2023 LOS ANGELES COUNTY ANNUAL HIV SURVEILLANCE REPORT

DIVISION OF HIV AND STD PROGRAMS
DEPARTMENT OF PUBLIC HEALTH
COUNTY OF LOS ANGELES

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Division of HIV and STD Programs

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2024

Dear Colleague:

Forty-three years ago, on June 5, 1981, the US Centers for Disease Control and Prevention (CDC) published a *Morbidity and Mortality Weekly Report* that described a rare lung infection among a cluster of gay men in Los Angeles which would later be known as the first cases of Acquired Immune Deficiency Syndrome (AIDS), a disease caused by the Human Immunodeficiency Virus (HIV). Since then, HIV has ravaged the globe with devastating impact. Worldwide, an estimated 88.4 million people have been infected with HIV and nearly 42.3 million people have died from AIDS-related illness. In 2023, approximately 630,000 people died from HIV and an estimated 1.3 million people became newly infected with HIV.

On this 43rd anniversary of the first reported cases of AIDS in the US, we are releasing the *2023 Los Angeles County Annual HIV Surveillance Report.* This report provides community and academic partners, public health planners, policymakers, and other stakeholders with insights into the evolving HIV epidemic in Los Angeles County. The report also describes achievements in our shared public health response to HIV, outlines opportunities for improving our response, and offers critical data points to facilitate decision-making to achieve our shared *Ending the HIV Epidemic* goals.

The report includes HIV surveillance data reported to the Department of Public Health since the beginning of the HIV epidemic through December 31, 2023. Also included are annual estimates of the number of people newly infected with HIV and the number of people living with HIV based on the Centers for Disease Control and Prevention's CD4 depletion model.

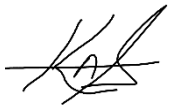
The main findings from this report are outlined in an Executive Summary. Additional context for the epidemiologic and surveillance findings are described in detail in the various sections of the report. The *Data to Action* summary is presented at the end of each section to contextualize programmatic and policy implications for the local response to HIV.

Importantly, our surveillance data highlight disparities in HIV outcomes across race and ethnicity, age, gender, and key populations. These findings reinforce the need to better understand the social and structural drivers of these inequities to ensure that health systems are strengthened for populations that experience challenges in access to and use of healthcare services and who are at greatest risk for poor health outcomes.

The Division of HIV and STD Programs continues to work in full partnership with a broad cross-section of community partners and stakeholders to shape programs and services to meet the evolving needs of populations that are most vulnerable to HIV. These efforts are done in coordination and alignment with the goals for *Ending the HIV Epidemic* in Los Angeles County by 2030. The current program priorities include enhancing HIV testing and screening efforts to ensure that we diagnose all persons with HIV as early as possible; characterizing the intersections of HIV and STD disease to maximize prevention and care; providing rapid and high-quality treatment for all persons living with HIV so that they achieve sustained viral suppression; implementing high impact interventions to prevent new HIV transmissions, and; identifying and characterizing foci where HIV is being transmitted so that we can respond quickly and provide services to populations that need them the most.

The *2023 Los Angeles County Annual HIV Surveillance Report,* is available at: http://publichealth.lacounty.gov/dhsp/Reports/HIV/2023AnnualHIVSurveillanceReport.pdf under the Reports link. We hope that you find this report helpful and look forward to our continued collaboration and partnership to end the HIV epidemic in Los Angeles County.

Sincerely yours,



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We would like to thank the following individuals and groups without whom this report would not be possible: (1) the community of persons living with HIV whose aggregated health information are described in this report; (2) Division of HIV and STD Programs (DHSP) staff that collect, manage, analyze and provide oversight for HIV case reporting and HIV surveillance in Los Angeles County (LAC): Edwin Aguilar, Essam Botros, Laura Cervantes, Victoria Dominguez, Yurei Dong, Maggie Esquivel, Jesse Exconde, Alejandro Flores, Mariana Gallegos de Galleta, Andrea Garcia, Erika Garcia, Shnorik "Nora" Grigoryan, Mi Suk Harlan, Christina "Nina" Hohe, Eddie Javelosa, Priyamvada Kumar, Chun-Mai Kuo, Colleen Lam, Hao Le, Alice Lee, Keisha Macon, Carolina Magaña, Sameh Mansour, Alexandra Miller, Baharak Mohandessi, Monica Muñoz, Azita Naghdi, Margaret O'Neil, Luis Osorio, Erin Nguyen, Priya Patel, Kathleen Poortinga, Stephanie Reyes, Mona Seino, Alexander Serrano, Zhijuan Sheng, Erica St Clair, Virginia Takeuchi, Mary C. Vitale, and Antonio Zapata; (3) DHSP staff that support the analysis of STD case reporting data: Juli Carlos-Henderson, Janice Casil, and Jianning Luo; (4) the Bio-Behavioral Surveillance Team at DHSP: Daniel Alvarez, Pierre Chambers, Angela Cristobal, Shaunte Crosby, Benny Deng, Sandra Duarte, Mirza Garcia, Matthew Houston, Talia Huerta, Jennifer Imaa, Yingbo Ma, T Moreta, Gia Olaes, and Hugo Santacruz; (5) the participants supporting the Medical Monitoring Project and National HIV Behavioral Surveillance for Los Angeles County, from which select data are presented in this report; (6) LAC DPH Office of Health Assessment and Epidemiology (OHAE), Population Health Assessment Team; (7) LAC DPH Information Management and Analytics Office (IMAO), GIS Unit Team: Margaret Carlin, Nicole Richardson; (8) LAC DPH OHAE, Vital Records and Demography Unit: Louise Rollin Alamillo, Aryana Amoon.

This report is inclusive of all gender, age, and racial and ethnic categories in Los Angeles County (LAC). Due to small numbers of diagnosed HIV infections and/or small population sizes of some subgroups in LAC, (e.g. data for children aged <13 years, transgender persons, Native Hawaiians and Other Pacific Islanders, American Indians and Alaska Natives) the rates and percentages presented for these subgroups in this report may be unreliable. Furthermore, cell sizes of less than 5 are suppressed so as to protect the privacy of diagnosed HIV cases by minimizing the risk of re-identification.

Notice to Health Care Providers and Laboratories Responsible for Disease Reporting

California Code of Regulations, Title 17, Section 2500 requires that all diagnosed or suspected cases of AIDS as defined by CDC must be reported within seven (7) days to the Health Officer. California Code of Regulations, Title 17, Section 2600/2641.5-2643.20 require both health care providers and laboratories to report HIV cases by name to the Health Officer within seven (7) days. In addition, Senate Bill (SB) 1184 requires each clinical laboratory to report all CD4+ T-cell tests within seven (7) days of completing a CD4+ T-cell test.17 CCR 2500(h) and (k).

Acute HIV Reporting: Effective June 2016, Title 17 CCR 2500(h) and (k) requires all health care providers report cases of acute HIV within one (1) working day to the local health officer of the jurisdiction in which the patient resides by telephone. If evidence of acute HIV is based on presence of HIV p24 antigen, providers shall not wait until HIV-1 RNA is detected before reporting to the local health officer. To report an acute HIV case, please call (213) 351-8516.

For more information on HIV reporting requirements, obtain a copy of HIV case report forms, or report a HIV case, please visit: http://publichealth.lacounty.gov/dhsp/ReportCase.htm#HIV_Reporting_Information or contact the Division of HIV and STD Programs, 600 South Commonwealth Avenue, Suite 1003, Los Angeles, CA 90005. Phone (213) 351-8516.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AIAN	American Indian and Alaska Native
ART	Antiretroviral therapy
COVID-19	Coronavirus Disease 2019
CDC	Centers for Disease Control and Prevention
DHSP	Division of HIV and STD Programs
EHARS	Enhanced HIV/AIDS Reporting System
EHE	Ending the HIV Epidemic
HET	Heterosexuals at increased risk for HIV
HIV	Human Immunodeficiency Virus
HUD	U.S. Department of Housing and Urban Development
IDU	Injection Drug Use
LAC	Los Angeles County
Mpox	an infectious disease caused by the monkeypox virus
MMSC	Male-to-Male sexual contact
MSM	gay, bisexual, and other Men who have Sex with Men
NHBS	National HIV Behavioral Surveillance
NHPI	Native Hawaiian and Pacific Islander
OMB	Office of Management and Budget
PEP	Post-Exposure Prophylaxis
PLWH	Persons Living with HIV
PLWDH	Persons Living with Diagnosed HIV
PWDH	Persons with Diagnosed HIV
PrEP	Pre-Exposure Prophylaxis
PWID	Persons Who Inject Drugs
SPA	Service Planning Area
TDRM	Transmitted Drug Resistant Mutation
TG	Transgender Persons
US	United States
VL	Viral load

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Executive Summary

The 2023 Los Angeles County Annual HIV Surveillance Report describes the status of the HIV epidemic in Los Angeles County and demonstrates the use of HIV surveillance data to inform prevention, care, and treatment programs in Los Angeles County.

The report includes information on persons living with diagnosed HIV (PLWDH) collected from mandated HIV case reporting and population-based surveys conducted among key populations at increased risk for HIV and PLWDH. HIV case reporting data reflect information from reports received by the Department of Public Health for PLWDH from the beginning of the HIV epidemic through December 31, 2023. Population-based surveys include Los Angeles County data collected for the CDC-funded HIV Behavioral Surveillance System from 2004 to 2023 and Medical Monitoring Project from 2015 to 2022. Most notably, we have included figures and tables that we limit to only LAC PLWDH who can reasonably be expected to be within the reach of our programs and services. These are cases who have interacted with the healthcare system at least once within the previous 10 years. This addition provides a juxtaposition to our historically conservative approach of including in our HIV outcome evaluations people who were diagnosed with HIV in LAC over a decade ago but have most likely left the US permanently or are deceased and as such cannot be reasonably expected to be impacted by our programs and services.

The report is divided into four sections: (1) HIV Epidemic Monitoring; (2) Vulnerable Populations; (3) HIV Surveillance to Partner Services Continuum; and (4) HIV Care Continuum. At the end of each section, a Data to Action summary is included to discuss program and policy implications for the data presented. We summarize key findings for the four sections below and provide hyperlinks to the referenced Tables and Figures.

Report changes

The 2023 Los Angeles County Annual HIV Surveillance Report includes new data reports on:

- PrEP use among various groups at high-risk for HIV and PrEP adherence. (**Figure 32**)
- Doxycycline Post-Exposure Prophylaxis (DoxyPEP) knowledge and uptake among a sample of black MSM, 2024 (**Figure 36**)
- Fentanyl use within the past 12 months among LAC NHBS-PWID participants, 2018 vs. 2022 (**Figure 38**)
- Comparison of non-fatal heroin overdose, possession of naloxone and unmet naloxone need among all LAC NHBS-PWID participants versus those who used Fentanyl, LAC 2022 (**Figure 39**)
- JYNNEOS mpox vaccination among PLWDH (**Figure 52**)
- Prevalence of homelessness or unstable housing among PLWDH by year and select characteristics. (**Figure 46a**, **Figure 46b**)
- Select social, health, and clinical indicators among PLWDH experiencing homelessness or unstable housing. (**Figure 47a**, **Figure 47b**)
- Counts, percentages, and rates of HIV and stage 3 (AIDS) diagnoses, and deaths among persons aged ≥ 13 years living with diagnosed HIV who received care within the past 10 years by demographic groups, LAC 2022-2023 (**Table A1.b**)
- Counts, percentages, and rates of HIV and stage 3 (AIDS) diagnoses, and deaths among persons aged ≥ 13 years living with diagnosed HIV who received care within the past 10 years by sex and geographic areas, LAC 2022-2023 (**Table A2.b**)
- HIV care continuum indicators among persons aged ≥ 13 years living with diagnosed HIV who received care within the past 10 years by demographic groups, LAC 2022-2023 (**Table A5.b)**
- HIV care continuum indicators among persons aged ≥ 13 years living with diagnosed HIV who received care within the past 10 years by geographic areas, LAC 2022-2023 (**Table A6.b**)

Key findings in HIV epidemic monitoring

- As of year-end 2023 there were a total 51,796 persons (adolescent, adult and pediatric cases) *living with diagnosed HIV* in LAC (**Figure 1**). This does not include *undiagnosed* persons living with HIV.
- As of year-end 2023 there were 51,778 persons aged ≥ 13 years living with diagnosed HIV in LAC (**Table A1.a**).
- Males are disproportionately impacted by HIV in LAC (**Figure 5**).
- In 2022, 1,641 persons aged 13 years and older were *newly diagnosed* with HIV, up from 1,558 persons in 2021 (**Table A3**). Nine percent of persons with a new HIV diagnosis in 2022 were classified as having acute HIV (i.e., infected within 60 days prior to HIV diagnosis). In contrast, 18% were classified as stage 3 (i.e., late stage HIV) at the time of diagnosis (**Table 3**).
- *An estimated 1,400 (95% confidence interval [CI]: 980 - 1,800) persons aged 13 years and older acquired HIV in 2022*. New HIV infections, or "HIV incidence," is different from the number of people diagnosed with HIV during a year. Some people may have HIV but not know it (**Figure 13**). Notably, estimates are not considered true values and should be interpreted along with a range of values that are likely to contain the true value with a certain degree of confidence (such as a 95% confidence interval). In 2022, the 95% confidence interval for the estimated number of new infections ranged from a low of 980 infections to a high of 1,800 infections.
- As of year-end 2022, an estimated 57,400 (95% CI: 55,700 – 69,100) persons aged 13 years and older were *living with HIV in LAC*. Among these, an estimated 5,200 (95% CI: 3,500 – 6,900) were *unaware of their infection* (**Figure 14**). As noted above, estimates are not true values and should be carefully considered with the 95% confidence interval in mind.
- There are disparities in HIV diagnosis by population and location. Rates of new HIV diagnosis are higher among males (35/100,000) than females (5/100,000) (**Figure 6**).
- Among males, the highest rates of HIV diagnoses were in the Central Health District in Metro SPA, but rates were also elevated in the Hollywood-Wilshire and Southeast Health Districts. Among females, the highest rates were in the South Health District within South SPA, followed by the Central and Southwest Health Districts (**Table A2.ab**). In 2022, males and females aged 20-39 years had the highest rates of new HIV diagnosis compared with all other age groups (**Figure 7**, **Figure 10**).
- Black persons had higher rates of HIV diagnosis compared with all other racial and ethnic groups (**Figure 8**, **Figure 11**).
- In 2022, 21% of newly diagnosed LAC HIV cases for whom eligible genotyping sequences were available exhibited laboratory evidence of resistance to one or more antiretroviral drugs. Of the three major drug classes, transmitted drug resistance continues to be highest in non-nucleoside reverse transcriptase inhibitors (NNRTI) (**Figure 19**).
- In 2022, molecular HIV surveillance identified clusters where recent and rapid HIV transmission could be occurring (high priority clusters). Persons in these clusters were more likely to be men, aged 20-29 years, Latinx, and have MMSC transmission risk compared with persons newly diagnosed with HIV who were not associated with a priority cluster. Persons in high priority clusters were also more likely to reside in South, Metro, East, or South Bay SPAs, report methamphetamine use and anonymous partners, and have a syphilis co-infection (**Figure 20**).
- Overall death rates for PLWDH have declined over time, with rates of death due to HIV falling below rates of death due to non-HIV-related causes (**Figure 21**). In 2022, approximately three in four deaths among PLWDH were due to non-HIV related causes.

Key findings for vulnerable populations

- From 2022-2023, 97% of pregnant women living with diagnosed HIV received at least one form of ART during pregnancy and/or during labor and delivery. There have been 2 perinatally infected infants born in LAC since 2022. Both infants were born to mothers who were confirmed to have received ART during pregnancy and/or labor and delivery (**Figure 26**).
- Persons living with diagnosed HIV who are unhoused continue to experience suboptimal outcomes along the HIV care continuum. Compared with housed persons, unhoused persons had lower rates of receiving HIV care, retention in care, and achieving viral suppression in 2021 (**Figure 59**).
- HIV biobehavioral surveys in LAC confirm that in 2019 transgender (TG) women had the highest HIV positivity rate (1 in 3 were HIV-positive) compared with other populations at elevated risk for HIV (**Figure 30**). Black transgender (TG) women had the highest HIV positivity rate (52%) compared with Latinx (30%) and White (9%) TG women (**Figure 42**). MSM also had high positivity levels (17%) while persons who inject drugs (PWID) (5%) and heterosexual persons (HET) (<1%) had lower positivity levels (**Figure 30**).
- PrEP uptake within the previous 12 months among LAC MSM increased from 29% in 2017 to 50% in 2023, successfully meeting the EHE target of 50%. In 2023, among LAC MSM who reported being HIV-negative, 62% of White MSM reported taking PrEP compared with 48% of Black MSM and 45% of Latinx MSM. (**Figure 32**); Among those who reported being on PrEP, adherence to daily PrEP was high, with 80% reporting fewer than 4 missed days of PrEP in the past 30 days (**Figure 35**).
- Among PWID, methamphetamine use within the past 12 months increased significantly from 29% in 2009 to 77% in 2022 (**Figure 37**). Among those injecting methamphetamine within the past 12 months, 56% reported injecting methamphetamine at least once a day. Syringe sharing was more common among young PWID (aged 18-29 years), which puts them at high risk for HIV and other infections (**Figure 40**).
- Based on self-reported information, sexually active PLWDH did not commonly engage in high-risk sexual activity and reported practicing a variety of prevention strategies with their partners, including having sex while virally suppressed, using condoms during sex, and having sex with partners on PrEP (**Figure 44**).
- In 2022, 45% of people newly diagnosed with HIV were diagnosed with an STD in the same year as their HIV diagnosis (**Figure 48**). Co-infection with HIV and syphilis was more common than co-infection with HIV and gonorrhea or chlamydia (**Figure 49**).

Key findings in HIV surveillance to Partner Services continuum

- In 2022, 67% of persons newly diagnosed with HIV were assigned for a Partner Services index case interview and 69% of these persons were interviewed. Of all persons newly diagnosed with HIV in LAC in 2022, 46% completed an index case partner services interview (**Figure 54**).
- The Ending the HIV Epidemic (EHE) target for Partner Services is for 85% of newly diagnosed persons to be interviewed by Partner Services staff within 7 days of HIV diagnosis. Only 13% of persons newly diagnosed with HIV were interviewed within this 7-day window, while 60% were interviewed within 30 days and 80% were interviewed within 60 days (**Figure 55**).
- Of the partners that were named during the index case interview, 91% were located. Among those partners, 40% were HIV-positive and 26% were HIV-negative. About half of HIV-positive partners had been previously diagnosed with HIV, and among those newly diagnosed with HIV through Partner Services, 63% were linked to care (**Figure 56**).

Key findings in the HIV care continuum

- The EHE target for linkage to care is 95% of PLWDH linked to care within 1 month of HIV diagnosis. In 2022 among persons newly diagnosed with HIV aged 13 years and older, 53% were linked to care within 7 days, and 76% were linked within 1 month of diagnosis (**Figure 60**).
- Populations with the lowest linkage to care within 1 month were women, Black persons, persons aged 13 to 19 years, and persons whose transmission risk was classified as Other (**Figure 61**).
- Once linked to HIV care, performance along the HIV care continuum remains low. In 2023, only 7 in 10 PLWDH received care services, 5 in 10 were retained in care, and 6 in 10 were virally suppressed (**Figure 57**).
- Timeliness from HIV diagnosis to treatment initiation has improved over time but still needs improvement. Among persons newly diagnosed with HIV in 2022 with treatment information included in their case reports, 89% had initiated treatment within 3 months of diagnosis and 78% within 1 month of diagnosis (**Figure 66**).
- Timeliness from HIV diagnosis to viral suppression has also improved over time but early viral suppression is lagging. Among persons diagnosed in 2022, only 49% of PLWDH were virally suppressed within 3 months of diagnosis while 73% of PLWDH were virally suppressed within 12 months of diagnosis (**Figure 68**).
- The lowest levels of viral suppression were among Black persons, women, persons aged 40-49 years, and persons whose transmission risk included injection drug use (**Figure 69**).
- By geographic area, suppressed viral load was lowest in the Central Health District, followed by the South, Southeast, Harbor, Southwest, and West Health Districts (**Figure 70**).
- A major driver for the low viral suppression rates among PLWDH is delayed treatment among PLWDH and low adherence to ART among those on treatment. In a representative sample of PLWDH, 92% reported currently taking ART, with only 56% reporting 100% adherence to ART doses in the past 30 days. ART adherence was lower among Black (53%) and Latinx (54%) PLWDH compared with White (63%) PLWDH, and lower among younger age groups compared with older age groups (**Figure 67**).

Progress towards national Ending the HIV Epidemic goals

- **New HIV infections:** An estimated 1,400 new infections occurred in LAC in 2022. This highlights the significant gap between current levels and the 2025 EHE target of no more than 380 new infections per year (Table 1).
- It is important to note that the number of new diagnoses is expected to remain high until we have far fewer persons living with undiagnosed HIV and far fewer persons with newly acquired HIV each year. **New HIV diagnoses:** 1,641 persons were newly diagnosed with HIV in 2022, (Table 1).
- **Knowledge of HIV-positive status:** An estimated 91% of persons living with HIV were aware of their HIV status in 2022, which is 4 percentage points below the 2025 EHE target of 95% (Table 1).
- **Linkage to HIV care:** 76% of persons newly diagnosed with HIV in 2022 were linked to care within 1 month, falling 19 percentage points below the 2025 EHE target of 95% (Table 1).
- **Viral suppression:** Only 64% of PLWDH were virally suppressed, falling 31 percentage points below the 2025/2030 EHE target of 95% (Table 1).
- PrEP use varied among different NHBS populations, with the highest uptake observed among MSM (50% in 2023 survey) and the lowest among PWID (0.8% in 2022 survey) (**Figure 32**). Within the MSM group, PrEP use differed by race/ethnicity. Recent data showed that an estimated 62% of White MSM reported using PrEP, meeting the EHE benchmark for PrEP use, and Black (48%) and Latinx (45%) MSM were showing promising progress towards reaching the 50% benchmark. Adherence to daily PrEP among NHBS MSM participants was high, with 80% reporting taking their medication at least 90% of the time in the past 30 days (missing 3 or fewer doses) (**Figure 35**).

- Housing instability is a significant barrier to HIV care and treatment. In a representative sample of PLWDH, approximately 1 in 4 reported needing shelter or housing assistance within the past 12 months (**Figure 45**).
- Among those who reported needing shelter or housing assistance, 1 in 3 did not receive it (**Table 7**, **Figure 45**)

Ending the HIV Epidemic in Los Angeles County

Ending the HIV Epidemic in the US (EHE) is a federal plan, launched in 2020, that aims to reduce new HIV infections in the US by 75% by 2025 and by 90% by 2030. In February 2020, the US Department of Health and Human Services awarded 57 high burden states and counties, inclusive of LAC, with large investments to expand HIV prevention and care activities to accelerate progress towards achieving the national EHE goals.

Ending the HIV Epidemic in LAC focuses on four key pillars of diagnosing, preventing, treating, and responding to HIV. Within these pillars, LAC Public Health is committed to a local response that is high quality and rapidly deployed, prioritizing the highest impact interventions to optimize performance along the steps of the HIV care continuum, and using local evidence at the most granular level possible to identify where and among whom HIV is transmitted so that we can then target interventions to where they are needed most.

In Table 1, we list the key metrics (six EHE indicators) that are being tracked to measure progress towards targets in the EHE initiative and progress to date in LAC. The forthcoming sections in this annual report provide additional detail to contextualize LAC achievements and identify where we need to improve HIV prevention and care activities to meet our set targets, reduce HIV transmission, and ensure that all Angelenos living with HIV can live long and healthy lives.

Table 1: Tracking achievements in national targets for the EHE initiative, 2022-2023

	EHE 2025 targets	EHE 2030 targets	LAC results
Estimated number of new HIV infections (including diagnosed and undiagnosed infections)[1]	380	150	1,400 [980-1,800] (2022)
Estimated number of persons living with undiagnosed HIV in LAC	n/a	n/a	5,200 [3,500-6,900] (2022)
Number of new HIV diagnoses[2]	450	180	1,641 (2022)
Estimated percentage of PLWH with knowledge of their HIV-positive status[1]	95%	95%	91% [88% - 94%] (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. See technical notes. Knowledge of status is the estimated percent 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.

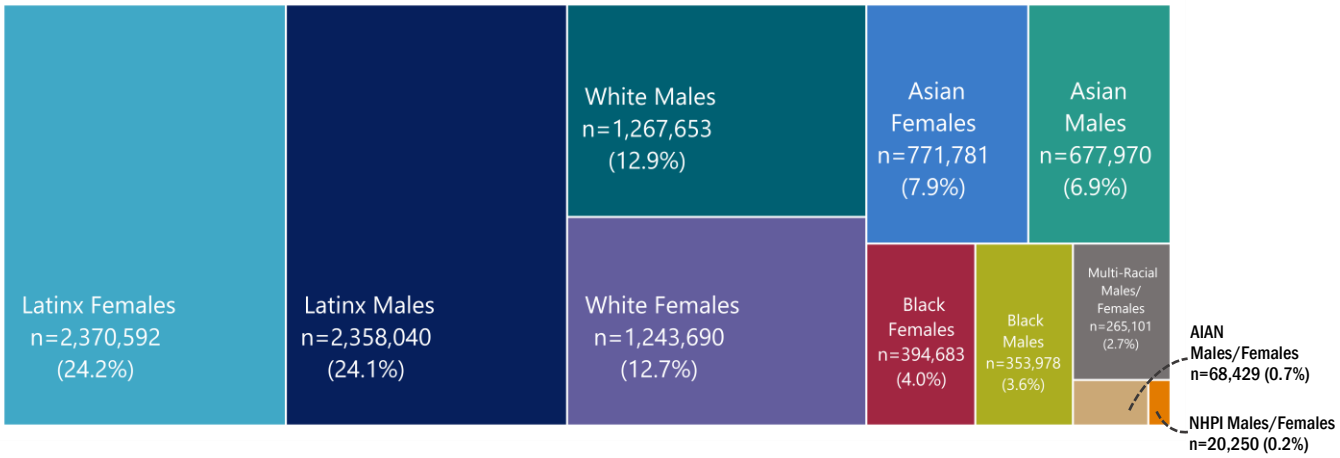
HIV Epidemic Monitoring

Difference in the Impact of HIV by Gender and Race and/Ethnicity

An estimated 9.8 million people resided in LAC in 2022. Latinx males and females each represented 24% of the LAC population, followed by White males (13%), White females (13%), Asian females (8%), Asian males (7%), Black males (4%), Black females (4%), and multi-racial persons (3%). American Indians and Alaska Natives (AIAN) and Native Hawaiians and Pacific Islanders (NHPI) represented less than 1% of the total LAC population.

Figure 1: Distribution of sex[4] and race/ethnicity[5] among LAC residents in 2022

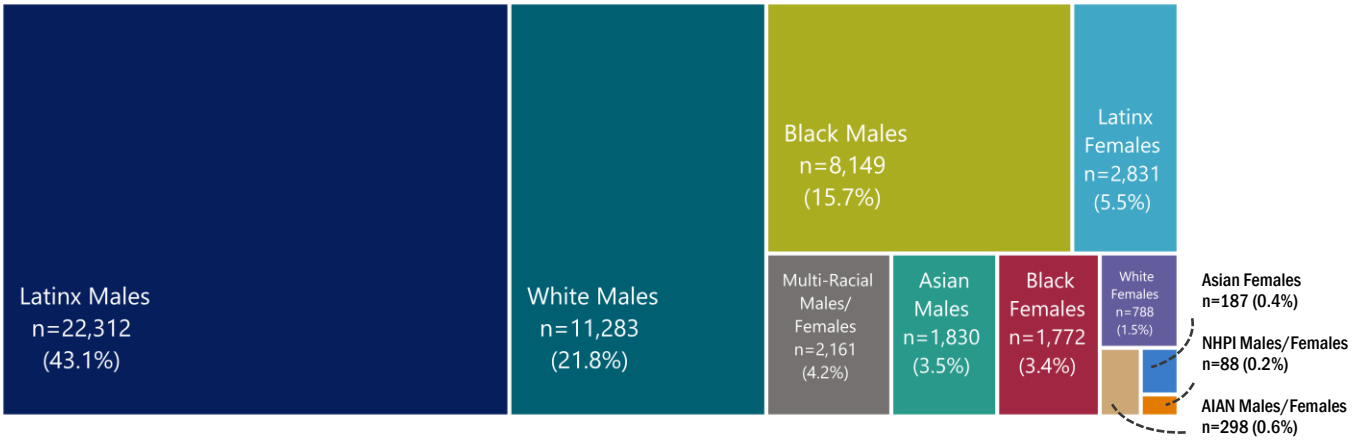
Population Size=9,792,167



In contrast, Black, Latinx and White males disproportionally represented 16%, 43%, and 21% of PLWDH in LAC. Altogether, AIAN, NHPI, and multi-racial men and women represented less than 5% of PLWDH in LAC. PLWDH with unknown race/ethnicity were not presented in the graph (n=97).

