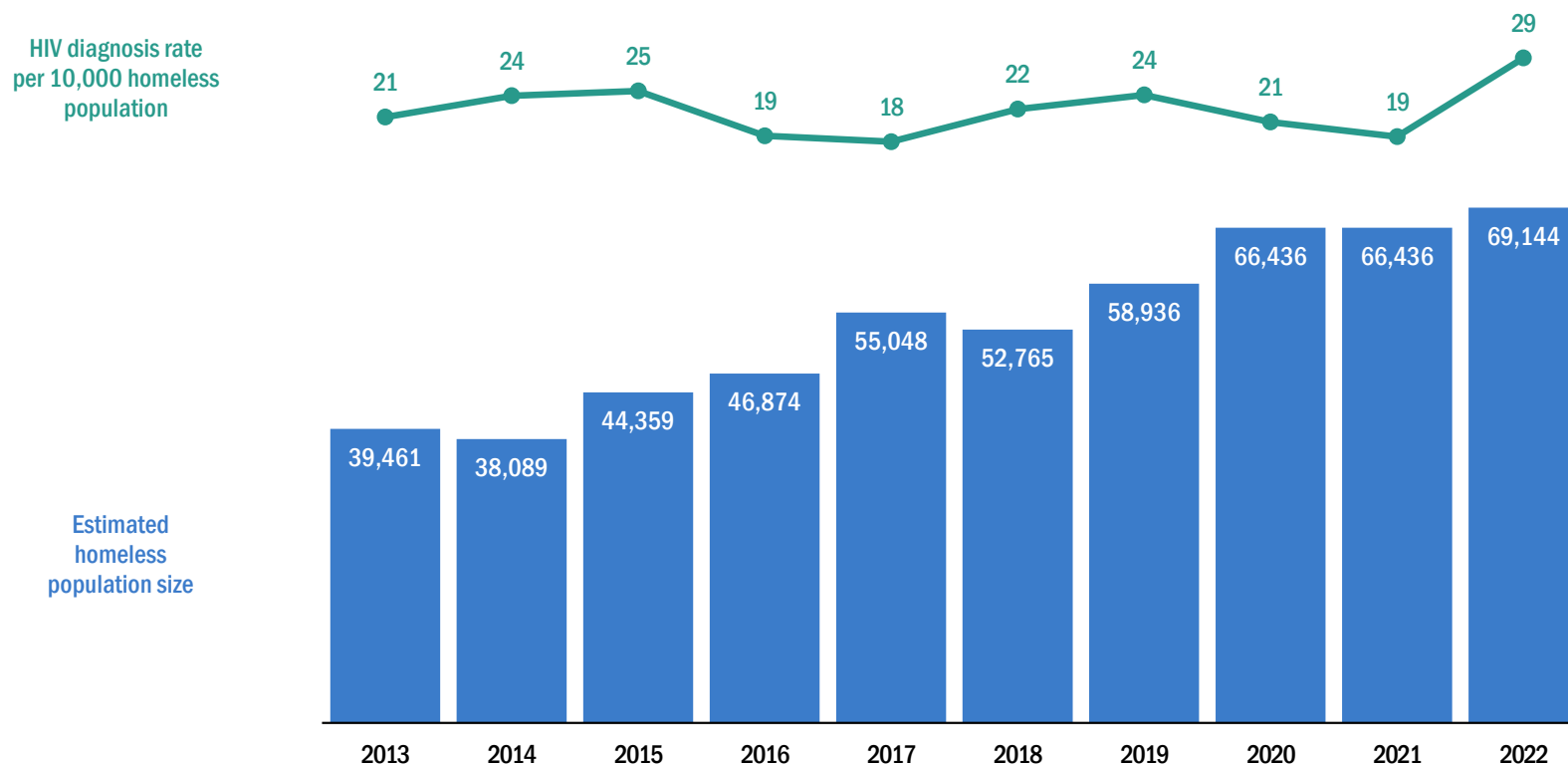
Between 2013 and 2022 the percentage of persons newly diagnosed with HIV who were experiencing homelessness at the time of their diagnosis, increased from 4.7% to 12.3%. Among 201 PEH with a new HIV diagnosis in 2022, 69% were men, 20% were women, and 11% were transgender.

¹Persons newly diagnosed with HIV were classified as PEH if they were experiencing homelessness within 6 months of their HIV diagnosis date. For the PEH definition used, please refer to the Los Angeles Housing Services Authority (LAHSA) definition under “Category 1” at <https://www.lahsa.org/documents?id=1349-homeless-definition-part-1-.pdf>

²Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the patterned bar and dashed line.



HIV diagnoses rates among persons aged ≥ 13 years experiencing homelessness, LAC 2013-2022¹

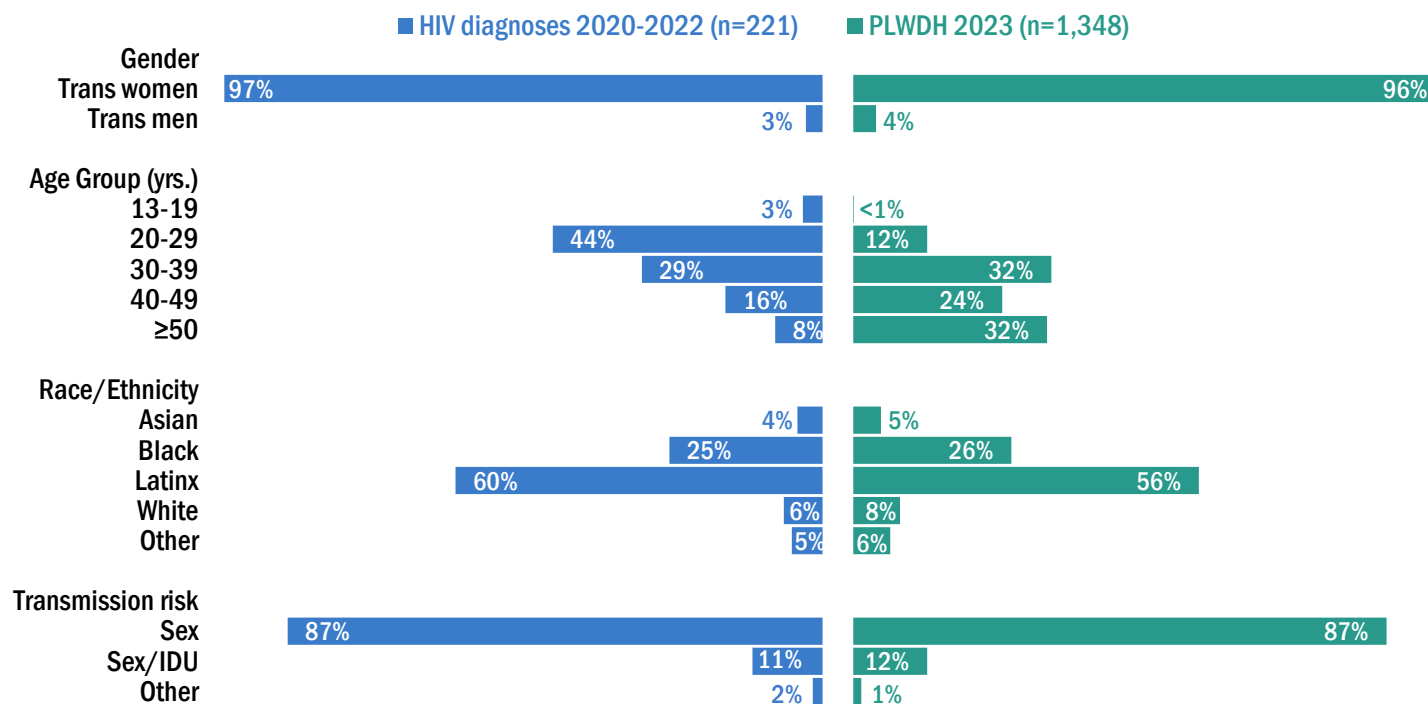


The HIV Diagnosis rate among PEH has increased from 21 to 29 over the past decade.

¹Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line.



Transgender people aged ≥ 13 years diagnosed in 2020-2022 and living with diagnosed HIV infection at year-end 2023 by gender, age, race/ethnicity,¹ and transmission category², LAC 2023



Most transgender people, whether newly diagnosed or living with diagnosed HIV infection identified as trans women and Latinx. Sexual contact was the primary route of transmission. Newly diagnosed trans people were more likely to be young (<30 yrs.).

¹Other race/ethnicity includes Native Hawaiian and Pacific Islanders (NHPI), American Indian and Alaska Native (AIAN), and persons of multiple races.
²Persons without an identified transmission category were assigned a transmission category using CDC-recommended multiple imputation methods. Sex= Sexual contact; SC/IDU = Sexual contact and injection drug use. Sexual contact is based on biological sex at birth: MMSC or heterosexual contact with a person known to have, or with a risk factor for, HIV; other transmission category includes injection drug use (IDU) and perinatal exposure.

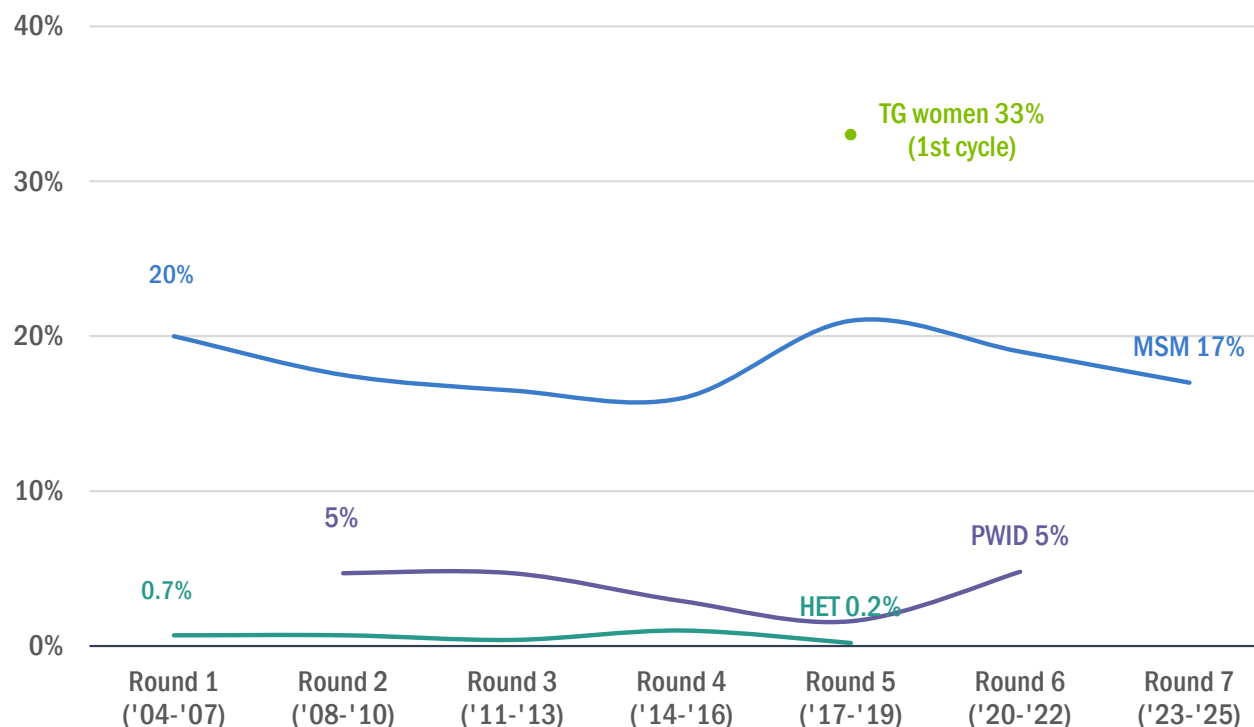


HIV biobehavioral surveillance

- HIV biobehavioral surveys are surveillance tools that use probability-based sampling methods for estimating HIV prevalence and relevant behavioral and clinical indicators in a given population. Information from biobehavioral surveys helps us understand factors that may be associated with behavioral and clinical outcomes in vulnerable populations at increased risk for HIV or living with HIV.
- National HIV Behavioral Surveillance (NHBS) is a CDC-funded HIV surveillance activity that allows state and local health departments to monitor HIV prevalence and risk behaviors among select populations at elevated risk for HIV. These populations include men who have sex with men (MSM), persons who inject drugs (PWID), heterosexual persons at increased risk for HIV (HET), and transgender (TG) women. Probability-based sampling methods are used to recruit survey participants, including venue-based, time space sampling for the MSM survey and respondent driven sampling for PWID, HET, and TG surveys.
- The Medical Monitoring Project (MMP) is a CDC-funded HIV surveillance activity that provides national and local data on behavioral and clinical outcomes in a representative sample of PLWH. MMP uses a 2-stage sampling strategy to select a sample of persons from which nationally and locally representative data are derived.
- In this section, we highlight key findings from NHBS and MMP efforts in LAC. While the data in this section provide the best estimates available for the populations presented, they are estimates (not true values) and thus any generalizations to broader population groups represented should be made with caution.



Trends in HIV prevalence¹ by NHBS population, LAC 2004-2023^{2,3}



Note: Testing frequency among MSM and transgender women was high compared with PWID and HET. MSM (85%) and Transgender women (86%) reported high levels of HIV testing in the past year. By contrast, only 41% of PWID and 31% of HET reported testing for HIV in the past year.

Among the populations studied in NHBS, Transgender (TG) women have the highest HIV prevalence, followed by MSM and PWID. HET consistently have the lowest HIV prevalence.

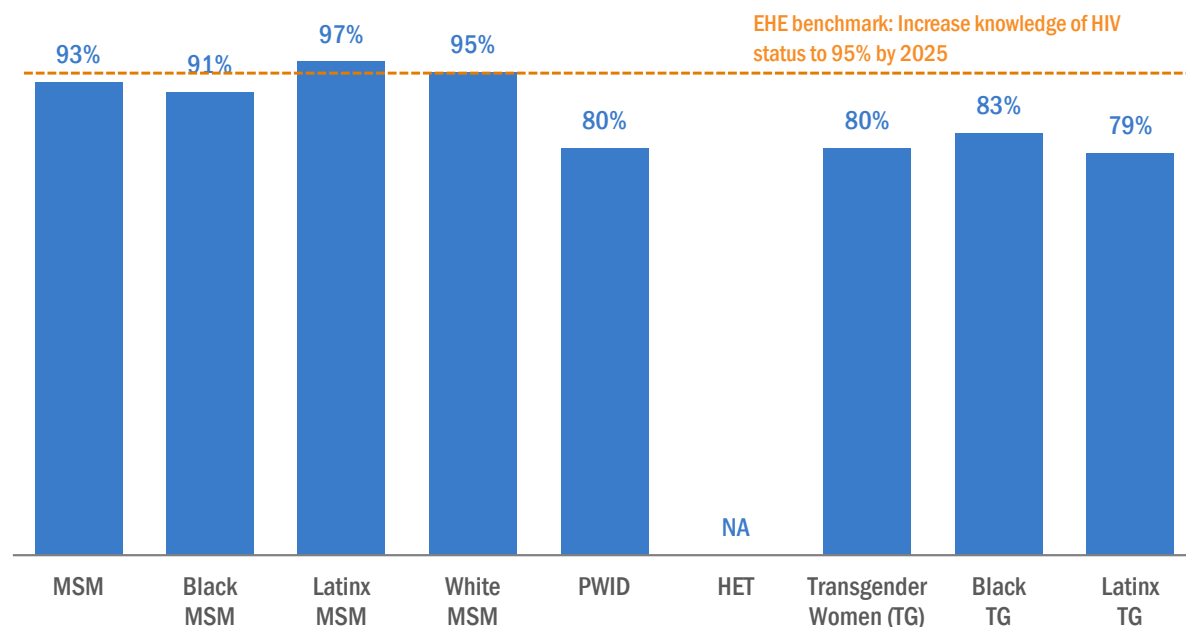
Abbreviation: NHBS = National HIV Behavioral Surveillance; TG = transgender; MSM = men who have sex with men; PWID = persons who inject drugs; HET = heterosexuals at increased risk for HIV infection
¹“HIV Prevalence” refers to the percentage of participants with a confirmed positive HIV test result among the total number of participants tested in NHBS.

²Participants were recruited into NHBS using a probability-based sampling method. MSM were recruited using time location sampling; PWID, HET, and Transgender Women were recruited using respondent driven sampling. MSM were surveyed in all NHBS rounds and HET; PWID were surveyed starting in NHBS Round 2; Transgender women were surveyed starting in NHBS Round 5 and Round 7 (ongoing recruitment).

³In the most recent PWID cycle in 2022, we observed a slightly higher HIV prevalence than the last PWID cycle in 2018. One factor that likely contributed to the higher HIV prevalence rate is the identification of MSM-PWID participants. Among PWID in 2022, it was found that 6% of PWID were sexually active MSM, and the HIV prevalence rate among this group was 39%, which is notably higher than the prevalence among non-MSM PWID (approximately 2.5%).



Awareness of HIV-positive status among participants aged ≥ 18 years living with HIV by NHBS population and race/ethnicity, LAC 2017-2022^{1,2,3,4}



In the most recent NHBS cycle, 93% of MSM (2023), 80% of PWID (2022), and 80% of transgender women (2019) living with HIV were aware of their HIV-positive status.

¹National HIV Behavioral Surveillance (NHBS) is a national behavioral surveillance system designed to generate nationally representative estimates of HIV prevalence and behaviors among groups at highest risk for HIV infection. Data presented in this figure are not weighted. The purpose of this figure is to provide a detailed summary of surveillance data collected as part of NHBS. Unweighted data provide an efficient and transparent way to do so.

²**MSM:** Gay, bisexual and other men who have sex with men in the past 12 months. The NHBS-MSM cycle collects information on persons who report sex with a male partner in the 12 months before interview. A total of 729 MSM participated in NHBS-MSM in 2023, including 309 Black MSM, 243 Latinx MSM, and 133 White MSM.

PWID: Persons who inject drugs; A total of 518 PWID participated in NHBS-PWID in 2022;

HET: Heterosexually active persons at increased risk for HIV infection; A total of 509 HET participated in NHBS-HET in 2019;

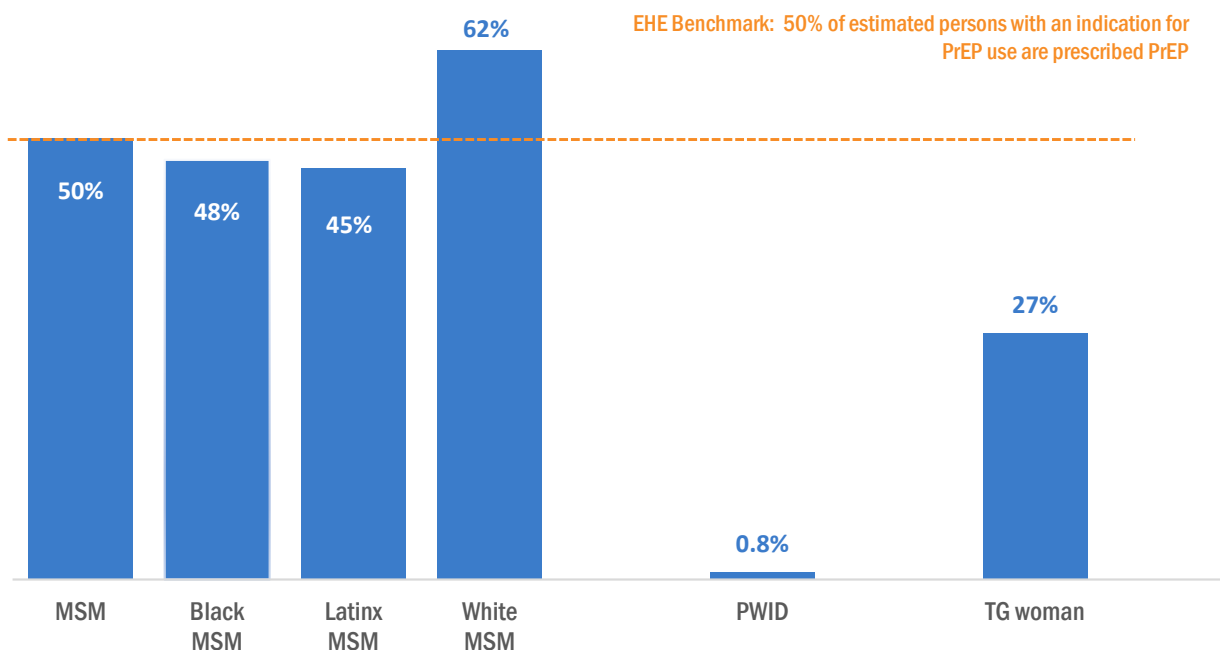
Transgender women (TG): Adults who (1) reported a gender identity of woman or transgender woman, and (2) were assigned male or intersex at birth. A total of 501 transgender women enrolled in NHBS-Trans in 2019.

³Awareness of HIV infection among PWID and HET is unstable due to small numbers.

⁴Data on HIV testing in the past 12 months excludes participants diagnosed with HIV >12 months prior to the survey interview.



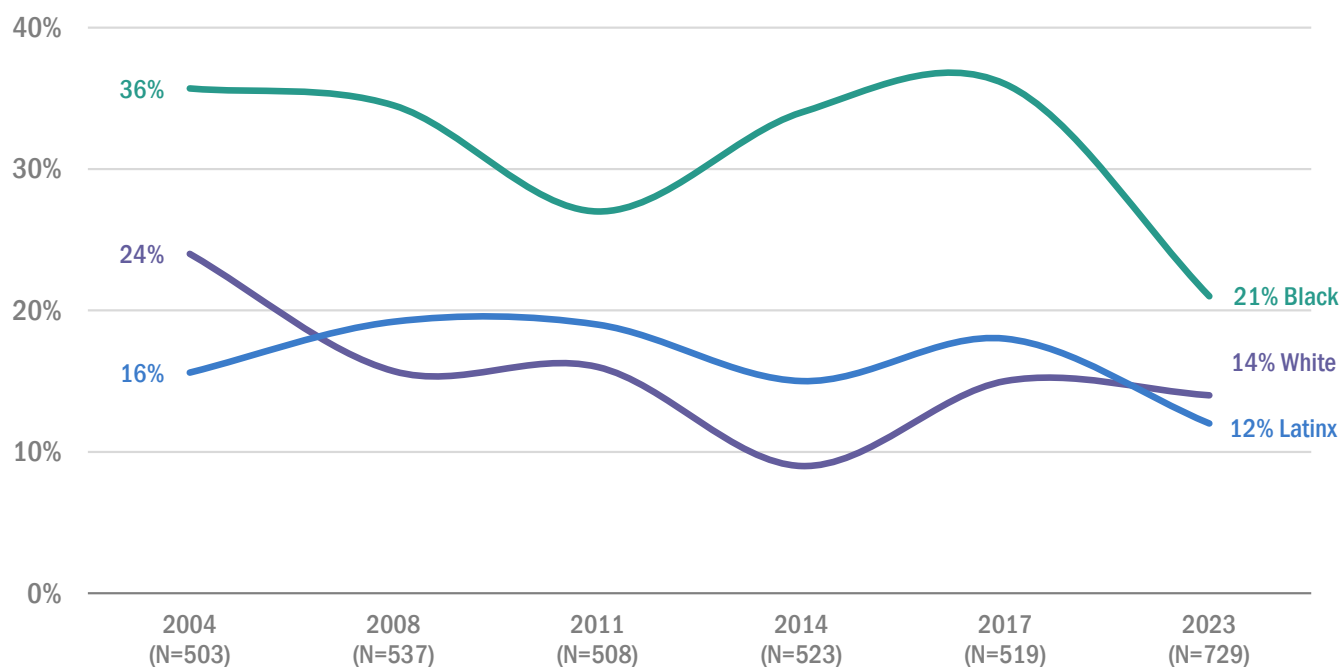
PrEP Use during the past 12 months among NHBS Populations with a negative HIV test result, LAC 2019-2023



White MSM were the only subgroup to surpass the EHE PrEP use benchmark.