Figure 2: Distribution of sex[4] and race/ethnicity[5] among persons living with diagnosed HIV at year-end 2023, LAC

PLWDH=51,796

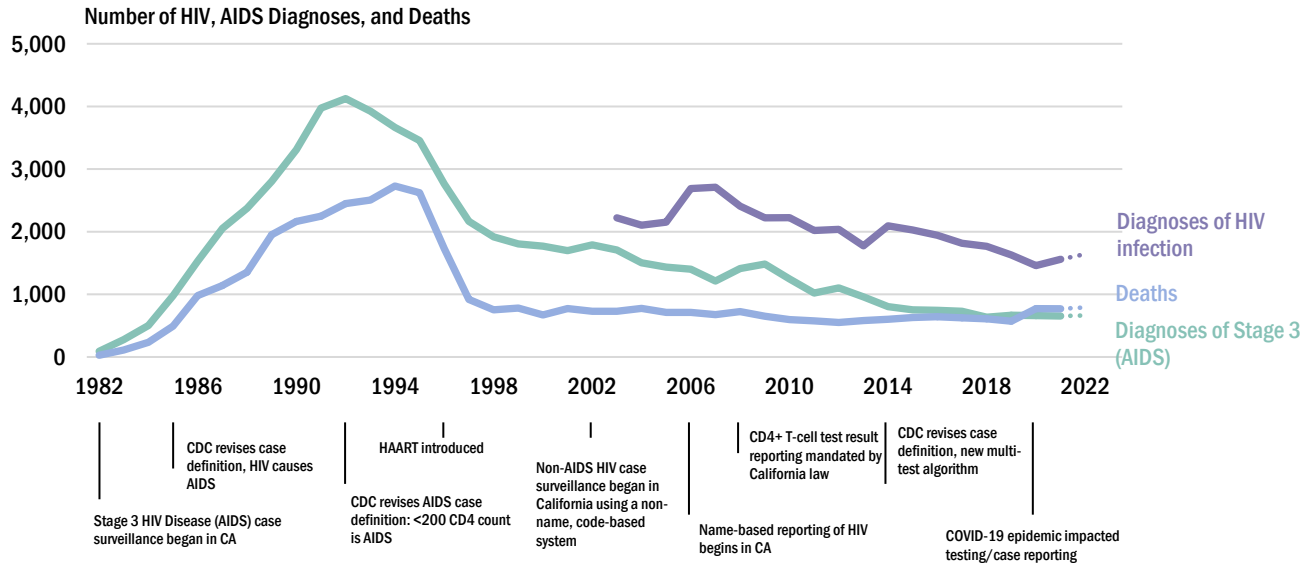


[4] Population estimates are not currently available for transgender persons, therefore male and female categories are based on sex at birth.
[5] See technical notes for adjusted racial/ethnic categories in these figures.

History of the HIV epidemic: In LAC, AIDS reporting began in 1982 and the annual number of cases peaked in 1992 with more than 4,000 cases reported that year. In 1994, deaths reached an all-time high followed by a significant decline that coincided with the introduction of highly active antiretroviral treatment (HAART) for HIV in 1996. In 2006, name-based HIV reporting began in California, allowing for better tracking of trends in diagnosed HIV irrespective of disease stage.

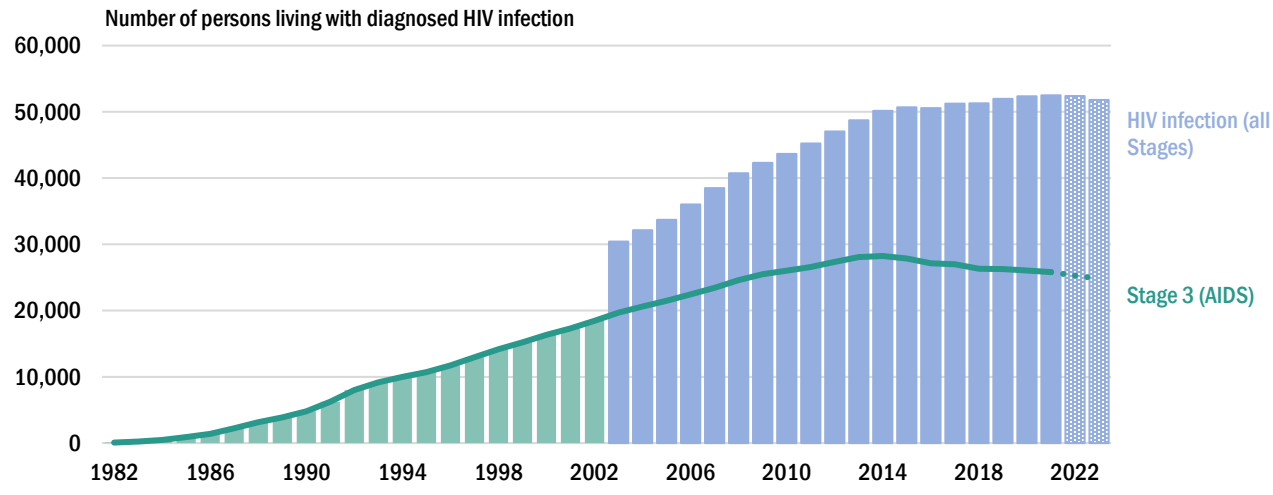
In the past decade, diagnosed cases of HIV, Stage 3 (AIDS), and deaths have gradually declined. The most recent increase in HIV diagnoses from 2020 to 2022 is likely due to the identification and reporting of missed diagnoses due to the impact of the COVID-19 pandemic.

Figure 3a: HIV diagnoses, AIDS diagnoses, and deaths among persons reported with HIV in Los Angeles County 1982-2022 [6,7,8]



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.

Figure 3b: Persons living with diagnosed HIV infection and AIDS in Los Angeles County 1982-2023 [7,8]

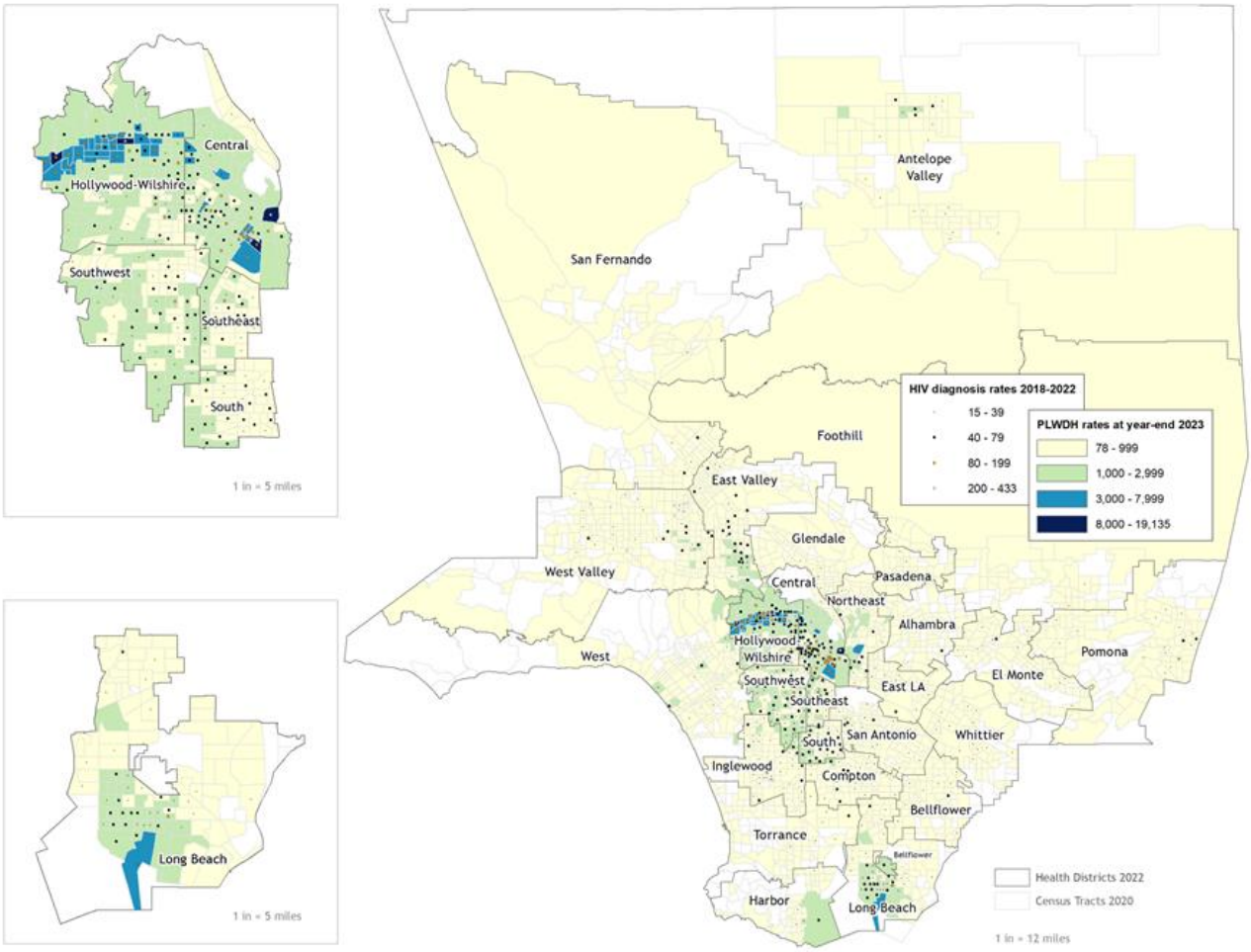


[6] Includes new diagnoses of HIV infection regardless of the disease stage at time of diagnosis.
[7] Includes persons whose residence at death was in LAC or whose most recent known address before death was in LAC, when residence at death is missing.
[8] 2022 data for diagnoses of HIV/AIDS and deaths and 2022/2023 data for persons living with HIV and AIDS are provisional as indicated by the dashed line and patterned bars. 2023 diagnoses of HIV/AIDS and deaths are underreported/unreliable due to significant reporting delay, and therefore are not shown.

Geographic distribution of HIV

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.

Figure 4: Geographic distribution[9] of rates per 100K population for PLWDH aged ≥13 years at year-end 2023 and persons newly diagnosed with HIV in 2018-2022, LAC



[9] See Technical Notes for more on census tract information.

Trends in HIV diagnoses

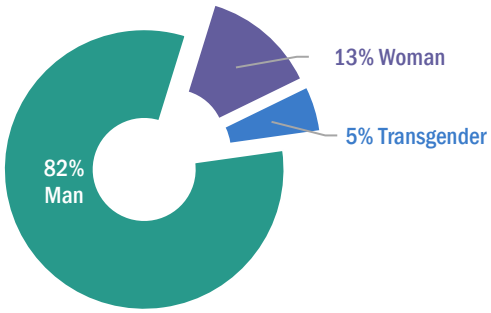
AT A GLANCE

This section presents information on 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. For additional data on HIV diagnosis trends by health district, refer to **Table A4**.

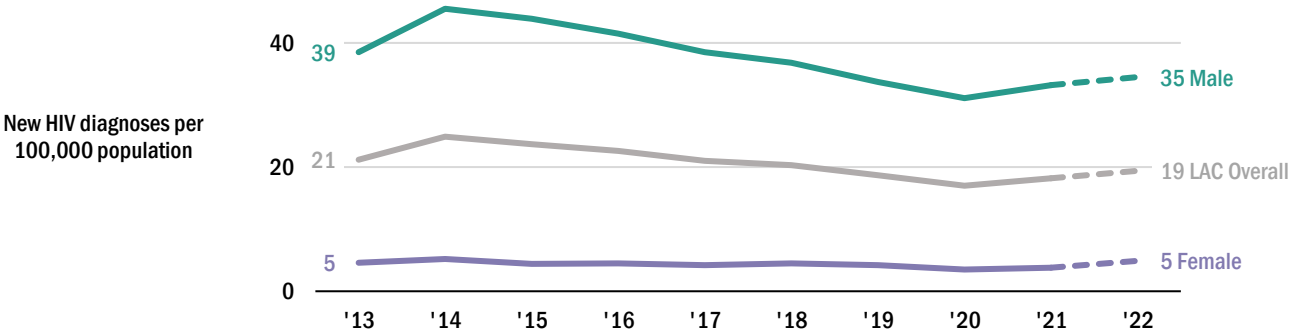
Consistent with prior years, men made up most of the HIV diagnoses in 2022 (N=1,352, 82%). Women (N=208, 13%) and transgender persons (N=81, 5%) represented a much lower number and percentage of new HIV diagnoses in 2022.

Figure 5: HIV diagnoses by gender among persons aged ≥ 13 years, LAC 2022 [10,11]



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.

Figure 6: HIV diagnoses rates by sex[11] among persons aged ≥ 13 years, LAC 2013-2022[12,13]

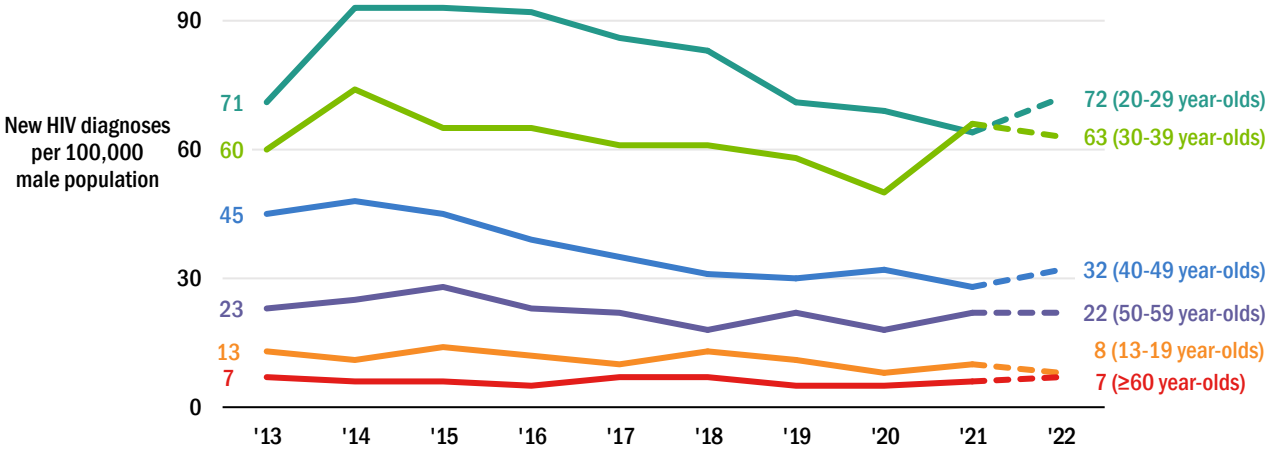


[10] Among the 81 transgender persons newly diagnosed with HIV in 2022, most identified as transgender women. Since transgender reporting relies on accurate gender classification from laboratories and health care providers, it is likely to be underreported.
[11] Rates are presented by sex at birth due to the unavailability of population size estimates in LAC by gender categories.
[12] Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line.
[13] 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.

Trends in HIV diagnoses among males

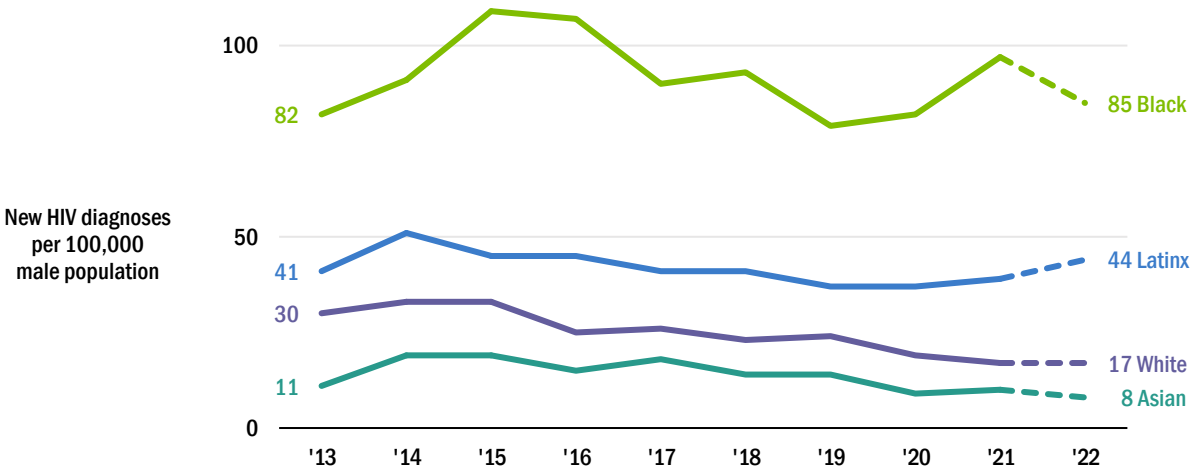
▶»» Over the past decade, HIV diagnoses rates have been on a declining trend for LAC males across all age groups. However, the rates among 20–29-year-old and 30–39-year-old males continue to be much higher than the average for males.

Figure 7: HIV diagnoses rates among males aged ≥ 13 years by age group, LAC 2013-2022[14,15]



▶»» 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.

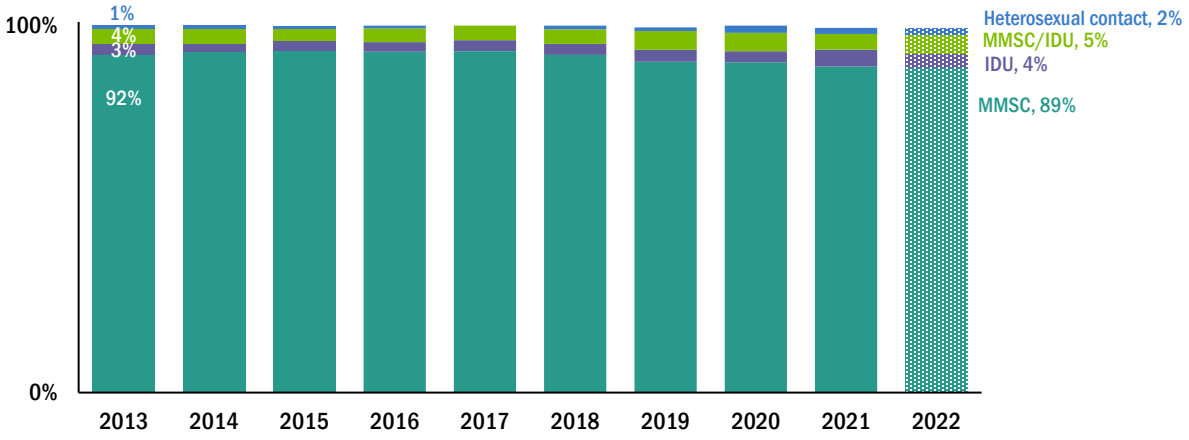
Figure 8: HIV diagnoses rates among males aged ≥ 13 years by race/ethnicity,[16] LAC 2013-2022[15]



[14] Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line.
[15] 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.
[16] 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, AIAN, and multi-racial persons represented 0.5%, 0.3%, and 1.8% of males newly diagnosed with HIV, respectively.

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

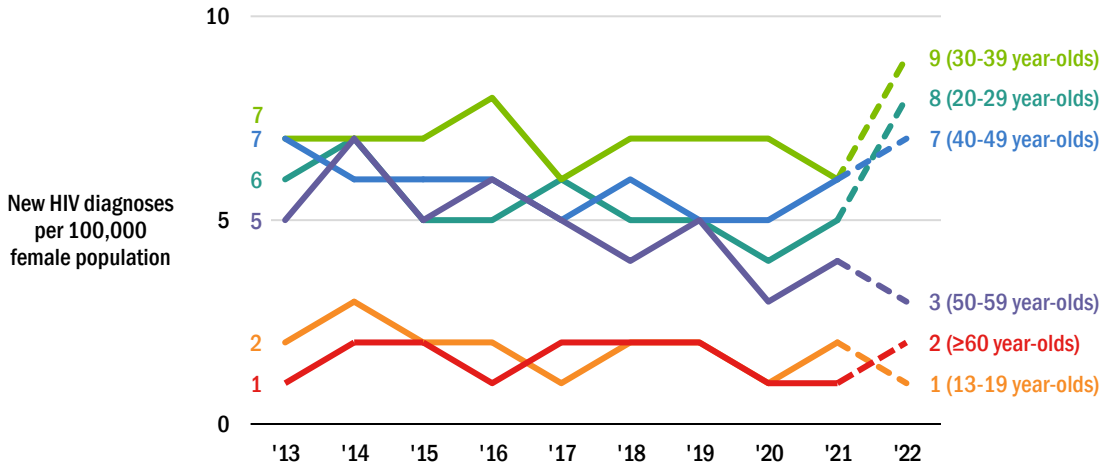
Figure 9: Transmission risk[17] among males newly diagnosed with HIV, LAC 2013-2022[18]



Trends in HIV diagnoses among females[19]

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.

Figure 10: HIV diagnoses rates among females aged ≥ 13 years by age group, LAC 2013-2022[18]



Compared with 2020, a year in which HIV laboratory surveillance data shows a decrease in HIV testing, diagnosis rates among females increased sharply in 2022 for almost all age groups. The decrease in HIV testing was arguably attributable to the COVID-19 pandemic and was followed by a rebound in HIV testing in 2021 and 2022.

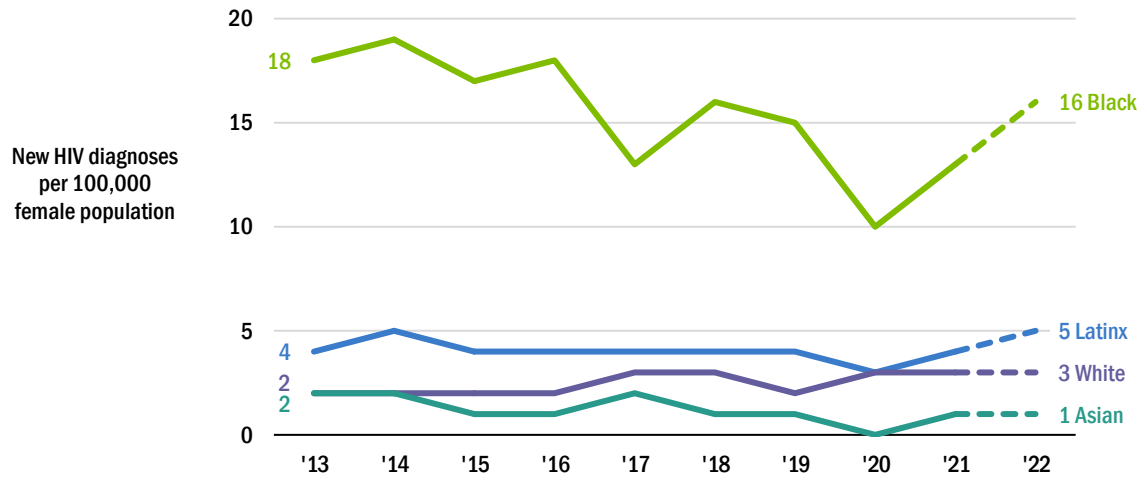
[17] A diagnosis of HIV is counted only once in the hierarchy of transmission categories. Persons with more than one reported risk factor for HIV are classified in the transmission category listed first in the hierarchy. The exception is men who had sexual contact with other men and injected drugs; this 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.

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

[19] Based on sex at birth.

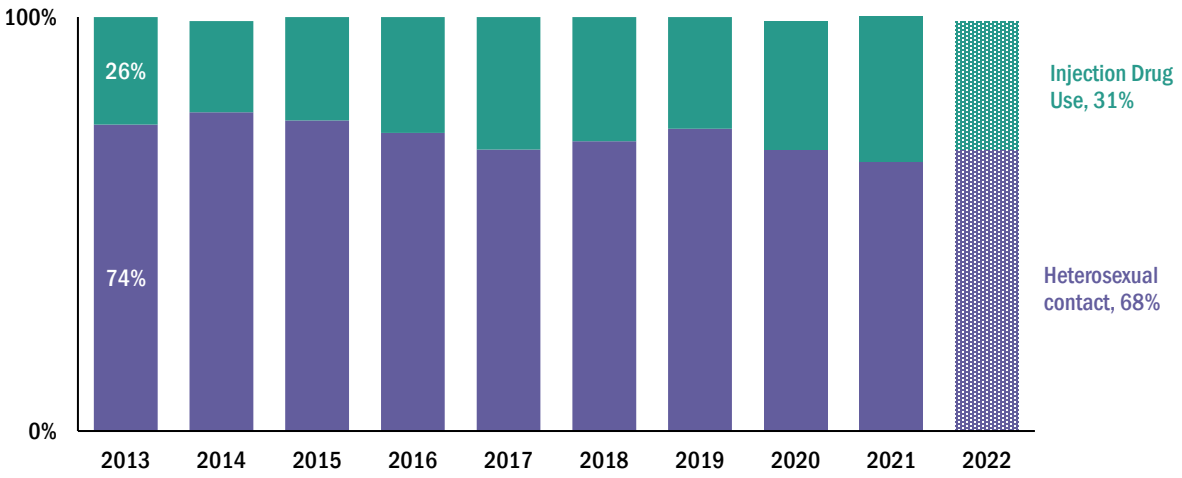
▶▶▶ Over the past decade, HIV diagnosis rates have remained relatively low and stable among Latinx, White and Asian women in LAC. By contrast, rates for Black women have declined to a 3-year average (2020-2022) of 12. Nonetheless, rates among Black women remain much higher than other racial/ethnic groups.

Figure 11: HIV diagnoses rates among females aged ≥ 13 years by race/ethnicity, LAC 2013-2022[20,21,22]



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

Figure 12: Transmission risk among females newly diagnosed with HIV, LAC 2013-2022[20,23]



[20] 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.
[21] Due to reporting delay, 2022 HIV diagnosis data are provisional as indicated by the dashed line and patterned bar.
[22] 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.
[23] Not presented in the chart are <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.

HIV incidence and undiagnosed HIV

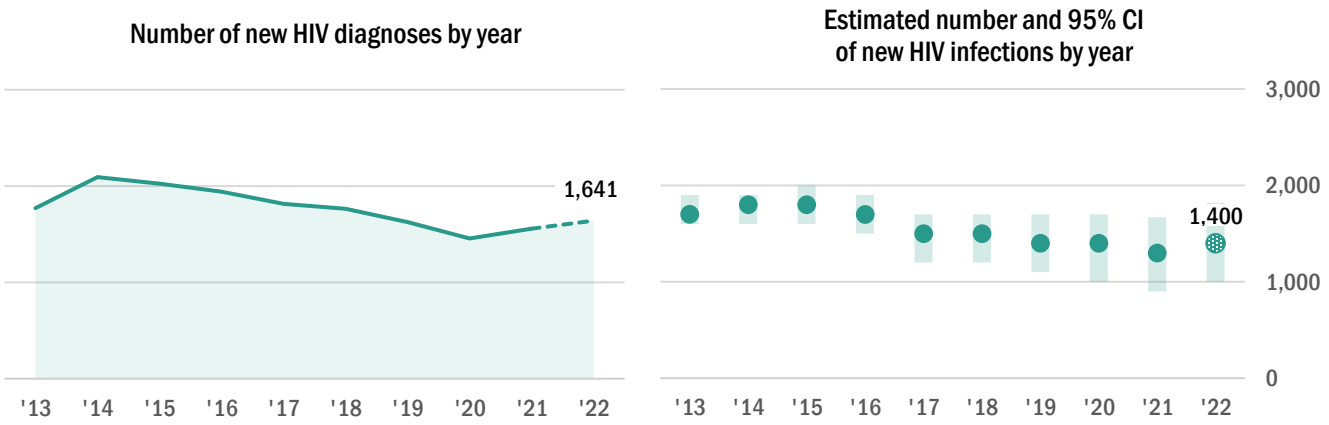
AT A GLANCE

Several indicators important for planning, monitoring, and evaluating the local HIV response are not directly measured through HIV surveillance. These include: (1) the number of persons who acquired HIV each year (i.e., new HIV infections), regardless of whether they received an HIV diagnosis and (2) 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.

Importantly, the model produces estimates (not true values). These, estimates are presented with 95% confidence intervals that show the range of values likely to contain the true value. Furthermore, these estimates are subject to periodic revisions as a result of updates to the surveillance data and methodological refinements in CDC's model. Here, we present estimates of newly acquired HIV (new HIV infection) and undiagnosed HIV among PLWH in LAC based on CDC's model.

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

Figure 13: 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[24]



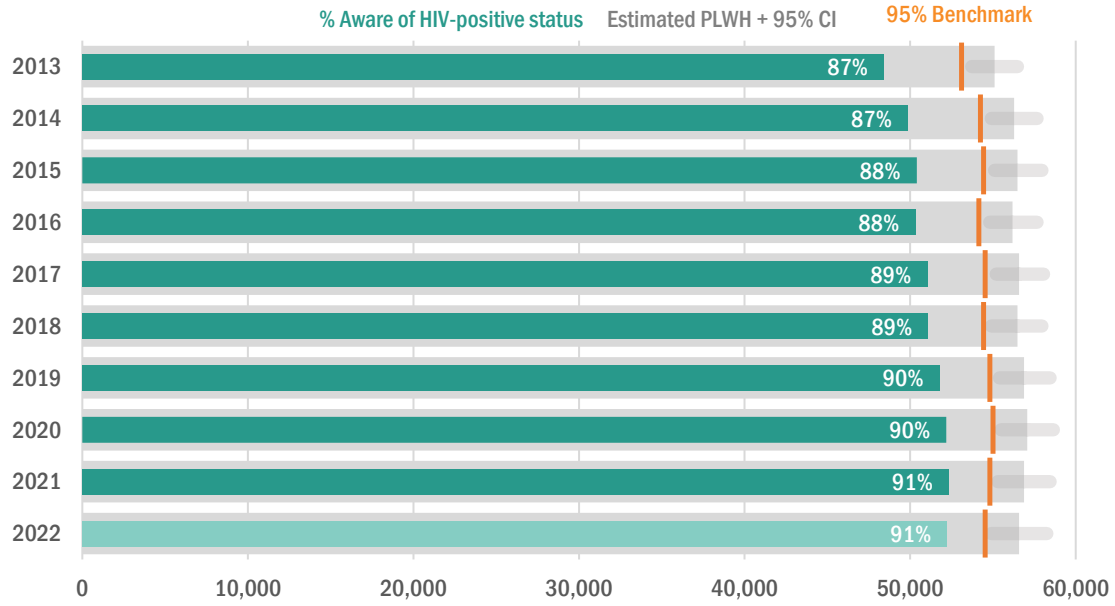
Note: The annual number of new HIV diagnoses is the number of PLWH who received an HIV diagnosis in a calendar year. This information is used to monitor trends in new HIV diagnosis and quantify the need for HIV care. A new HIV diagnosis is *not* equivalent to a new infection that was acquired in a calendar year. Many people live with HIV for years before they are diagnosed while some are diagnosed soon after acquiring HIV. Based on local data, the majority of new HIV diagnoses each year were infections acquired over a year ago.

The annual number of new HIV infections reflect infections acquired in a calendar year. Some new infections are diagnosed soon after acquiring HIV, but the majority are not. When the number of new HIV infections is high, HIV continues to spread because most people with a new infection are not aware they are living with HIV. New infections provide information on recent transmission and serve as a barometer to assess whether HIV prevention efforts are reducing transmission.

[24] Estimates based on the CD4-based model v6.0 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.

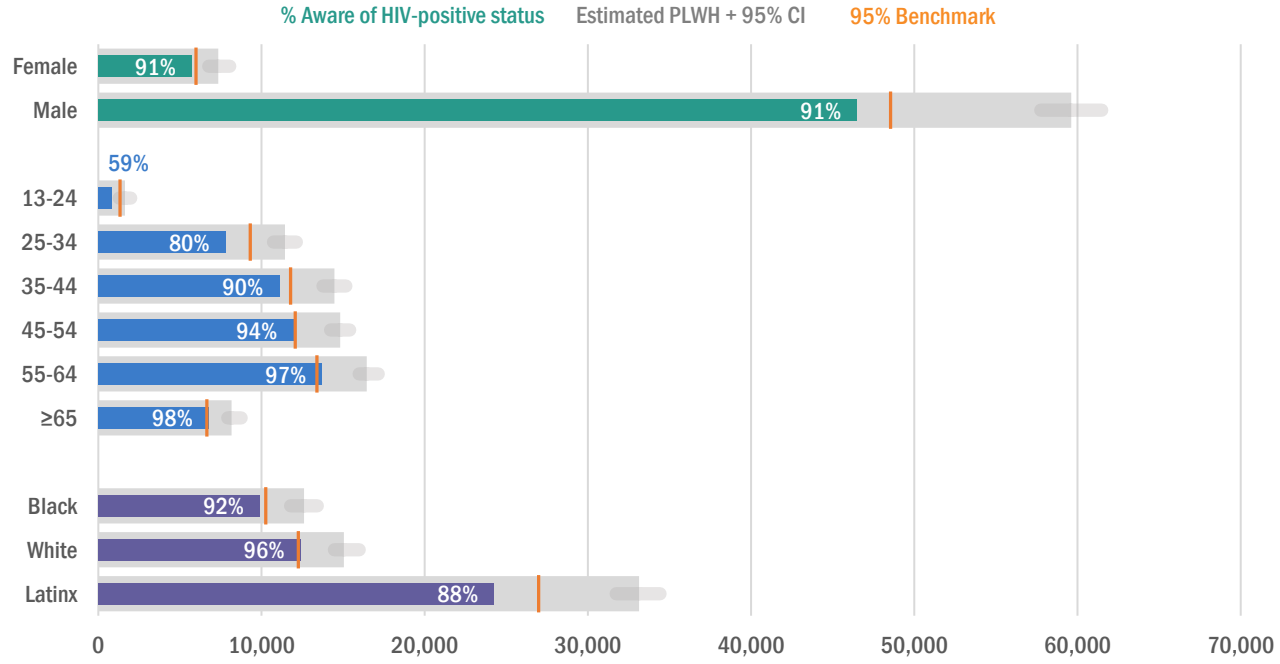
The percent of PLWH who are aware of their HIV-positive status has increased over the last 10 years from 87% to 91% but has yet to meet the EHE goal of 95% by 2025. In 2022, an estimated 5,200 PLWH remained unaware of their HIV-positive status.

Figure 14: Awareness of HIV-positive status among PLWH aged ≥ 13 years, LAC 2013-2022[25]



Latinx PLWH (12% unaware) and young PLWH 13-24 years (41% unaware) are disproportionately unaware of their HIV-positive status.

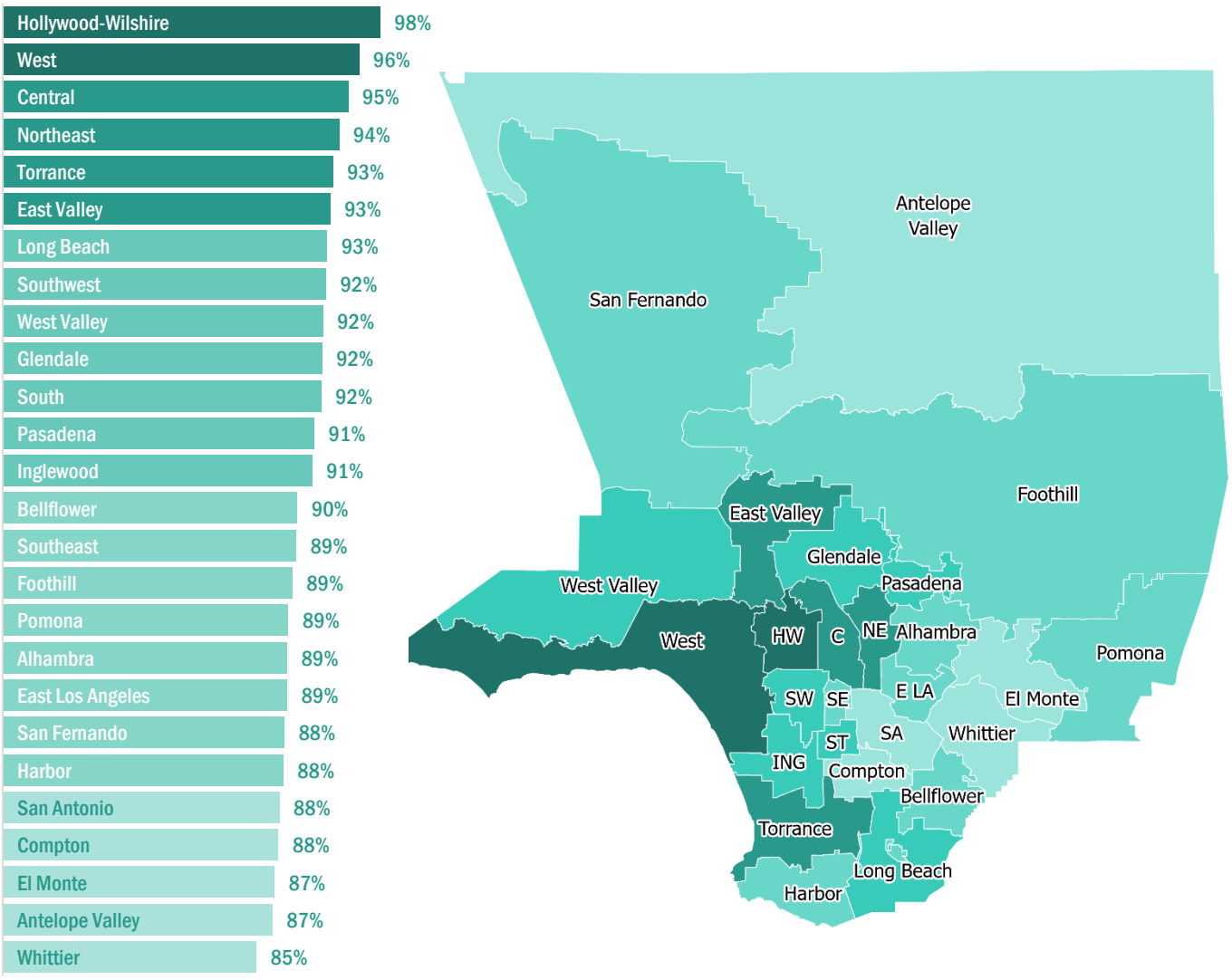
Figure 15: Awareness of HIV-positive status among PLWH aged ≥ 13 years by sex at birth, age group, and race/ethnicity, LAC 2022[25,26]



[25] Estimates based on the CD4-Based Model v6.0 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.
[26] Asians, 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.

▶▶▶ 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.

Figure 16: Percentage of PLWH aged ≥ 13 years who were aware of their HIV-positive status by Health District, LAC 2022[27,28]



[27] Based on HIV surveillance data as of December 31, 2023, for persons aged ≥ 13 years at year-end 2022.
[28] Estimates based on the CD4-Based Model v6.0 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.

Stage of HIV disease at diagnosis

AT A GLANCE

Information on stage of HIV disease at the time of diagnosis provides direct insight into the timeliness of an 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) as well as 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.

Table 2: 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.[29] 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.[29] 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 ≥ 500 cells/µL, 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/µL, 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/µL, 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.

[29] The 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.

Diagnosis of HIV in the acute phase allows for early treatment, which helps reduce forward transmission of HIV. In 2022, 14% of new HIV diagnoses were diagnosed at Stage 0 (an indicator of recent infection) and over half of those had acute HIV at diagnosis. Among those diagnosed in the acute phase, women, persons aged >30 years, and persons with heterosexual transmission risk are underrepresented.

Table 3: HIV disease stage among persons ≥13 years newly diagnosed with HIV, LAC 2022

	New HIV Diagnoses	Stage 0[30]				Stage 1[31]		Stage 2[32]		Stage 3[33]		Unknown[34]	
		Acute Infection		Not Acute									
	N	N	%	N	%	N	%	N	%	N	%	N	%
Total	**1641**	**140**	**9%**	**95**	**6%**	**352**	**21%**	**484**	**29%**	**294**	**18%**	**276**	**17%**
Gender													
Man	1352	119	9%	80	6%	284	21%	392	29%	255	19%	222	16%
Woman	208	14	7%	4	2%	53	25%	65	31%	32	15%	40	19%
Transgender	81	7	9%	11	14%	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	168	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	

[30] Stage 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 underestimated due to under-reporting of HIV-negative test results.
[31] The criterion for Stage 1 disease is CD4 ≥ 500 cells/μL within 90 days of diagnosis.
[32] The criterion for Stage 2 is CD4 between 200-499 cells/μL within 90 days of diagnosis.
[33] 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.
[34] Unknown stage includes persons without a CD4 test within 90 days of HIV diagnosis.

Monitoring trends in CD4 counts at diagnosis

AT A GLANCE

One way we evaluate the timeliness of a patient's HIV diagnosis is by assessing their CD4+ counts at the time of, or shortly after their HIV diagnosis. Patients with relatively low baseline CD4+ counts (CD4 < 200 cells/μL) within 1 month of diagnosis are defined as having late-stage disease while those with relatively high baseline CD4+ counts (CD4 > 500 cells/μL) 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.

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.

Figure 17: CD4+ T-cell count within 1 month of HIV diagnosis, LAC 2014-2023[35]

[35] Based 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.

HIV transmission clusters, molecular HIV surveillance, and transmitted drug resistance

AT A GLANCE

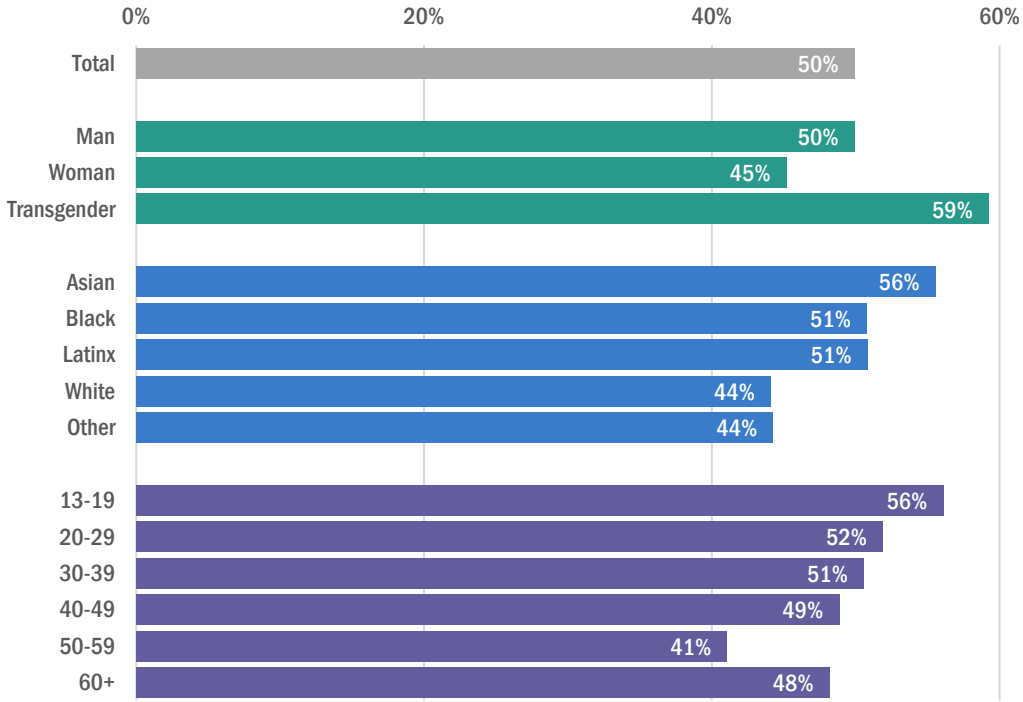
Federal guidelines for the care and treatment of PLWDH recommend HIV viral genotype testing at initiation of HIV care to determine whether an individual's HIV strain is resistant to certain anti-retroviral drugs. The genotype testing, which results in a genetic sequence report reflecting an individual's 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. 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 informs the delivery of services and interventions to minimize transmission in the social or sexual network and helps 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.

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

Figure 18: Proportion of new HIV diagnoses[36] with a genotype resistance test within 90 days of HIV diagnosis,[37] LAC 2022

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

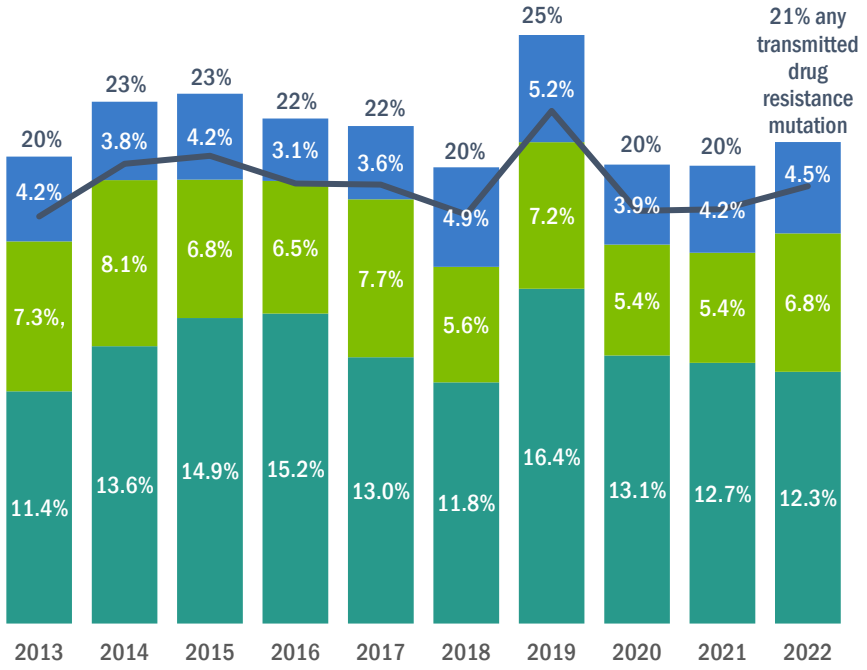


[36] Persons aged ≥ 13 years newly diagnosed with HIV in 2022. Data are provisional due to reporting delay.
[37] Race/ethnicity categories with fewer than 10 diagnoses (Native Hawaiian and Other Pacific Islander, American Indian/Alaska Native), Multi-race, and Unknown persons were included in Other.

In 2022, 21% of new HIV diagnoses in LAC had a transmitted drug resistant mutation (TDRM). The prevalence of TDRM 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.

Figure 19: Proportion of transmitted drug resistance (TDR) by drug class[38] among persons aged ≥13 years newly diagnosed with HIV with an eligible sequence,[39] LAC 2013-2022

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



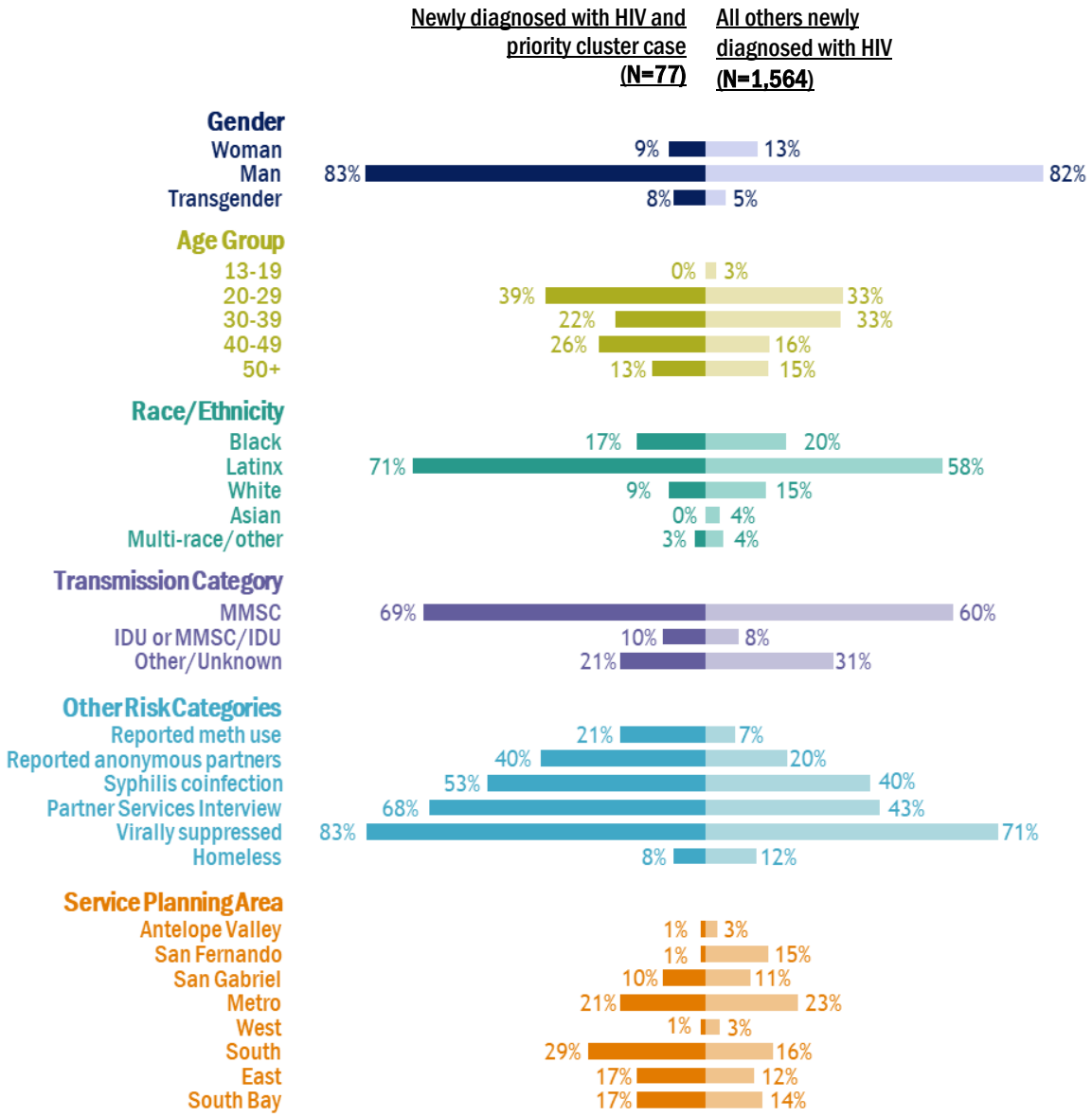
Notes: In 2022, 40% of people newly diagnosed with HIV had a sequence eligible for drug resistance analysis.

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

[38] NNRTI= 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.
[39] An 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.

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.

Figure 20: Priority[40] cluster diagnoses compared to non-cluster diagnoses among those newly diagnosed with HIV by selected characteristics,[41] LAC 2022



DHSP's multi-disciplinary cluster detection and response workgroup reviews high priority clusters and cases in priority clusters monthly, and plans tailored HIV prevention, testing, and care and treatment services to respond to networks where rapid HIV transmission is occurring.

[40] Priority transmission clusters are identified by HIV-TRACE and have at least 5 people diagnosed within the prior 12 months at a 0.5% genetic distance threshold.
[41] Age groups, race/ethnicity groups, and transmission risk categories with fewer than 5 persons are suppressed.

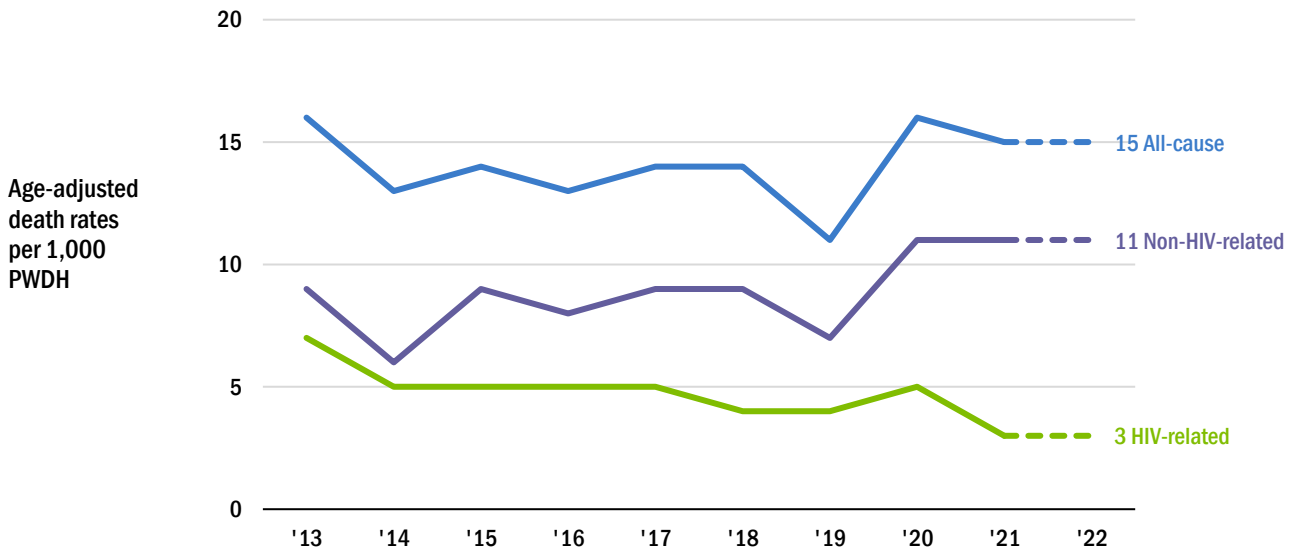
HIV mortality

AT A GLANCE

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 PWDH.

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 deaths rates increased from 7 per 1,000 in 2019 to 11 per 1,000 in 2022, marking a 57% rise, while HIV-related deaths rates declined by 25% (from 4 per 1,000 in 2019 to 3 per 1,000 in 2022).

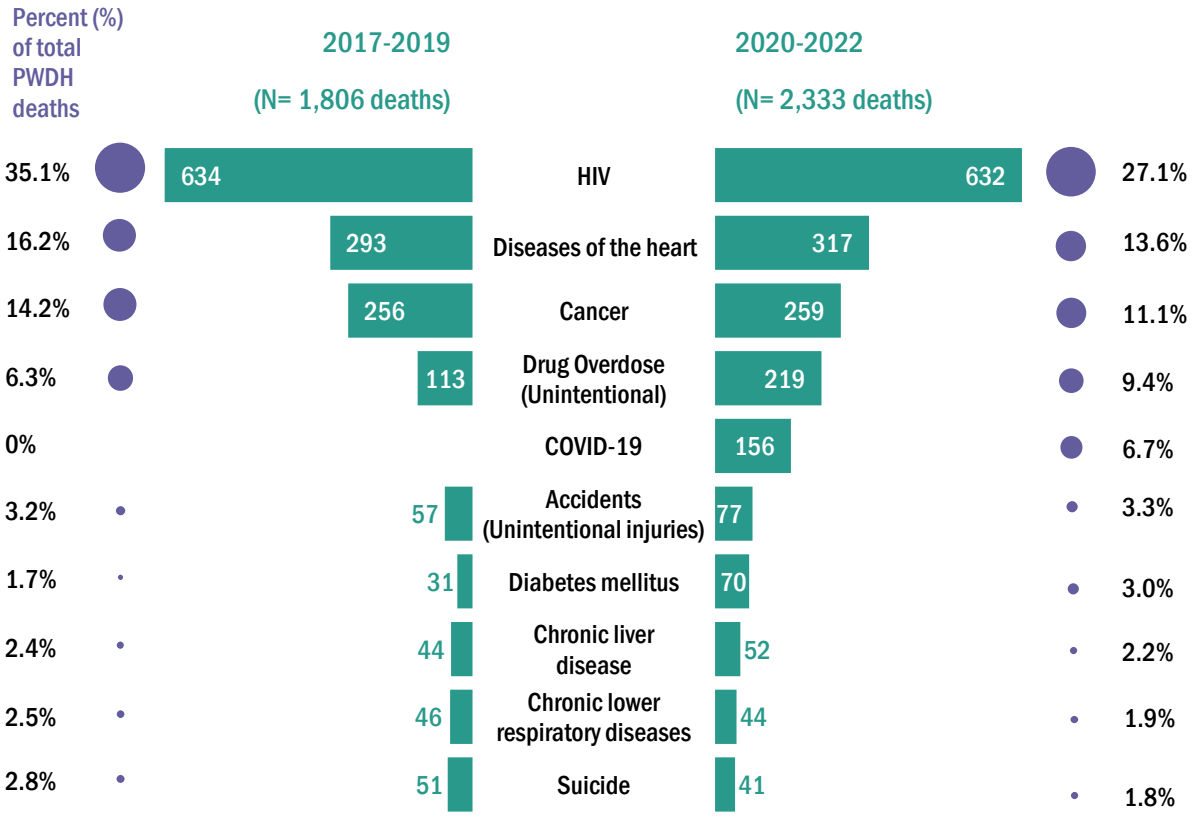
Figure 21: Age-adjusted death rates among persons aged ≥ 13 years with diagnosed HIV, by HIV-related and non-HIV related cause of death, LAC 2013-2022[42,43,44,45]



[42] Age-adjusted to the U.S. 2000 standard population.
[43] 2022 death rate data among PWDH are provisional due to reporting delay as indicated by the dashed line.
[44] 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 (see Technical Notes).
[45] All-cause death rates include persons with unknown causes of death (2.5% of all deaths during this period (2013-2022)).

Over the past decade, the number of deaths among PWDH has remained stable at approximately 600 deaths per year but increased sharply in 2020 during 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 these comparative time frames.

Figure 22: Underlying causes of death[46] among persons aged ≥ 13 years with diagnosed HIV, LAC 2017-2019, 2020-2022[47]



[46] The 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.

Data to Action

Progress and Opportunities in HIV Epidemic Monitoring

- In LAC, as of year-end 2022, approximately 57,400 persons aged ≥ 13 years are living with HIV, and an estimated 5,200 of these persons have not yet been diagnosed. With improved HIV survival and accelerated HIV case finding efforts to identify all undiagnosed PLWH, the number of diagnosed PLWH who require high quality HIV care will continue to grow.

- HIV epidemic control occurs when the number of new HIV infections falls below the number of deaths among PLWH. Approximately 1,400 new infections and 600 deaths among persons with HIV occur each year, signaling that LAC is far from reaching "HIV epidemic control." To turn the tide, high impact evidence-based prevention interventions, such as PrEP and partner services, will need to be more focused, accessible, and tailored to the specific needs of the populations and locations that need them most.

- The significant jump in HIV diagnoses rates from 8 per 100,000 in 13–19-year-old males to 72 per 100,000 in 20–29-year-old males highlights an inflection point where public health must intervene in order to prevent large numbers of young men from acquiring HIV.

- Among PLWH, persons younger than 35 years of age, Black, and Latinx persons had lower awareness of their HIV-positive status compared with their counterparts (Figure 15). These are the groups where capacity for HIV testing programs should expand to improve testing access and early HIV diagnosis.

- At least one in five persons with a new HIV diagnosis were diagnosed late (Stage 2 and beyond) in their disease stage. Women, Latinx persons, persons aged 40 years and older, and persons reporting injection drug use risk were more likely to have delayed diagnoses than other groups (Table 3). HIV screening programs should be tailored to the needs of these populations to ensure that HIV care and treatment interventions are not delayed.

- HIV drug resistance testing is important to ensure that ART is effective among PLWDH initiating treatment. Half of new HIV diagnoses did not receive a timely HIV genotype in 2022 highlighting a gap between recommendations and current practice. This also limits our ability to detect rapid HIV transmission clusters.

- Cluster response continues to serve as an important tool to laser focus the public health response in locations and among network contacts where recent and rapid transmission may be occurring.

- As increasingly more people with HIV live long lives and ultimately succumb to non-HIV-related causes, there is a need to evolve HIV services into an integrated disease management model that provides comprehensive health services for persons living with HIV throughout their life course.

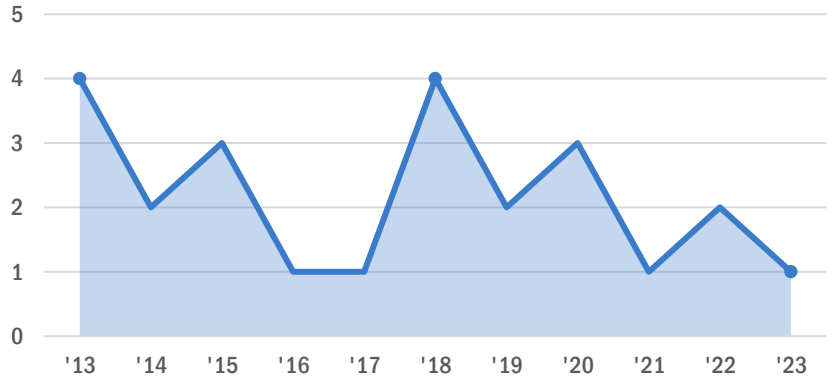
Vulnerable Populations

HIV among children

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.