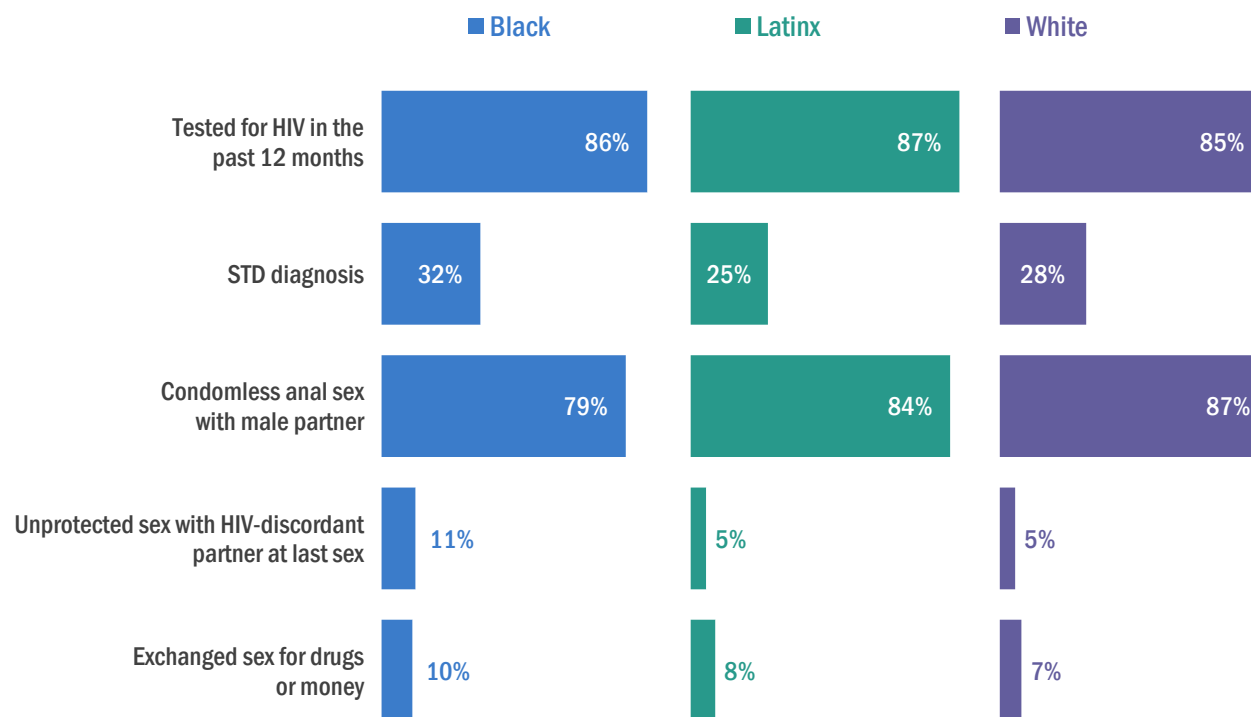
Trends in HIV prevalence among NHBS-MSM participants by race/ethnicity, LAC 2004-2023



Since 2004, HIV prevalence has been on a declining trend for MSM in LAC across all race/ethnicity groups. However, Black MSM have had a consistently higher HIV prevalence than all other race/ethnicity groups.



HIV testing behavior, STD diagnosis, and sexual behavior among NHBS-MSM participants by race/ethnicity, LAC 2023¹



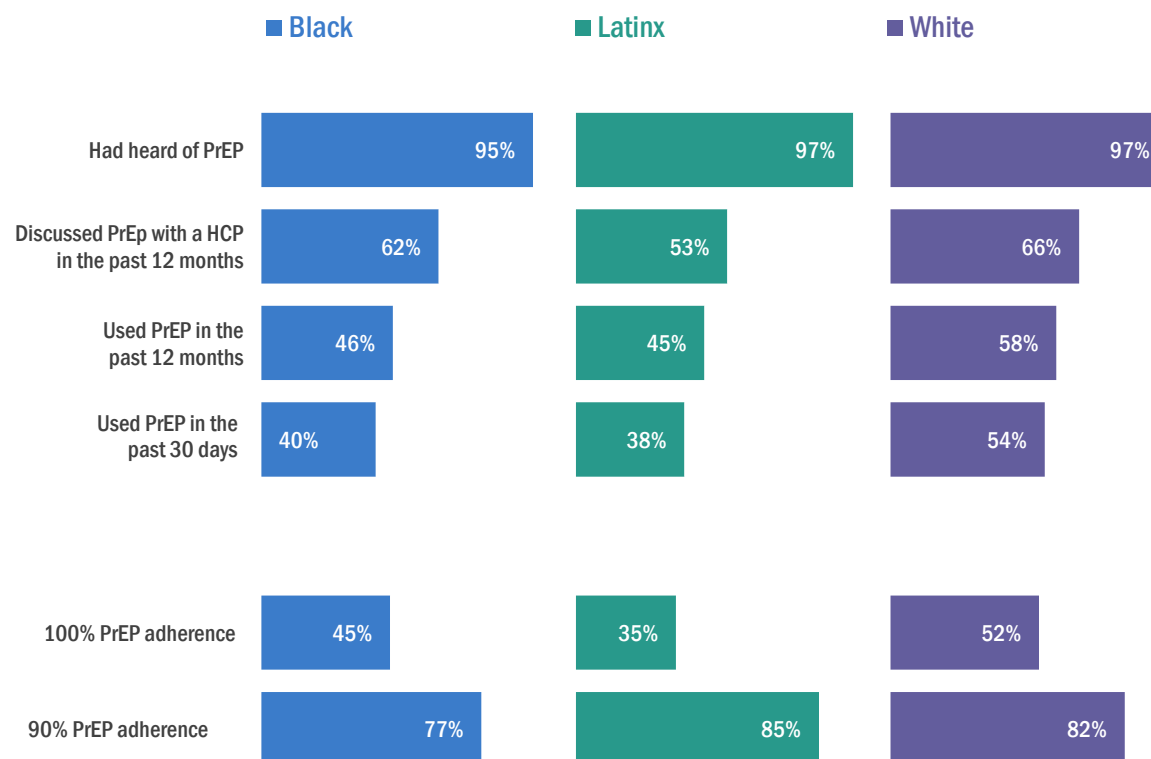
In the 2023 NHBS MSM cycle, self-reported condomless anal sex with male partners ranged from 79% among Black MSM to 87% among White MSM

Abbreviation: MSM = men who have sex with men; NHBS = National HIV Behavioral Surveillance

¹There were 309 Black MSM, 243 Latinx MSM, and 133 White MSM NHBS participants in the 2023 surveillance round. All sexual behavior indicators reflect behavior in the 12 months prior to the interview. HIV testing in the past 12 months excluded participants who were diagnosed with HIV more than 12 months prior to the interview. STD diagnosis was based on respondent's self-report of at least 1 STD diagnosis by a health care provider's diagnosis in the 12 months prior to the interview. Condomless anal sex refers to either or both condomless receptive and/or condomless insertive anal sex. Unprotected sex refers to sex without the participant's use of either condoms or HIV medications (i.e., HIV PrEP or antiretrovirals). HIV-discordant partner refers to a sex partner of different HIV status.



PrEP use among NHBS-MSM participants who reported as HIV-negative status, by race/ethnicity, LAC 2023¹



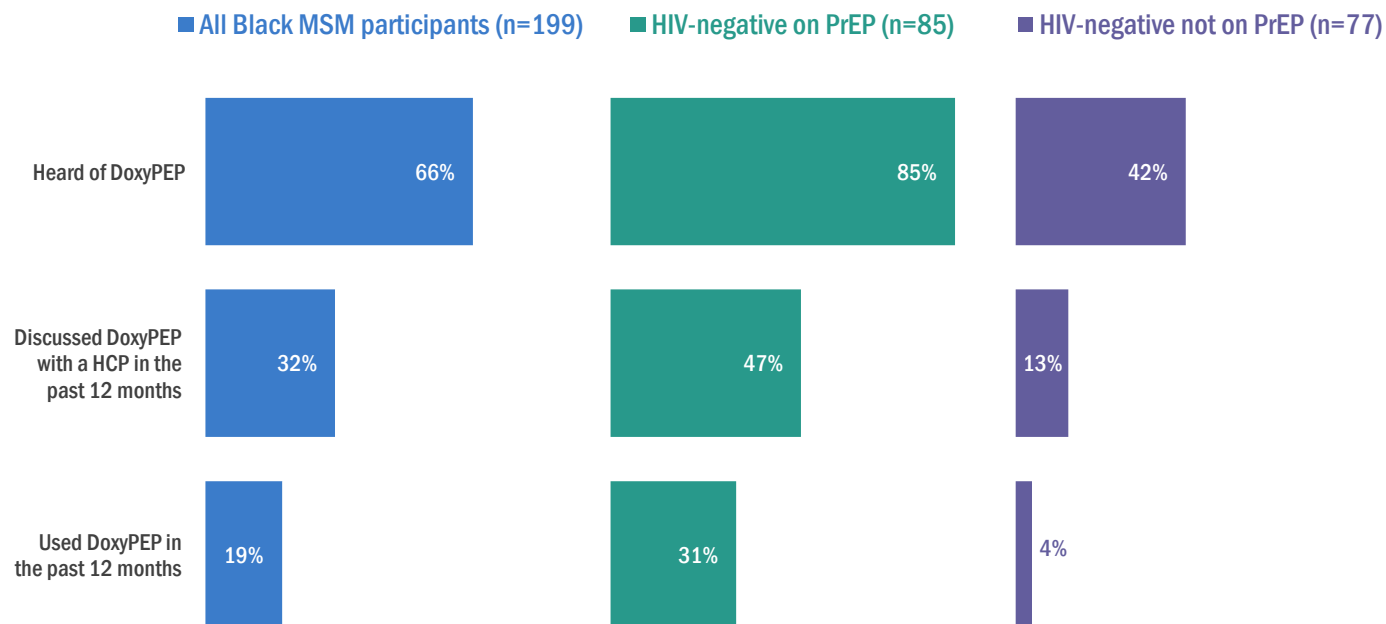
Among NHBS MSM participants who reported PrEP use in the past 30 days, 42% were 100% adherent (took their medication as prescribed) and an additional 38% reported 90% adherent (missed 1-3 days of their medication).

Abbreviation: PrEP =pre-exposure prophylaxis; PEP = post-exposure prophylaxis; MSM = men who have sex with men; NHBS = National HIV Behavioral Surveillance

¹ A total of 577 HIV-negative MSM were included in the PrEP analysis, consisting of 234 Black MSM, 203 Latinx MSM, and 108 White MSM.



Doxycycline Post-Exposure Prophylaxis (DoxyPEP) knowledge and uptake among a sample of black MSM, NHBS-MSM, LAC, Jan-March 2024¹

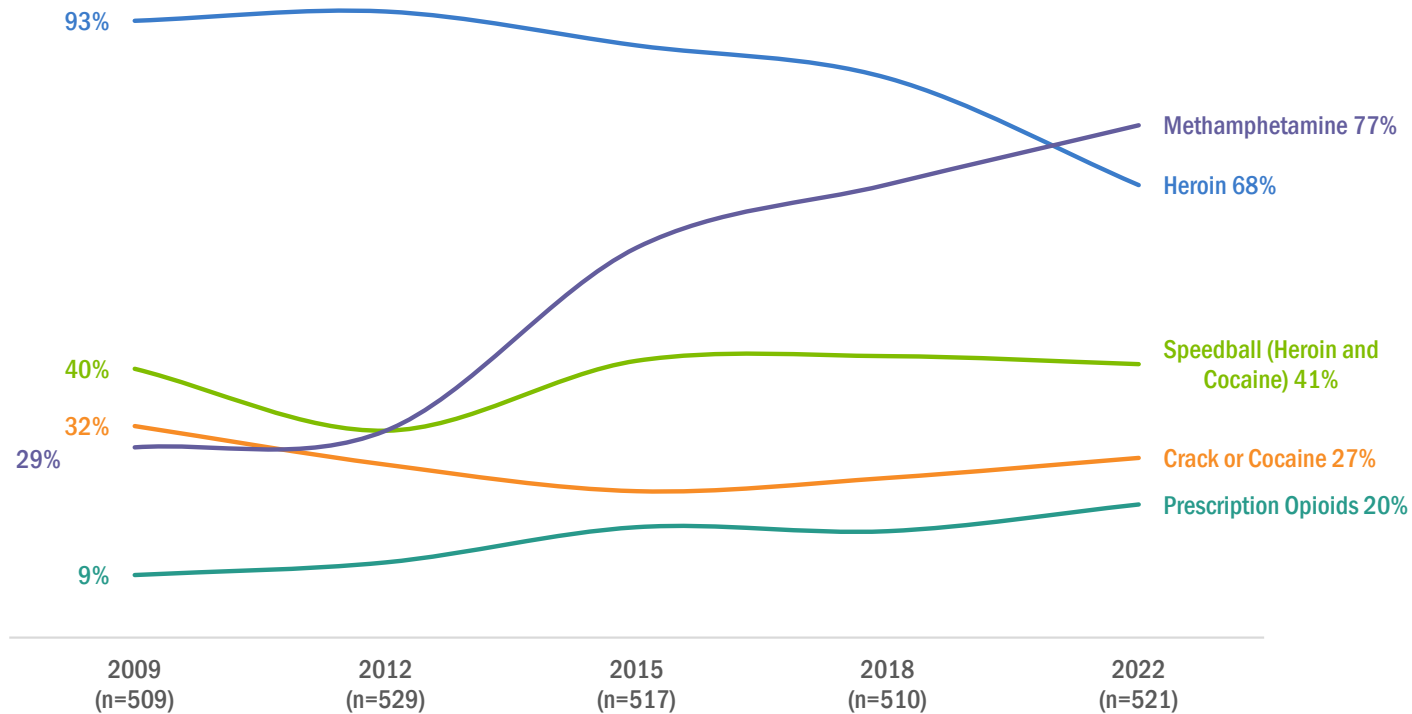


Among a sample of 199 Black MSM, DoxyPEP use was highest among those on PrEP compared with those not on PrEP.

Abbreviation: PrEP =pre-exposure prophylaxis; PEP = post-exposure prophylaxis; MSM = men who have sex with men; NHBS = National HIV Behavioral Surveillance
¹There were 199 Black MSM included in the DoxyPEP analysis and the sample was collected from January through March 2024 as a local expansion of NHBS-MSM 2023. The DoxyPEP use was only assessed during the local study. The reported median number of male sex partners in the past 12 months was 6.



Drugs injected in the past 12 months among NHBS-PWID participants, LAC 2009-2022¹

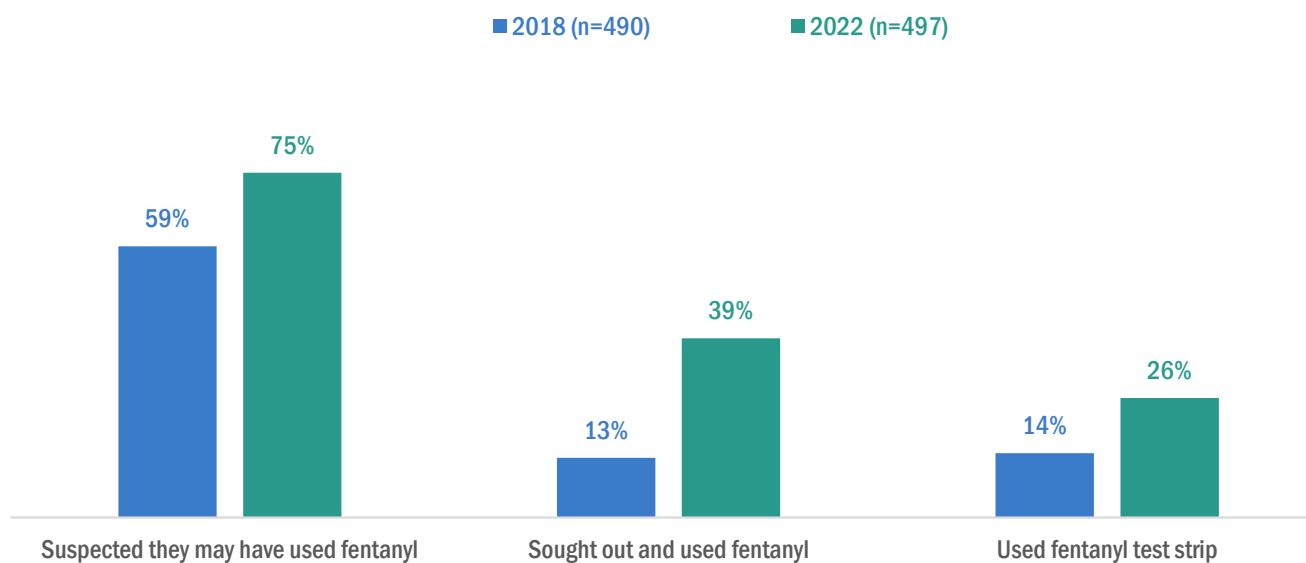


Over the past decade, the prevalence of methamphetamine injection has increased significantly.

Abbreviation: PWID = persons who inject drugs; NHBS = National HIV Behavioral Surveillance
¹Speedball is a polydrug mixture of heroin and cocaine.



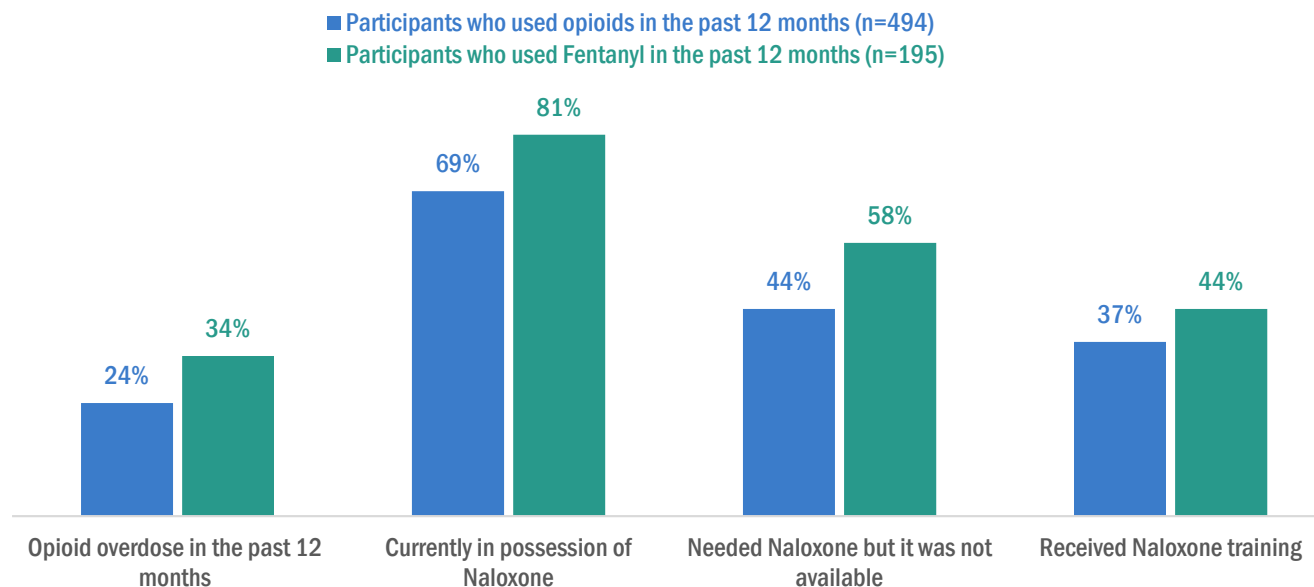
Fentanyl use in past 12 months among NHBS-PWID participants, LAC 2018 vs 2022



Fentanyl use has increased significantly between 2018 and 2022. Fentanyl test strip use has also increased.



Comparison of non-fatal opioid heroin overdose, possession of naloxone need among LAC NHBS-PWID participants who reported injection or noninjection use of heroin or painkillers versus those who used Fentanyl, LAC 2022¹

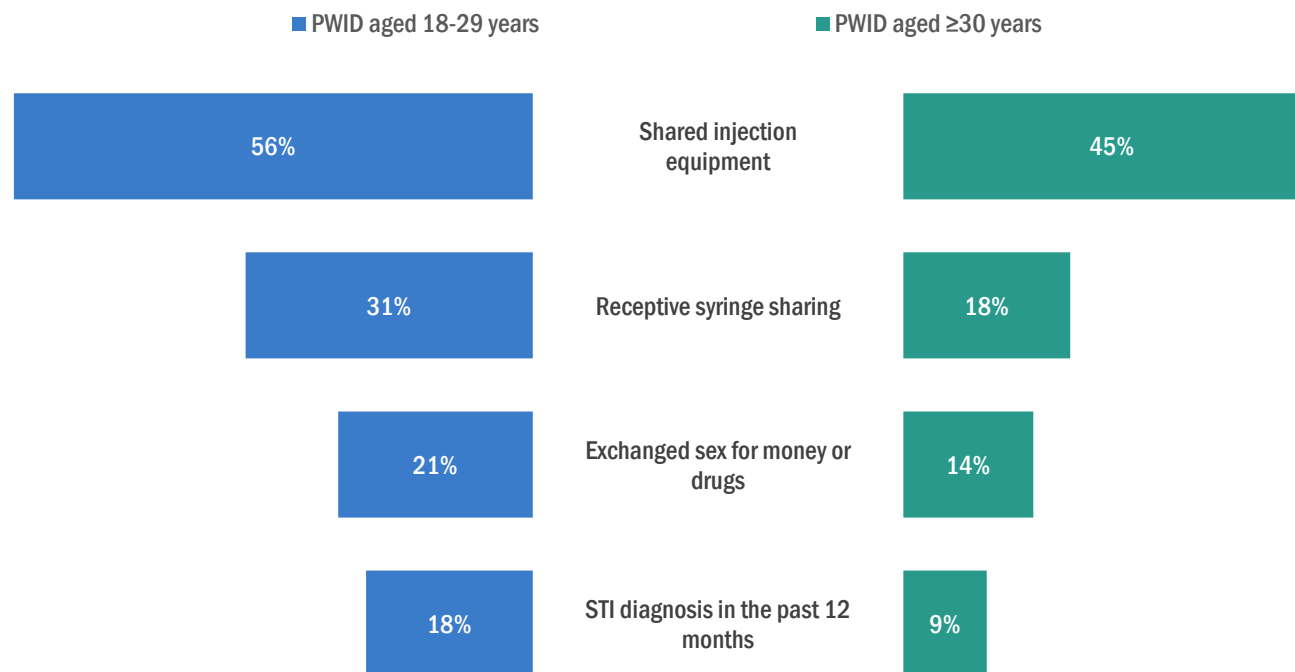


In 2022, among NHBS-PWID participants who reported using opioids, 1 in 4 (24%) reported experiencing an opioid overdose in the past 12 months. Overdose among fentanyl users was higher (34%).

¹Experiencing a non-fatal overdose on heroin or painkillers in the past 12 months involved incidents such as passing out, turning blue, or ceasing to breathe due to drug use.



Injection drug use behavior and recent sexual behavior among NHBS-PWID participants by age group, LAC 2022¹



Note: Overall, 19% of participants reported using a syringe that had been previously used by someone else. Sharing syringes puts PWID at high risk for HIV and other infections. The reported average number of syringe sharing partners was 3.