Figure 23: Number of children aged <13 years newly diagnosed with HIV, LAC 2013-2023[48]

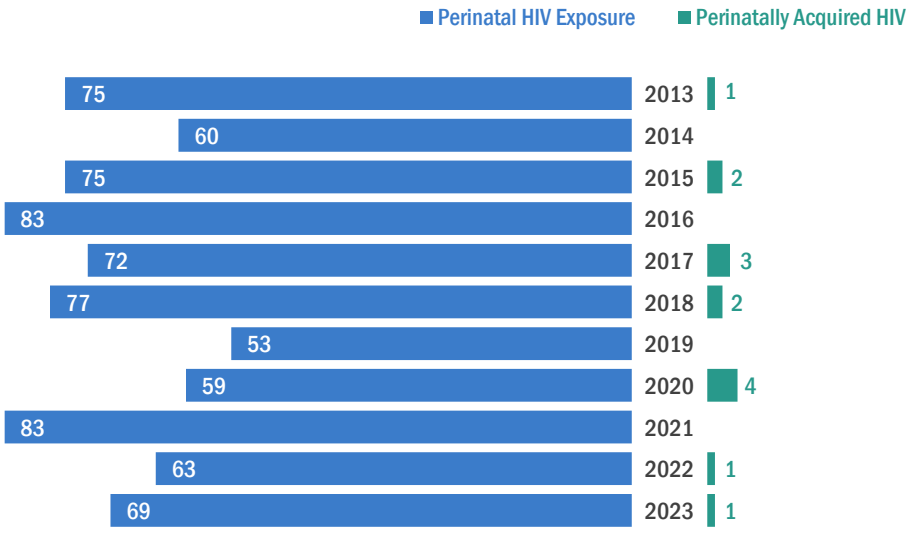
Of the 24 children diagnosed with HIV since 2013, the majority had perinatally acquired HIV.



HIV among Infants

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

Figure 24: Number of infants with perinatal HIV exposure vs. Number of infants with perinatally acquired HIV, LAC 2013-2023[49,50]



[48] 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.
[49] Due to reporting delay, 2022 and 2023 HIV data are provisional.
[50] 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.

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

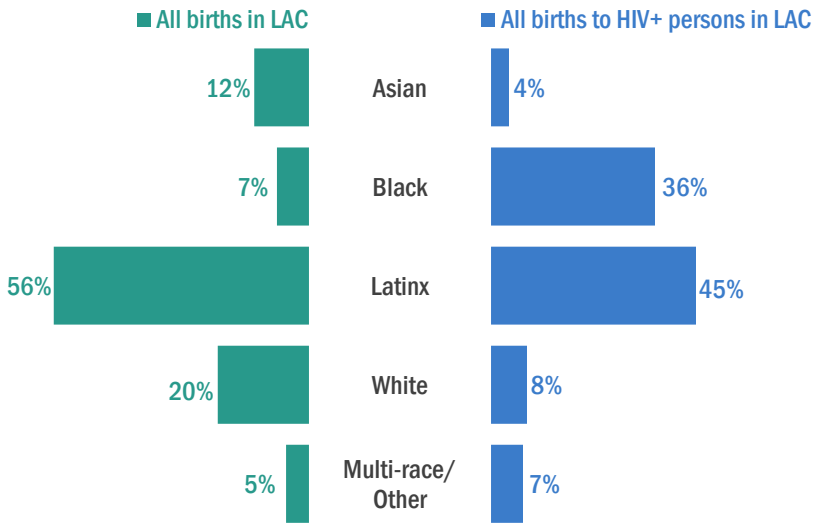
Table 4: HIV incidence and perinatal transmission among infants aged <18 months, LAC 2013-2023[51]

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 are perinatal HIV incidence < 1 per 100,00 live births, and a perinatal transmission rate <1 per 100 HIV-exposed infants.

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.

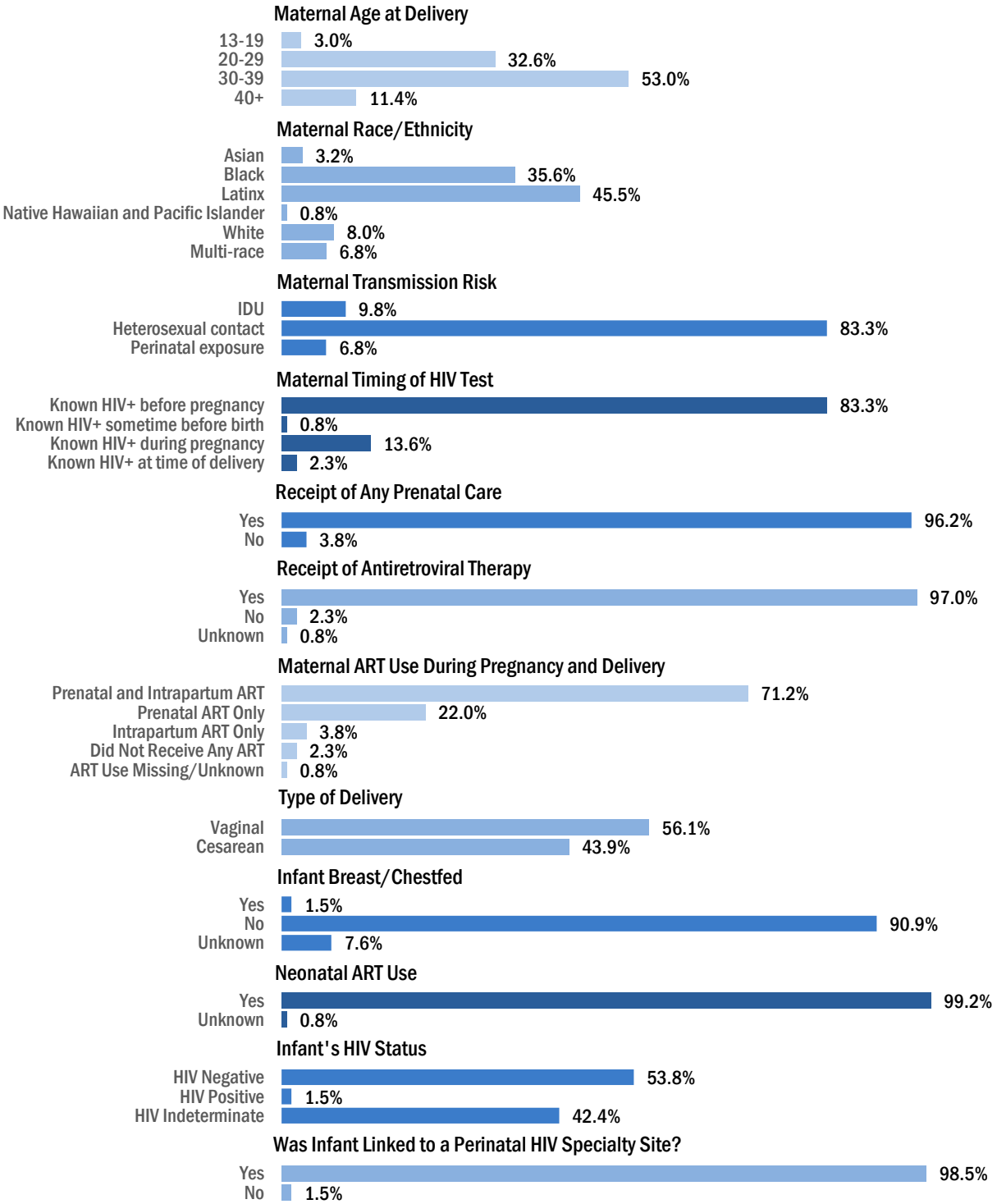
Figure 25: Rate of all LAC births vs perinatal HIV-exposed births in LAC by race/ethnicity, 2022-2023



[51] 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.

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

Figure 26: Demographic and clinical characteristics of pregnant persons with diagnosed HIV and exposed infants, LAC 2022-2023[52]

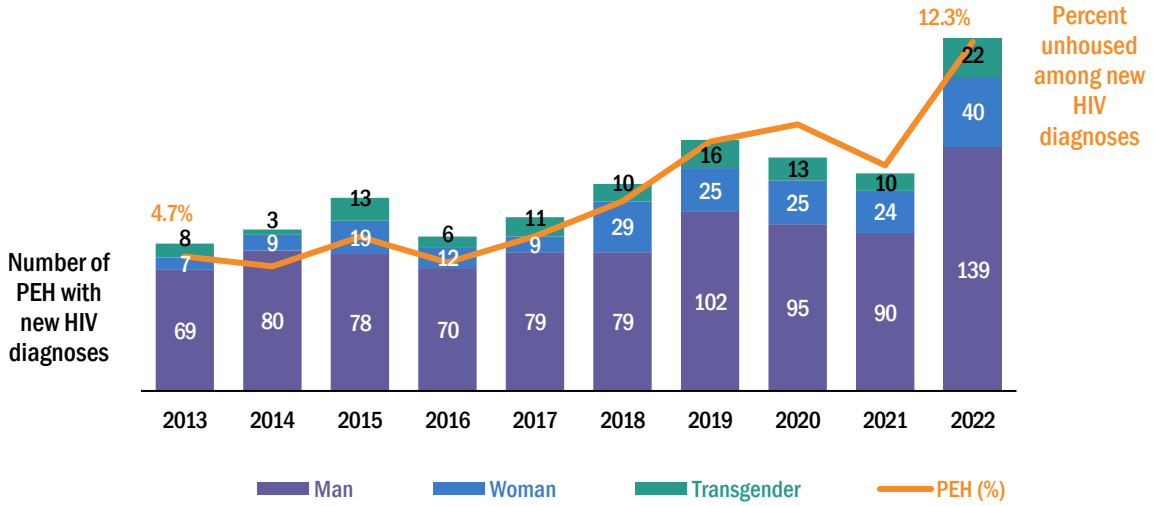


[52] Data are provisional due to reporting delay

HIV among persons experiencing homelessness (PEH)

▶▶▶ 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.

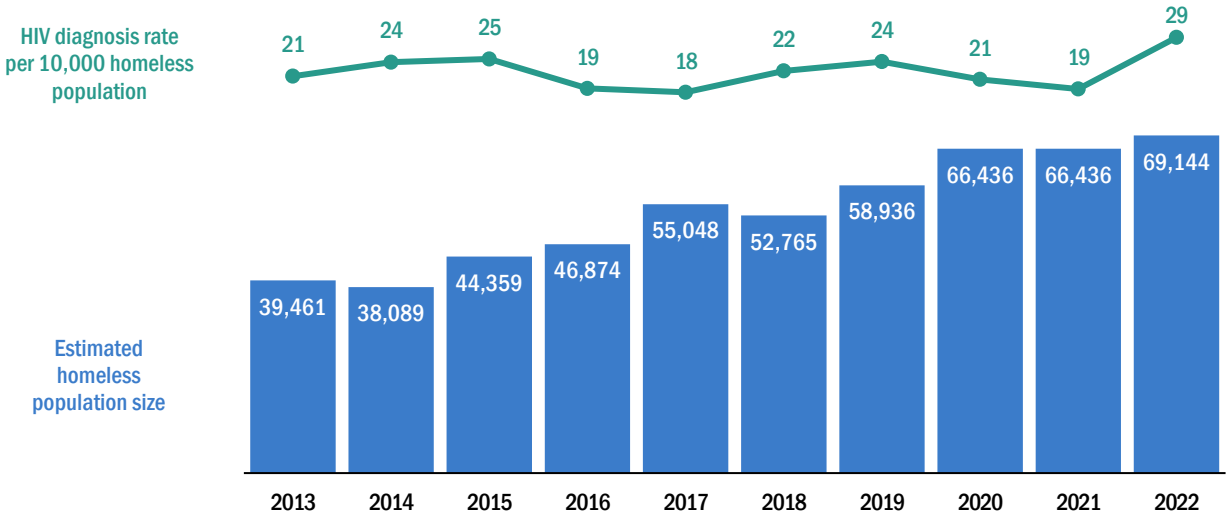
Figure 27: Number of persons experiencing homelessness and newly diagnosed with HIV,[53] by gender and percentage of persons aged ≥ 13 years newly diagnosed with HIV, LAC 2013-2022[54]



The HIV transmission risk profile among PEH newly diagnosed with HIV differs from the overall population of new HIV diagnoses, with a lower proportion of MMSC (42% versus 84% overall) and higher proportion of heterosexual contact (20% versus 2% overall) and IDU (18% versus 13% overall).

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

Figure 28: HIV diagnoses rates among persons aged ≥ 13 years experiencing homelessness, LAC 2013-2022[54]



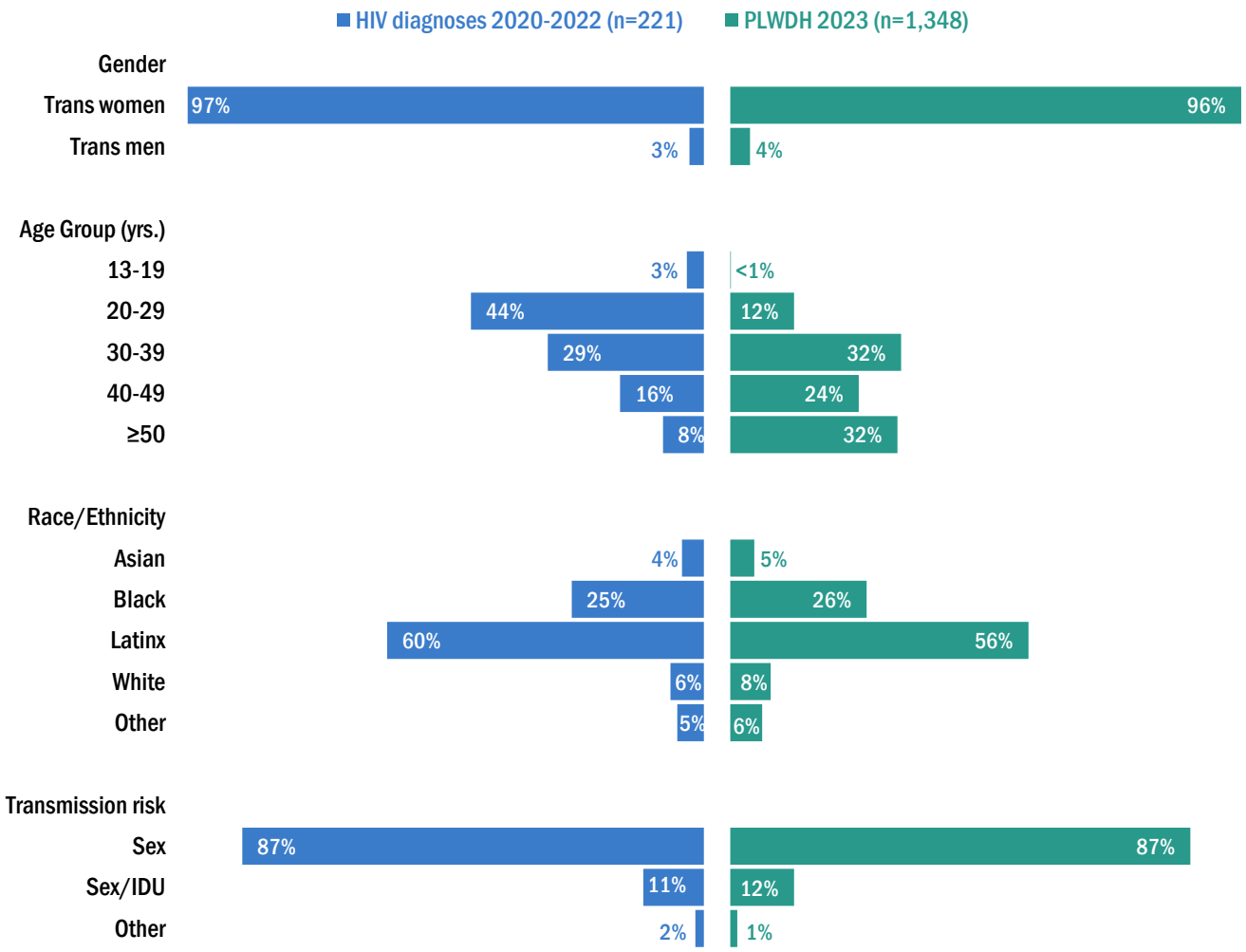
[53] Persons newly diagnosed with HIV were classified as PEH if they were experiencing homelessness within 6 months of their HIV diagnosis date. For the PEH definition used, please refer to the Los Angeles Housing Services Authority (LAHSA) definition under "Category 1" at https://www.lahsa.org/documents?id=1349-homeless-definition-part-1-.pdf

[54] Due to reporting delay, 2021 HIV diagnosis data are provisional as indicated by the patterned bar and dashed line.

HIV among transgender people

▶▶▶ 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.).

Figure 29: Transgender people aged ≥ 13 years diagnosed in 2020-2022 and living with diagnosed HIV infection at year-end 2023 by gender, age, race/ethnicity,[55] and transmission category,[56] LAC



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

HIV biobehavioral surveillance

AT A GLANCE

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 Gay, bisexual and other 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.

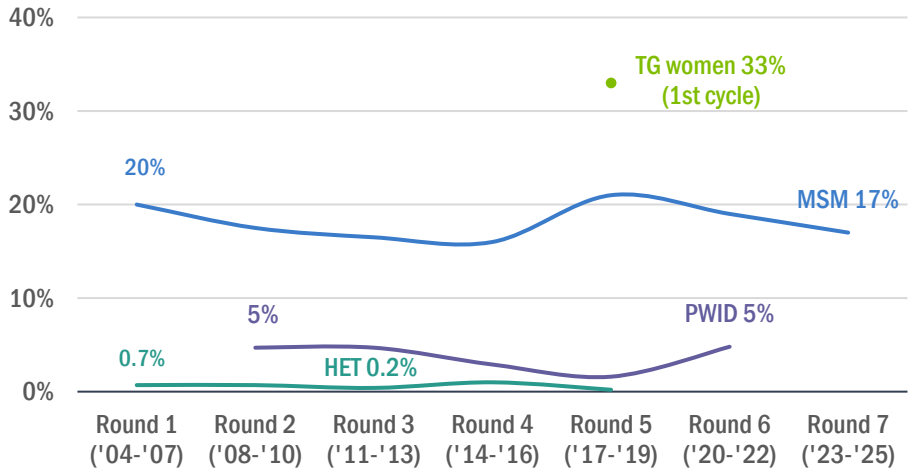
In this section, we highlight key findings from NHBS (Figure 30-Figure 43) and MMP (Figure 44-Figure 47) efforts in LAC. While the data in this section provide the best estimates available for the populations presented, **they are estimates (not true values) and thus any generalizations to broader population groups represented should be made with caution.**

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

Figure 30: Trends in HIV prevalence[57] by NHBS population, LAC 2004-2023[58,59]

In the most recent NHBS surveillance period, TG women had the highest HIV prevalence across the 4 surveyed populations. HIV prevalence was also high among MSM. By contrast, HIV prevalence among PWID and HET was low.

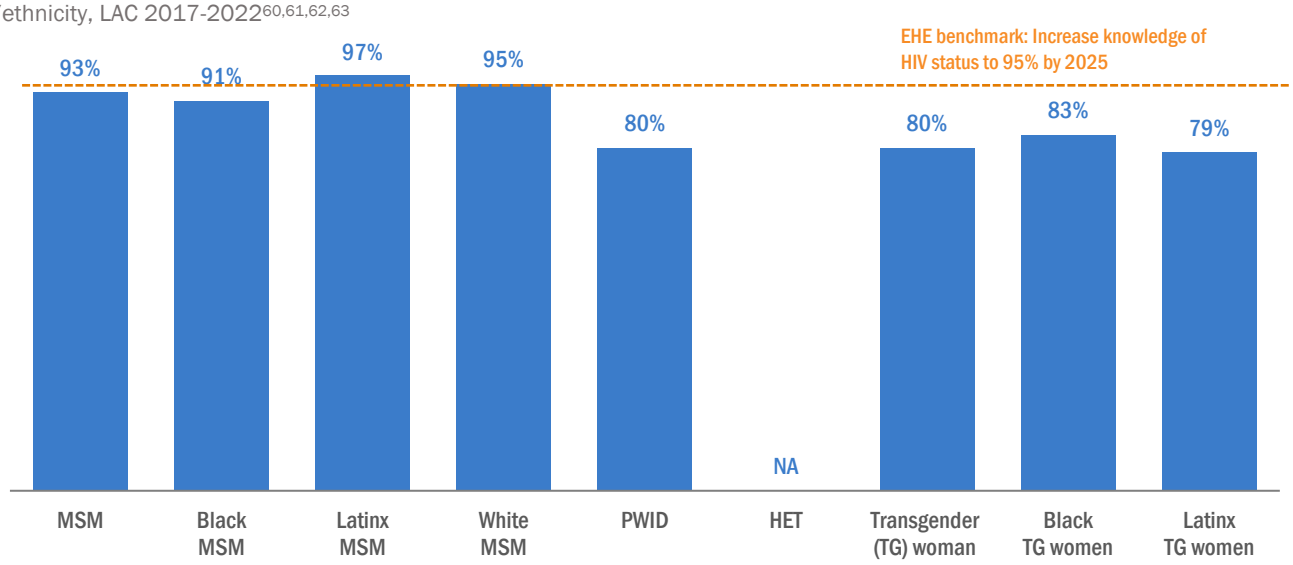
Note: Testing frequency among MSM and TG women was high compared with PWID and HET. MSM (85%) and TG women (86%) reported high levels of HIV testing in the past year. By contrast, only 41% of PWID and 31% of HET reported testing for HIV in the past year.



[57] "HIV Prevalence" refers to the percentage of participants with a confirmed positive HIV test result among the total number of participants tested in NHBS.
[58] Participants 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).
[59] In 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%).

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

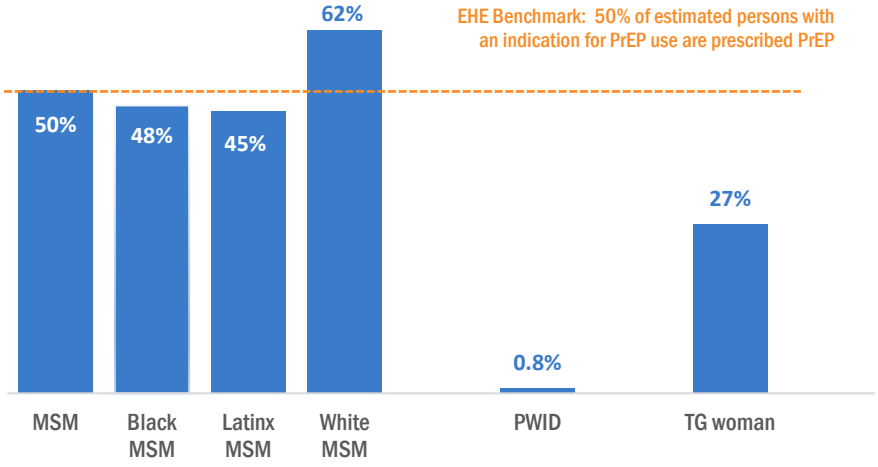
Figure 31: Awareness of HIV-positive status among participants aged ≥ 18 years living with HIV by NHBS population and race/ethnicity, LAC 2017-2022[60,61,62,63]



It is noteworthy that among NHBS MSM participants living with HIV, over 95% of Latinx MSM and White MSM were aware of their HIV status.

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

Figure 32: PrEP Use during the past 12 months among NHBS Populations with a negative HIV test result, LAC 2019-2023



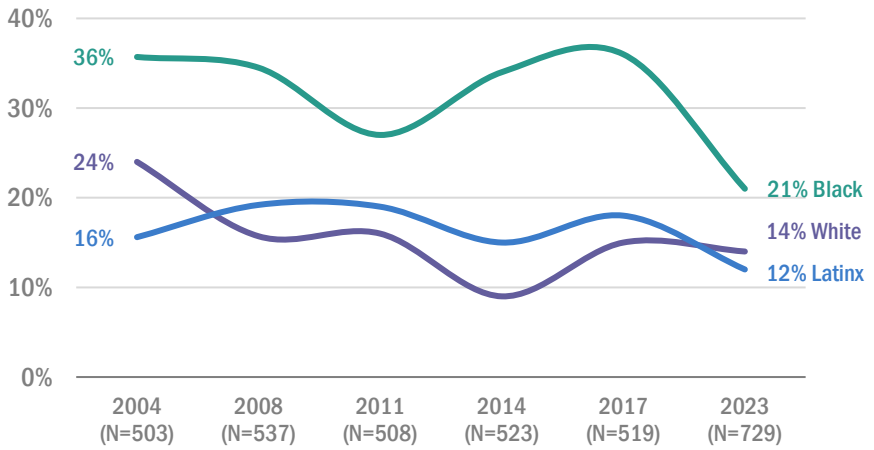
PrEP use varied across NHBS populations(MSM, TG women, PWID), with the highest uptake observed among MSM reaching 50% in 2023. Sixty-two percent of White MSM reported using PrEP, while Black MSM (48%) and Latinx MSM (45%).

[60] National 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.
[61] **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 (TG) women: 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.
[62] Awareness of HIV infection among PWID and HET is unstable due to small numbers.
[63] Data on HIV testing in the past 12 months excludes participants diagnosed with HIV >12 months prior to the survey interview.

Gay, bisexual and other men who have sex with men (MSM)

▶▶▶ 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.

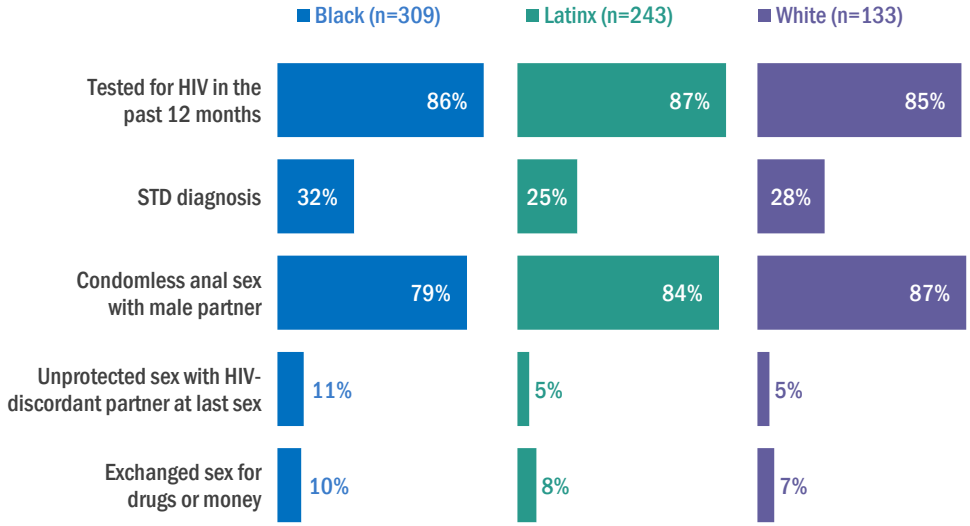
Figure 33: Trends in HIV prevalence among NHBS-MSM participants by race/ethnicity, LAC 2004-2023



HIV prevalence among Black MSM has consistently been higher compared to White and Latinx MSM over the years. While there have been variations in prevalence rates among all groups, there's a notable decline in prevalence rates among all racial/ethnic groups by 2023. In the most recent surveillance round, 21% of Black MSM were living with HIV compared with 14% of White MSM and 12% of Latinx MSM. Changes in influential characteristics within the Latinx and White MSM participants may have affected the observed relative prevalence of HIV between the two groups, particularly as White MSM have now surpassed Latinx MSM in HIV prevalence.

▶▶▶ 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

Figure 34: HIV testing behavior, STD diagnosis, and sexual behavior among NHBS-MSM participants by race/ethnicity, LAC 2023[64]

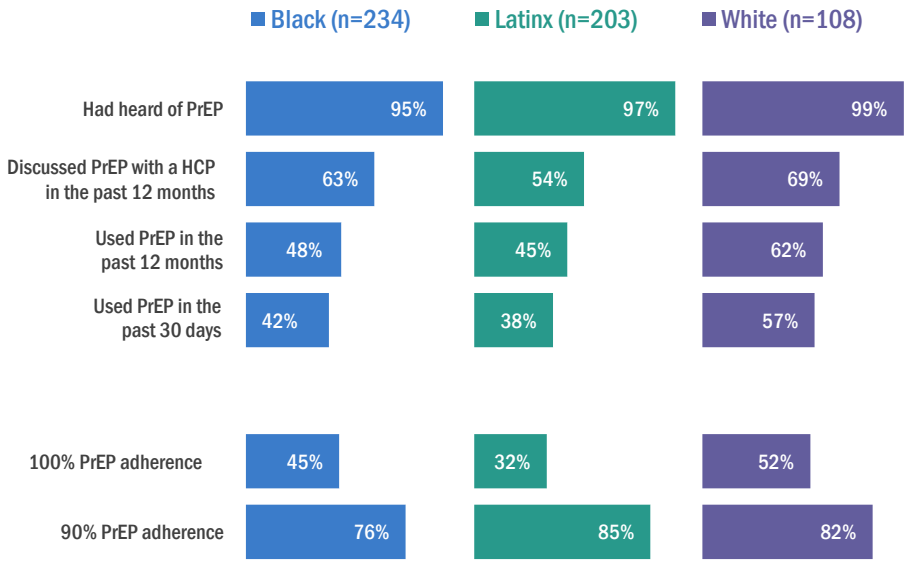


In 2023, HIV testing within the previous 12 months was high among MSM of all racial and ethnic groups. The high proportion of MSM who engaged in condomless sex underscore the importance of using evidence-based HIV/STD prevention strategies among MSM at increased risk for HIV that include access to and use of condoms, PrEP, DoxyPEP and risk-reduction counseling.

[64] There 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.