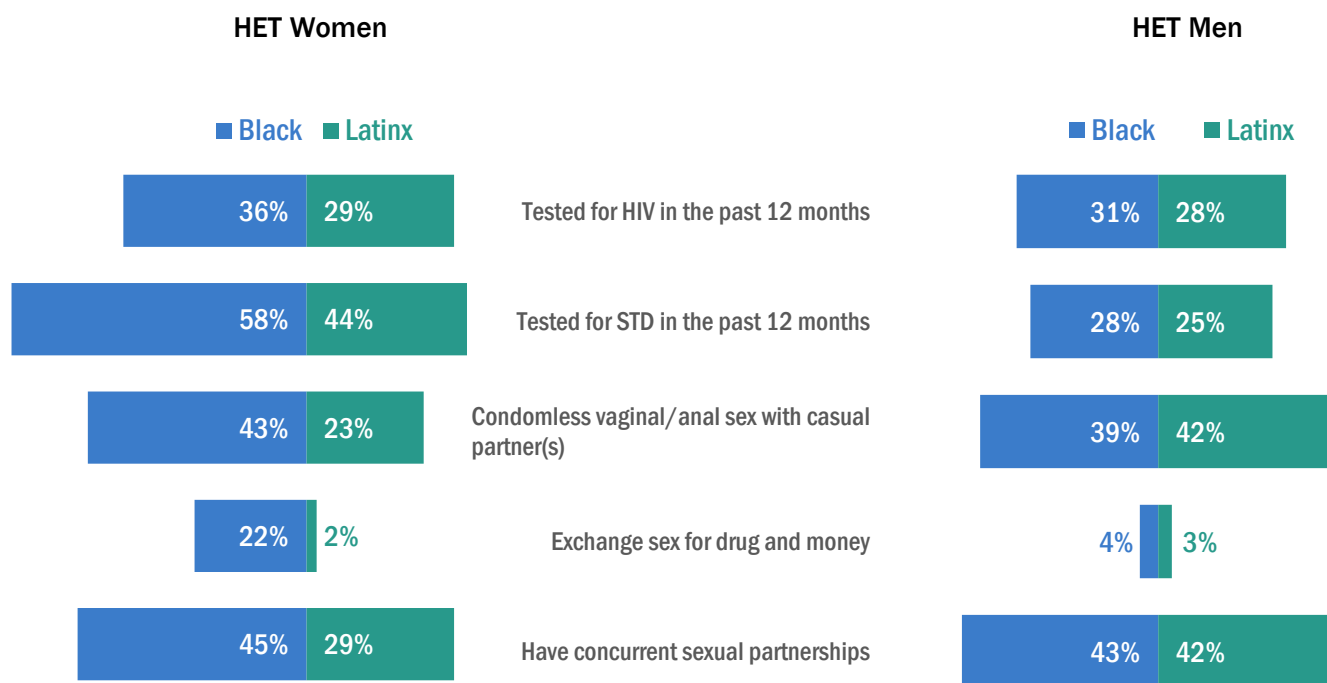
A higher percentage of PWID aged 18-29 years reported sharing injection equipment, sharing syringes receptively, exchanging sex for money or drugs, and receiving a bacterial STI diagnosis (e.g., chlamydia, gonorrhea, or syphilis) within the past 12 months compared with PWID aged >30 years.

Abbreviation: PWID = persons who inject drugs; NHBS = National HIV Behavioral Surveillance

¹Receptive sharing of syringes or injection equipment refers to using a syringe or injective equipment that has already been used by someone else. All injection and sexual behavior indicators reflect behavior in the 12 months prior to the survey interview.



Testing and sexual behavior among NHBS heterosexuals at increased risk of HIV (HET) by sex and race/ethnicity, LAC 2019¹



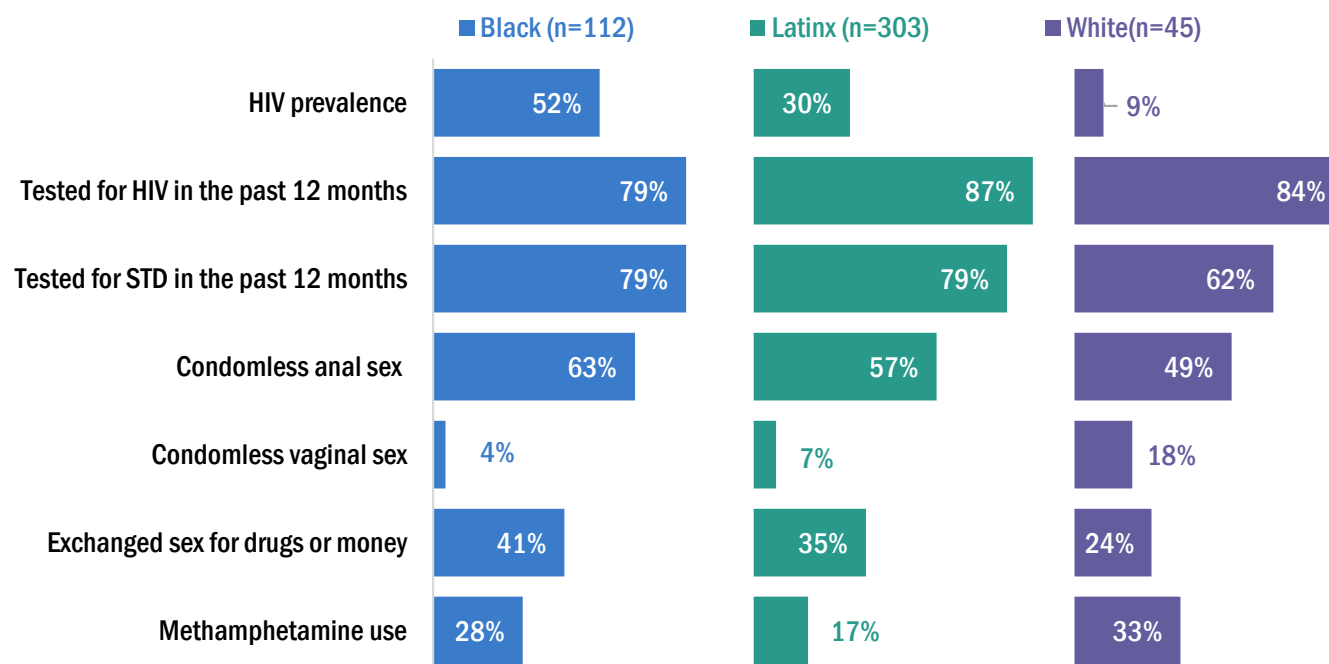
HET women were more likely to have tested for HIV and STDs than HET men.

Abbreviation: NHBS = National HIV Behavioral Surveillance

1136 Black males, 118 Latinx males, 142 Black females, and 98 Latinx females participated in the 2019 NHBS-HET cycle. All sexual behavior indicators reflect sexual behavior with the opposite sex in the 12 months prior to the survey interview. Tested for HIV in the past 12 months excludes participants who reported being diagnosed with HIV more than 12 months prior to the interview. Tested for STDs in the past 12 months included respondent's self-report of being tested for any STD other than HIV and hepatitis by a health care provider within 12 months prior to the interview. A casual partner is a sex partner that the respondent does not feel committed to or does not know very well. Having concurrent partners with last partner is measured by asking participants "when you were having a sexual relationship with last partner, did you have sex with other people?".



HIV prevalence, HIV/STD testing behavior, sexual behavior, and drug use among NHBS-Transgender Women (TGW) by race/ethnicity, LAC 2019^{1,2}



Among TG women, HIV prevalence was highest among Black persons (52%), followed by Latinx (30%), and White persons (9%). Black TG women were more likely to practice condomless anal sex and exchange sex for drugs or money but were less likely to test for HIV compared with Latinx and White TG women.

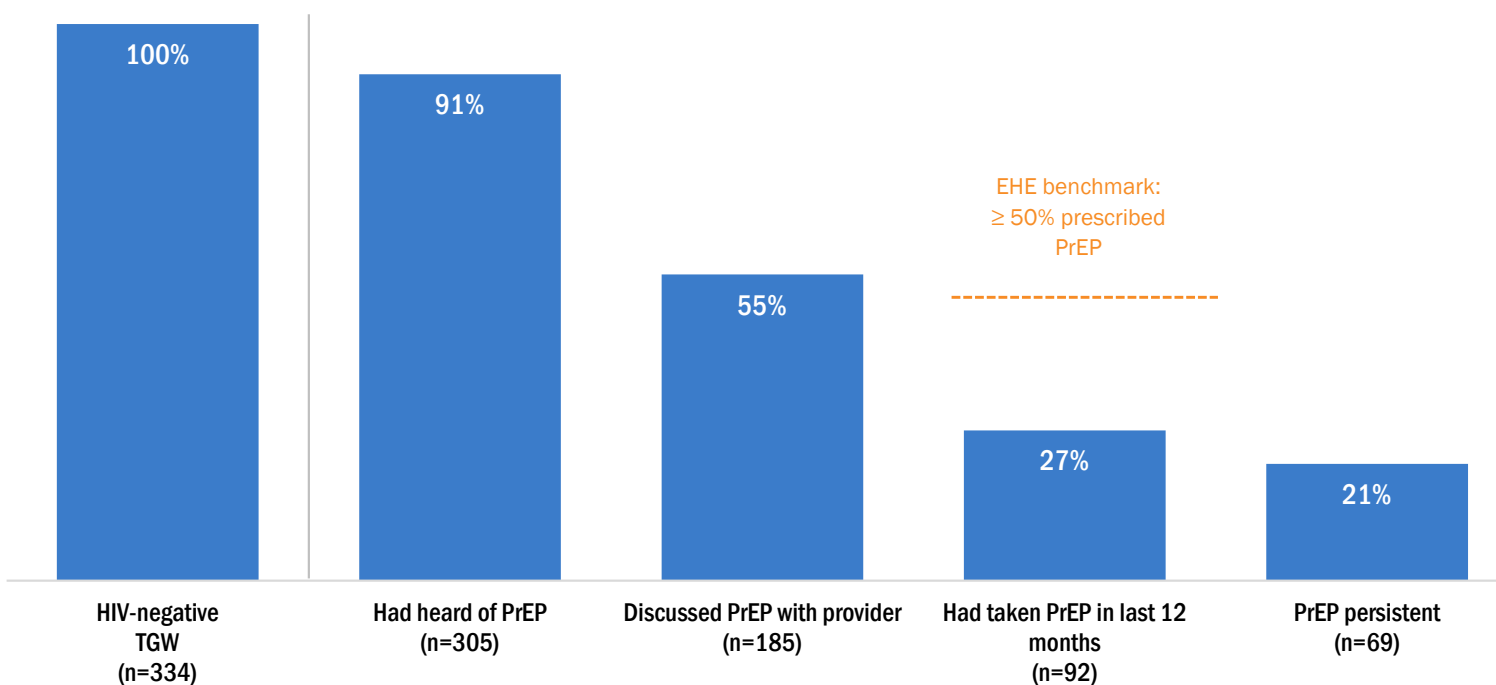
Abbreviation: NHBS = National HIV Behavioral Surveillance

¹HIV prevalence refers to the percentage of participants with a confirmed positive NHBS HIV test result among the total number of participants tested in NHBS. Tested for HIV in the past 12 months excluded participants who reported being diagnosed with HIV more than 12 months prior to the interview. Tested for STDs in the past 12 months included respondent's self-report of being tested for any STD other than HIV and hepatitis by a health care provider within 12 months prior to the interview. All sexual behavior indicators reflect behavior in the 12 months prior to the interview. Condomless anal sex refers to self-reports of either or both receptive and/or insertive anal sex without a condom. Condomless vaginal sex refers to self-reports of either or both receptive and/or insertive vaginal sex without a condom (vaginal sex refers to penis in the vagina or neovagina). Methamphetamine use includes self-reports of meth, crystal, speed, or crank use in the 12 months prior to the interview.

²Estimates for white transgender women may be unstable and must be interpreted with caution due to small numbers.



PrEP cascade among NHBS-Transgender Women (TGW), LAC 2019¹



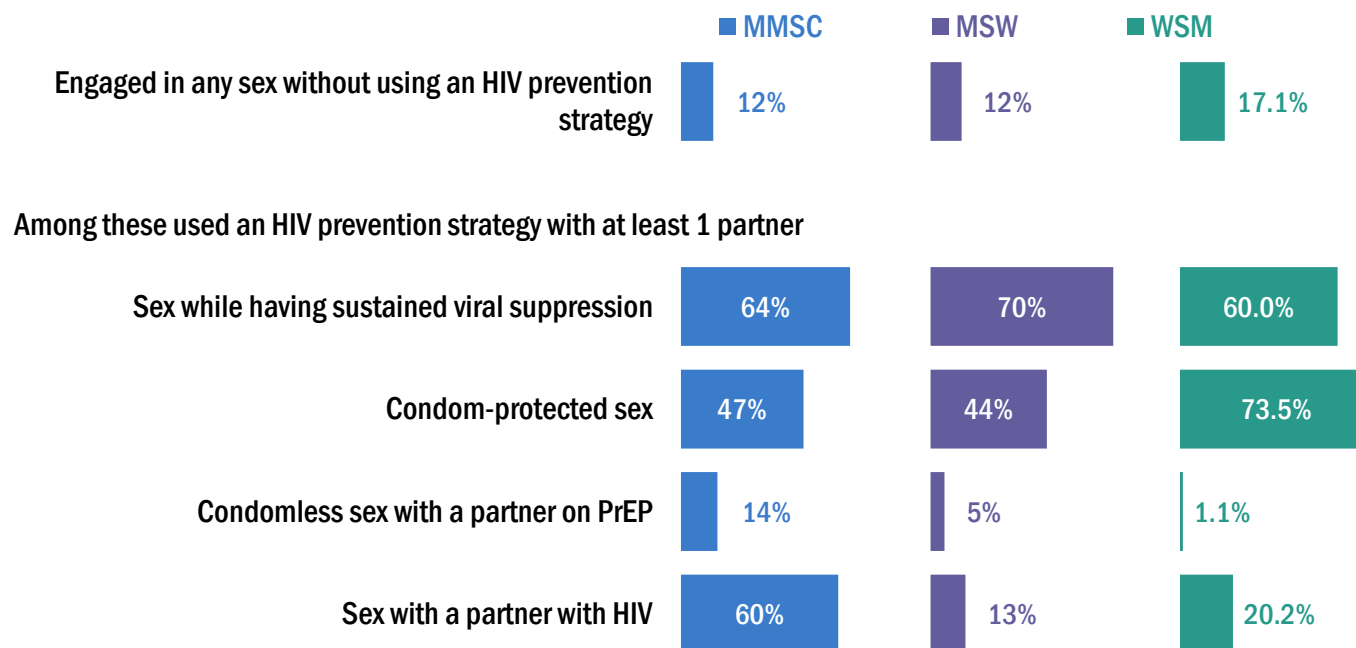
Most (91%) transgender women without HIV have heard of PrEP and over half (55%) have already discussed PrEP with a healthcare provider. Twenty-seven percent have taken PrEP in the last 12 months and 21% were PrEP persistent.

Abbreviation: NHBS = National HIV Behavioral Surveillance; PrEP =pre-exposure prophylaxis

¹PrEP persistent is defined as having taken PrEP every day or almost every day for at least 2 months in a row in the past 12 months.



Sexual behavior among sexually active PLDWH—Medical Monitoring Project, LAC 2015-2021^{1,2,3,4}



Most sexually active PLDWH are not engaging in high-risk sex and are using HIV prevention strategies with their partners including having sex when virally suppressed and using condoms.

Abbreviation: NHBS = National HIV Behavioral Surveillance; PrEP =pre-exposure prophylaxis

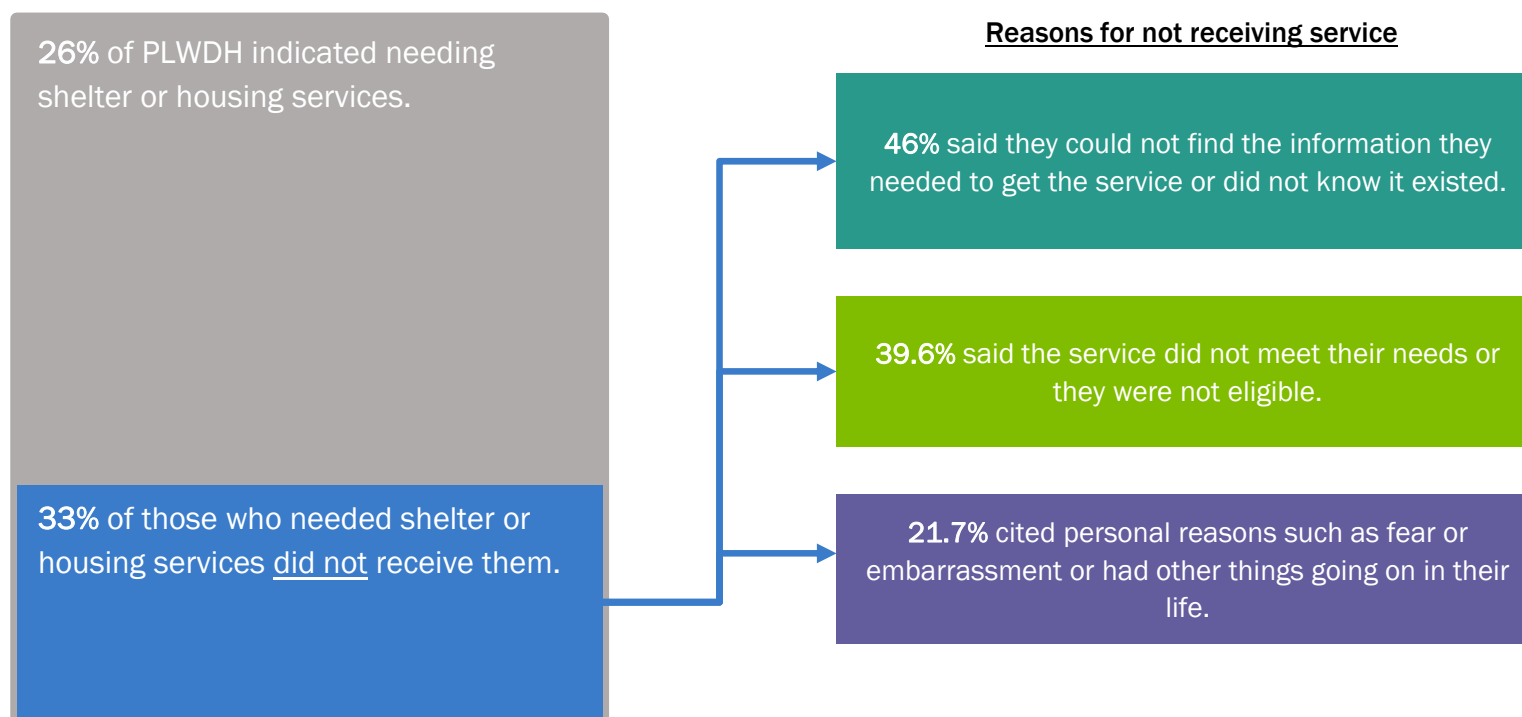
¹Sexual behavior and prevention services pertain to the past 12 months prior to the interview.

²Sustained viral suppression in MMP is defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview.

³Condom-protected sex is when condoms were consistently used with at least 1 vaginal or anal sex partner.

⁴PREP use was only measured among the 5 most recent partners and was reported by the participant.

Needs assessment for housing assistance among PLWDH, Medical Monitoring Project (MMP), LAC 2015-2021¹

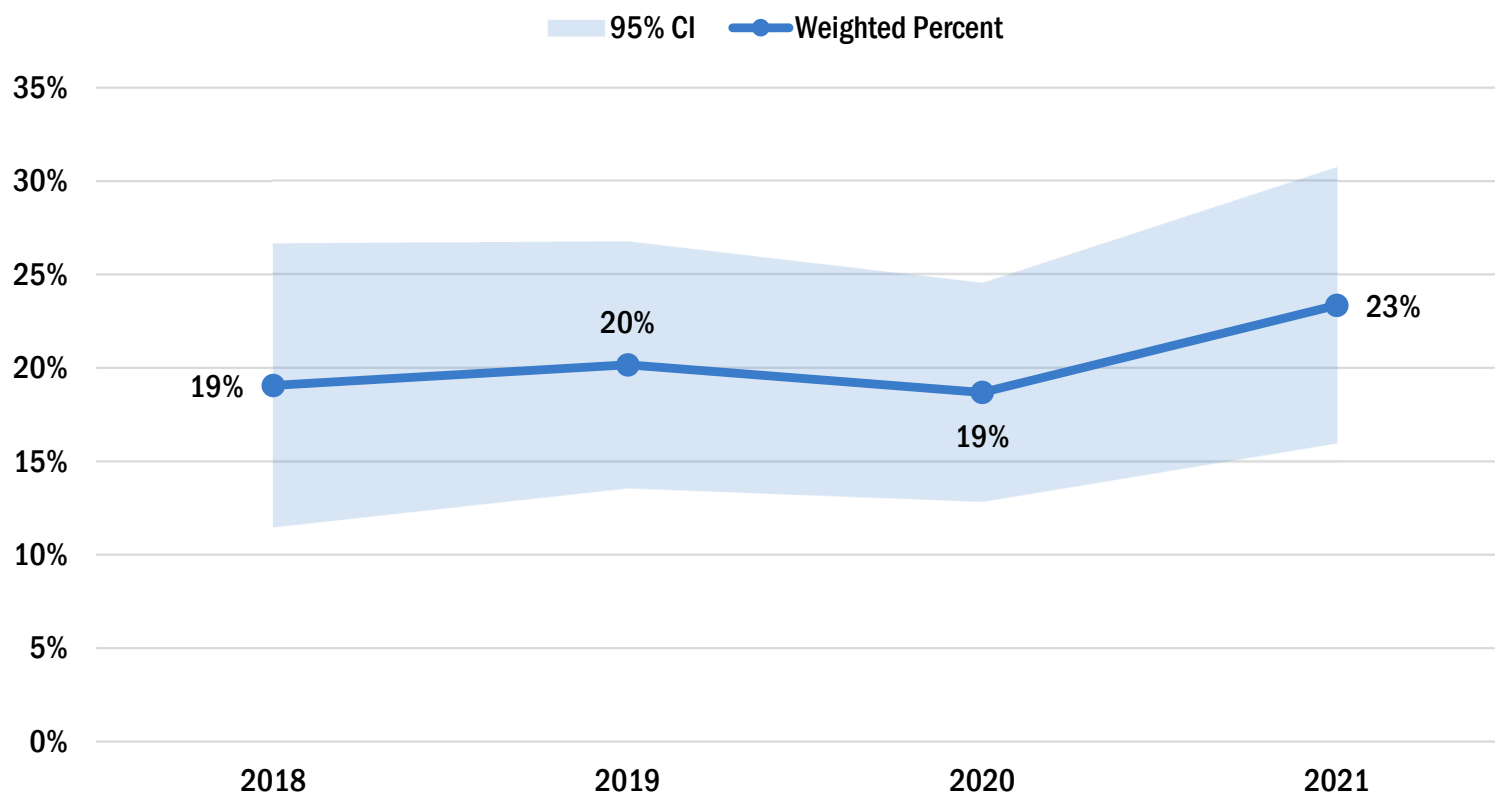


Ensuring that PLWDH have stable housing is key to meeting HIV care and treatment goals. However, many PLWDH still report having unmet needs for shelter and housing services. One in four (26%) PLWDH indicated needing shelter or housing services; One in three PLWDH (33%) who indicated needing shelter or housing services did not receive them.

¹Participants were classified as needing shelter or housing services if they reportedly received shelter or housing services within the past 12 months, or if they did not reportedly receive shelter or housing services but reported needing them within the past 12 months.



Prevalence of unstably housed PLWDH by year—Medical Monitoring Project, LAC 2018-2021¹

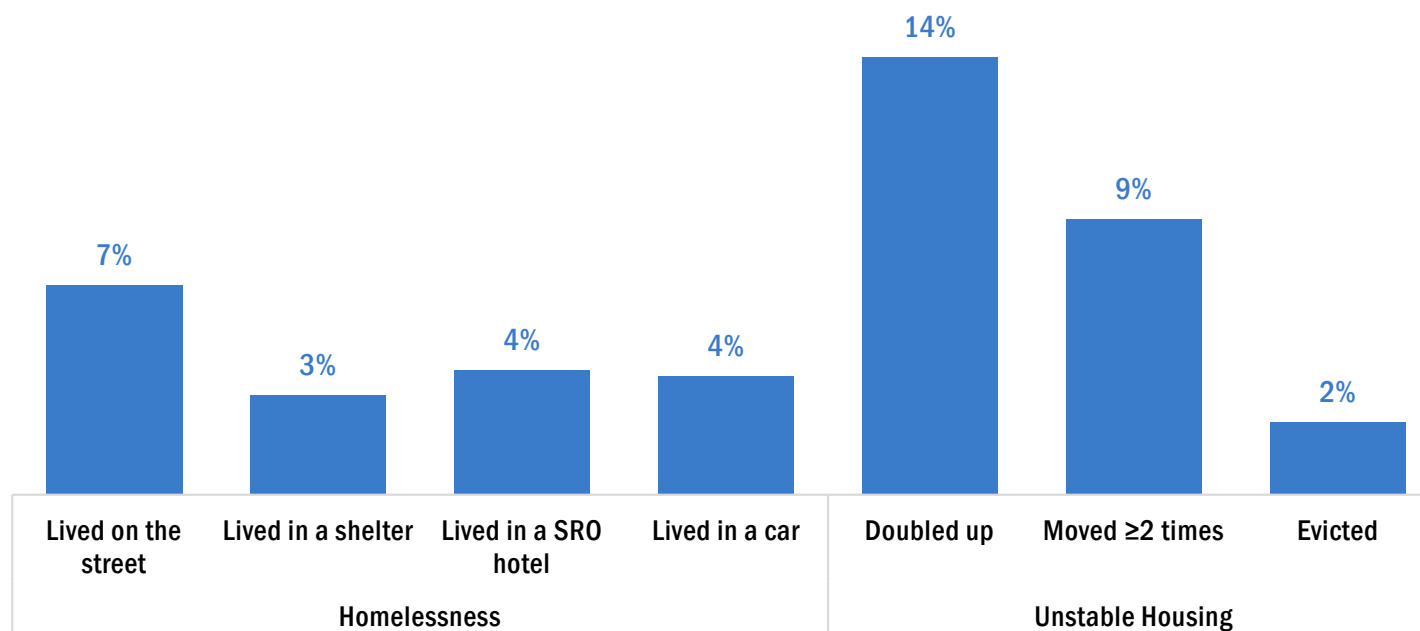


In 2021, 23% of PLDWH reported experiencing homelessness or unstable housing within the past 12 months, the highest since 2018.

¹Unstably housing includes experiencing unstable housing (i.e., moving in with others due to financial issues, moving 2 or more times, or being evicted at any time) or homelessness (living on the street, in a shelter, in a single-room-occupancy hotel, or in a car at any time) during the past 12 months. Categories were not mutually exclusive, and participants could have experienced multiple options within the past 12 months.



Forms of unstably housing within the past 12 months, reported by PLWDH—Medical Monitoring Project, LAC 2018-2021^{1,2}



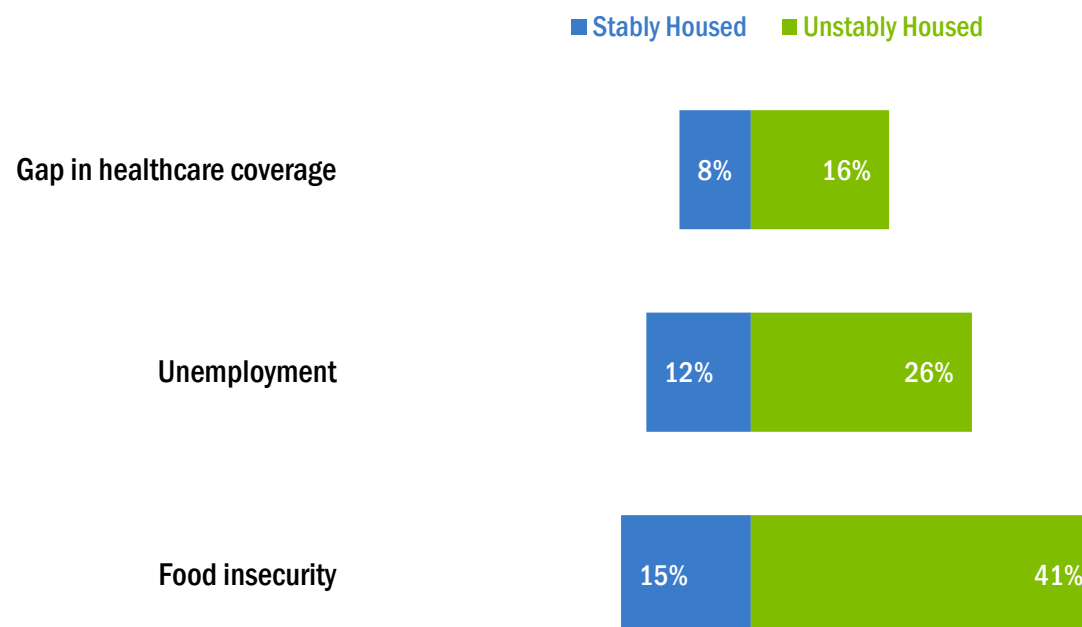
The most commonly reported forms of unstable housing were (1) having to move in with others due to financial concerns (14%), (2) having to move two or more times (9%), and having to live on the street (7%).

¹Unstably housing includes experiencing unstable housing (i.e., moving in with others due to financial issues, moving 2 or more times, or being evicted at any time) or homelessness (living on the street, in a shelter, in a single-room-occupancy hotel, or in a car at any time) during the past 12 months. Categories were not mutually exclusive, and participants could have experienced multiple options within the past 12 months.

² Doubled up is defined as having moved in with others due to financial issues.



Select social indicators by housing status—Medical Monitoring Project, LAC 2018-2021^{1,2,3}



Unstably housed PLWDH reported higher proportions of adverse social indicators such as gaps in healthcare coverage, unemployment, and food insecurity within the past 12 months compared to their stably housed counterparts.

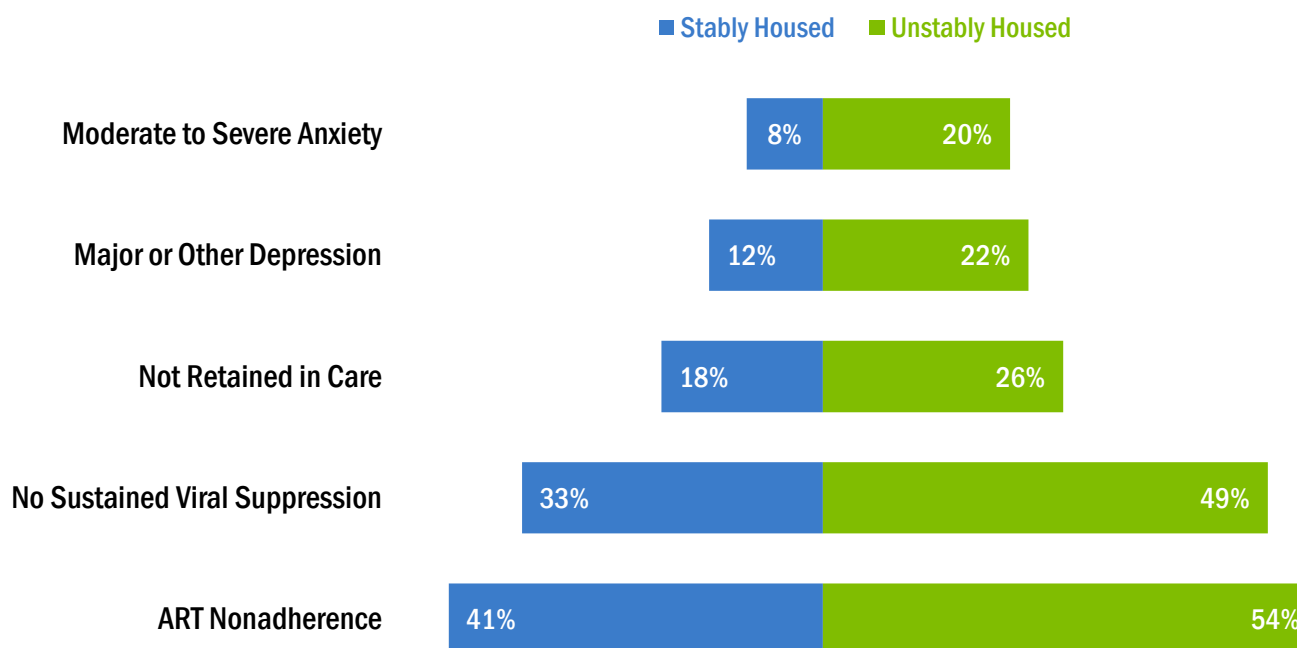
¹ Gap in healthcare coverage is defined as any time that the participant did not have any insurance or healthcare coverage during the past 12 months.

² Unemployment refers to participants who report being unemployed at the time of interview, excluding persons who were unable to work.

³ Food insecurity is defined as going without food due to lack of money during the past 12 months.



Select clinical and health indicators by housing status— Medical Monitoring Project, LAC 2018-2021^{1,2,3,4}



Compared with stably housed PLWDH, unstably housed PLWDH had poor mental health and HIV outcomes.

¹ Responses to items on GAD-7 and PHQ-8 were used to define categories of anxiety and depression respectively according to criteria from the DSM-IV.

² Retained in care is defined as having two elements of outpatient care HIV care at least 90 days apart within the past 12 months.

³ Sustained viral suppression in MMP is defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview.

⁴ ART nonadherence is defined as missing one or more doses of HIV medicines within the past 30 days.

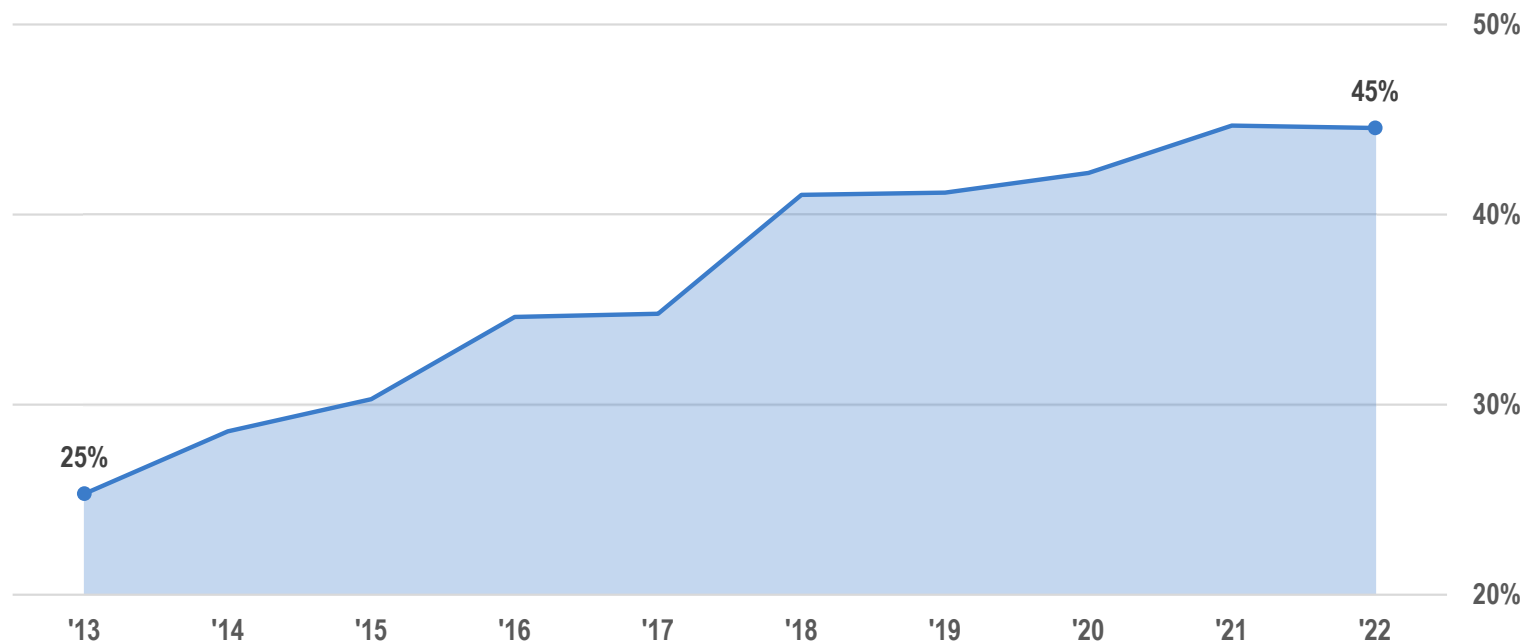


STD and HIV co-infection

- HIV and other STDs are syndemic in LAC.
- Persons with syphilis, gonorrhea, and/or chlamydia are at an increased risk of acquiring HIV due to biological and behavioral factors.
- STDs among PLWH can also increase HIV viral load and the risk of forward HIV transmission.
- We examined the co-occurrence of HIV and STD diagnoses in the same year among persons with newly diagnosed HIV. This method estimates the percentage of HIV-STD co-infections around the time of HIV diagnosis. Note that a person may be living with HIV for months or years before they are diagnosed, and other STDs may remain untreated.
- The cities of Long Beach and Pasadena are not included in this analysis due to reporting delays (these cities have their own health departments and report STD cases directly to the State of California, who then shares the data with LAC).



Percentage of persons newly diagnosed with HIV aged ≥ 13 years who had syphilis, gonorrhea, and/or chlamydia in the same calendar year as HIV diagnosis, LAC (excluding Long Beach and Pasadena), 2013-2022^{1,2,3,4}



Over the past decade, among persons newly diagnosed with HIV in LAC, the percent with co-occurrence of HIV and STD diagnoses has increased from 25% to 45%.

¹PLWDH with more than one STD case per year are counted only once.

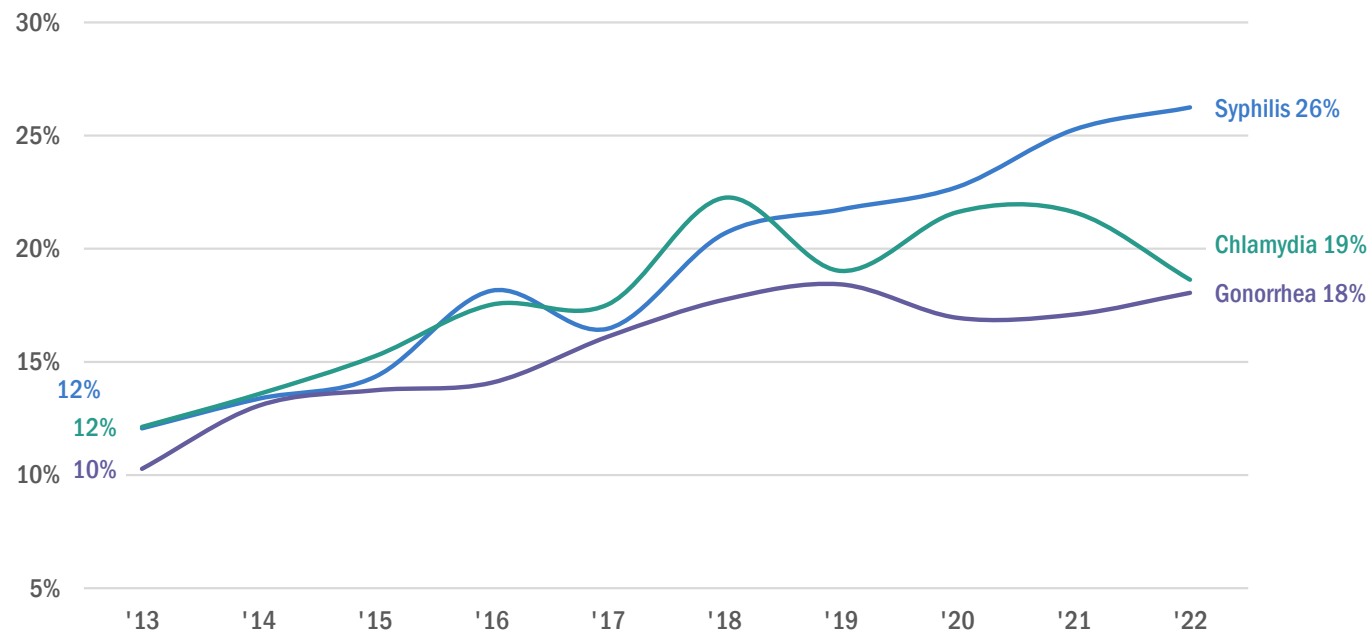
²DHSP prioritizes HIV, syphilis, and congenital syphilis cases for investigation.

³STD cases in the cities of Long Beach and Pasadena are reported to their respective health departments.

⁴Due to reporting delay and time needed for case investigations, data are shown through 2021 instead of 2022.



Percentage of persons newly diagnosed with HIV aged ≥ 13 years who had syphilis, gonorrhea, or chlamydia in the same calendar year as HIV diagnosis by STD, LAC (excluding Long Beach and Pasadena), 2013-2022^{1,2,3}



HIV coinfections with syphilis, chlamydia, and gonorrhea have increased over the last 10 years. In 2022, syphilis co-infection was highest, followed by gonorrhea and chlamydia.

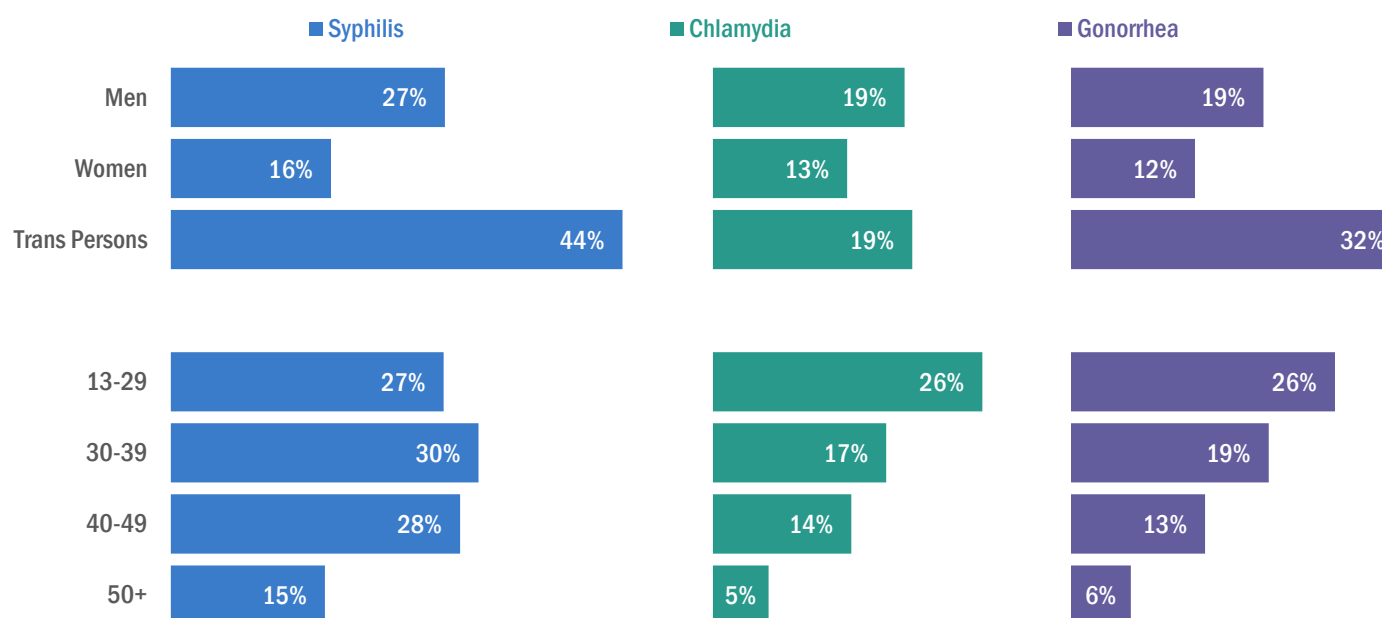
¹DHSP prioritizes HIV, syphilis, and congenital syphilis cases for investigation.

²STD cases in the cities of Long Beach and Pasadena are reported to their respective health departments.

³Due to reporting delay and time needed for case investigations, data are shown through 2021 instead of 2022.



Percentage of persons newly diagnosed with HIV aged ≥ 13 years who had syphilis, gonorrhea, or chlamydia in the same calendar year as HIV diagnosis by STD, gender, and age group, LAC (excluding Long Beach and Pasadena), 2022^{1,2,3}



Syphilis co-infection at the time of HIV diagnosis was higher than other STDs. Syphilis coinfection was highest among transgender people newly diagnosed with HIV. Syphilis coinfection was higher among people aged 49 years and younger compared with those aged 50 and older.

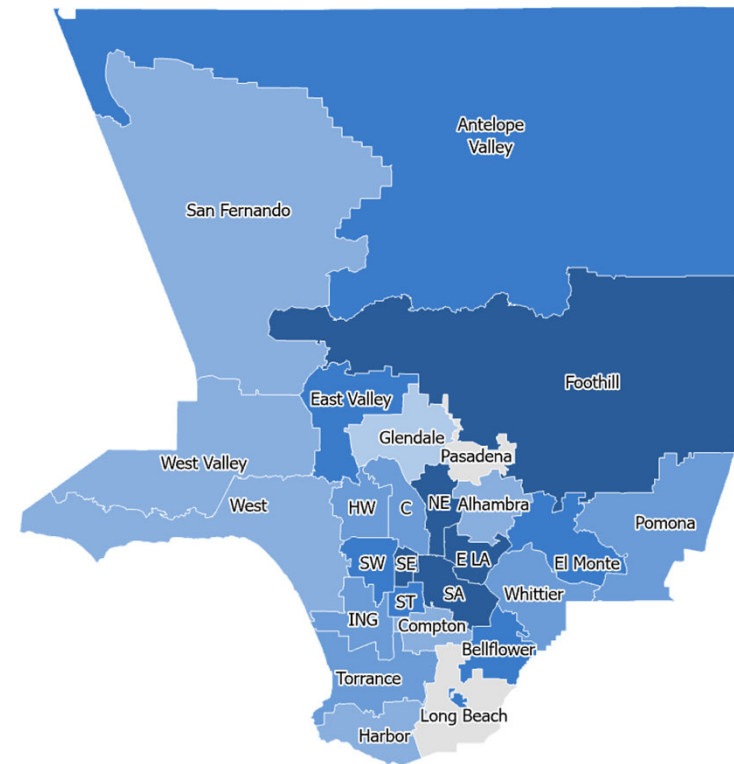
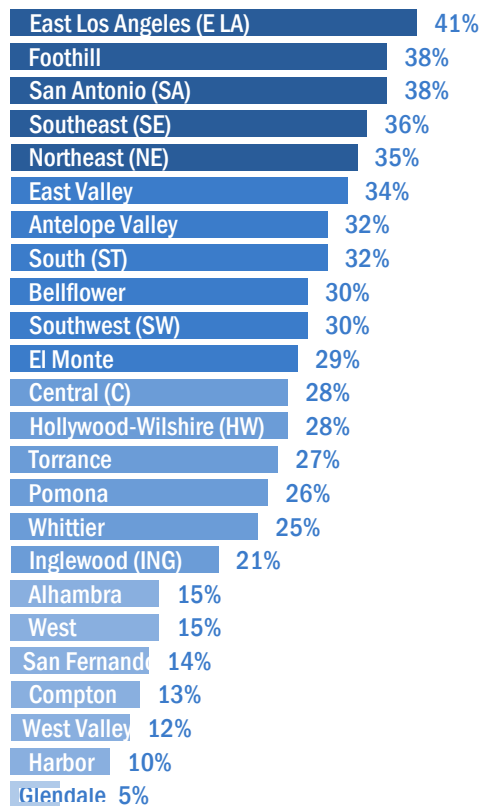
¹DHSP prioritizes HIV, syphilis, and congenital syphilis cases for investigation.

²STD cases in the cities of Long Beach and Pasadena are reported to their respective health departments.

³Due to reporting delay and time needed for case investigations, 2021 is shown as the latest year.



Percentage of persons newly diagnosed with HIV aged ≥ 13 years who had syphilis in the same calendar year as HIV diagnosis by Health District, LAC (excluding Long Beach and Pasadena) 2022^{1,2,3}



Persons newly diagnosed with HIV and living in East Los Angeles, Foothill and San Antonio health districts had the highest percentage of syphilis co-infection in 2022.

¹DHSP prioritizes HIV, syphilis, and congenital syphilis cases for investigation.

²STD cases in the cities of Long Beach and Pasadena are reported to their respective health departments.

³Due to reporting delay and time needed for case investigations, 2021 is shown as the latest year.