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

Figure 35: PrEP use among NHBS-MSM participants who reported as HIV-negative status, by race/ethnicity, LAC 2023[65]

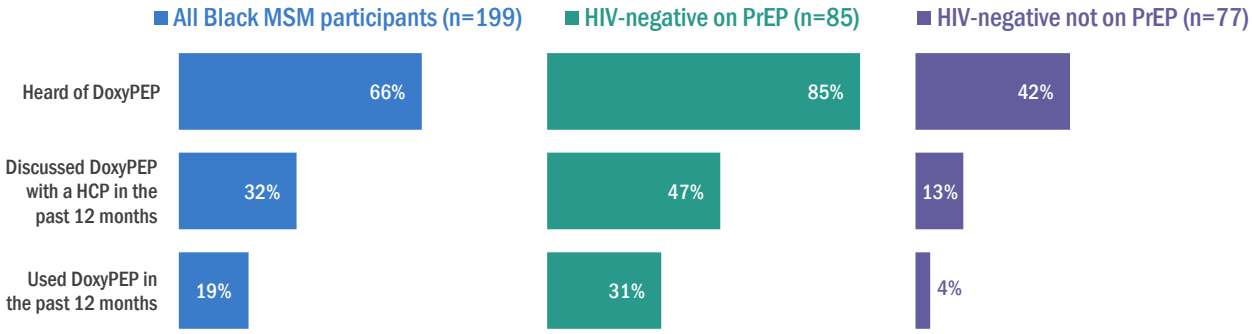


PrEP awareness was high (≥ 95%) among MSM of all racial and ethnic groups and 44% used in the past 30 days prior to the interview encounter.

PrEP is highly effective at preventing new HIV infections when taken consistently. Of those who reported PrEP use in the past 30 days, 42% reported they had taken all PrEP medicine (100% adherence); An additional 38% reported missing three days or less (90% adherence). White MSM had higher rates of both PrEP use and adherence compared with Black MSM. None of the participants who used PrEP in the past 12 months tested positive for HIV during the interview encounter.

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

Figure 36: Doxycycline Post-Exposure Prophylaxis (DoxyPEP) knowledge and uptake among a sample of black MSM, NHBS-MSM, LAC, Jan-March 2024[66]



DoxyPEP, as a targeted intervention for bacterial STIs, has the potential to reduce STI acquisition and transmission. In a recent local study, we examined DoxyPEP awareness and uptake of DoxyPEP within a sexually active black MSM community. Overall, 66% reported having heard of doxyPEP, and a third had discussed it with a healthcare provider (HCP), and 19% had used DoxyPEP in the 12 months prior to the interview. When analyzing specific subgroups, participants on HIV PrEP reported the highest DoxyPEP use, with 31% using it in the past 12 months.

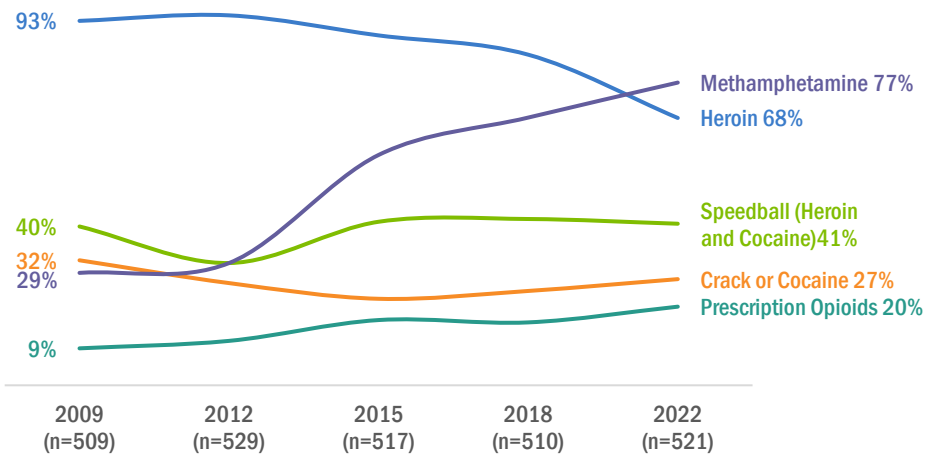
[65] A total of 577 HIV-negative MSM were included in the PrEP analysis, consisting of 234 Black MSM, 203 Latinx MSM, and 108 White MSM.
[66] There were 199 Black MSM included in the DoxyPEP analysis and the sample was collected from January through March 2024 as a local expansion of NHBS-MSM 2023. The DoxyPEP use was only assessed during the local study. The reported median number of male sex partners in the past 12 months was 6.

Persons who inject drugs (PWID)

▶»» Over the past decade, the estimated prevalence of methamphetamine use by injection has increased significantly.

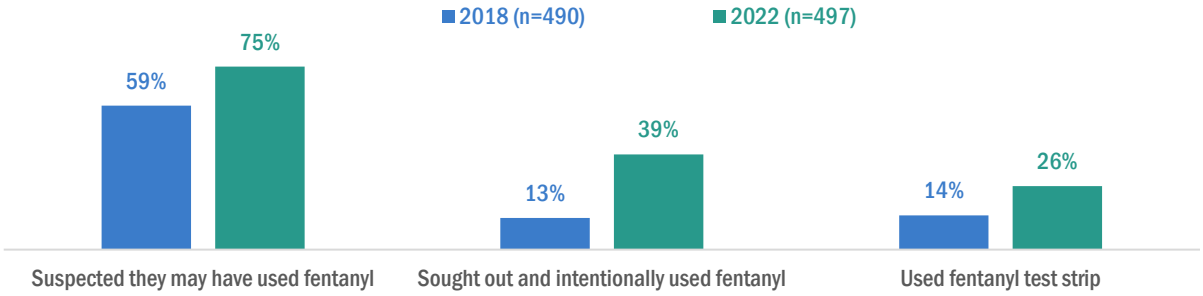
Figure 37: Drugs injected in the past 12 months among NHBS-PWID participants, LAC 2009-2022[67]

The prevalence of past-year methamphetamine use by injection among PWID increased significantly from 29% in 2009 to 77% in 2022. Among those reporting past-year methamphetamine injection, 56% reported injecting methamphetamine at least once a day in 2022 (data not shown). Reports of heroin injection are on a decreasing trend, from 93% in 2009 to 68% in 2022. Nonetheless, there was a modest increase in prescription opioid injection use.



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

Figure 38: Fentanyl Use in past 12 months among NHBS-PWID participants, LAC 2018 vs. 2022



Fentanyl use was common among PWID in LAC: Fentanyl is a potent synthetic opioid typically used to treat patients with chronic severe pain. Fentanyl is being mixed in with other illicit drugs to increase the potency of the drug. Among NHBS-PWID participants in 2022, 3 in 4 (75%) reported using drugs they suspected contained fentanyl, a 27% increase from the 2018 NHBS-PWID survey. In 2022, a higher percentage of participants reported using fentanyl test strips when they suspected their drugs might contain fentanyl compared to 2018.

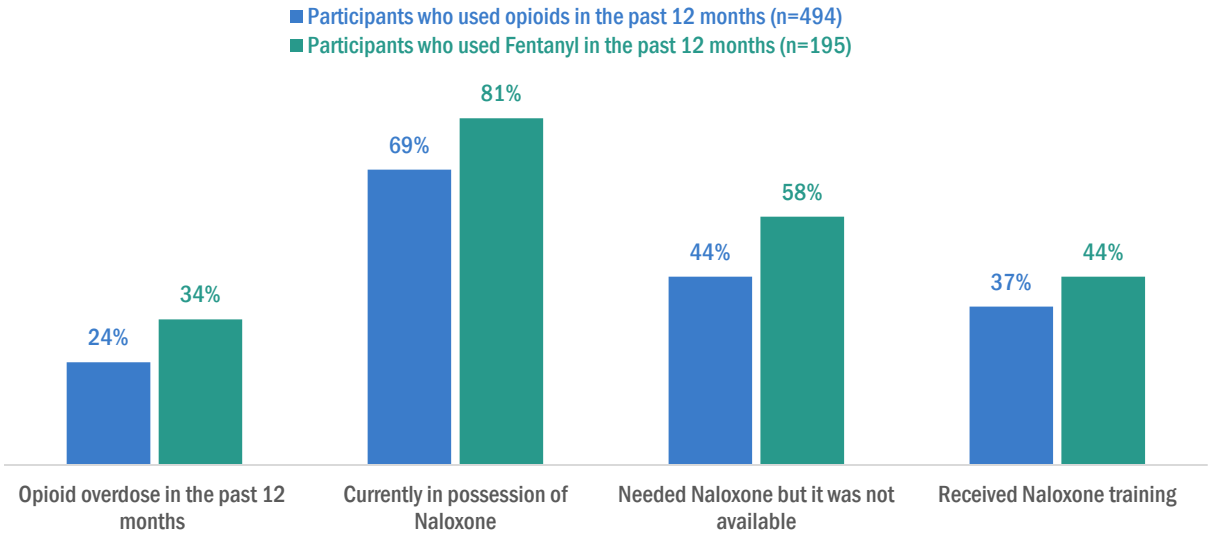
Intentional fentanyl use: 39% of those who had used fentanyl reported using it intentionally in 2022. There was a notable rise in participants intentionally seeking out fentanyl as their drug of choice, increasing from 13% in 2018 to 39% in 2022. Among persons who intentionally used fentanyl, 41% solely smoked it, and 65% smoked it daily.

The 2022 survey found significant associations between intentional fentanyl use and several demographic and behavioral factors. Specifically, those who intentionally used fentanyl were more likely to be younger (18-29 years, 95% CI:1.6-3.7), White (95% CI:1.1-2.4), currently homeless (95% CI:1.1-2.5), engaging in daily substance injection (95% CI: 1.9-4.5) and had experienced more than 3 non-fatal overdoses in the past 12 months (95% CI:4.8-44.2).

[67] Speedball is a polydrug mixture of Heroin and Cocaine.

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%).

Figure 39: Comparison of non-fatal opioid heroin overdose, possession of naloxone and unmet naloxone need among LAC NHBS-PWID participants who reported injection or noninjection use of heroin or painkillers versus those who used Fentanyl, LAC 2022[68]



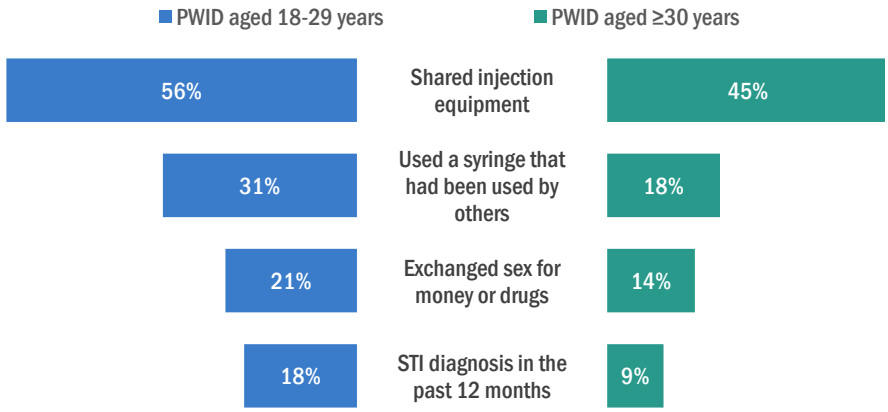
Fentanyl has become the most common drug involved in overdose deaths in LAC in 2022[69]. In 2022, among NHBS-PWID participants who reported injection or non-injection use of opioid (including heroin or painkillers), 24% of NHBS-PWID participants reported experiencing at least one opioid overdose in the 12 months with a higher incidence reported among intentional fentanyl users (34%).

Naloxone can reverse the effects of an opioid overdose including synthetic fentanyl and prevent death. Among all participants, 69% currently possessed Naloxone at the time of interview, rising to 81% among intentional fentanyl users. Forty-four percent overall and 58% of intentional fentanyl users reported they had been in a situation when Naloxone was needed, and it was not available. Regarding Naloxone training, 37% of all participants received it, slightly more (44%) among intentional fentanyl users.

[68] Experiencing 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.
[69] Data Report: Fentanyl Overdoses in Los Angeles County. Health Outcomes and Data Analytics Branch, Substance Abuse Prevention and Control, Los Angeles County Department of Public Health, November 2023.

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.

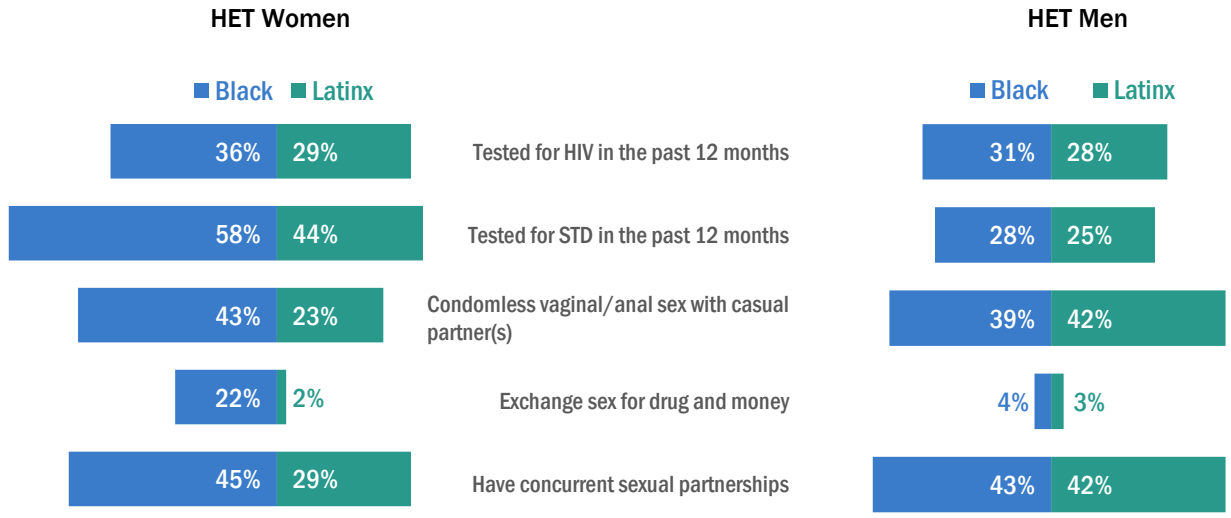
Figure 40: Injection drug use behavior and recent sexual behavior among NHBS-PWID participants by age group, LAC 2022[70]



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.

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

Figure 41: Testing and sexual behavior among NHBS heterosexuals at increased risk of HIV (HET) by sex and race/ethnicity, LAC 2019[71]



Among HET women, more Blacks reported condomless sex with a casual partner, receiving money or drugs in exchange for sex, and having concurrent sexual partners than Latinx HET.

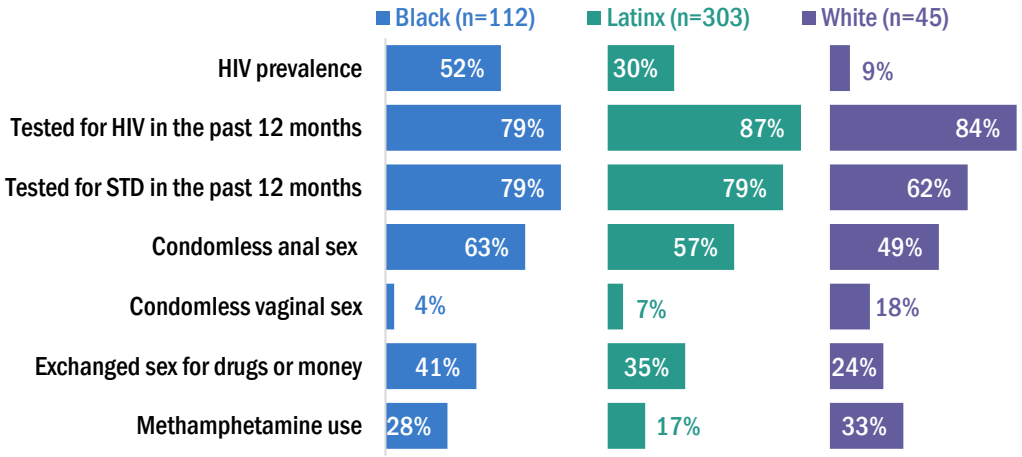
[70] Receptive sharing of syringes or injection equipment refers to using a syringe or injective equipment that has already been used by someone else. All injection and sexual behavior indicators reflect behavior in the 12 months prior to the survey interview.

[71] 136 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?"

Transgender (TG) women

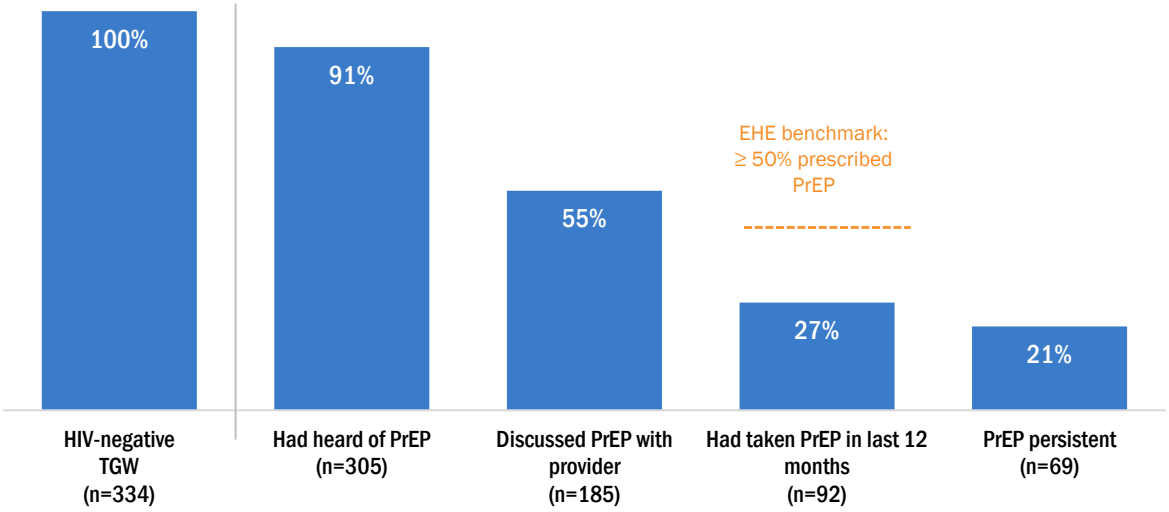
Among TG women, HIV prevalence was highest among Black persons (52%), followed by Latinx (30%), and White persons (9%). Black TG women were more likely to practice condomless anal sex and exchange sex for drugs or money but were less likely to test for HIV compared with Latinx and White TG women.

Figure 42: HIV prevalence, HIV/STD testing behavior, sexual behavior, and drug use among NHBS-Transgender women by race/ethnicity, LAC 2019[72,73]



Most (91%) TG 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.

Figure 43: PrEP cascade among NHBS-Transgender women, LAC 2019[74]

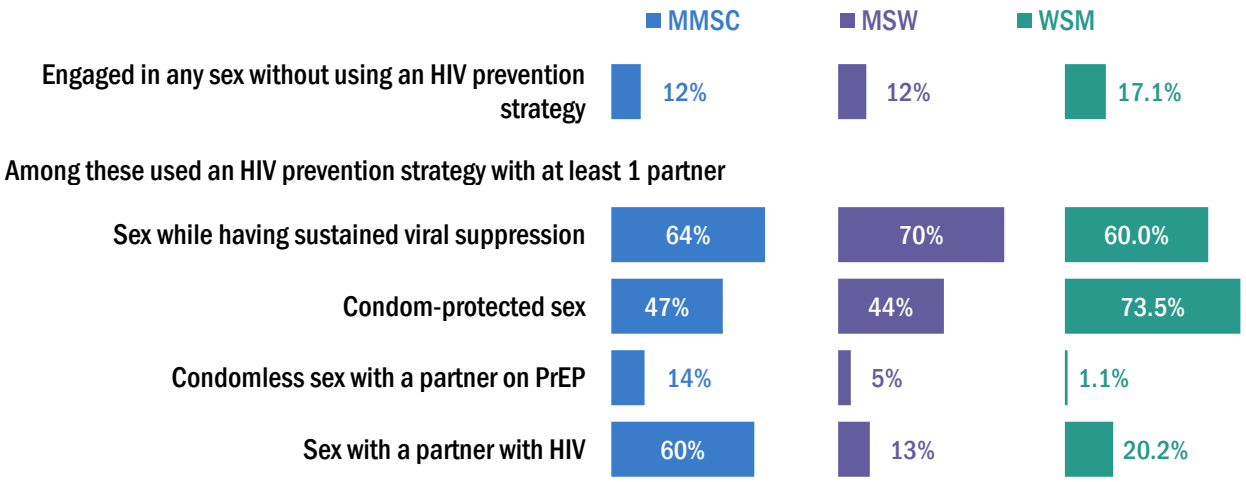


[72] HIV prevalence refers to the percentage of participants with a confirmed positive NHBS HIV test result among the total number of participants tested in NHBS. Tested for HIV in the past 12 months excluded participants who reported being diagnosed with HIV more than 12 months prior to the interview. 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.
[73] Estimates for white transgender women may be unstable and must be interpreted with cation due to small numbers.
[74] PrEP 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 PLWDH

▶▶▶ Most sexually active PLWDH 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.

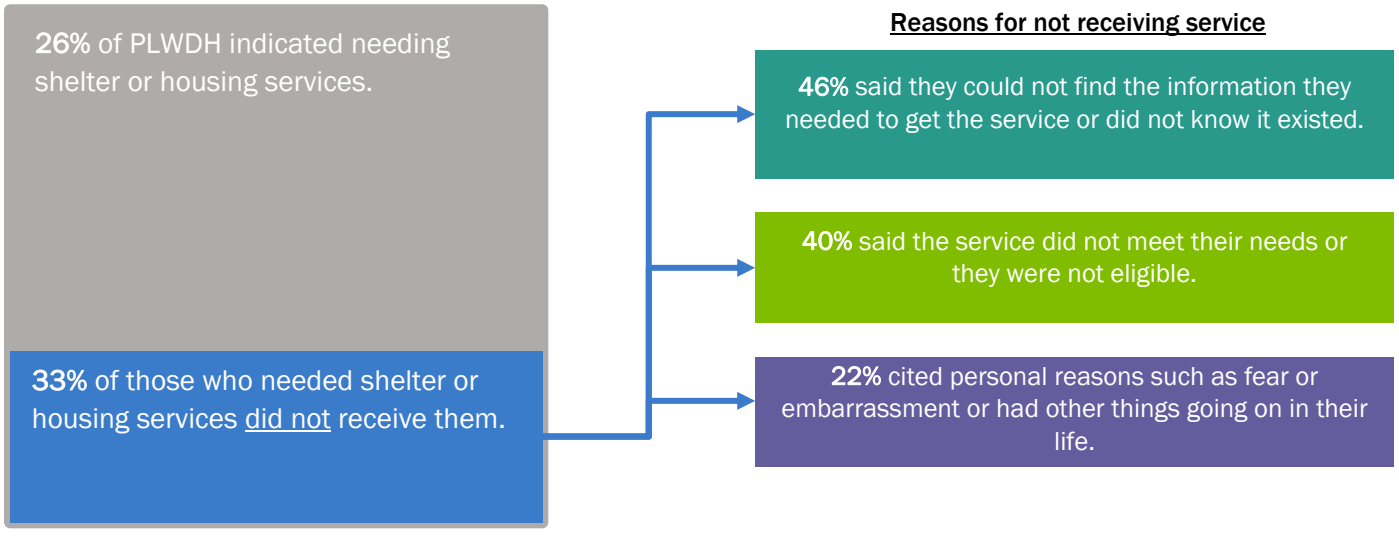
Figure 44: Sexual behavior among sexually active PLDWH—Medical Monitoring Project, LAC 2015-2021[75,76,77,78]



Needs for shelter or housing assistance among PLWDH

▶▶▶ 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.

Figure 45: Needs assessment for housing assistance among PLWDH—Medical Monitoring Project, LAC 2015-2021[79]

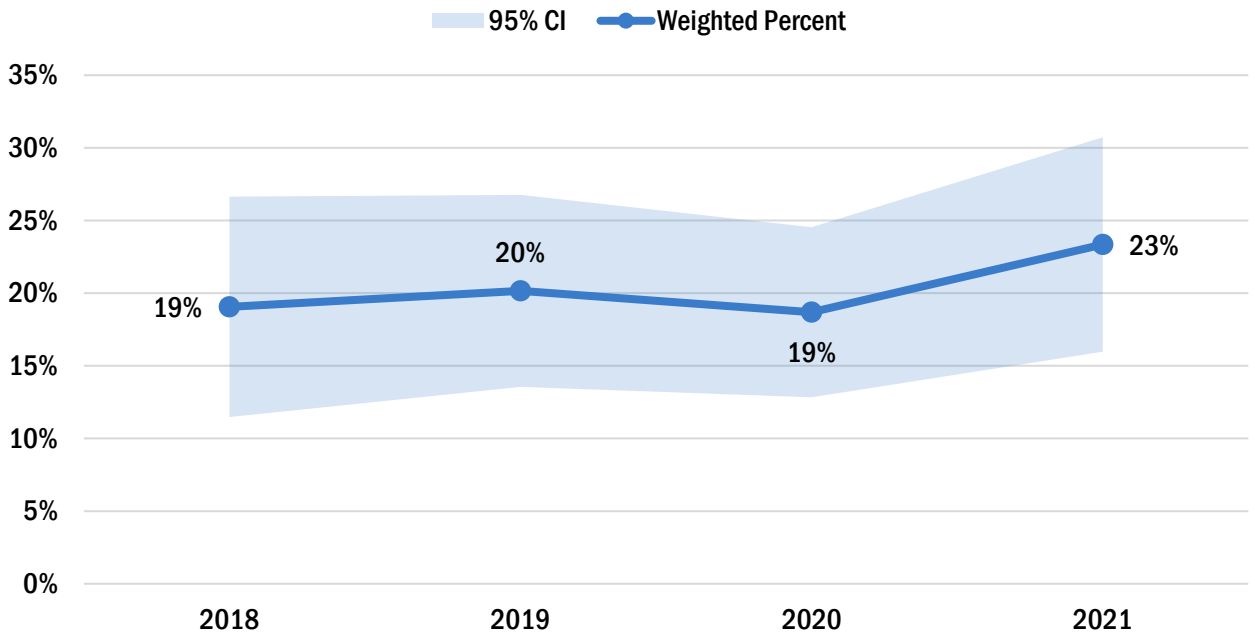


[75] Sexual behavior and prevention services pertain to the past 12 months prior to the interview.
[76] Sustained viral suppression in MMP is defined as having all HIV viral loads being undetectable or <200 copies/mL, as documented in the medical record in the past 12 months before interview.
[77] Condom-protected sex is when condoms were consistently used with at least 1 vaginal or anal sex partner.
[78] PREP use was only measured among the 5 most recent partners and was reported by the participant.
[79] Participants 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.

Unstable housing or homelessness among PLWDH

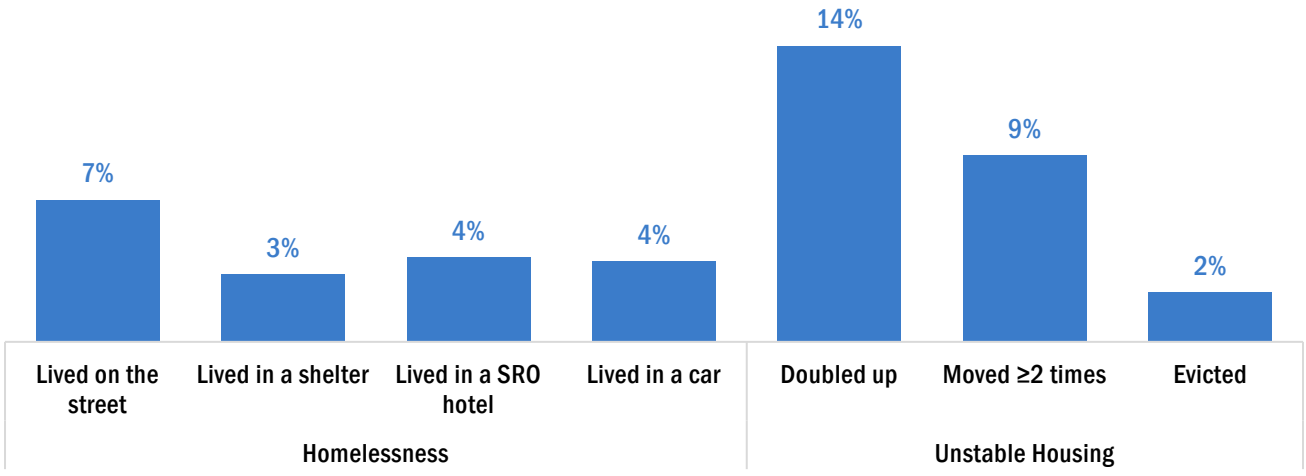
In 2021, an estimated 23% of PLDWH reported experiencing homelessness or unstable housing within the past 12 months, the highest since 2018.

Figure 46a: Prevalence of unstably housed PLWDH by year—Medical Monitoring Project, LAC 2018-2021[80]



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 (3) having to live on the street (7%).

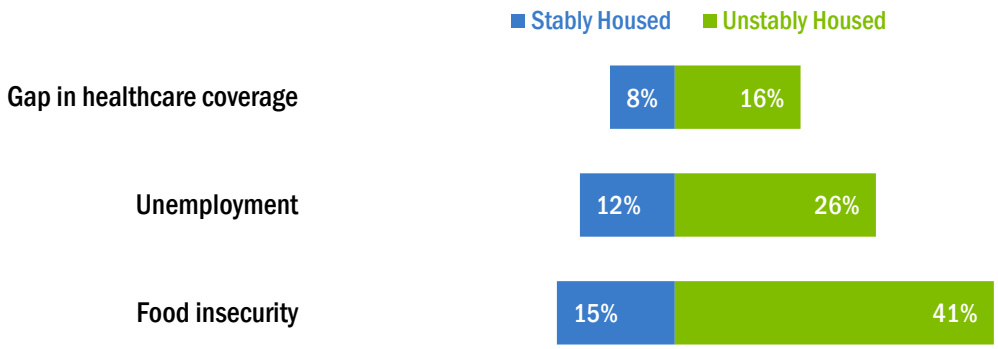
Figure 46b: Forms of unstably housing within the past 12 months, reported by PLWDH—Medical Monitoring Project, LAC 2018-2021[80, 81]



[80] Unstably 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 (SRO) 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.
[81] Doubled up is defined as having moved in with others due to financial issues.