*NE=Northeast



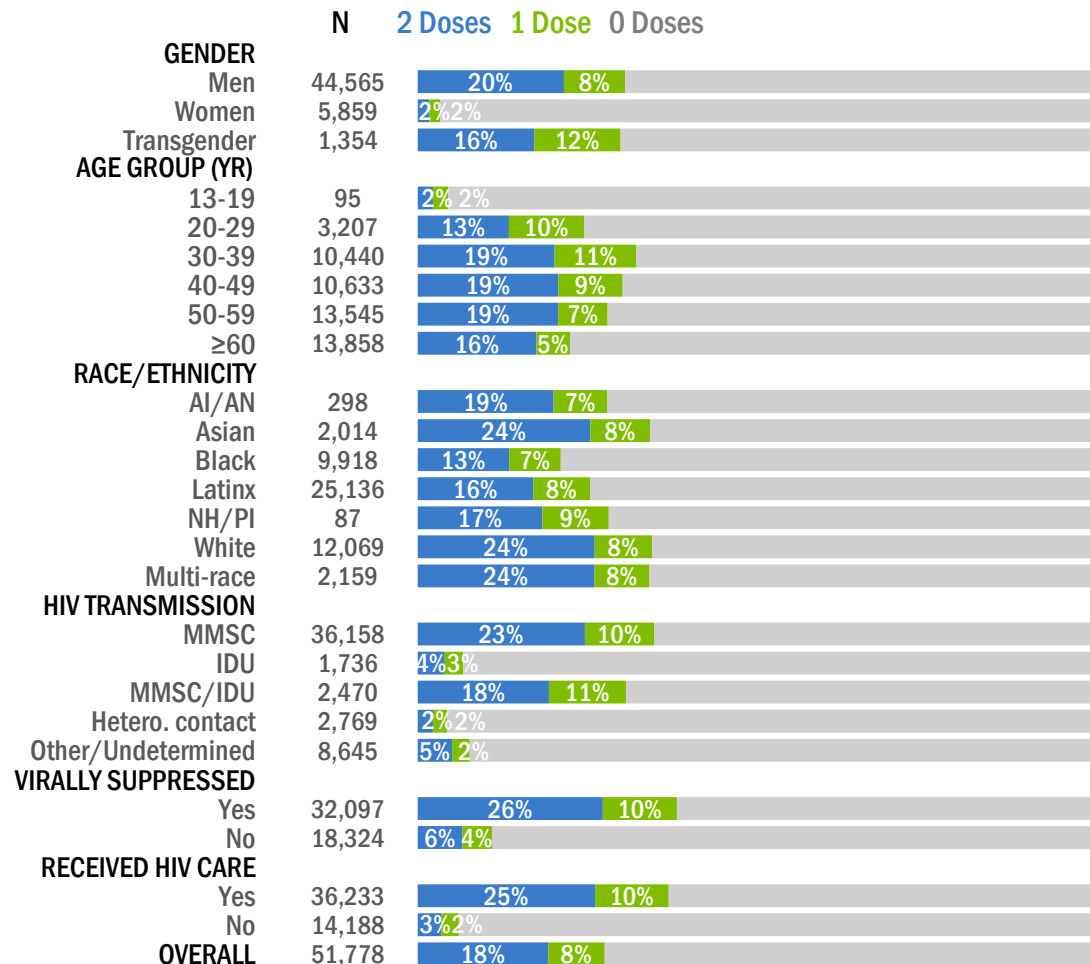
Mpox and HIV co-infection

- In 2022, there was a widespread outbreak of mpox disease in the United States which primarily affected gay, bisexual, and other men who have sex with men. CDC reported high prevalence of concurrent HIV infection (38%) among persons with mpox across eight U.S. jurisdictions. Concurrent HIV infection was associated with poorer mpox clinical outcomes compared with persons with mpox who did not have HIV infection.¹
- Using surveillance data on persons living with diagnosed HIV through December 2023 and newly diagnosed cases of mpox infection from the onset of the outbreak (May 2022) through end of year 2023, we calculated the HIV co-infection rate among mpox cases. CDC recommends that anyone with HIV be vaccinated with the 2-dose JYNNEOS vaccine. Therefore, we matched HIV surveillance data to JYNNEOS vaccination data and compared mpox HIV vaccination among PLWDH by selected characteristics. All data presented in this section are unadjusted and should be interpreted cautiously.
- Of the 2,280 LAC mpox diagnoses in 2022, 45% were coinfecting with HIV. By contrast 35% of the 116 LAC mpox diagnoses in LAC in 2023 were coinfecting with HIV. Note that mpox and HIV co-infection data are for Los Angeles County and do not include Long Beach or Pasadena, as each of these cities have their own health departments and do not directly report mpox data to LAC.

¹ <https://www.cdc.gov/mmwr/volumes/71/wr/mm7136a1.htm>



JYNNEOS vaccination dose among PLWDH aged ≥ 13 years by gender, age, race/ethnicity, transmission category, and HIV care status, LAC 2023¹



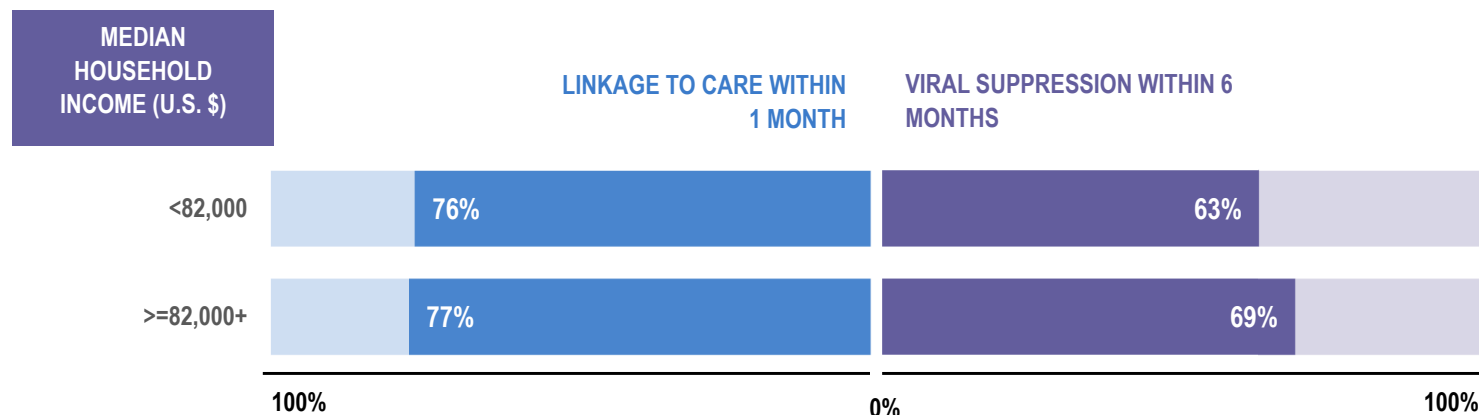
Overall, 18% of PLWDH are fully vaccinated for mpox (2 doses) and an additional 8% of PLWDH are partially vaccinated (1 dose). Among PLWDH, mpox vaccination is highest in persons who are virally suppressed and those who received HIV care in the last 12 months.

Note: Additional efforts are needed to improve mpox vaccine confidence and access among PLWH, especially among those who are <20 years old, persons of color, and/or out of HIV care.

¹Persons living with HIV are based on most recent known address at the end of 2023 in Los Angeles County.



Percentages of linkage to care within 1 month and viral suppression within 6 months of HIV diagnosis among adults aged ≥ 18 years, by median household income—census tract level, LAC 2022



Community income level is associated with the disparity in viral suppression. However, there is no significant associated disparity in timely linkage to care by median household income.



HIV Surveillance to Partner Services Continuum





HIV Surveillance to Partner Services Continuum



- EHE Partner Services Target
 - Increase percentage of persons newly diagnosed with HIV assigned for Partner Services to 95%.
 - Increase percentage of assigned cases interviewed for Partner Services to 75%.
- Partner Services (PS) are a broad array of public health field services offered to persons with HIV or other sexually transmitted diseases (STDs) and their sexual or substance-using partners (e.g., needles and syringe sharing partners) to improve the health outcomes of infected persons, offer strategies and resources to protect partners, which will reduce HIV and STD transmission.
- An important component of Partner Services is partner notification, a process through which persons newly diagnosed with STDs and/or HIV are interviewed to elicit information about their partners, who can then be confidentially notified of their possible exposure and referred to testing and other interventions to help reduce their risk of acquiring HIV.



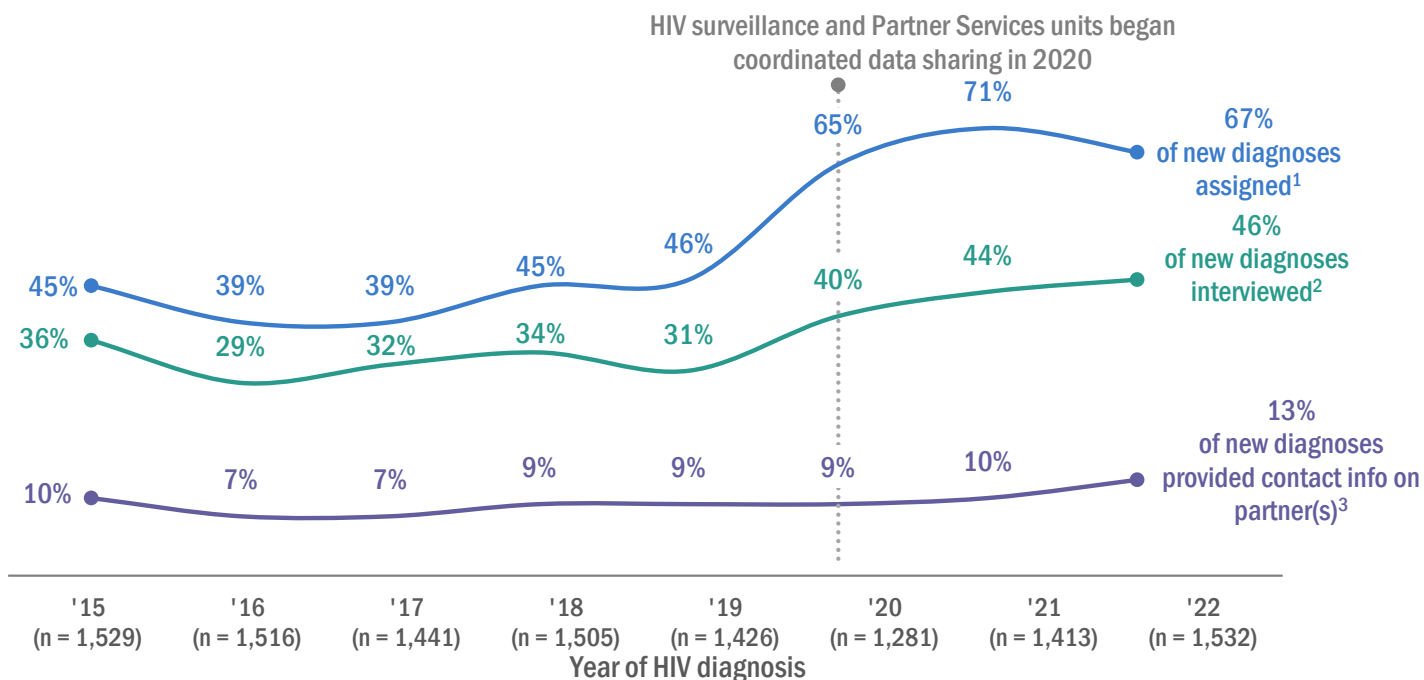
HIV Surveillance to Partner Services Continuum



- All people newly diagnosed with HIV should receive Partner Services. The EHE target for Partner Services is “85% of persons with a new diagnosis of HIV are interviewed by Partner Services staff within 7 days of HIV diagnosis” and is intended to accelerate receipt of health services, both for PLWDH and their partners. Historically, not all newly reported HIV cases were prioritized for Partner Services, creating missed opportunities for linking persons to HIV care and, for partners of PLWDH, to receive status neutral services. Currently, New HIV case reports are routed from surveillance to the Partner Services unit where they are assigned to public health investigators (PHI). PHIs make multiple attempts to contact the patient for interview/linkage-to-care and partner elicitation. Through close coordination between the HIV Surveillance and Partner Services Programs, routine program analysis and dashboards have been implemented to track achievements and gaps along the HIV Surveillance to Partner Services continuum.
- The steps in the continuum start from a new diagnosis of HIV and are tracked through the following evaluation metrics:
 - referral to HIV Partner Services
 - PS interview
 - linkage to care
 - contact tracing
 - locating contacts
 - determining the HIV status of contacts
 - administering interventions to contacts
- Achievements in each of the steps in the continuum increases the likelihood of infected persons and their partners to be linked to effective interventions for prevention, care, and treatment of HIV disease, and ultimately, reductions in community transmission of HIV.



HIV Partner Services continuum among new HIV diagnoses by year, LAC (excluding Long Beach and Pasadena), 2015-2022^{1,2,3}



The percent of newly diagnosed HIV-positive persons who provide the contact information of their sexual and /or needle sharing partners has been on an increasing trend since 2020. This is largely attributable to the implementation of coordinated data sharing between DHSP's HIV surveillance and Partner Services teams. These coordinated efforts have resulted in marked improvements in the percent of newly diagnosed HIV-positive persons who are assigned for partner services and interviewed to elicit partner contact information.

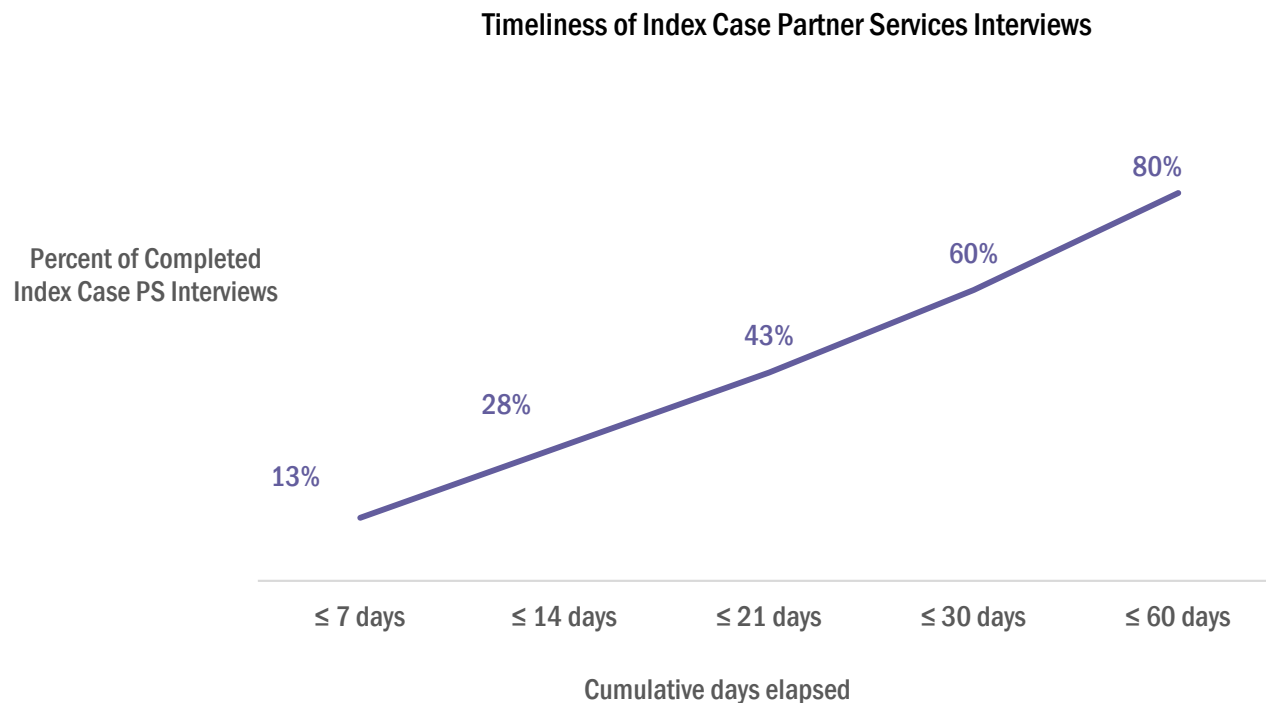
¹ **Assigned:** New HIV diagnoses assigned for partner services within 12 months of report among LAC HIV diagnoses (excluding Long Beach and Pasadena).

² **Interviewed:** New HIV diagnoses interviewed by public health investigators among new LAC HIV diagnoses (excluding Long Beach and Pasadena).

³ **Named contact(s):** New HIV diagnoses who identified ≥ 1 sexual and/or cluster contact during interview among new LAC HIV diagnoses (excluding Long Beach and Pasadena).



Time from HIV diagnosis to HIV Partner Services interview LAC 2022¹ new HIV diagnosis, (excluding Long Beach and Pasadena), who were successfully interviewed by Partner Services

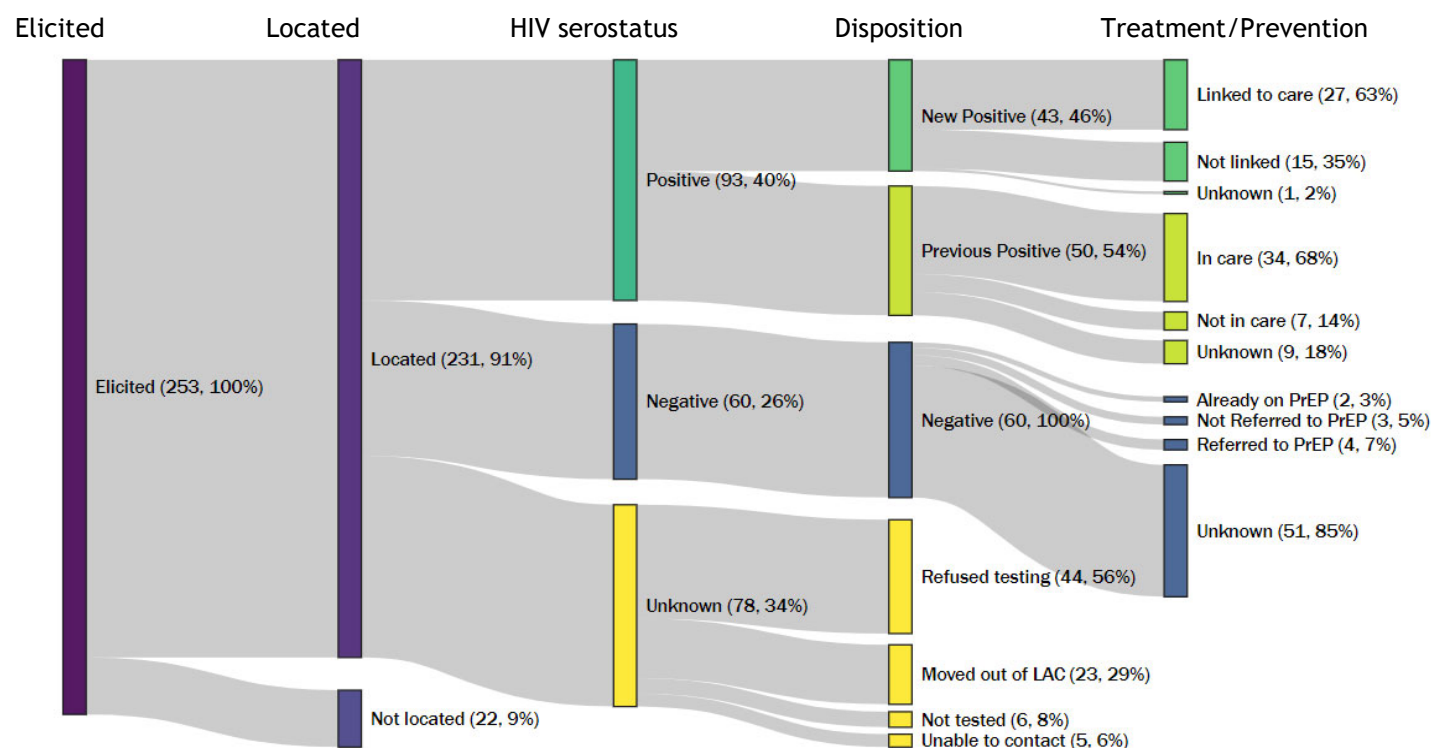


Among 705 Index Case Partner Services (PS) interviews, 13% were completed within 7 days, 60% within 30 days, and 80% within 60 days after the HIV diagnosis date.

¹Denominator is persons newly diagnosed with HIV in 2022 (excluding Long Beach and Pasadena) who received partner services interview (n = 705).



HIV partner services continuum¹ among named contacts, LAC (excluding Long Beach and Pasadena), 2022^{2,3,4}



Data in context:
This Sankey diagram depicts the flow of clients in each step of the HIV PS cascade. Each column represents a step in the cascade. Within each step, clients are grouped into categories represented by the colored rectangles (nodes). The gray lines show the proportion of clients moving from one node to the next.

Most contacts of persons newly diagnosed with HIV were located. Of those located, 40% tested HIV positive underscoring the efficiency of partner services as a case finding strategy.

¹The HIV partner services continuum includes the following steps: 1) identifying people who were named as sexual or social contacts by index cases, 2) locating elicited contacts, 3) confirming contacts' HIV serostatus, and 4) connecting contacts who tested positive to HIV treatment and contacts who tested negative to preventative HIV treatment.
²253 contacts named by 192 index cases newly diagnosed with HIV in 2022.
³In care: PLWDH diagnosed through 2021 who have at least one care visit within year 2022. Care status is available for contacts regardless of HIV testing disposition.
 Linked to care: PLWDH who were linked to care within 1 month of HIV diagnosis.
⁴PrEP information is unknown for clients without comorbid STD.



HIV Care Continuum





HIV care continuum targets

EHE HIV Care Continuum Targets

- Increase the percentage of newly diagnosed persons linked to care within one month to at least 95% by 2025
- Increase the percentage of persons living with diagnosed HIV who are virally suppressed to at least 95% by 2025



The HIV Care Cascade

- HIV care continuum indicators includes following:
 1. among persons receiving a diagnosis of HIV in a given calendar year, the percentage of persons who were linked to HIV care within one month of diagnosis (defined as ≥ 1 CD4/VL/Genotype test reported within one month of HIV diagnosis); and
 2. among all persons living with diagnosed HIV, the percentage of persons who
 - a. received HIV care (defined as ≥ 1 CD4/VL/Genotype test per year),
 - b. were retained in HIV care (defined as ≥ 2 CD4/VL/Genotype tests at least three months apart per year), and
 - c. were virally suppressed (defined using most recent viral load per year).



The HIV Care Cascade

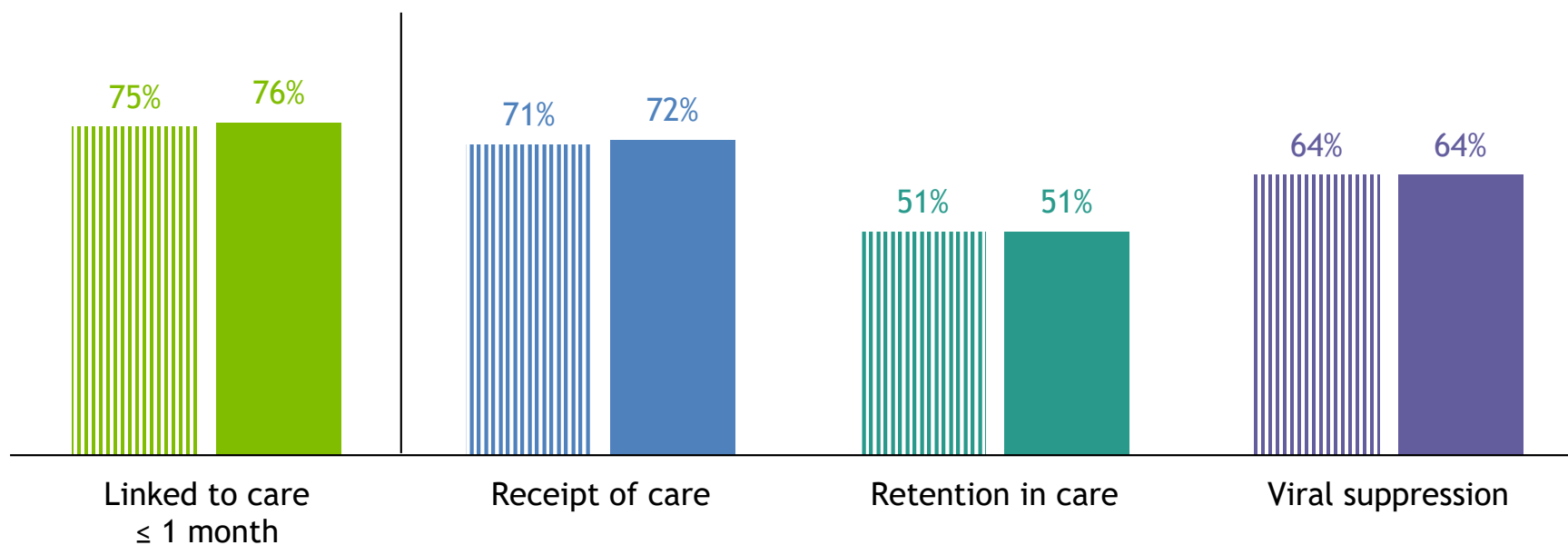
- The HIV Care Continuum is a series of steps starting from when a person living with HIV receives a HIV-positive diagnosis through the achievement of viral suppression.
- By monitoring these steps at a population level, we can quantify progress at the local and national level.
- A deeper analysis of the steps along the HIV continuum of care can identify gaps in HIV care delivery.
- Knowing where and among whom the shortfalls persist along the HIV care cascade can inform where improvements are needed to support individuals in achieving and maintaining viral suppression, improving their health, and effectively eliminating further transmission to others.
- The base population for measuring linkage to HIV care is persons who received an HIV-positive diagnosis in a given calendar year, whereas the base population for the downstream steps in the continuum of care is all persons who were diagnosed with HIV through the prior calendar year and living in LAC with diagnosed HIV at the close of the current year. The latter ensures that there is at least one year of follow-up to measure receipt of care, retention in care, and viral suppression.



HIV care continuum¹ among persons aged ≥ 13 years, LAC 2021-2022² and 2022-2023³

2021 diagnosis (striped bar)
2022 diagnosis (solid bar)

2022 steps in the care cascade (striped bar)
2023 steps in the care cascade (solid bar)



In 2022, 76% of persons diagnosed with HIV were linked to care within 1 month of diagnosis. All key steps along the HIV care continuum remained largely unchanged in 2023 compared with 2022.

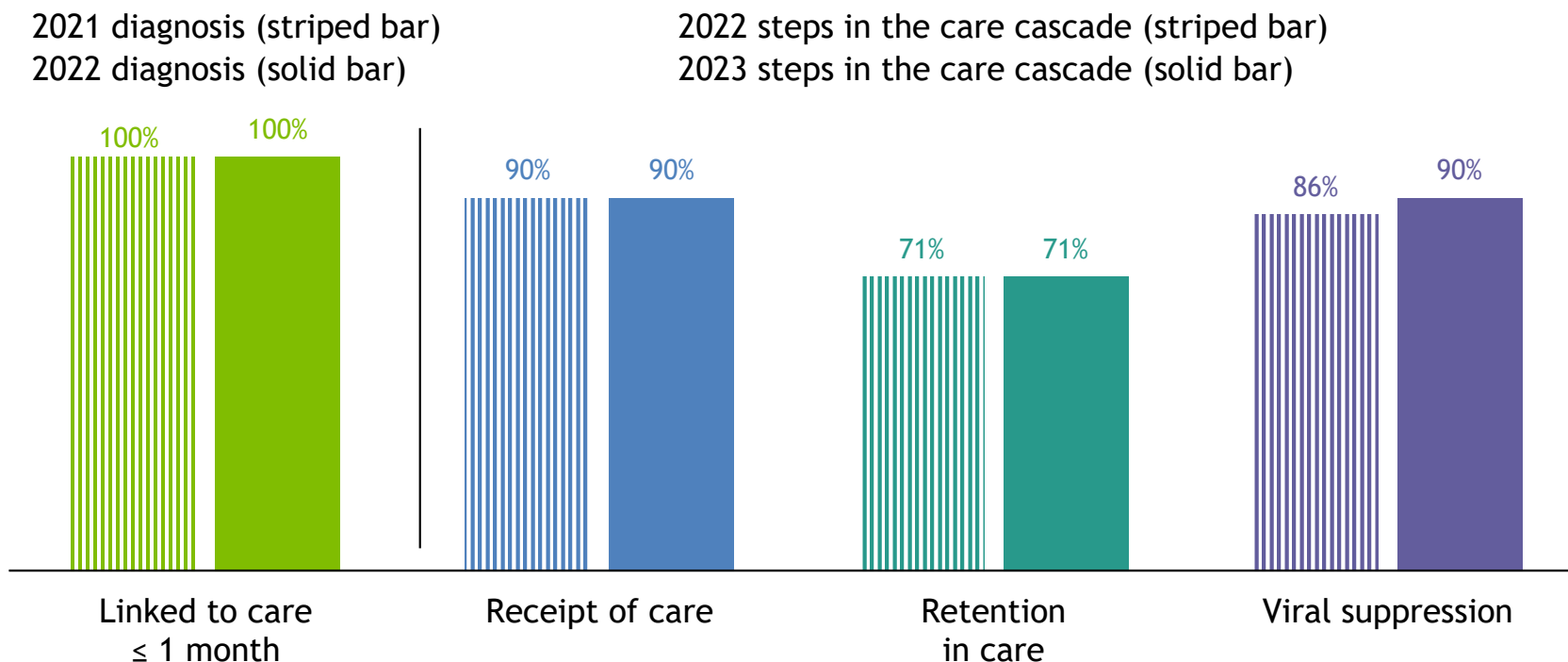
¹The HIV care continuum includes the following steps in the care cascade: 1) the percentage of persons receiving a diagnosis of HIV in a given calendar year who were linked to HIV care within 1 month of diagnosis (defined as ≥ 1 CD4/VL/Genotype test reported within 1 month of HIV diagnosis); and 2) the percentage of all persons living with diagnosed HIV who (1) received HIV care (defined as ≥ 1 CD4/VL/Genotype test per year), (2) were retained in HIV care (defined as ≥ 2 CD4/VL/Genotype tests at least three months apart, per year), and (3) were virally suppressed (defined using most recent viral load, per year). PLWDH without a VL test in the measurement year were categorized as having unsuppressed viral load.

²The 2021-2022 HIV care continuum denominator includes persons diagnosed in 2021 to calculate linkage to care ≤ 1 month of diagnosis, and all PLWDH diagnosed through 2021 and living in LAC at year-end 2022 to calculate receipt of care, retention in care, and viral suppression.

³The 2022-2023 HIV care continuum denominator includes persons diagnosed in 2022 to calculate linkage to care ≤ 1 month of diagnosis, and all PLWDH diagnosed through 2022 and living in LAC at year-end 2023 to calculate receipt of care, retention in care, and viral suppression.



HIV care continuum¹ among children aged < 13 years, LAC 2021-2022² and 2022-2023³



In 2022, 100% of children aged <13 years persons diagnosed with HIV were linked to care within 1 month of diagnosis. All key steps along the HIV care continuum remained largely unchanged in 2023 compared with 2022.

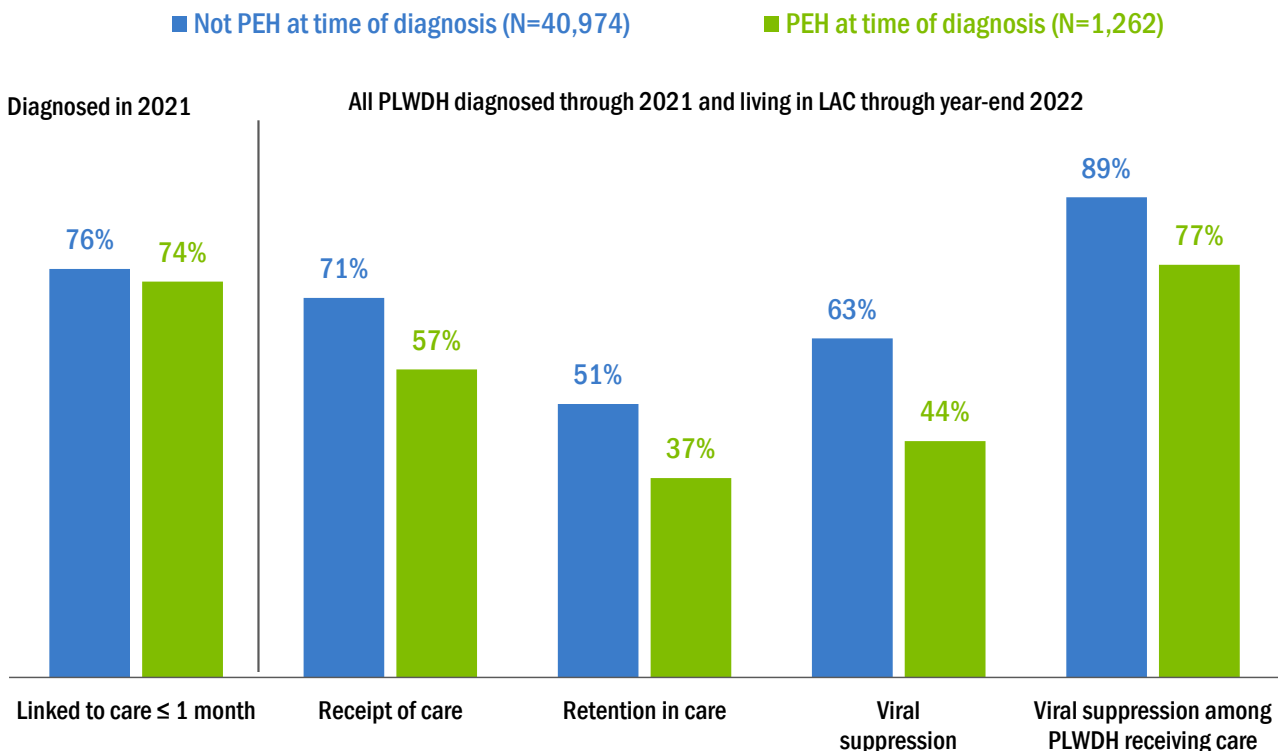
¹The HIV care continuum includes the following steps in the care cascade: 1) the percentage of persons receiving a diagnosis of HIV in a given calendar year who were linked to HIV care within 1 month of diagnosis (defined as ≥ 1 CD4/VL/Genotype test reported within 1 month of HIV diagnosis) ; and 2) the percentage of all persons living with diagnosed HIV who (1) received HIV care (defined as ≥ 1 CD4/VL/Genotype test per year), (2) were retained in HIV care (defined as ≥ 2 CD4/VL/Genotype tests at least three months apart, per year), and (3) were virally suppressed (defined using most recent viral load, per year). PLWDH without a VL test in the measurement year were categorized as having unsuppressed viral load.

²The 2021-2022 HIV care continuum denominator includes persons diagnosed in 2021 to calculate linkage to care ≤ 1 month of diagnosis, and all PLWDH diagnosed through 2021 and living in LAC at year-end 2022 to calculate receipt of care, retention in care, and viral suppression.

³The 2022-2023 HIV care continuum denominator includes persons diagnosed in 2022 to calculate linkage to care ≤ 1 month of diagnosis, and all PLWDH diagnosed through 2022 and living in LAC at year-end 2023 to calculate receipt of care, retention in care, and viral suppression.



HIV care continuum among persons aged ≥ 13 years by PEH status at the time of HIV diagnosis, LAC 2022-2023¹



Note: : In LAC there are robust support services in place to facilitate linkage to care after diagnosis, facilitated by HIV testing providers, Partner Services, linkage and retention programs, and community embedded Disease Intervention Specialists. However, the complexities of a person’s life circumstances may present barriers along subsequent steps in the care continuum.

PEH had much poorer outcomes in the HIV care continuum compared with persons not experiencing homelessness, with the greatest disparity observed in viral suppression.

¹Linkage to care: numerator includes persons newly diagnosed with HIV in 2021 with ≥ 1 CD4/VL/Genotype test reported within 1 month of HIV diagnosis; denominator includes persons who were diagnosed with HIV in 2021.
 Receipt of care: numerator includes PLWDH with ≥ 1 CD4/VL/Genotype test in 2022; denominator includes PLWDH diagnosed through 2021 and living in LAC at year-end 2022 based on most recent residence.
 Retention in care: numerator includes PLWDH with ≥ 2 CD4/VL/Genotype tests at least 3 months apart in 2022; denominator includes PLWDH diagnosed through 2021 and living in LAC at year-end 2022 based on most recent residence.
 Viral suppression: numerator includes PLWDH whose last VL test in 2022 was suppressed (HIV-1 RNA < 200 copies/mL); denominator includes PLWDH diagnosed through 2021 and living in LAC at year-end 2022 based on most recent residence. PLWDH without a VL test in 2022 were categorized as having unsuppressed viral load.



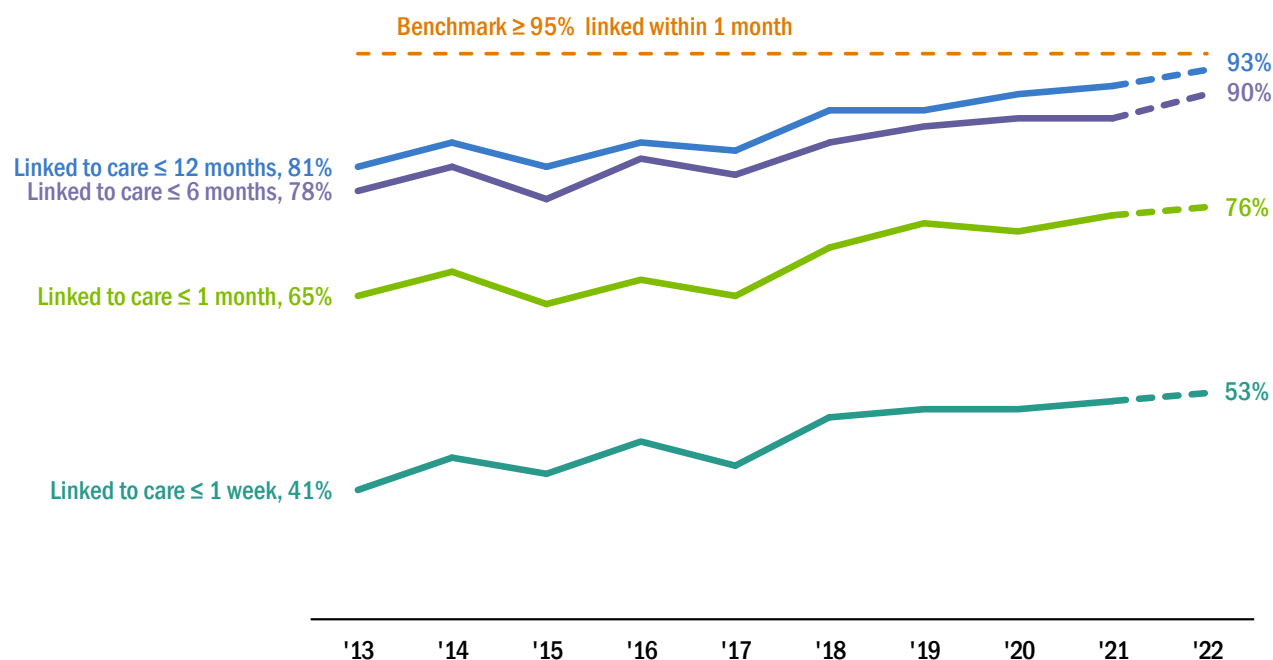
Linkage to Care



- Linkage to HIV care is the first step in the HIV care continuum. It is the necessary precursor for receiving antiretroviral therapy to treat HIV.
- Linkage to HIV care is typically tracked as being linked to HIV care within one month of HIV diagnosis.
- Initiating HIV care services should occur faster, ideally within days, to ensure that treatment of HIV can be started immediately.



Time from HIV diagnosis to linkage to care among persons aged ≥ 13 years newly diagnosed with HIV by year of HIV diagnosis, LAC 2013-2022^{1,2}



Data in context: Though not shown, populations and locations with the lowest rates of linkage to care within 1 week were females; teens; Black persons; persons with heterosexual transmission and transmission risk categorized as Other; and persons residing in the El Monte, Foothill, Antelope Valley, and Inglewood Health Districts.

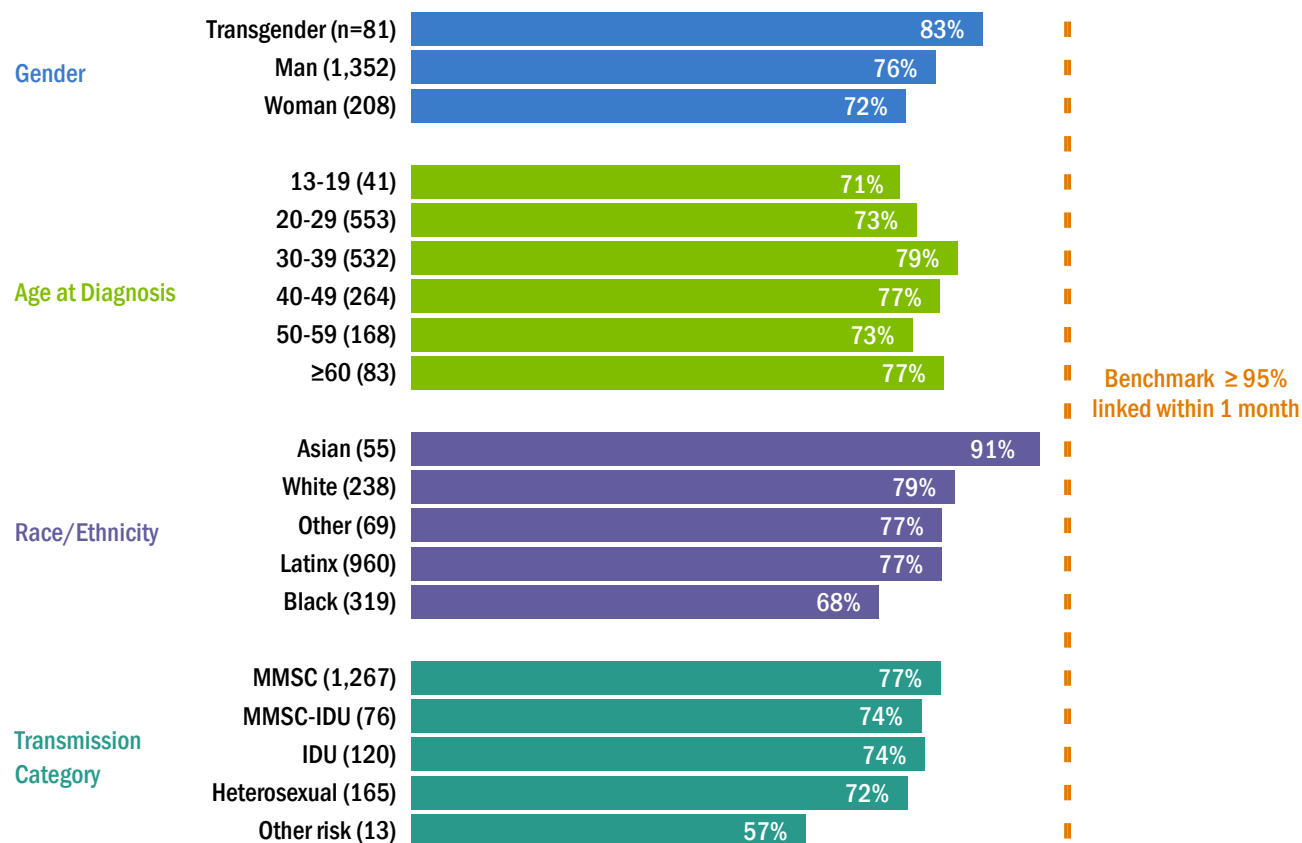
Though timeliness of linkage to care for persons newly diagnosed with HIV has improved over the past decade, only 76% were linked to HIV care within 1 month of their diagnosis in 2022 and only 53% were linked to HIV care within 1 week of their diagnosis.

¹Includes persons diagnosed with HIV in each calendar year with ≥ 1 CD4/VL/Genotype test reported within 1 week, as well as 1, 6, and 12 months of diagnosis.

²Due to reporting delay, 2022 HIV linkage to care data are provisional as indicated by the dashed line.



Persons aged ≥ 13 years newly diagnosed with HIV and linked to care within one month of diagnosis¹ by select demographic² and risk³ characteristics, LAC 2022



Benchmark $\geq 95\%$
linked within 1 month

None of the groups identified met the benchmark of 95% linked to HIV care within 1 month of diagnosis however, Black persons, adolescents (13-19 years of age), and women were farthest from the benchmark.

Abbreviations: TG = transgender persons; MMSC = male-to-male sexual contact; IDU = injection drug use

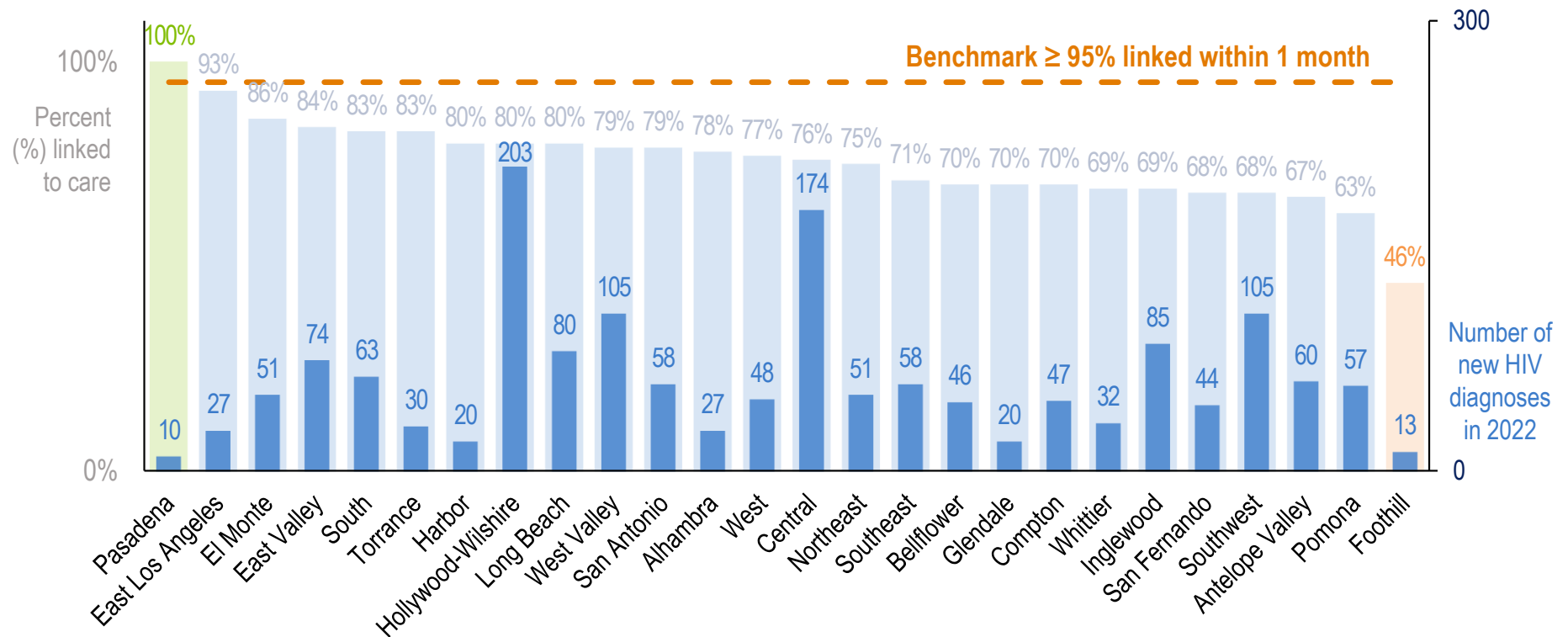
¹Linked to care: numerator includes persons newly diagnosed with HIV in 2022 with ≥ 1 CD4/VL/Genotype test reported within 1 month of HIV diagnosis; denominator includes persons who were diagnosed with HIV in 2022.

²Other race/ethnicity includes American Indian and Alaska Natives, Native Hawaiian and Pacific Islanders, persons of multiple race/ethnicities, and persons with unknown race/ethnicity.

³Other risk includes risk factor not reported/identified and is not shown due to small numbers.



Persons aged ≥ 13 years newly diagnosed with HIV and linked to care within one month of diagnosis by Health District, LAC 2022^{1,2}



In 2022, only persons living in the Pasadena Health District met the EHE target for timely linkage to HIV care (at least 95% linked to care within 1 month), highlighting the need to identify solutions for improving linkage to care across LAC. Linkage to care was lowest for persons living in the Foothill Health District, with only 46% of HIV cases linked to care within 1 month of diagnosis.

¹Linked to care: numerator includes persons newly diagnosed with HIV in 2022 with ≥ 1 CD4/VL/Genotype test reported within 1 month of HIV diagnosis; denominator includes persons who were diagnosed with HIV in 2022.