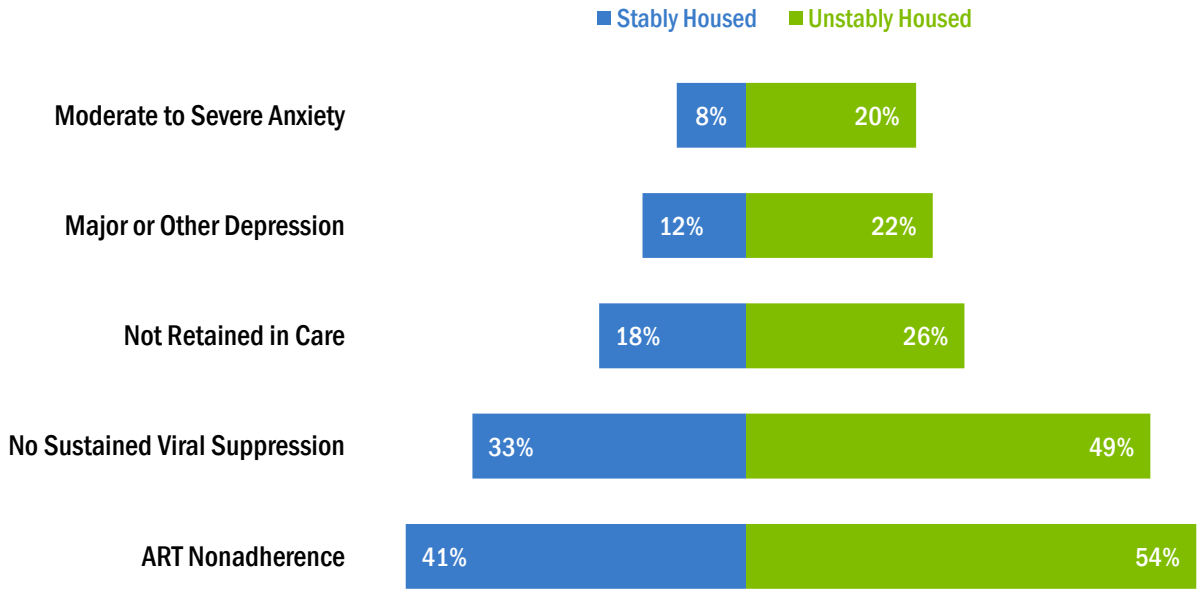
Unstably housed PLWDH reported higher proportions of adverse social indicators such as gaps in healthcare coverage, unemployment, and food insecurity within the past 12 months compared to their stably housed counterparts.

Figure 47a: Select social indicators by housing status—Medical Monitoring Project, LAC 2018-2021[82, 83, 84]



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

Figure 47b: Select clinical and health indicators by housing status—Medical Monitoring Project, LAC 2018-2021[85, 86, 87, 88]



[82] 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.
[83] Unemployment refers to participants who report being unemployed at the time of interview, excluding persons who were unable to work.
[84] Food insecurity is defined as going without food due to lack of money during the past 12 months.
[85] 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.
[86] Retained in care is defined as having two elements of outpatient care HIV care at least 90 days apart within the past 12 months.
[87] 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.
[88] ART nonadherence is defined as missing one or more doses of HIV medicines within the past 30 days.

HIV coinfected populations

STD and HIV coinfection

AT A GLANCE

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.

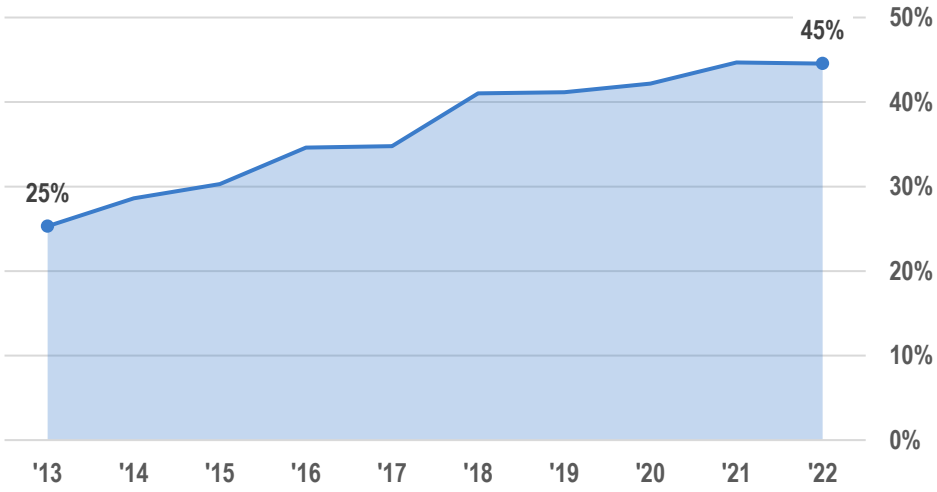
We examined the co-occurrence of HIV and STD diagnoses in the same year among persons with newly diagnosed HIV. This method estimates the percentage of HIV-STD co-infections around the time of HIV diagnosis. Note that a person may be living with HIV for months or years before they are diagnosed, and 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).

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%.

Figure 48: 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[89,90,91,92]

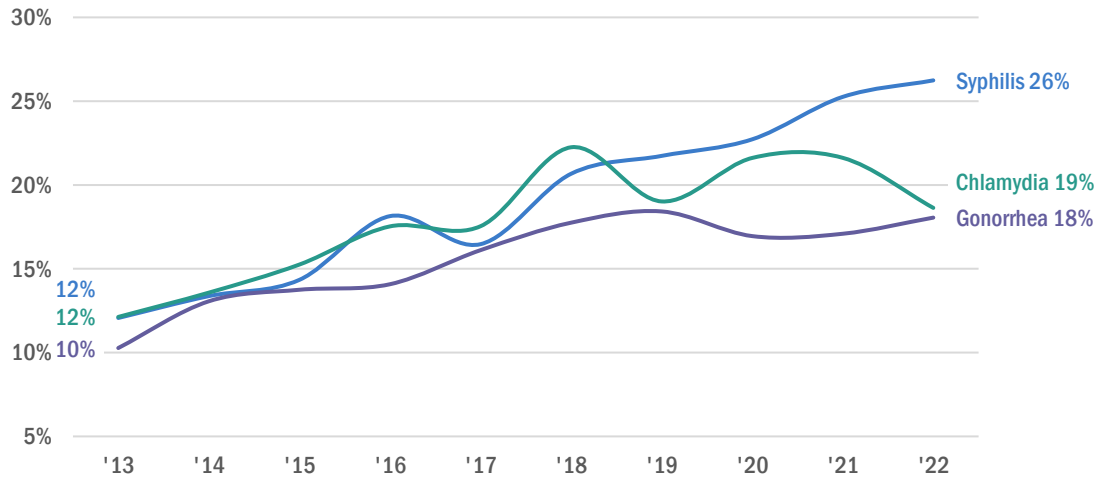
The observed increase in persons coinfected with HIV and STDs in LAC reflects the rise in total STD cases over the same time period.



[89] PLWDH with more than one STD case per year are counted only once.
[90] DHSP prioritizes HIV, syphilis, and congenital syphilis cases for investigation.
[91] STD cases in the cities of Long Beach and Pasadena are reported to their respective health departments.
[92] Due to reporting delay and time needed for case investigations, data are shown through 2021 instead of 2022.

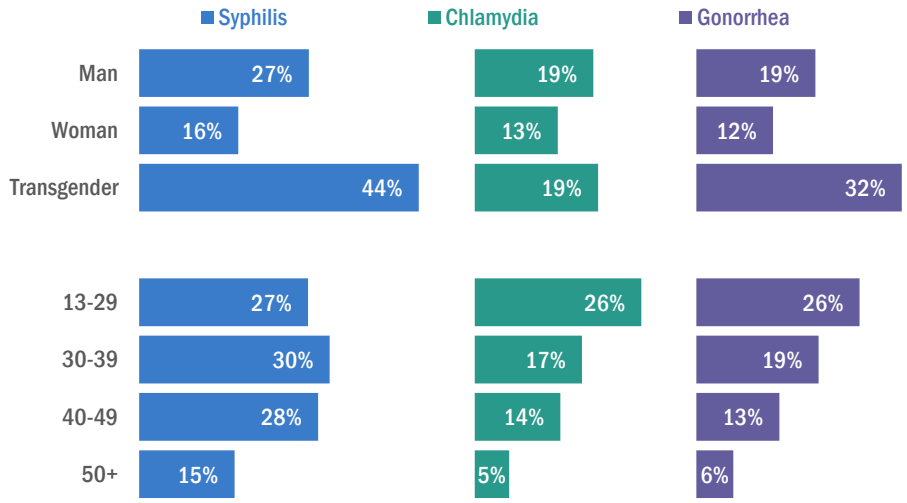
HIV coinfections with syphilis, chlamydia, and gonorrhea have increased over the last 10 years. In 2022, syphilis co-infection was highest, followed by gonorrhea and chlamydia

Figure 49: 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[93,94,95]



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 aged50 and older.

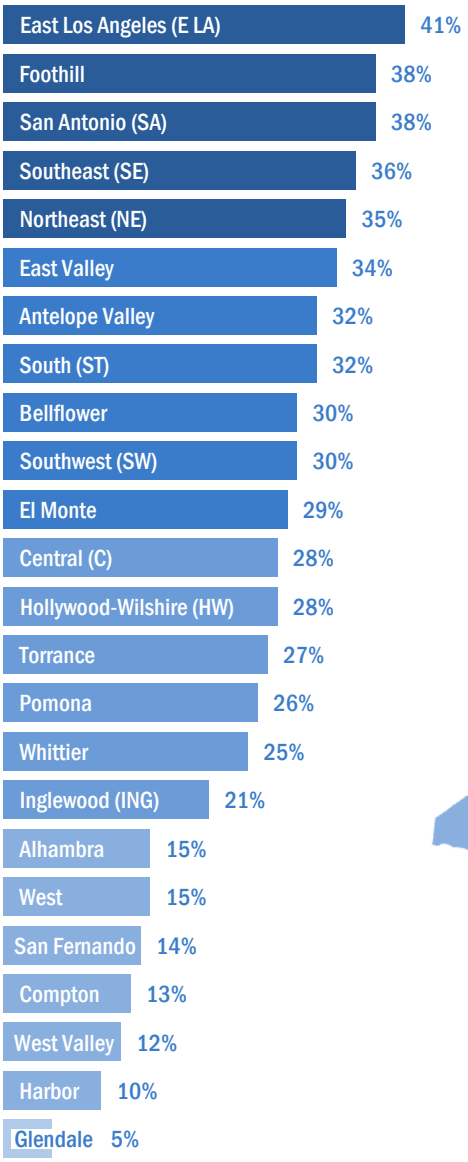
Figure 50: Percentage of persons newly diagnosed with HIV aged ≥ 13 years who had syphilis, gonorrhea, or chlamydia in the same calendar year as HIV diagnosis by STD, gender, and age group, LAC (excluding Long Beach and Pasadena), 2022[96,97,98]

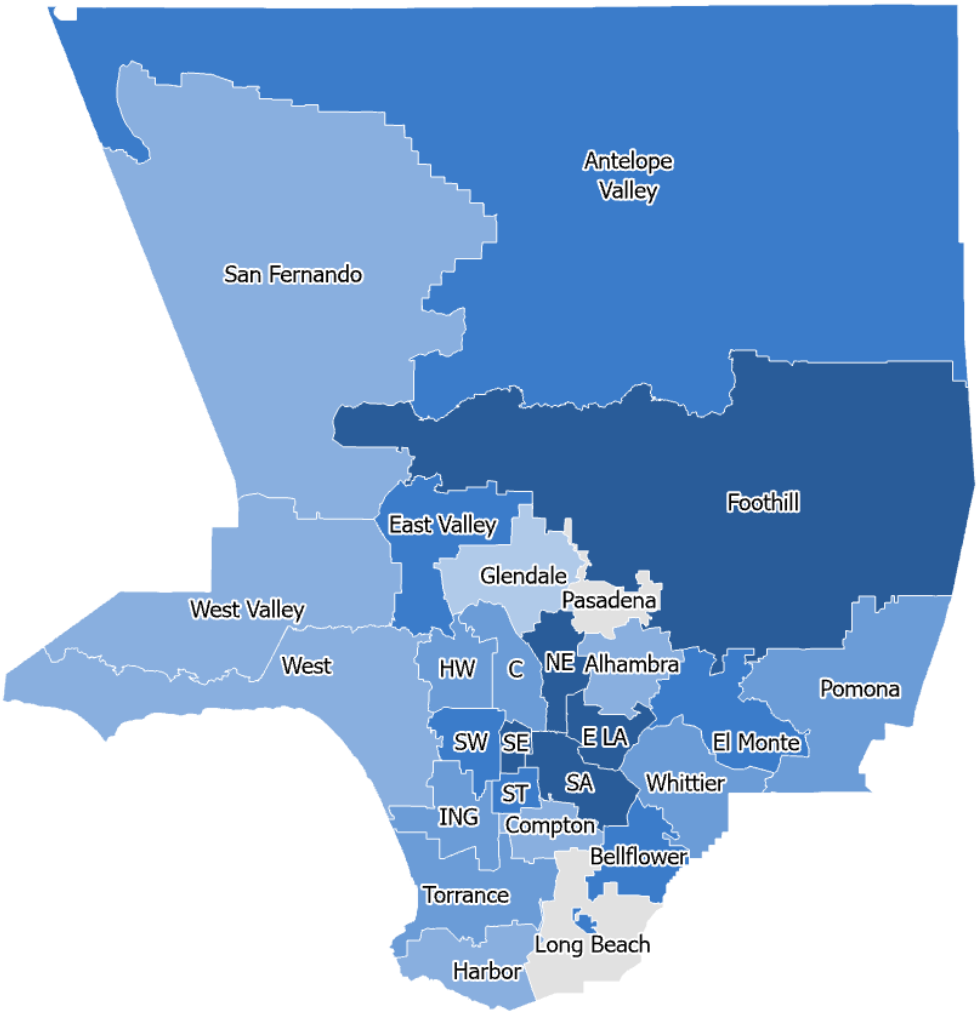


[93] DHSP prioritizes HIV, syphilis, and congenital syphilis cases for investigation.
[94] STD cases in the cities of Long Beach and Pasadena are reported to their respective health departments.
[95] Due to reporting delay and time needed for case investigations, data are shown through 2021 instead of 2022.
[96] DHSP prioritizes HIV, syphilis, and congenital syphilis cases for investigation.
[97] STD cases in the cities of Long Beach and Pasadena are reported to their respective health departments.
[98] Due to reporting delay and time needed for case investigations, 2021 is shown as the latest year.

▶▶▶ 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.

Figure 51: 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[99,100,101]





[99] DHSP prioritizes HIV, syphilis, and congenital syphilis cases for investigation.
[100] STD cases in the cities of Long Beach and Pasadena are reported to their respective health departments.
[101] Due to reporting delay and time needed for case investigations, 2021 is shown as the latest year.
[92] NE = Northeast

Mpox and HIV co-infection

AT A GLANCE

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.

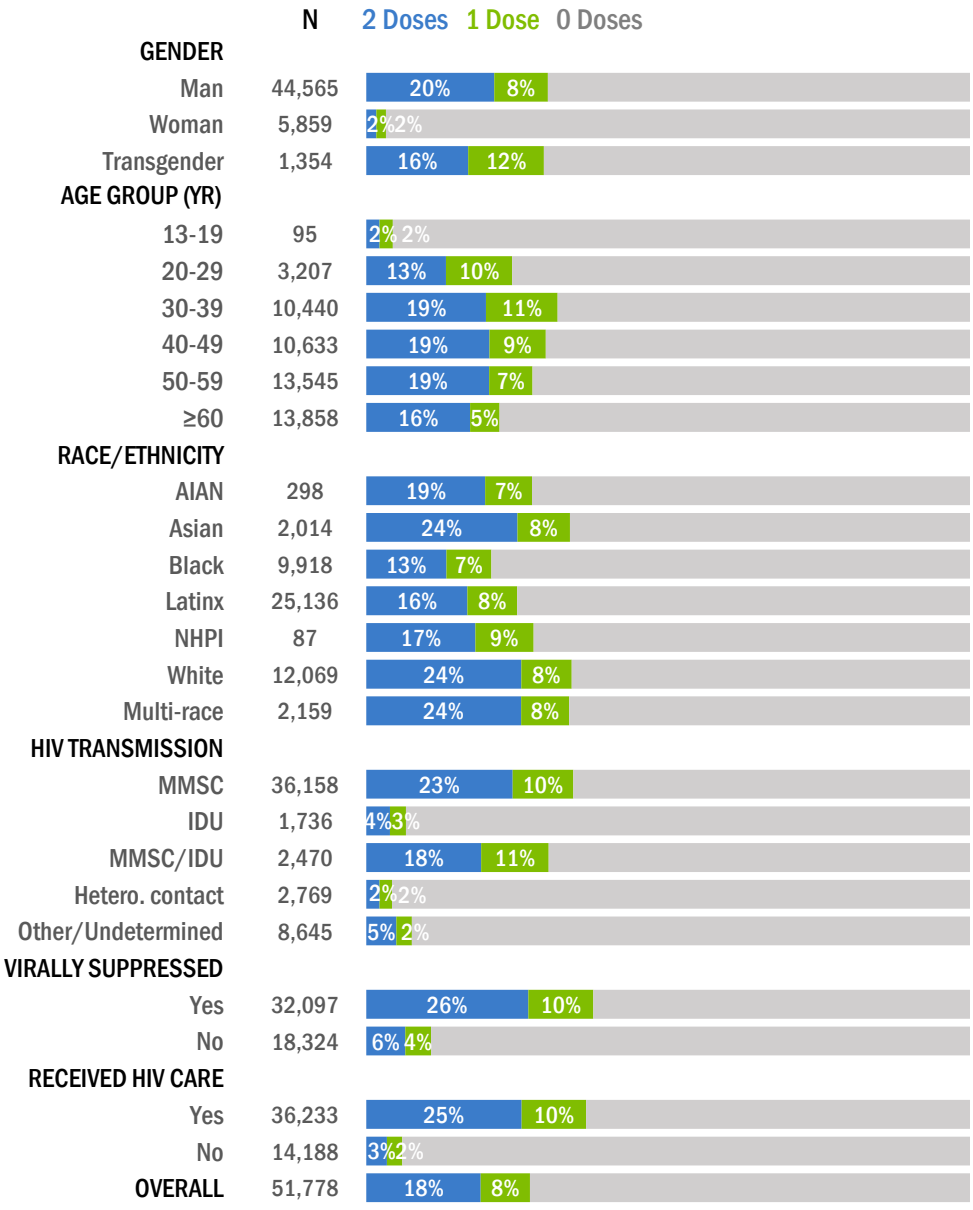
Using surveillance data on persons living with diagnosed HIV through December 2023 and newly diagnosed cases of mpox infection from the onset of the outbreak (May 2022) through end of year 2023, we calculated the HIV co-infection rate among mpox cases. CDC recommends that anyone with HIV be vaccinated 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 persons in LAC diagnosed with mpox in 2022, 45% were coinfected with HIV. By contrast 35% of the 116 persons in LAC diagnosed with mpox in 2023 were coinfected 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 surveillance systems and do not directly report mpox data to LAC.

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.

Figure 52: JYNNEOS vaccination dose among PLWDH aged ≥ 13 years by gender, age, race/ethnicity, transmission category, and HIV care status, LAC 2023[102]

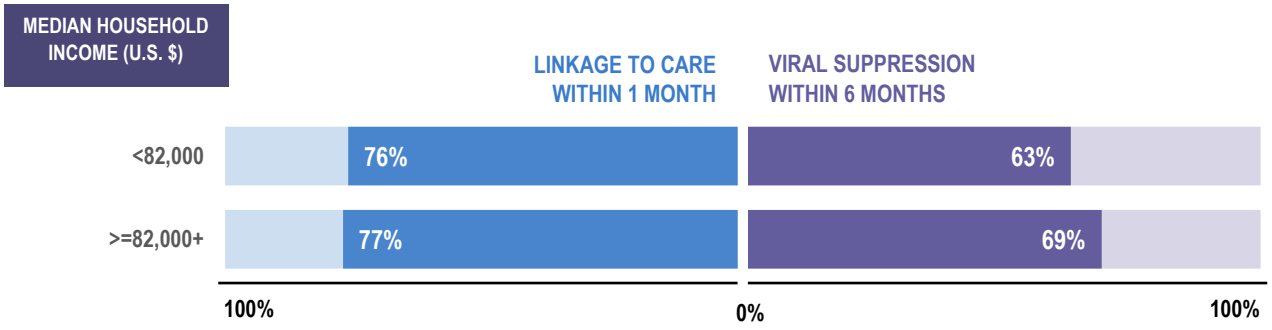
Note: Additional efforts are needed to improve mpox vaccine confidence and access among PLWH, especially among those who are <20 years old, persons of color, and/or out of HIV care.



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

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.

Figure 53: 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



Data to Action

Progress and Opportunities Among Vulnerable Populations

- In LAC, as of year-end 2021, approximately 59,300 persons aged ≥ 13 years are living with HIV, and an estimated 6,800 (11%) of these persons have not yet been diagnosed. With improved HIV survival and accelerated HIV case finding efforts to identify all undiagnosed PLWH, the number of diagnosed PLWH who require high quality HIV care will continue to grow.

- While the increase in HIV diagnoses among PEH may be partly attributable to the increase in the overall number of people experiencing homelessness in LAC, other factors are also at play. People with HIV experiencing homelessness are also more likely to delay entering HIV care, have reduced access to regular HIV care, and have poorer adherence to antiretroviral treatment. Addressing the needs of PEH with HIV and PEH who could benefit from HIV prevention will require implementing integrated solutions that address the comprehensive health, social services, and housing needs of these vulnerable populations so they can stay healthy and prevent HIV acquisition or transmission.

- HIV prevalence and high-risk sexual behavior are high among MSM and transgender women, especially Black/African-American persons. Persons who identify as MSM or TG women should be tested at least annually as part of routine health care and, if tested HIV-positive, immediately linked to HIV care and educated on strategies to prevent transmission of HIV to their partners.

- Though the prevalence of HIV is relatively low among persons who inject drugs (PWID), high risk injection behavior in this population is concerning, particularly among younger PWID. As shown in the next section, PWID also have the poorest outcomes across the HIV continuum of care. Current HIV prevention, testing, and care services for PWID should be evaluated to assess whether the needs of PWID are incorporated to successfully prevent and manage disease.

- PrEP use is a biomedical intervention that can minimize the risk of acquiring HIV among HIV-negative persons. Despite its promise, PrEP use in populations at highest risk for HIV, including MSM and TG women, remains low. We must continue to strengthen partnerships with heath care providers and programs that serve vulnerable populations to ensure that PrEP is discussed and offered to all persons at high risk of acquiring HIV.

- Prevention strategies among PLWDH are working. The vast majority of sexually active PLWDH are not engaging in high-risk sex but practicing safe sexual behavior with their partners. These best practices should be shared with the broader community through sex positive education programs and communication messages.

Data to Action (continued)

Progress and Opportunities in Vulnerable Populations

- An integrated disease surveillance system that concurrently reports and investigates multiple diseases, including HIV, will advance disease co-infection surveillance and facilitate a comprehensive response for coinfected individuals.
- The public health response to HIV should include STD prevention and care. All persons with a new diagnosis of HIV should be screened for syphilis, and all persons with a new diagnosis for syphilis should be screened for HIV. Syphilis infection should be considered an indication for starting PrEP among HIV-negative persons.
- Persons with HIV infection were disproportionately affected by the mpox outbreak in 2022. While mpox cases declined dramatically at the end of 2022, the data illustrates the importance of continuing to increase access to mpox vaccination, diagnosis, and treatment among persons with HIV.
- HIV surveillance data among populations at high risk for HIV highlight disparities in HIV outcomes and access to prevention services among the Black population and young PWID. Further investigation is needed to identify underlying socio-economic, social determinants of health, and structural factors, including racism and other forms of stigma and discrimination, that may be driving these health inequities. Addressing these root causes will help to establish stronger systems of care to better support these populations.

HIV Surveillance to Partner Services Continuum

AT A GLANCE

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 and offer strategies and resources to protect partners from HIV and STDs. 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.

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" 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, and administering interventions to contacts. Improvements in each of the steps in the continuum increase the likelihood of infected persons and their partners to be linked to effective interventions for prevention, care, and treatment of HIV and STIs, and ultimately, reductions in community transmission of HIV and STIs.

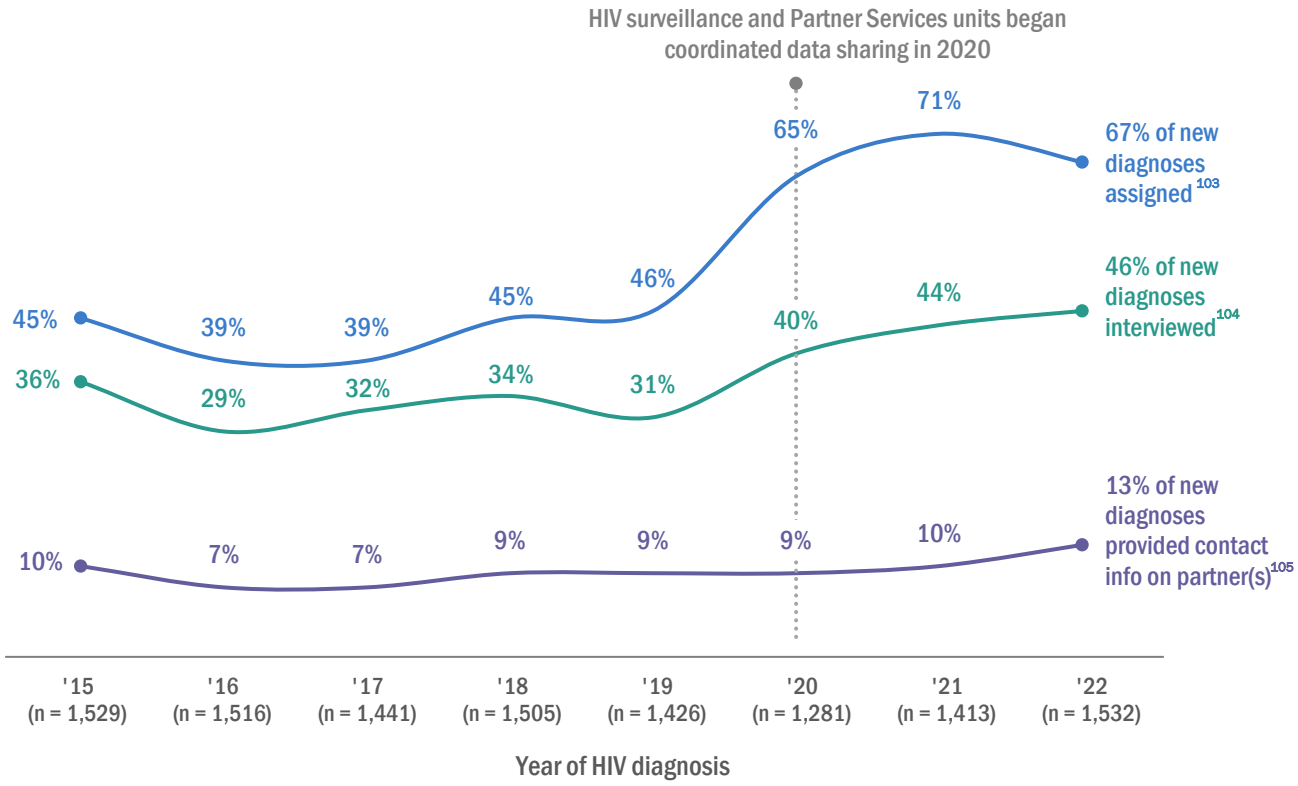
EHE Partner Services Targets

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%.

Trends in the HIV Partner Services Continuum

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.

Figure 54: HIV Partner Services continuum among new HIV diagnoses by year, LAC (excluding Long Beach and Pasadena) 2015 – 2022[103,104,105]

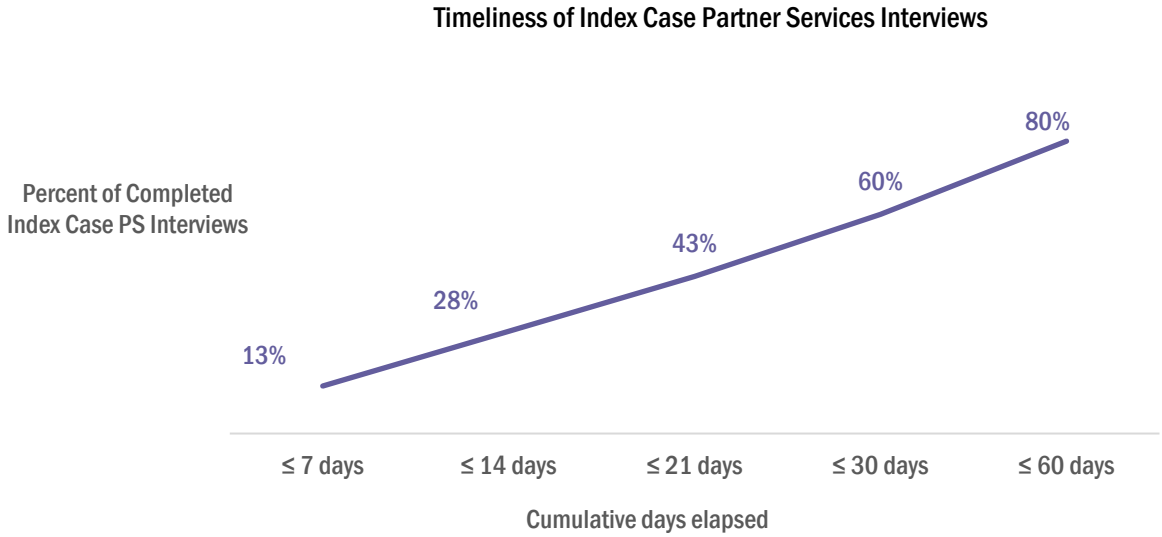


In 2022, 67% of newly diagnosed HIV-positive persons in LAC were assigned for a Partner Services interview and 69% of those persons assigned for Partner Services were interviewed. Of all new HIV diagnoses, 46% were interviewed and 13% provided contact information of sexual and/or needle sharing partners. Refusal by the client or inability to locate the client were the primary reasons why assigned cases were not interviewed.