²Health Districts are based on 2022 boundaries. Persons are assigned a Health District using their geocoded residence at diagnosis joined to census tract 2020, followed by their ZIP Code if no valid residence at diagnosis was available. The correspondence tables were provided by LAC DPH Information Management and Analytics Office, Office of Health Assessment and Epidemiology, GIS Unit team.

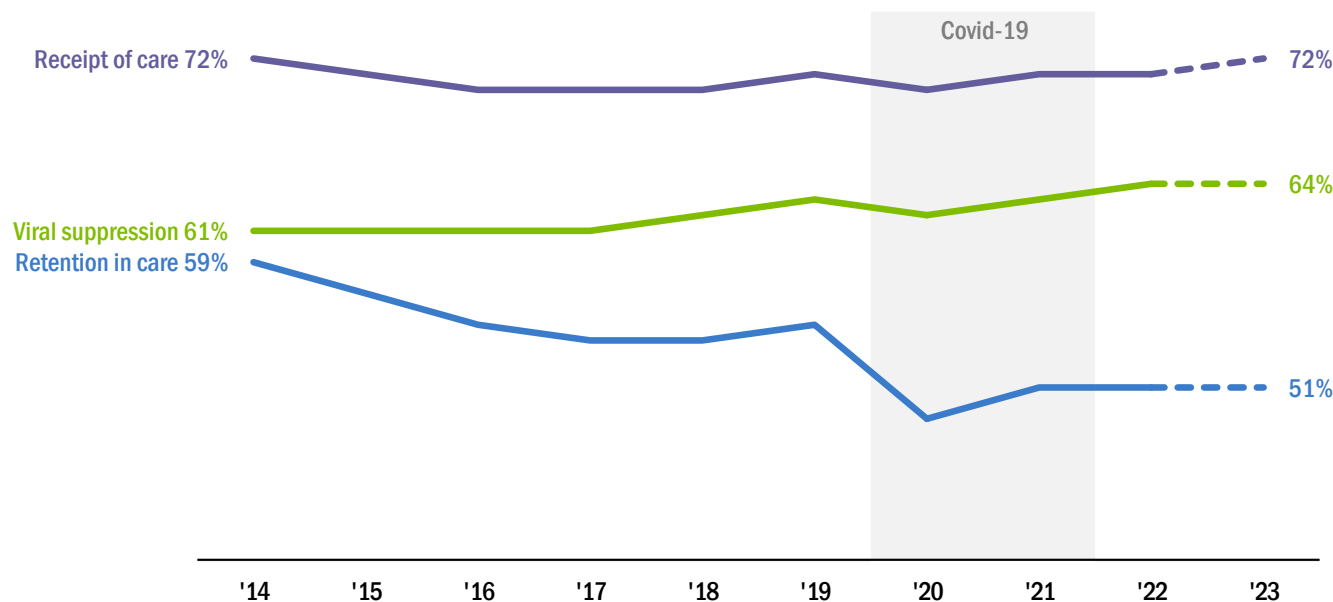


Receipt of care, retention in care, and viral suppression

- Entering and staying in HIV care is necessary to ensure that adherence to HIV treatment occurs and viral suppression is achieved.
- Identifying disparities allows us to determine whether interventions are needed to help people stay in care, get back in care, and ensure they are taking their medication as prescribed.
- This section presents how LAC performed with respect to receipt of care, retention in care, and viral suppression in 2023 across different populations of PLWDH.



Trends in receipt of HIV care, retention in care, and viral suppression for PLWDH aged ≥ 13 years living in LAC at calendar year-end and diagnosed with HIV through the previous calendar year, LAC 2014-2023^{1,2}



Since 2014, there have been modest improvements in the percent of PLWDH achieving viral suppression (+3 percentage points). The percent of PLWDH retained in care has not rebounded since dropping in 2020, when the COVID-19 pandemic impacted the accessibility of health care services.

Abbreviation: PLWDH = persons living with diagnosed HIV

¹Receipt of care: numerator includes PLWDH with ≥ 1 CD4/VL/Genotype test in 2023; denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

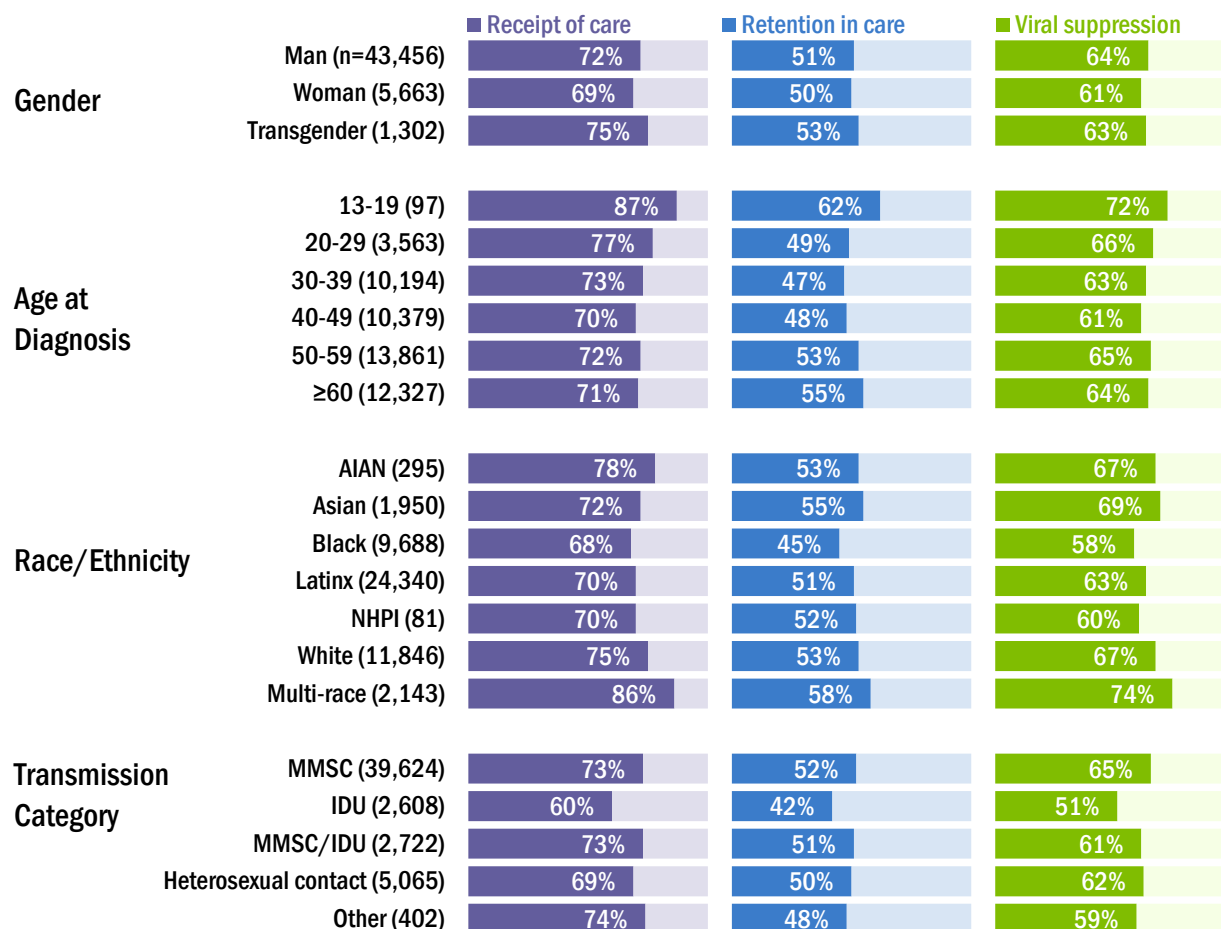
Retention in care: numerator includes PLWDH with ≥ 2 CD4/VL/Genotype tests at least three months apart in 2023; denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

Viral suppression: numerator includes PLWDH whose last VL test in 2023 was suppressed (HIV-1 RNA < 200 copies/mL); denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence. PLWDH without a VL test in 2023 were categorized as having unsuppressed viral load.

²Due to reporting delay, 2023 HIV data are provisional as indicated by the dashed line.



Receipt of HIV care, retention in HIV care, and viral suppression by gender, age group, race/ethnicity¹, and transmission risk category² among PLWDH aged ≥ 13 years diagnosed through 2022 and living in LAC at year-end 2023, ³ LAC 2023



In 2023, the poorest HIV care outcomes were observed among Black persons, and persons who inject drugs.

Abbreviation: PLWDH = persons living with diagnosed HIV

¹Other race/ethnicity includes American Indian and Alaska Natives, Native Hawaiian and Pacific Islanders, persons of multiple race/ethnicities, and persons with unknown race/ethnicity.

²Other transmission risk includes perinatal, hemophilia, coagulation disorder, blood transfusion, and risk factor not reported/identified. Persons without an identified risk factor were assigned a risk factor using CDC-recommended multiple imputation methods.

³Receipt of care: numerator includes PLWDH with ≥1 CD4/VL/Genotype test in 2023; denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

Retention in care: numerator includes PLWDH with ≥2 CD4/VL/Genotype tests at least three months apart in 2023; denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

Viral suppression: numerator includes PLWDH whose last VL test in 2023 was suppressed (HIV-1 RNA < 200 copies/mL); denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence. PLWDH without a VL test in 2023 were categorized as having unsuppressed viral load.

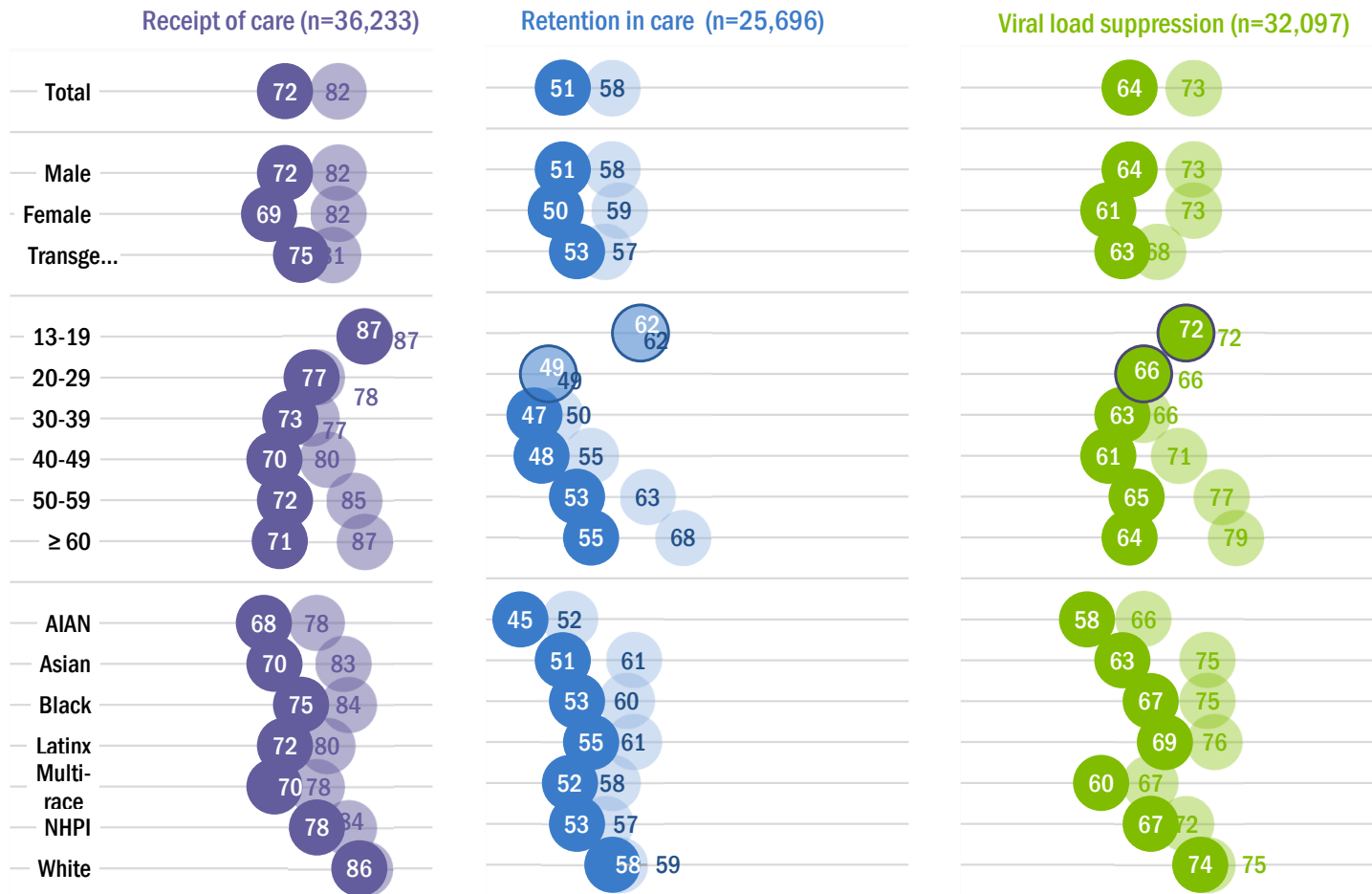


HIV care continuum among persons aged ≥ 13 years among all PLWDH compared to PLWDH who have been out of care for over 10 years, LAC 2023

PLWDH 2023 diagnosed through 2022 (N=50,421)



PLWDH 2023 diagnosed through 2022 (Excluding PLWDH who were out of care over 10 years) (N=43,966)



HIV care continuum indicators showed increased percent of PLWDH who received care, were retained in care, and virally suppressed in 2023 after removing 6,455 persons who were not in care for the past 10 years from the assessed population. The difference is most pronounced among women aged ≥ 60 years, and Latinx persons.

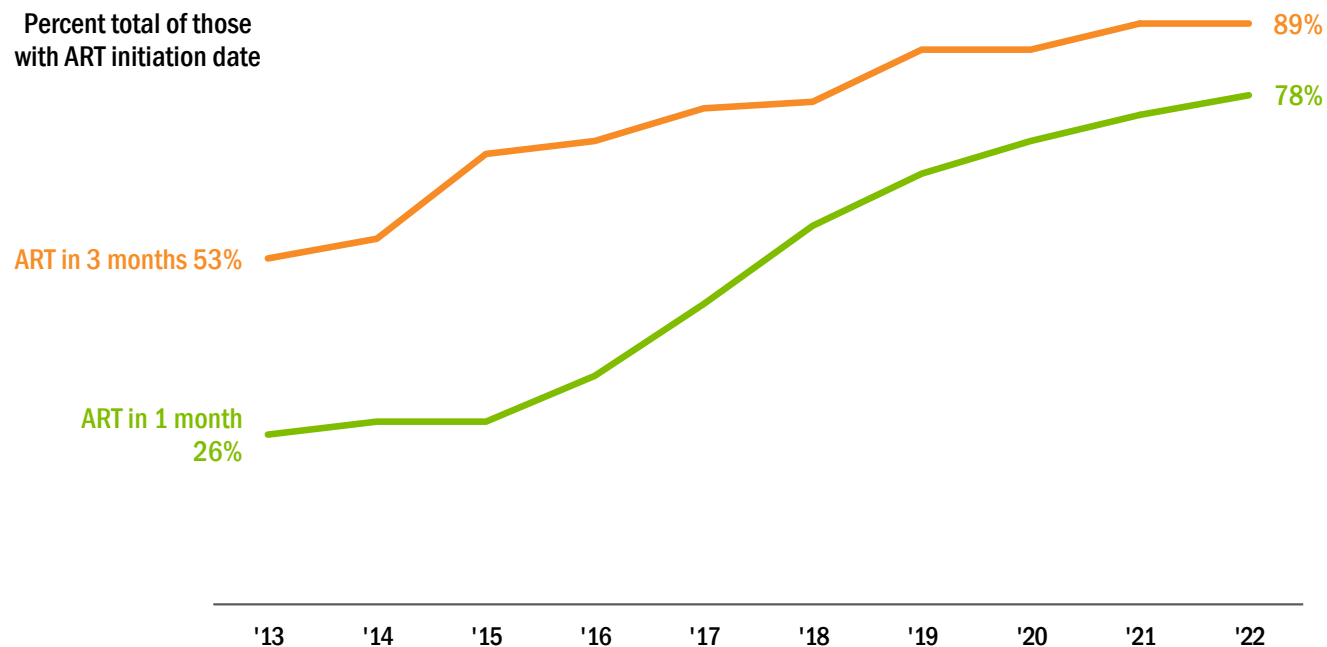


HIV treatment

- Antiretroviral therapy (ART) coverage is not routinely monitored as a step in the HIV care continuum as treatment is presumed to occur once a patient is linked to care.
- HIV case reporting includes information on ART for PLWDH but relies on HIV providers to complete this information on HIV case reports, which is not commonly done.
- To fill this information gap, Public Health collects supplemental information on a subset of persons newly diagnosed with HIV through the National Medical Monitoring Project (MMP) to understand progress and gaps in HIV treatment and other HIV care services for PLWDH.
- In this section, we provide information from HIV case reporting and MMP on the status of treatment among PLWDH in Los Angeles County.



Time from HIV diagnosis to treatment initiation among persons aged ≥ 13 years newly diagnosed with HIV by year of diagnosis,¹ LAC 2013-2022



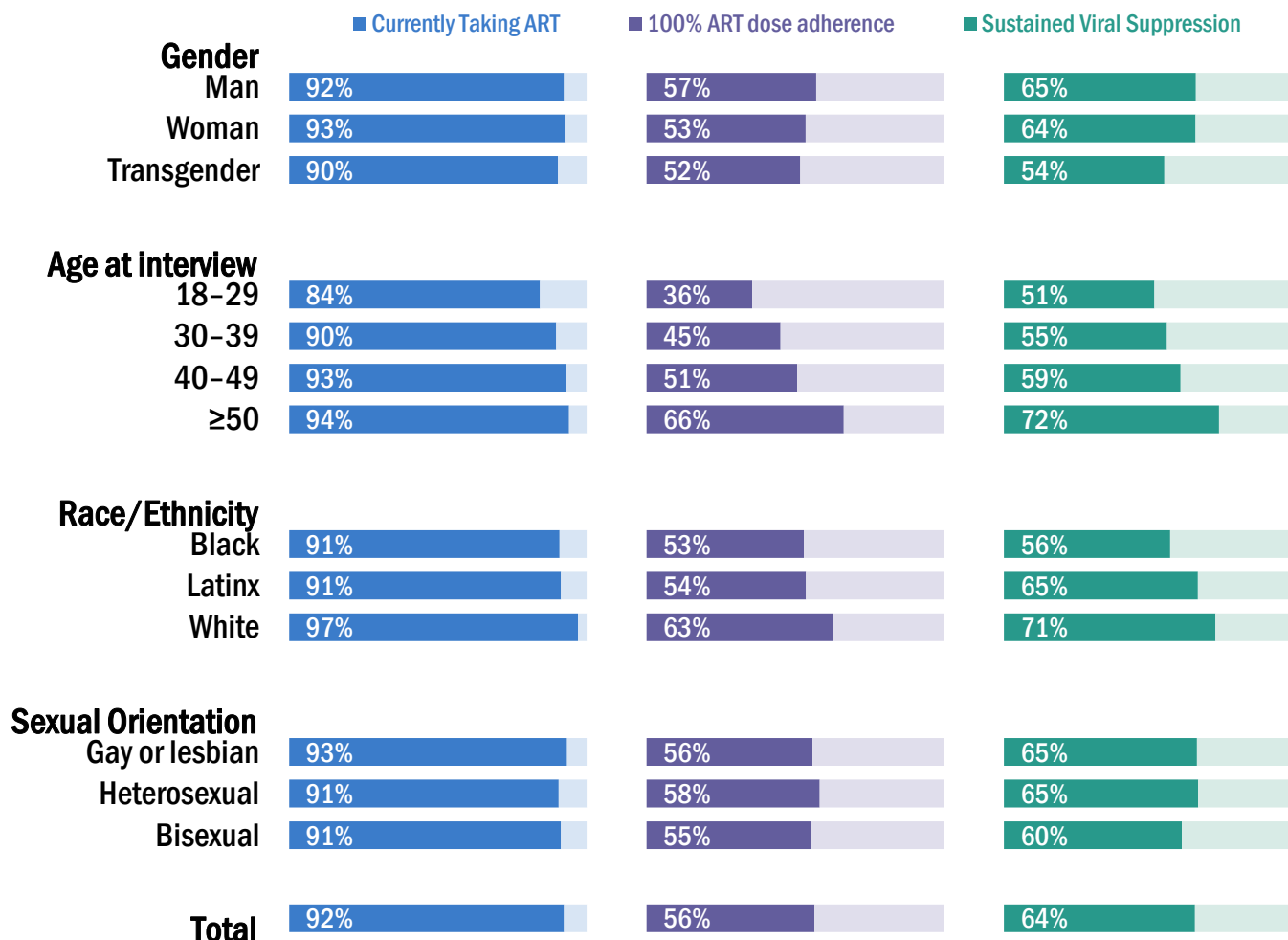
The time from diagnosis to starting HIV treatment is improving. The probability of starting ART within 1 month of diagnosis increased from 26% in 2013 to 78% in 2022 and the probability of starting ART within 3 months of diagnosis increased from 53% in 2013 to 89% in 2022.

Abbreviation: ART = Antiretroviral therapy

¹Data represent a subset of persons newly diagnosed with HIV and reported in LAC. It includes 6,475 persons newly diagnosed with HIV between 2013 and 2022 for whom ART initiation date is complete and excludes 12,670 persons newly diagnosed with HIV between 2013 and 2022 for whom ART initiation date is incomplete.



Antiretroviral therapy (ART) prescription, ART dose adherence, and sustained viral suppression, among adults living with diagnosed HIV, by selected characteristics—Medical Monitoring Project (MMP), LAC 2015-2021^{1,2}



Younger PLWDH reported lower rates of current ART use, ART adherence, and sustained viral suppression compared to older PLWDH. Similarly, Black and Latinx PLWDH reported lower rates of current ART use, ART adherence, and sustained viral suppression compared with White PLWDH.

¹100% ART dose adherence is defined as not missing any doses of HIV medicines within the past 30 days among persons reportedly currently taking ART.

²Sustained viral suppression in MMP is defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview.



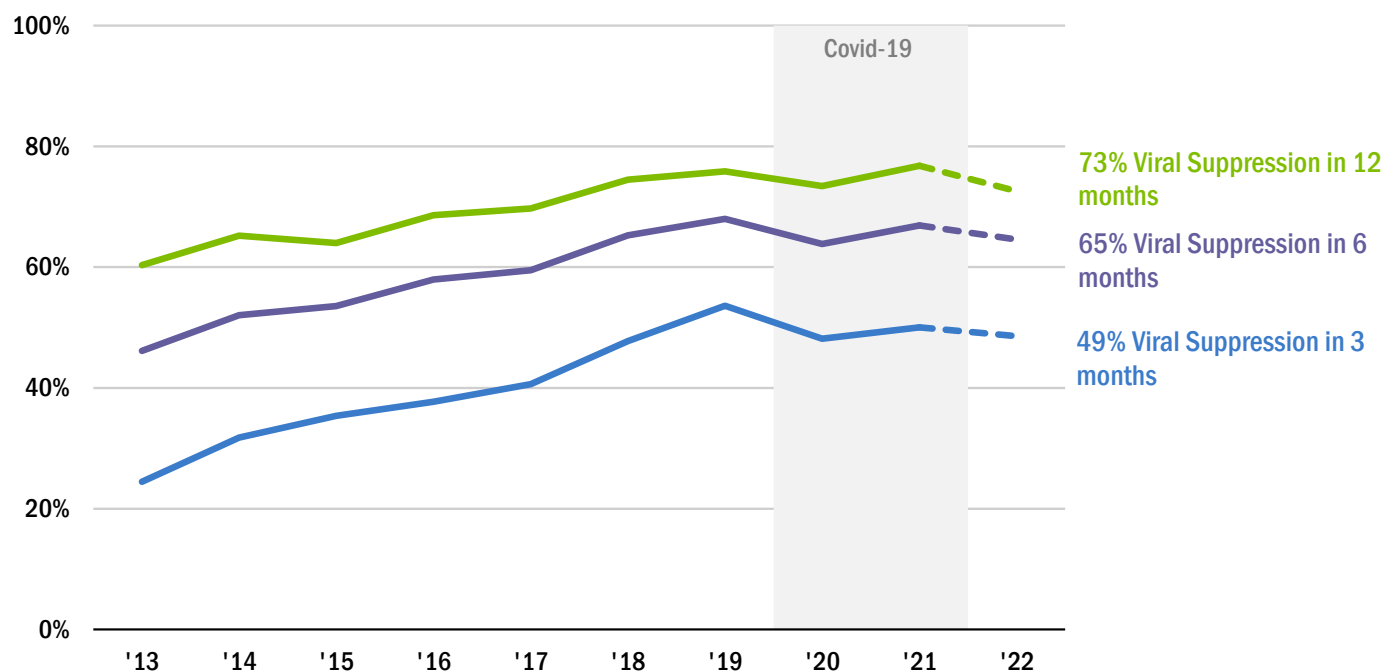
Viral load monitoring



- To end the HIV epidemic, viral suppression should be reached soon after HIV diagnosis for all PLWDH but as described earlier, this is dependent on how rapidly HIV-positive persons are linked into HIV care and receive HIV treatment.
- This section highlights where we are locally in our viral suppression achievements and highlights opportunities for where to target interventions to improve viral suppression in the population.