[103] **Assigned:** New HIV diagnoses assigned for partner services within 12 months of report among LAC HIV diagnoses (excluding Long Beach and Pasadena).
[104] **Interviewed:** New HIV diagnoses interviewed by public health investigators among new LAC HIV diagnoses (excluding Long Beach and Pasadena).
[105] **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).

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.

Figure 55: Time from HIV diagnosis to HIV Partner Services interview among LAC 2022 [106] new HIV diagnoses (excluding Long beach and Pasadena) who were successfully interviewed by Partner Services.



The time lag between diagnosis and PS interviews is largely attributable to delays in reporting and assignment for follow-up. The surveillance and case-management systems are not integrated and rely on manual processes for case assignment.

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

Elicited Contacts

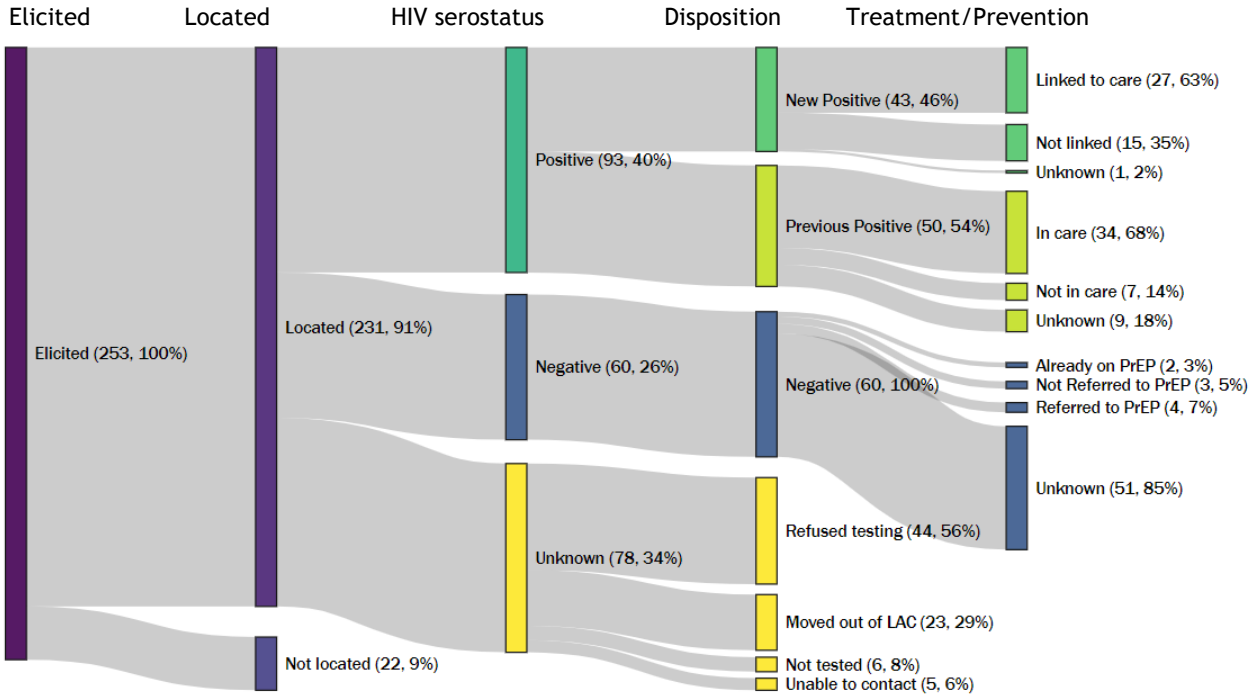
AT A GLANCE

An important component of Partner Services is partner notification, a process through which persons diagnosed with HIV are interviewed to elicit information about their partners, who can then be confidentially notified of their possible exposure or potential risk.

Notifying contacts of their risk of HIV is a cornerstone public health intervention designed to reduce the forward transmission of HIV. As part of an HIV partner notification model, every named contact is investigated by a Partner Services staff member and once located, contacts are assessed and provided with opportunities for follow-up services according to their HIV status. A contact who is newly identified as having HIV will trigger a response to immediately link the contact to care. If the contact had a prior HIV positive diagnosis, their HIV care status should be assessed, and, if out of care, the contact should be linked or re-linked back to care. Contacts that test negative should be provided with high quality services to reduce their risk of acquiring HIV, including referral to HIV pre-exposure prophylaxis (PrEP).

▶▶▶ 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.

Figure 56: HIV Partner Services continuum[107] among named contacts, LAC (excluding Long Beach and Pasadena) 2022[108,109,110]



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.

In 2022, 253 named contacts of persons newly diagnosed with HIV were elicited. Most contacts were located (91%). Of those located, many tested HIV positive (40%), followed by unknown status (i.e., refused testing, 34%) and HIV negative (26%). Sixty-three percent of contacts who tested newly positive for HIV were linked to care and 68% of previously diagnosed contacts were engaged in HIV care at the time of this assessment.

[107] The 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.
[108] 253 contacts named by 192 index cases newly diagnosed with HIV in 2022.
[109] In 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.
[110] PrEP information is unknown for clients without comorbid STD.

Data to Action

Progress and Opportunities in the HIV Partner Services Continuum

- Partner Services is key to the delivery of life-saving HIV interventions and prevention strategies for PLWDH and their partners. The program's role in ending the HIV epidemic in Los Angeles County is critical; however, the current program infrastructure is not sufficient to meet the high demands of both the HIV and STD program priorities for preventing and controlling disease. Significant resources, policy change and greater acceptance and compliance are urgently needed for Partner Services to have its intended impact. Human resources to implement expanded PS activities are needed. The realignment of PS training, use of communication and information technology tools, and modernization of data systems are also needed to successfully implement, monitor, and evaluate PS program goals.

- Important strides have been made to strengthen coordination between HIV Surveillance and Partner Services teams to ensure that Partner Services personnel have the information they need to respond to new HIV diagnoses and persons who are not virally suppressed. Nonetheless at 11%, LAC remains far below the EHE target of 85% of PLWDH having been interviewed by a Partner Services staff within 7 days of diagnosis. HIV Surveillance staff must work closely with diagnosing laboratories and providers to ensure that case reports are received within 24 hours of HIV diagnosis. Secondly, once case reports are received, we must accelerate referral of newly diagnosed HIV cases and persons with unsuppressed viral load to Partner Services within 24 hours of receiving the case report.

- Many sexual and drug using partners are refusing HIV testing offered by the Partner Services program. Partner testing strategies must include approaches for addressing testing hesitancy, addressing stigma and fear with accessing HIV testing among vulnerable populations, and incentives to improve testing uptake for those that do not have a prior diagnosis of HIV.

- Surveillance and Partner Services data systems must include outcomes measures. At minimum, outcomes for index patients should include rates tied to linkage to care, re-engagement to care, treatment status, viral suppression, STI testing, and partner notification. Outcomes for partners should include rates tied to HIV and STI testing. Outcomes for HIV-positive partners should include rates tied to linkage to care, care and treatment status, relinkage to care, and viral suppression. Finally, outcomes for HIV-negative partners should be tied to rates of PrEP referral and PrEP use.

HIV Care Continuum

AT A GLANCE

The HIV care continuum is a public health model that outlines the steps or stages that a person living with HIV goes through from an HIV-positive diagnosis through the achievement of viral suppression. By monitoring these steps at a population level, we can help 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 continuum 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 HIV care continuum includes the 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 1 month of diagnosis (defined as ≥ 1 CD4 or VL or Genotype test reported within 1 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 or VL or 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).

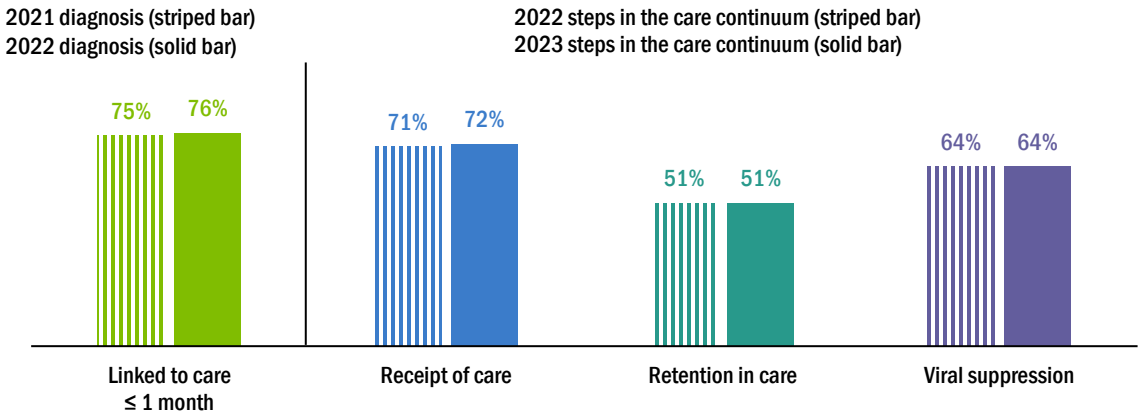
The base population for measuring linkage to HIV care is persons who received an HIV-positive diagnosis in a given calendar year, whereas the base population for the downstream steps in the continuum of care is all persons who were diagnosed with HIV through the prior calendar year and living in LAC 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. For additional data on the HIV care continuum by demographic variables, transmission risk categories, and health district, refer to Table A5.a-b and Table A6.a-b.

EHE HIV Care Continuum Targets

- Increase the percentage of newly diagnosed persons linked to care within 1 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

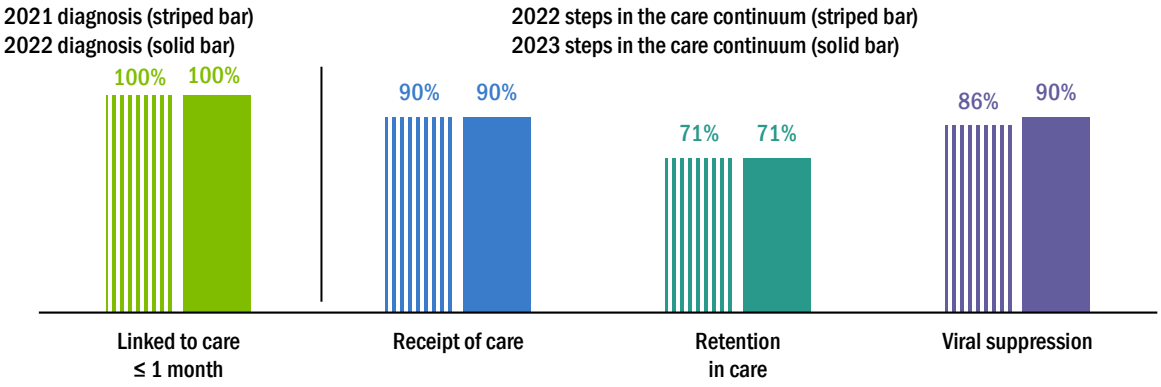
In 2022, 76% of persons diagnosed with HIV were linked to care within 1 month of diagnosis. All key steps along the HIV care continuum remained largely unchanged in 2023 compared with 2022.

Figure 57: HIV care continuum[111] among persons aged ≥ 13 years, LAC 2021-2022[112] and 2022-2023[113]



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.

Figure 58: HIV care continuum among children aged <13 years, LAC 2021-2022 [112] and 2022-2023 [113]



[111]The HIV care continuum includes the following steps: 1) the percentage of children 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 children 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.

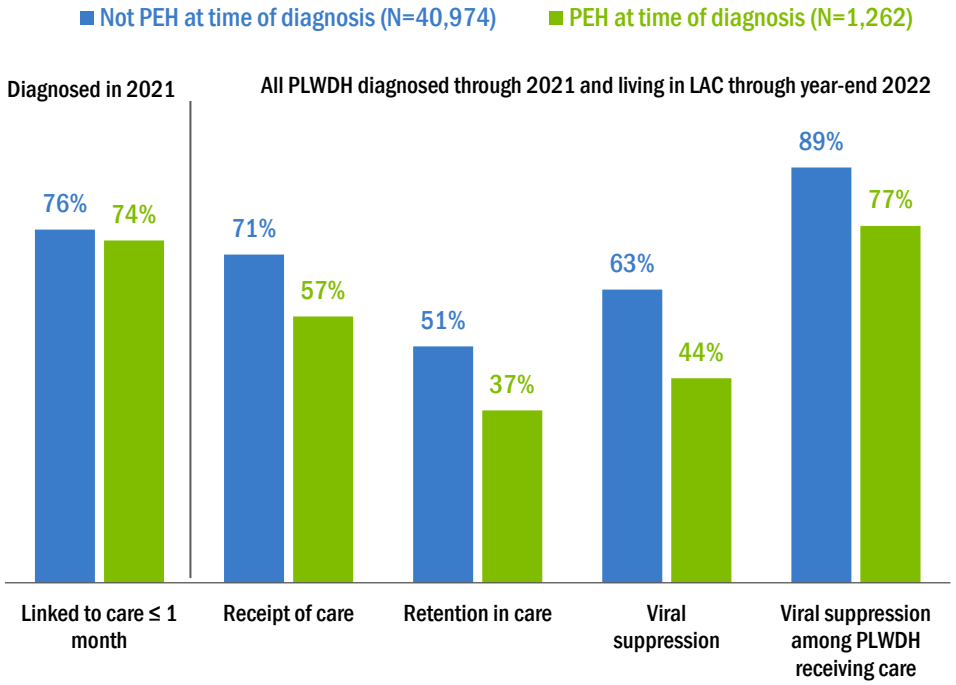
[112] The 2021-2022 HIV care continuum denominator includes children diagnosed in 2021 to calculate linkage to care ≤ 1 month of diagnosis, and all children living with diagnosed HIV diagnosed through 2021 and living in LAC at year-end 2022 to calculate receipt of care, retention in care, and viral suppression.

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

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

Figure 59: HIV care continuum among persons aged ≥ 13 years by PEH status at the time of HIV diagnosis, LAC 2022-2023[114]

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.



[114] Linkage 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.

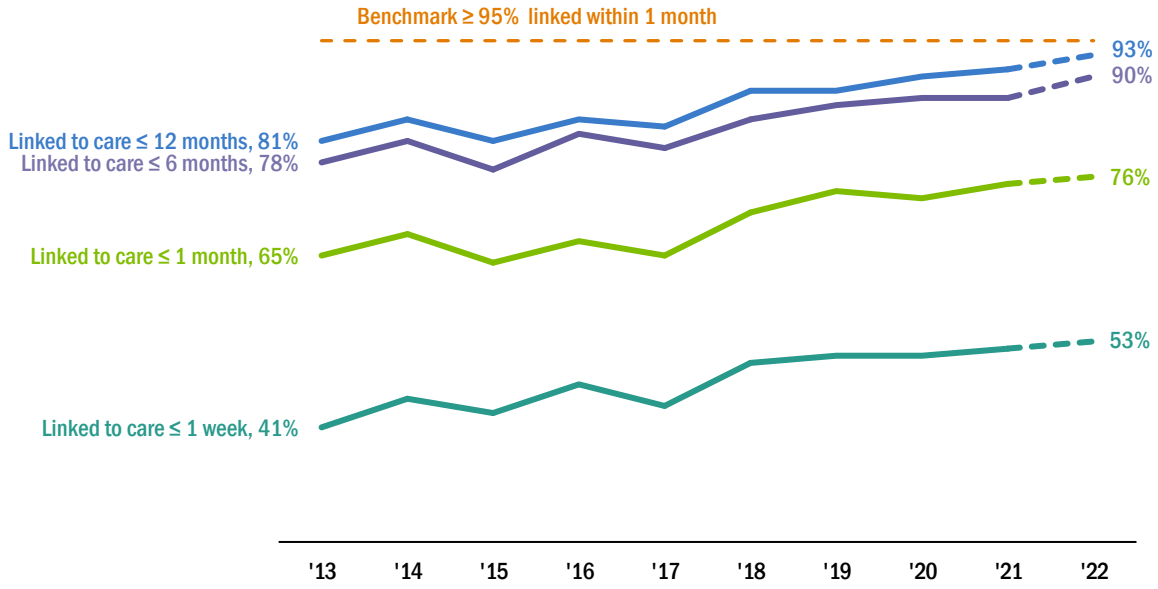
Linkage to HIV care

AT A GLANCE

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 1 month of HIV diagnosis. However, initiating HIV care services should occur faster, ideally within days, to ensure that treatment of HIV can be started immediately.

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.

Figure 60: 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[115,116]

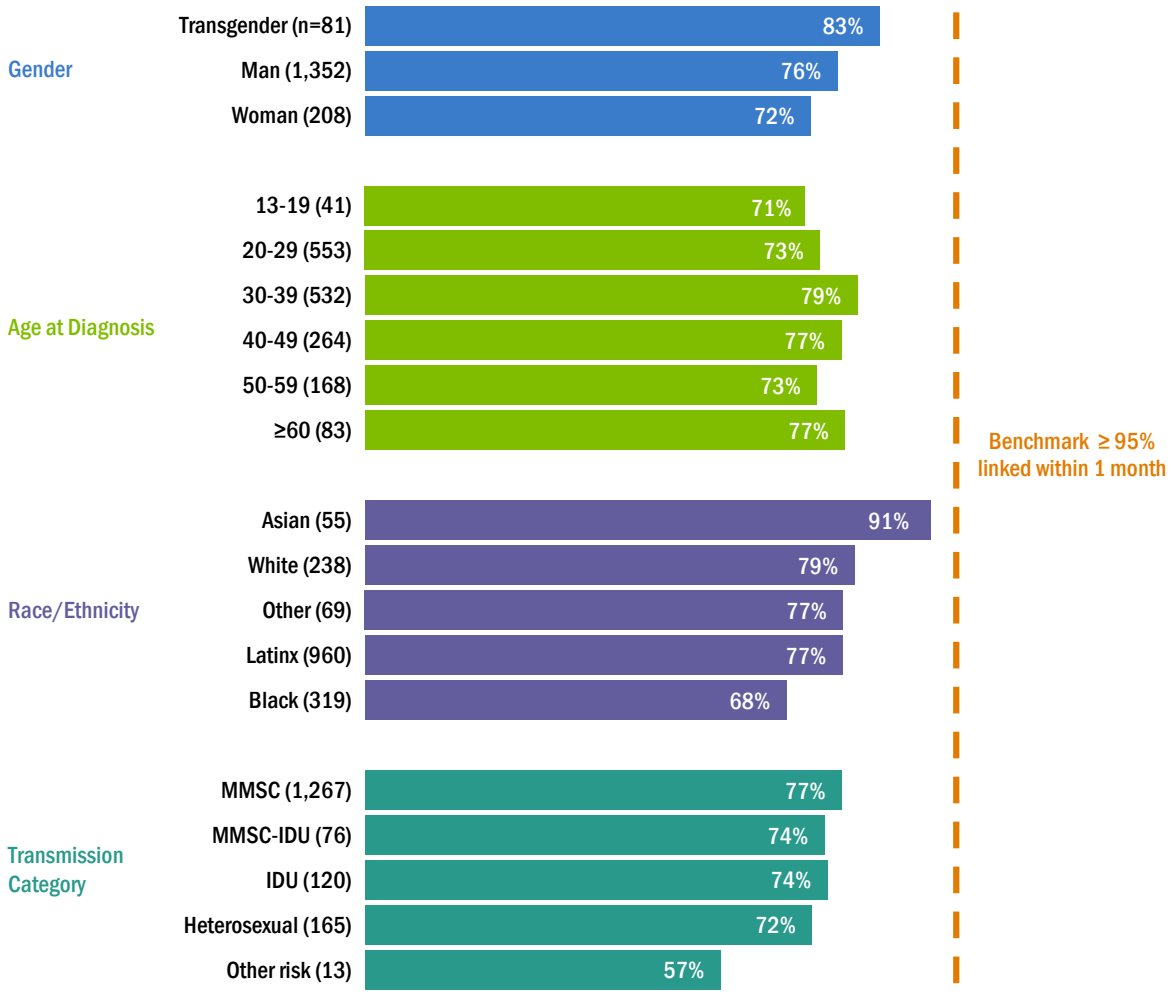


[115] Includes persons diagnosed with HIV in each calendar year with ≥1 CD4/VL/Genotype test reported within 1 week, as well as 1, 6, and 12 months of diagnosis.
[116] Due to reporting delay, 2022 HIV linkage to care data are provisional as indicated by the dashed line.

The next two figures describe specific populations of PLWDH who were linked to HIV care within 1 month of diagnosis. We gauge where strategies for linkage to HIV care may require re-direction.

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

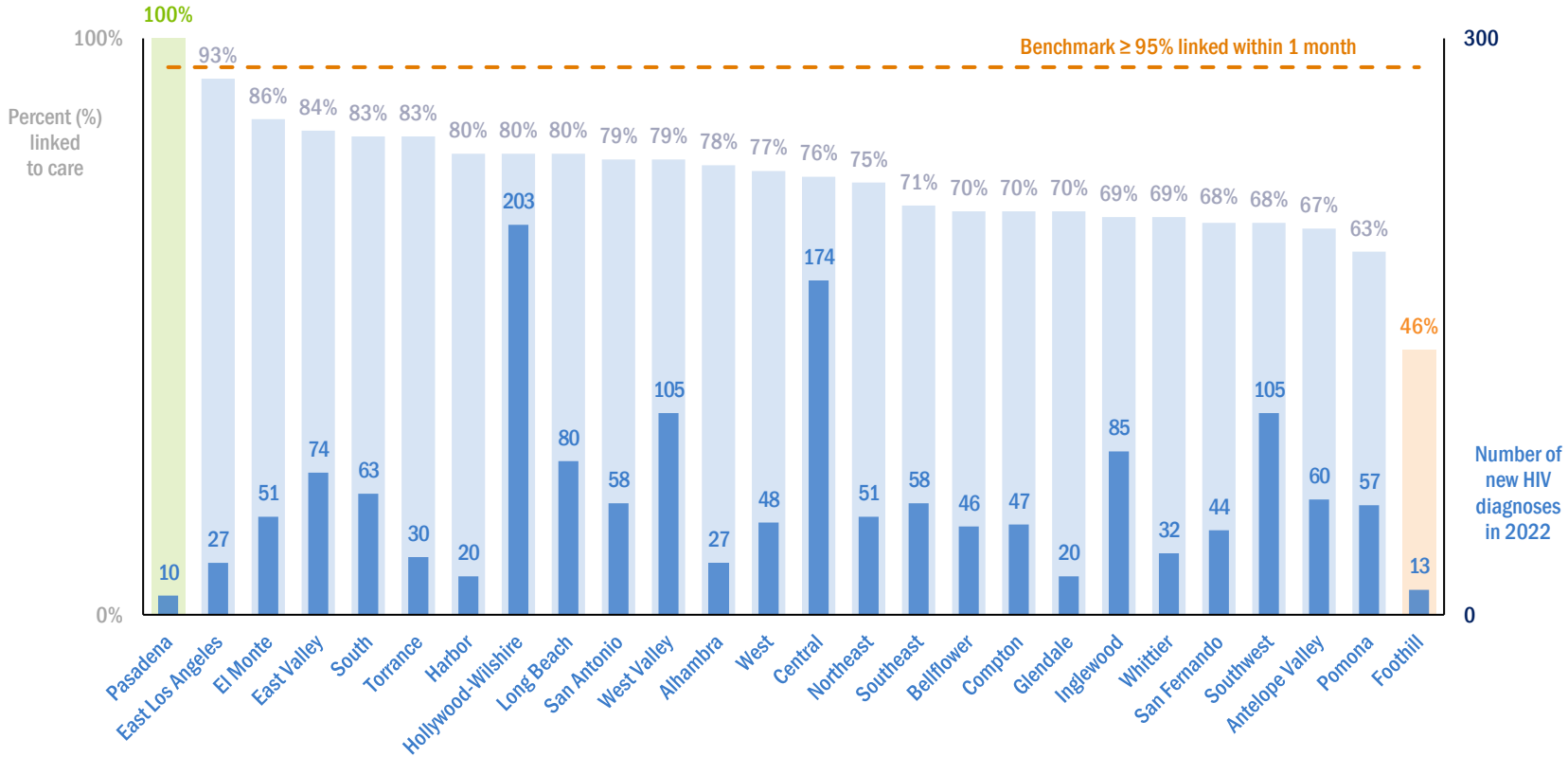
Figure 61: Persons aged ≥ 13 years newly diagnosed with HIV and linked to care within 1 month of diagnosis[117] by select demographic[118] and risk[119] characteristics, LAC 2022



[117] Linked 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.
[118] Other race/ethnicity includes American Indian and Alaska Natives, Native Hawaiian and Pacific Islanders, persons of multiple race/ethnicities, and persons with unknown race/ethnicity.
[119] Other risk includes risk factor not reported/identified and is not shown due to small numbers.

In 2022, only persons living in the Pasadena Heath 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.

Figure 62: Persons aged ≥ 13 years newly diagnosed with HIV and linked to care within 1 month of diagnosis by Health District, LAC 2022[120,121]



[120] Linked 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.
[121] Health 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.

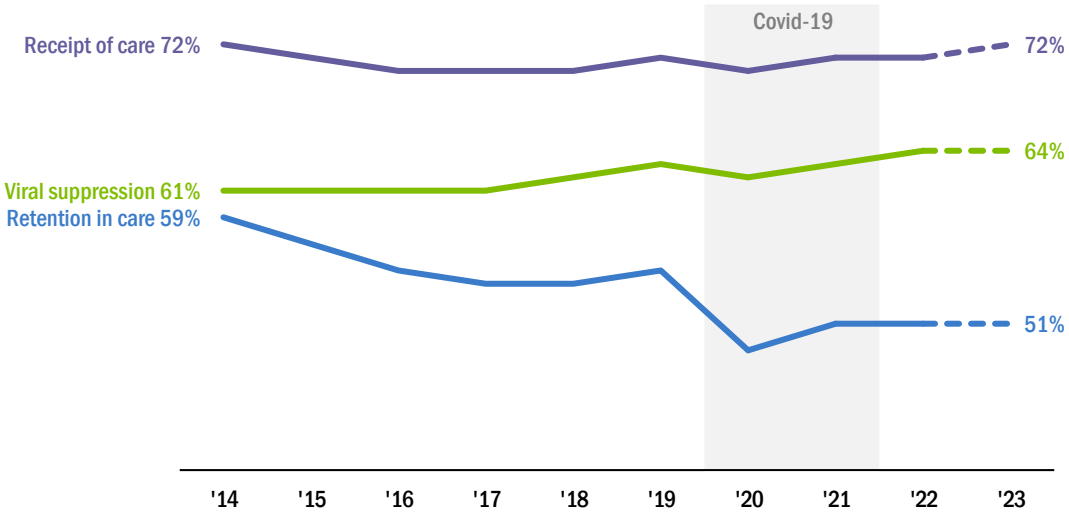
Receipt of care, retention in care, and viral suppression

AT A GLANCE

Entering and staying in HIV care is necessary to ensure that adherence to HIV treatment occurs and viral suppression is achieved. The figures in this section track how LAC performed with respect to receipt of care, retention in care, and viral suppression in 2023 across different populations of PLWDH. 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.

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.

Figure 63: 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[122,123]

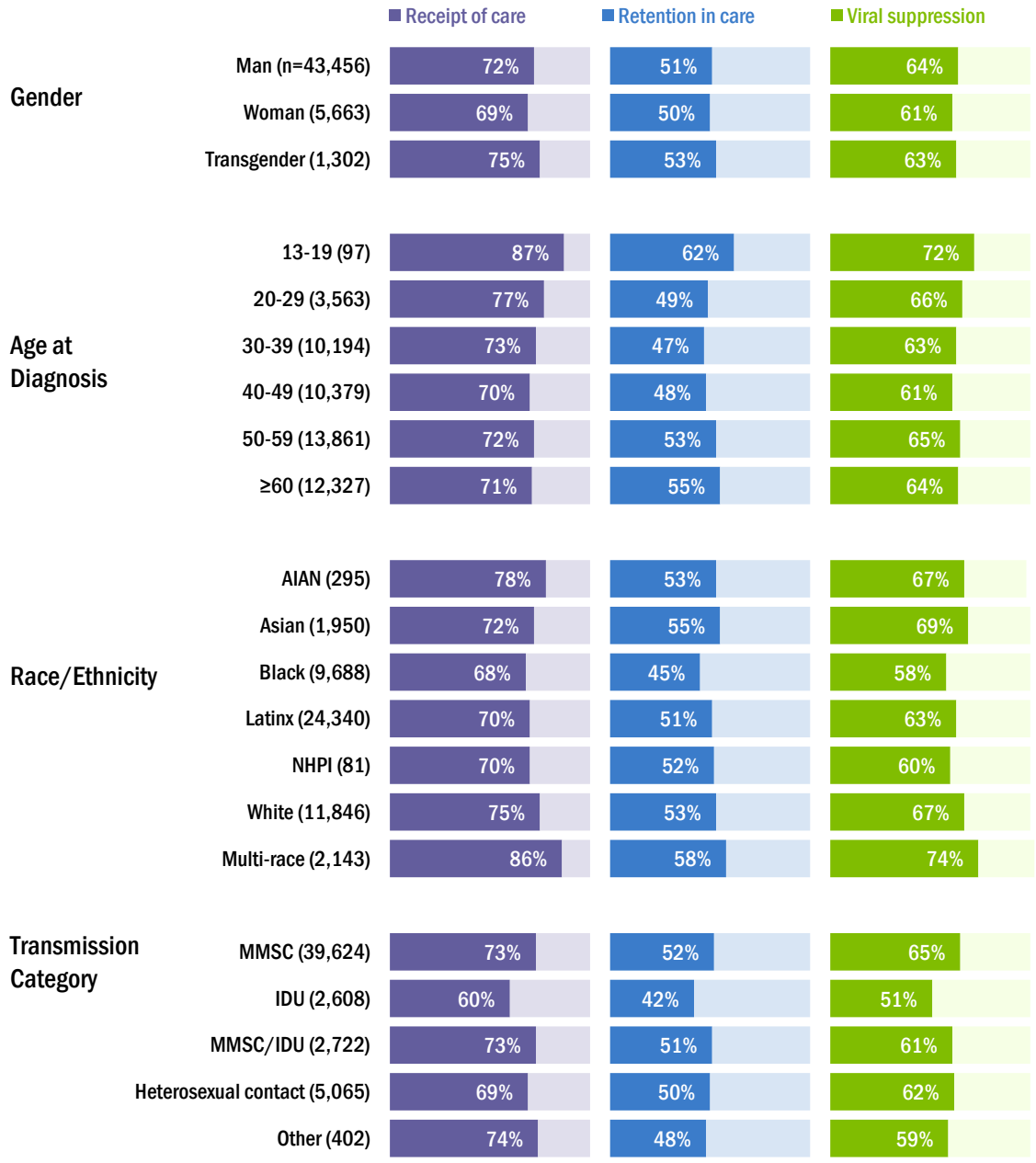


[122] Receipt of care: numerator includes PLWDH with ≥1 CD4/VL/Genotype test in 2023; denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence. Retention in care: numerator includes PLWDH with ≥2 CD4/VL/Genotype tests at least 3 months apart in 2023; denominator includes PLWDH diagnosed through 2022 and living in LAC at calendar year-end 2023 on most recent residence. Viral suppression: numerator includes PLWDH whose last VL test in the calendar year 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.