Time from diagnosis to viral suppression among persons diagnosed with HIV by year of HIV diagnosis, LAC 2013-2022^{1,2}



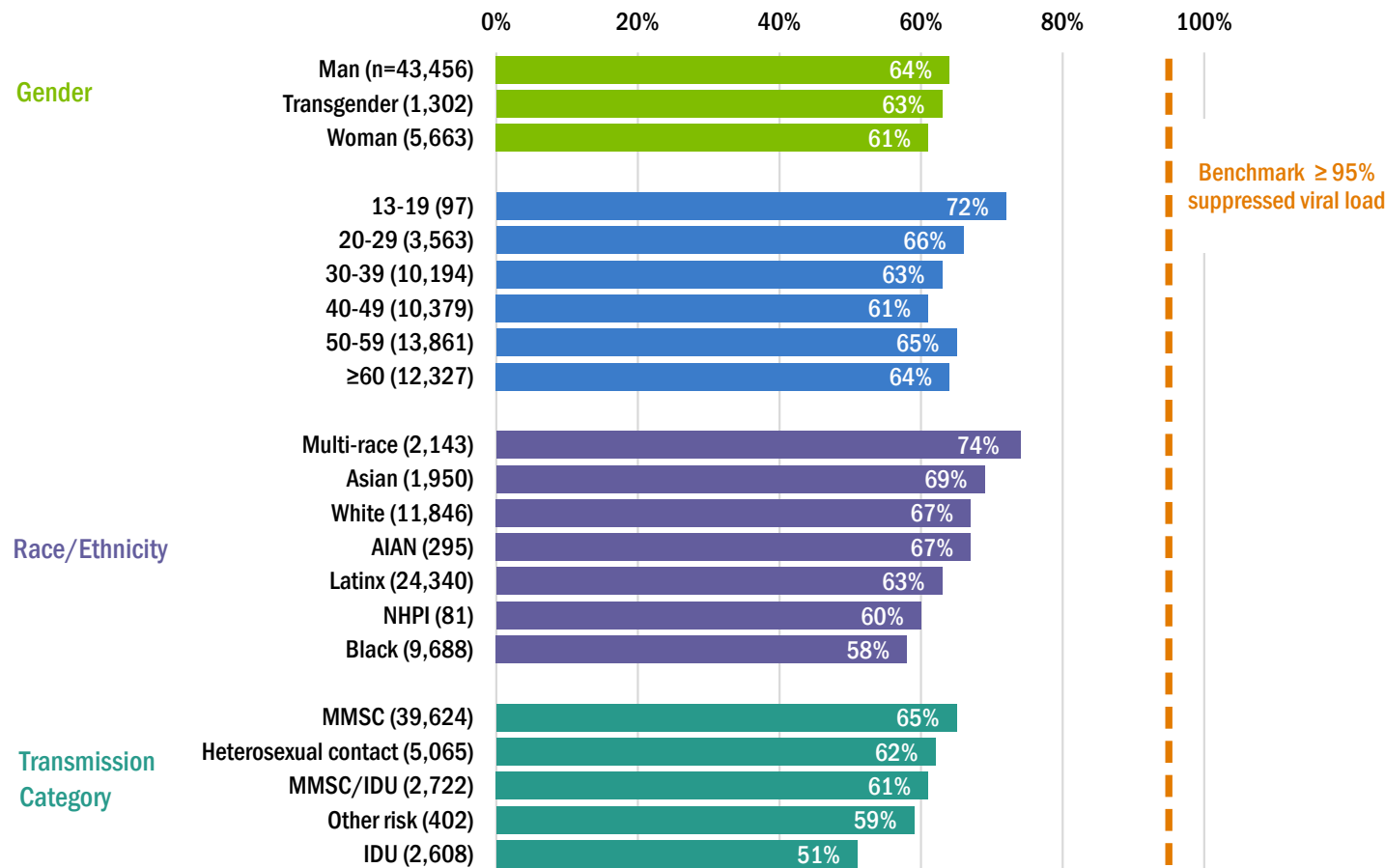
Though time from HIV diagnosis to viral suppression has improved over time, LAC is still underperforming in this area, with only 49% of persons newly diagnosed with HIV in 2022 achieving viral suppression within 3 months.

¹Analysis includes persons newly diagnosed with HIV in each calendar year. Numerator includes persons who achieved viral suppression within 3, 6, or 12 months of diagnosis. Denominator includes persons newly diagnosed with HIV in select calendar year, with or without a viral load test result in the observed months.

²Due to reporting delay, 2022 HIV data are provisional as indicated by the dashed line.



Suppressed viral load by selected demographic and risk characteristics among persons aged ≥ 13 years diagnosed through 2022 and living in LAC at year-end 2023,^{1,2} LAC 2023



Persons living with diagnosed HIV in LAC: LAC falls significantly short of reaching the 2025 goal of increasing the percentage of PLWDH who are virally suppressed to 95%. In 2023, the largest disparities were observed among women, Black persons, persons aged 40-49 years, and persons with IDU transmission category.

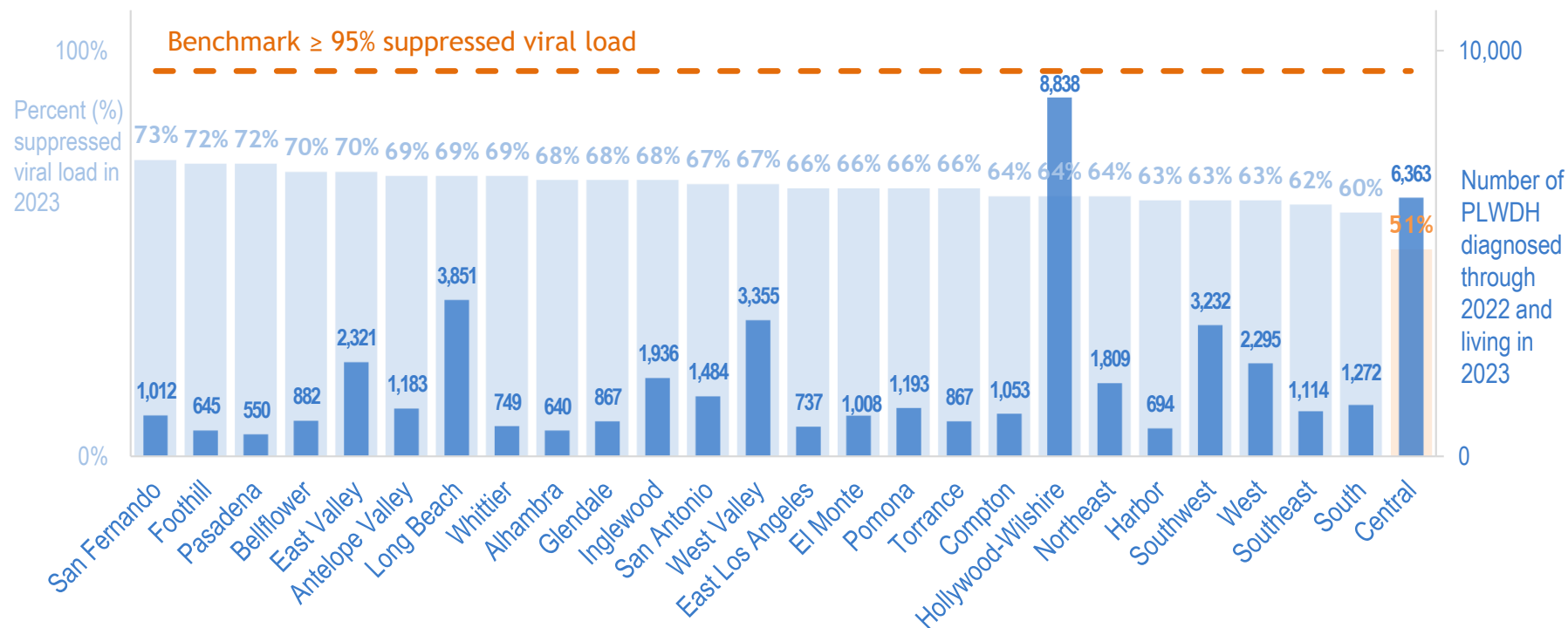
Abbreviations: TG = transgender persons; MSM = men who have sex with men; IDU = injection drug use

¹Suppressed viral load: numerator includes PLWDH whose last VL test in 2023 was suppressed (HIV-1 RNA < 200 copies/mL); denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence. PLWDH without a VL test in 2023 were categorized as having unsuppressed viral load.

²Other race/ethnicity includes American Indians and Alaska Natives, Native Hawaiian and Pacific Islanders, persons of multiple race/ethnicities, and persons with unknown race/ethnicity. Other risk includes perinatal exposure, hemophilia, coagulation disorder, blood transfusion, and risk factor not reported/identified.



Suppressed viral load by Health District among persons aged ≥ 13 years diagnosed through 2022 and living in LAC at year-end 2023,^{1,2} LAC 2023



Persons living with diagnosed HIV in LAC: In 2023, no LAC Health District achieved the EHE target for viral suppression (95% or higher with suppressed viral load). The Central Health District performed the poorest, with just over half (51%) of PLWDH achieving viral suppression. In Hollywood-Wilshire, the Health District with the largest number of PLWDH, only 64% of PLWDH were virally suppressed. Health Districts where viral suppression is lower are noted as high risk locations where higher levels of HIV transmission may be occurring.

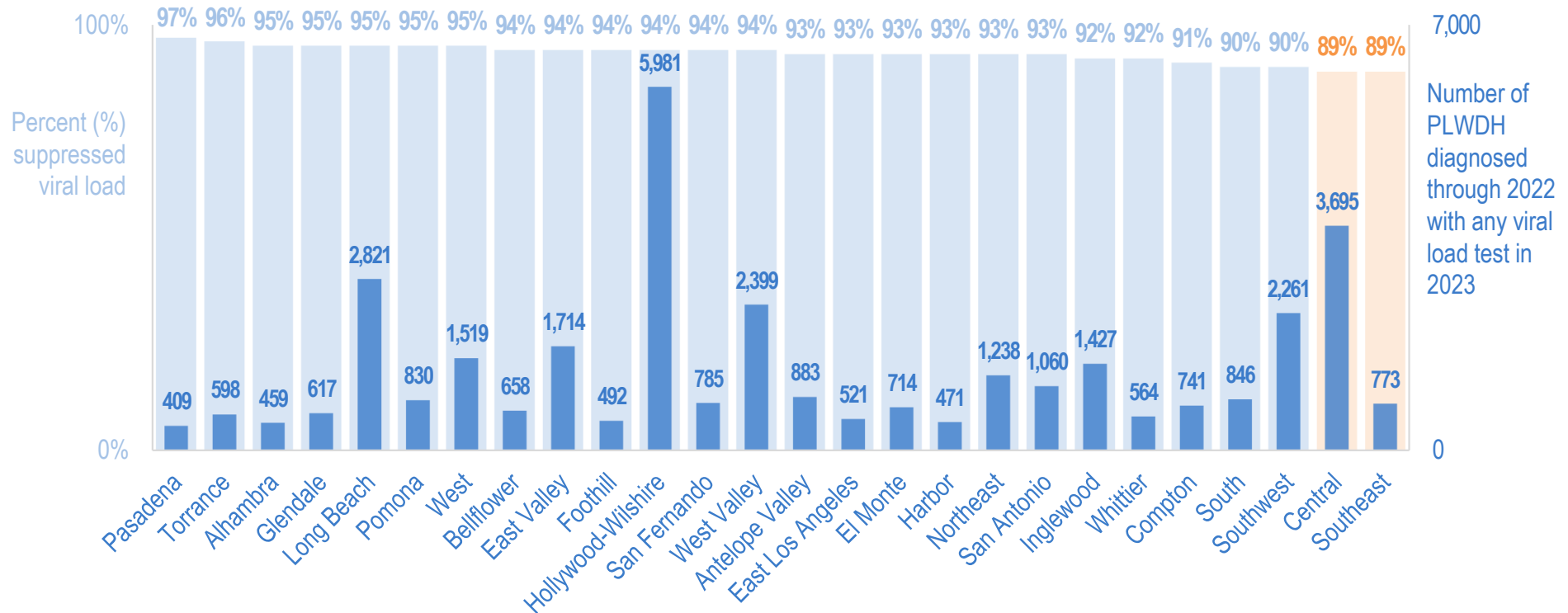
Abbreviation: PLWDH = persons living with diagnosed HIV

¹Suppressed viral load: numerator includes PLWDH whose last VL test in 2023 was suppressed (HIV-1 RNA < 200 copies/mL); denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence. PLWDH without a VL test in 2023 were categorized as having unsuppressed viral load.

²Health Districts are based on 2022 boundaries. Persons are assigned a Health District using their geocoded residence at diagnosis joined to census tract 2020, followed by their ZIP Code if no valid residence at diagnosis was available. The correspondence tables were provided by LAC DPH Information Management and Analytics Office, Office of Health Assessment and Epidemiology, GIS Unit team.



Suppressed viral load among persons aged ≥ 13 years receiving HIV care and who had any viral load test in 2023 by Health District, LAC 2023^{1,2}



Persons living with diagnosed HIV in LAC who are in care: Once in care, the goal is for all PLWDH to achieve viral suppression as soon as possible. In all but two Health Districts at least 90% of PLWDH in LAC who are in care and had at least one viral load test in 2023 were virally suppressed. The Central and Southeast Health Districts had the lowest percentage of viral suppression, at 89% each.

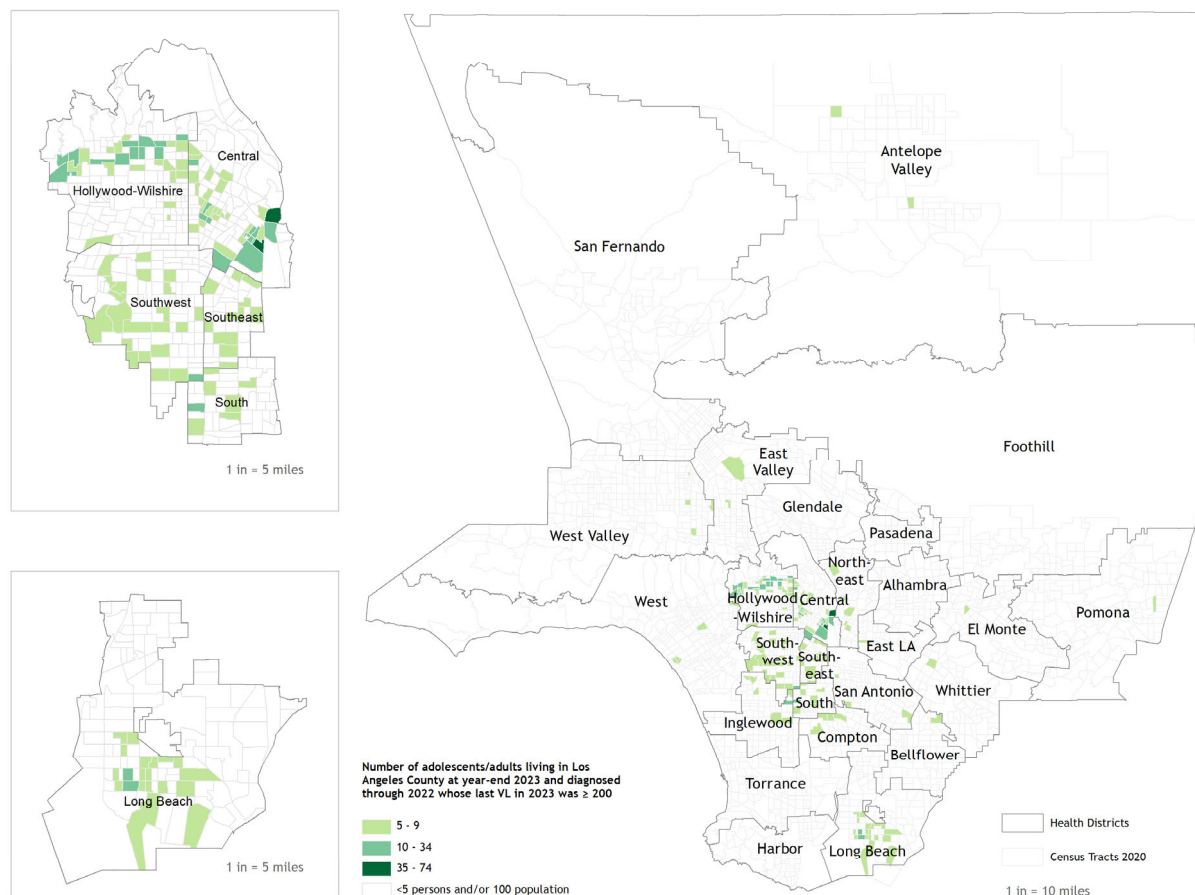
Abbreviation: PLWDH = persons living with diagnosed HIV

¹Suppressed viral load: numerator includes PLWDH whose last VL test in 2023 was suppressed (HIV-1 RNA < 200 copies/mL); denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence who had any viral load test in 2023. PLWDH without a VL test in 2023 were categorized as having unsuppressed viral load.

²Health Districts are based on 2022 boundaries. Persons are assigned a Health District using their geocoded residence at diagnosis joined to census tract 2020, followed by their ZIP Code if no valid residence at diagnosis was available. The correspondence tables were provided by LAC DPH Information Management and Analytics Office, Office of Health Assessment and Epidemiology, GIS Unit team.



Unsuppressed viral load by census tract among persons aged ≥ 13 years diagnosed through 2022 and living in LAC at year-end 2023 (N=1,338),¹ LAC 2023

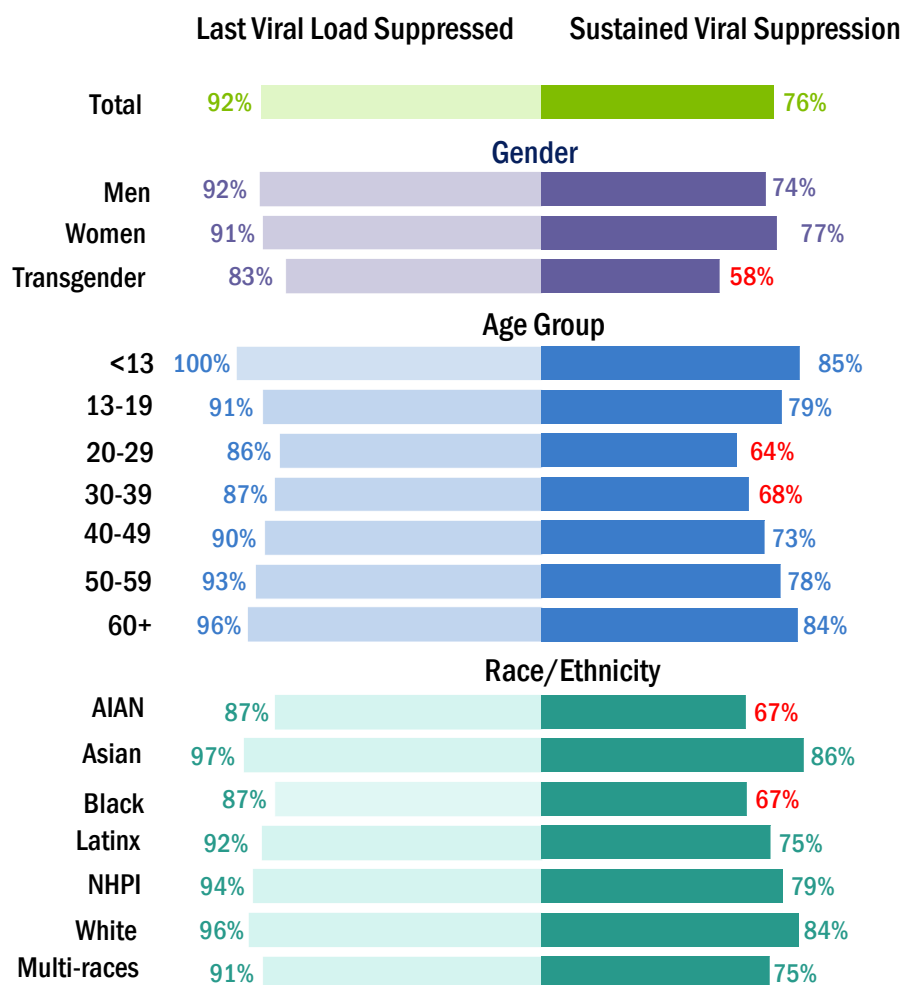


Census tracts located in the Central and Hollywood-Wilshire Health Districts had the highest levels of unsuppressed viral load. These are locations where a robust public health response is needed to 1) identify networks of ongoing transmission and 2) deploy rapid interventions to minimize transmission. Other emerging hotspots of transmission that require close monitoring are in the Southwest, Southeast, South, and Long Beach Health Districts. We have zoomed in on the six HDs with the highest levels of unsuppressed VL in the maps to the left.

¹ Unsuppressed viral load: numerator includes PLWDH whose last VL test in 2023 was unsuppressed (HIV-1 RNA ≥ 200 copies/mL); denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence. PLWDH without a VL test in 2023 were considered virally unsuppressed. Analysis excludes PLWDH diagnosed through 2022 and living at year-end 2023 who (1) had missing census tract information, (2) were receiving care but never had a viral load test, (3) were not receiving care for >12 months at year-end 2023, or (4) were in census tracts with small sample sizes (<5 persons with unsuppressed viral load or population size <100 persons). Exclusions represented 73% of PLWDH diagnosed through 2022 and living in 2023 whose last viral load was unsuppressed. Sources: County of Los Angeles, Internal Services Department Enterprise GIS Section. 2023. 2020 Census Tracts. County of Los Angeles, California, Enterprise GIS Repository. Accessed 03/01/2024. <https://egis-lacounty.hub.arcgis.com/datasets/lacounty::2020-census-tracts-4/about>. County of Los Angeles, Department of Public Health. 2022. Health Districts 2022 (view). County of Los Angeles, California, Enterprise GIS Repository. Accessed 03/21/2023. <https://egis-lacounty.hub.arcgis.com/datasets/health-districts-2022-view/>.



Viral load dynamics among persons living with diagnosed HIV and receiving HIV care, LAC 2021-2023¹



Among persons living with diagnosed HIV in LAC who are in care, if we only consider the last viral load test to determine viral suppression, the resulting viral suppression estimate is 92%. However, if we consider all of their viral load tests over the previous 3-years, the resulting sustained viral suppression estimate (i.e., all viral loads suppressed) is 76%. Sustained viral suppression offers a more robust and realistic assessment of treatment success. In this graph, we define sustained viral suppression based on a person’s viral load results over a 3-year period while viral suppression is based only on a person’s most recent viral load results in the relevant calendar year.

Abbreviations: : PLWDH = persons living with diagnosed HIV; NHPI = Native Hawaiian and Pacific Islander; AIAN = American Indian and Alaskan Native
¹Analysis includes 34,712 persons diagnosed with HIV through 2020, had ≥ 1 viral load test in 2021-2023 and living in LAC during 2021-2023. “Sustained viral suppression” is defined for any PLWDH included this analysis with all reported viral load test results as undetectable or <200 copies/mL during the 3-year period. Does not include 22 persons whose racial/ethnic information is unknown.



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