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

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

Figure 64: Receipt of HIV care, retention in HIV care, and viral suppression by gender, age group, race/ethnicity, and transmission category[124] among PLWDH aged ≥ 13 years diagnosed through 2022 and living in LAC at year-end 2023,[125] LAC 2023

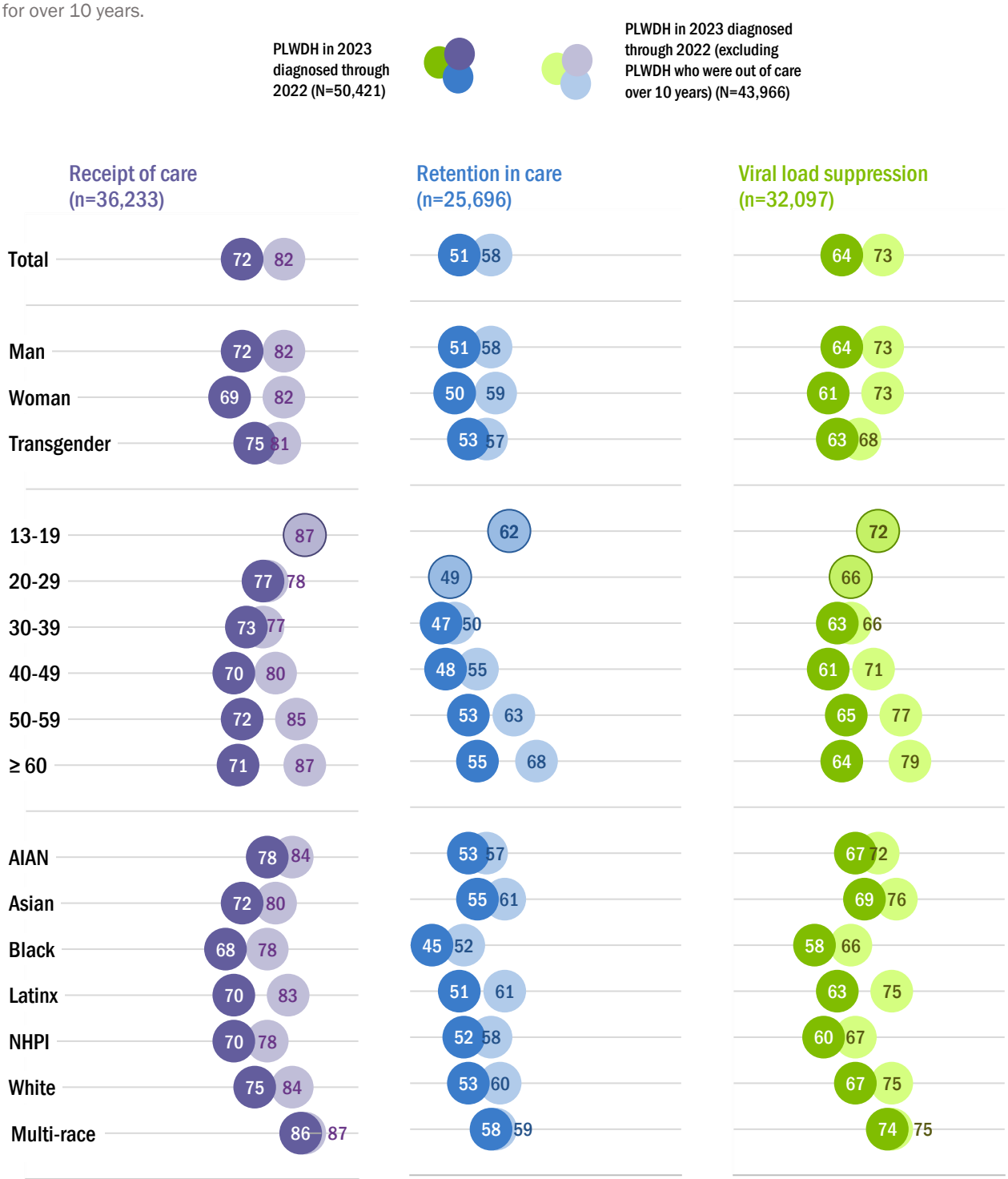


[124] Other transmission risk includes perinatal, hemophilia, coagulation disorder, blood transfusion, and risk factor not reported/identified. Persons without an identified risk factor were assigned a risk factor using CDC-recommended multiple imputation methods.

[125] Receipt 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 3 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 indicators showed increased percent of PLWDH who received care, were retained in care, and who were 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, seniors aged >=60 years, and Latinx persons.

Figure 65: HIV care continuum among persons aged ≥ 13 years among all PLWDH compared to PLWDH who have been out of care for over 10 years.



HIV treatment

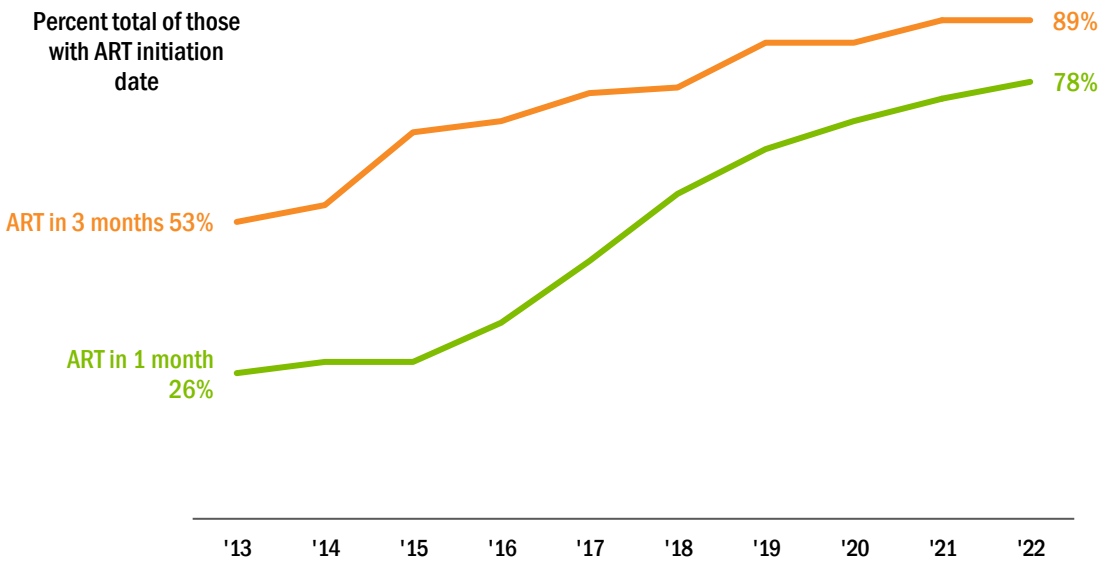
AT A GLANCE

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. Below we provide information from HIV case reporting and MMP on the status of treatment among PLWDH in Los Angeles County.

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.

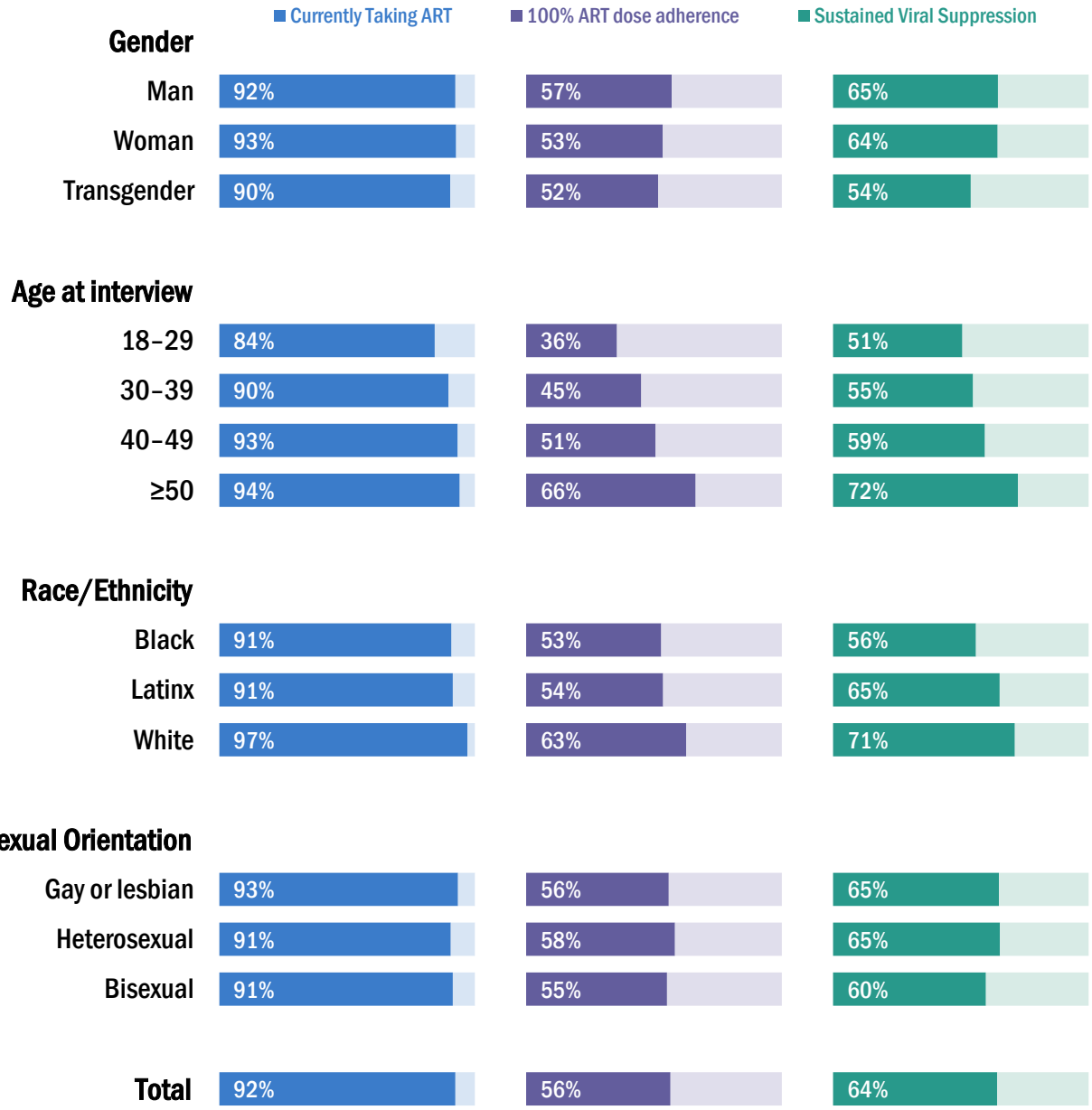
Figure 66: Time from HIV diagnosis to treatment initiation among persons aged ≥ 13 years newly diagnosed with HIV by year of diagnosis,[126] LAC 2013-2022



[126] Data 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.

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

Figure 67: Antiretroviral therapy (ART) utilization, ART dose adherence, and sustained viral suppression among PLWDH by selected characteristics—Medical Monitoring Project, LAC 2015-2021[127,128]



[127] 100% ART dose adherence is defined as not missing any doses of HIV medicines within the past 30 days among persons reportedly currently taking ART.
[128] 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.

Viral load monitoring

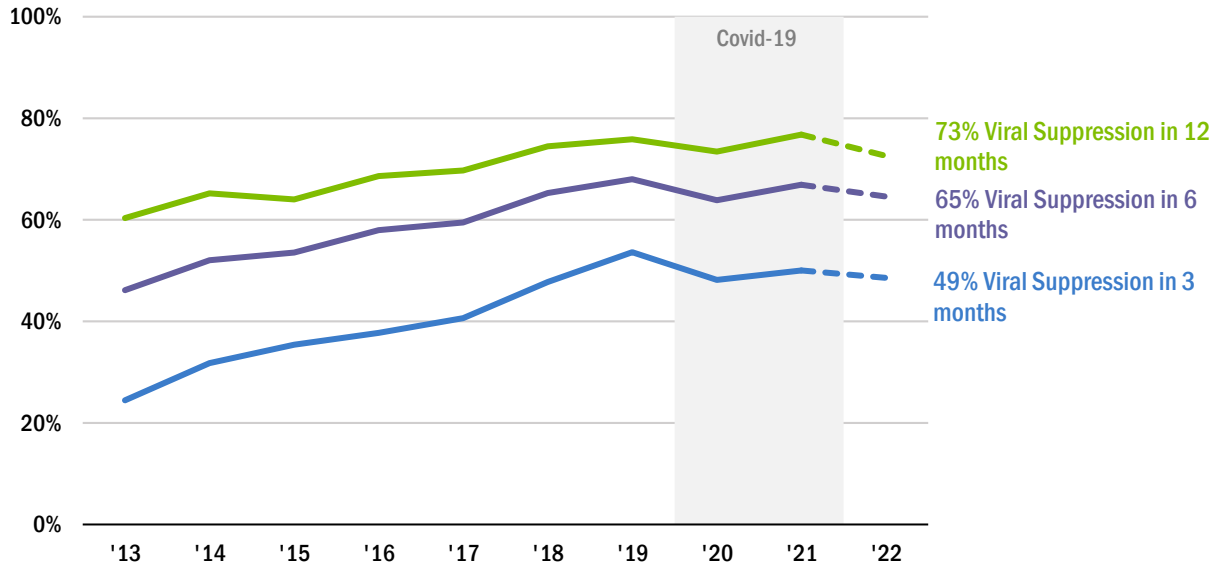
AT A GLANCE

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.

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.

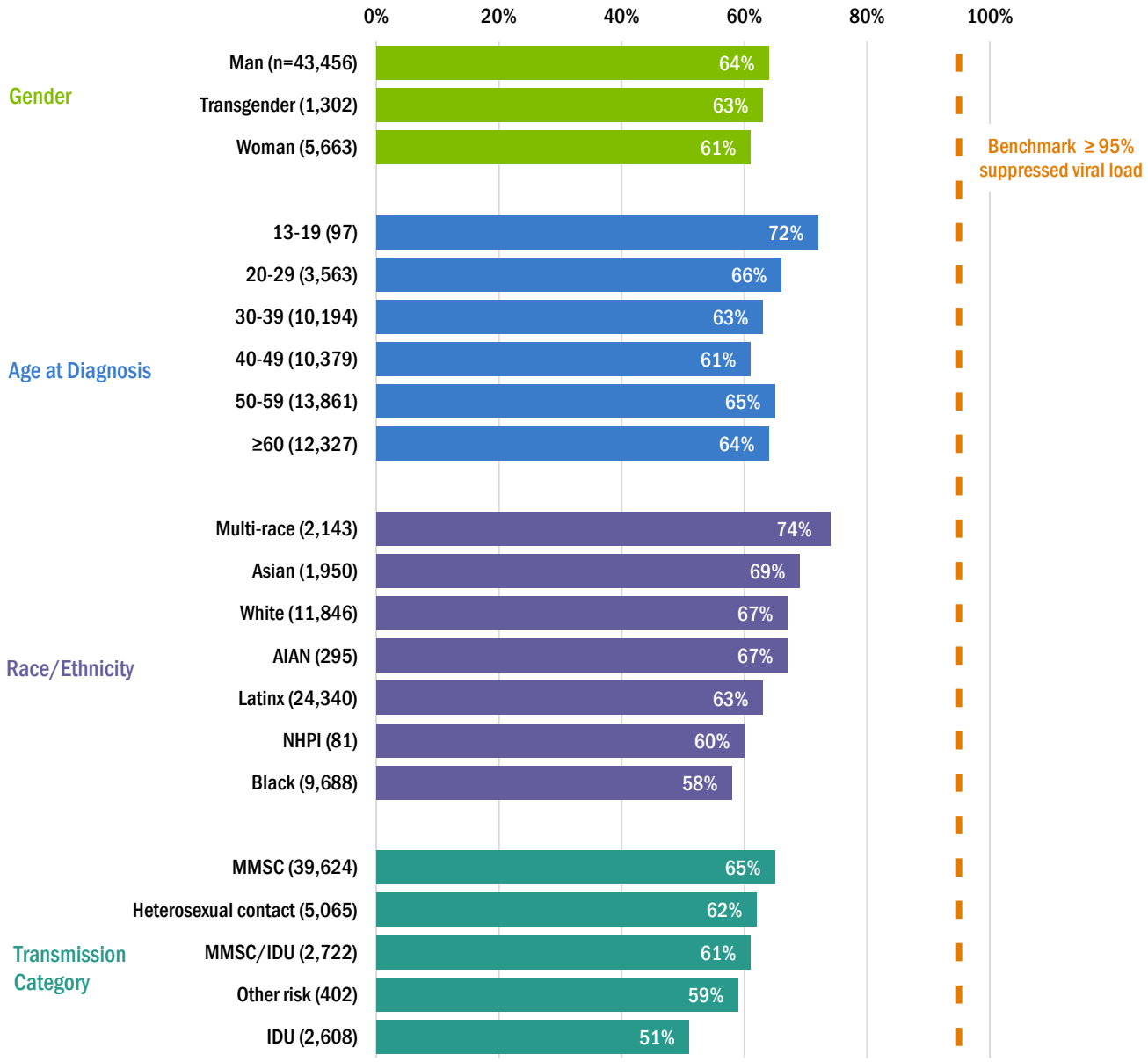
Figure 68: Time from diagnosis to viral suppression among persons diagnosed with HIV by year of HIV diagnosis, LAC 2013-2022[129,130]



[129] Analysis includes persons newly diagnosed with HIV in each calendar year. Numerator includes persons 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.
[130] Due to reporting delay, 2022 HIV data are provisional as indicated by the dashed line.

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.

Figure 69: 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,[131,132] LAC 2023

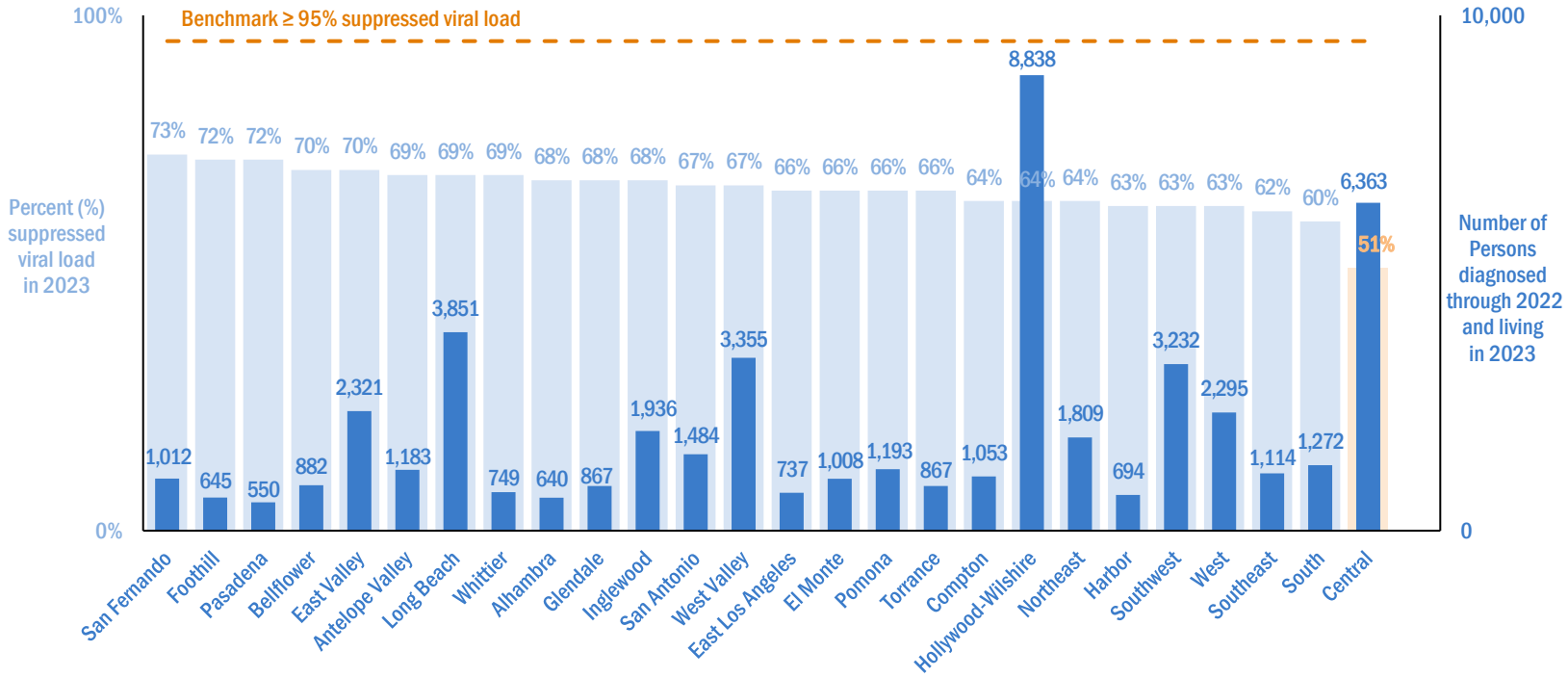


[131] Suppressed viral load: numerator includes PLWDH whose last VL test in 2023 was suppressed (HIV-1 RNA < 200 copies/mL); denominator includes PLWDH diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence. PLWDH without a VL test in 2023 were categorized as having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

[132] Other race/ethnicity includes American Indians and Alaska Natives, Native Hawaiian and Pacific Islander, 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.

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.

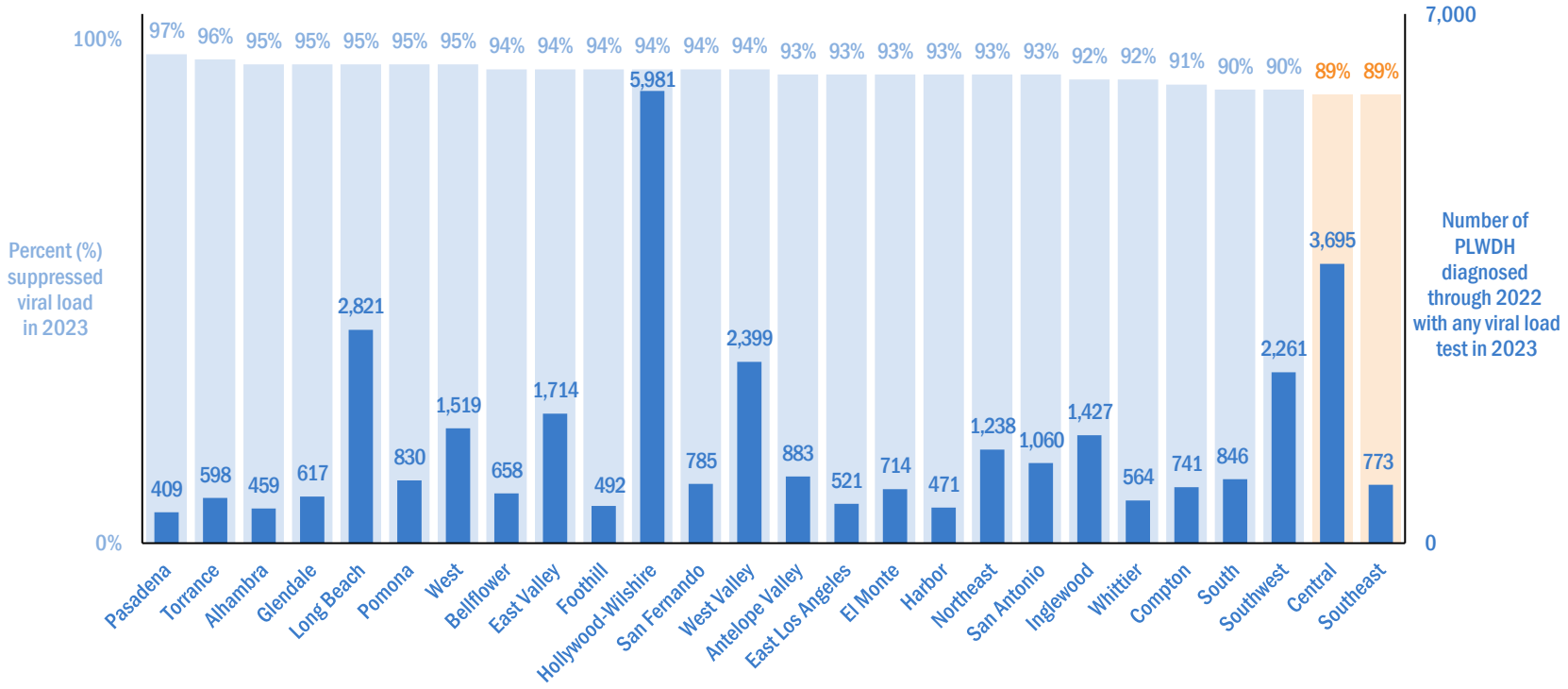
Figure 70: Suppressed viral load by Health District among persons aged ≥ 13 years diagnosed through 2022 and living in LAC at year-end 2023,[133,134] LAC 2023



[133] Suppressed 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.
[134] Health 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.

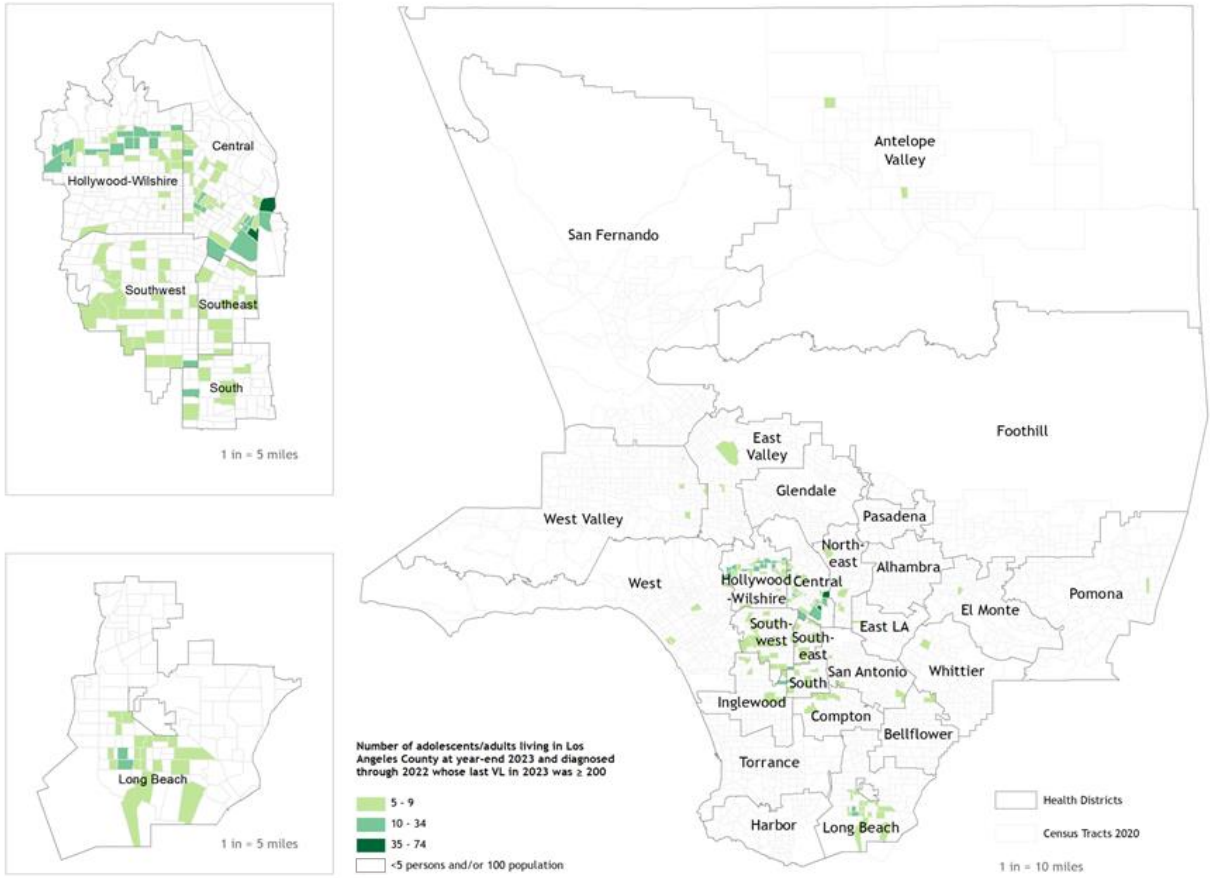
Persons living with diagnosed HIV in LAC who are in care: Once in care, the goal is for all PLWDH to achieve viral suppression as soon as possible. In all but two Health Districts at least 90% of PLWDH in LAC who are in care and had at least one viral load test in 2023 were virally suppressed. The Central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

Figure 71: 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[135,136]



[135] Suppressed 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.
[136] Health 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.

Figure 72: 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),[137] LAC 2023

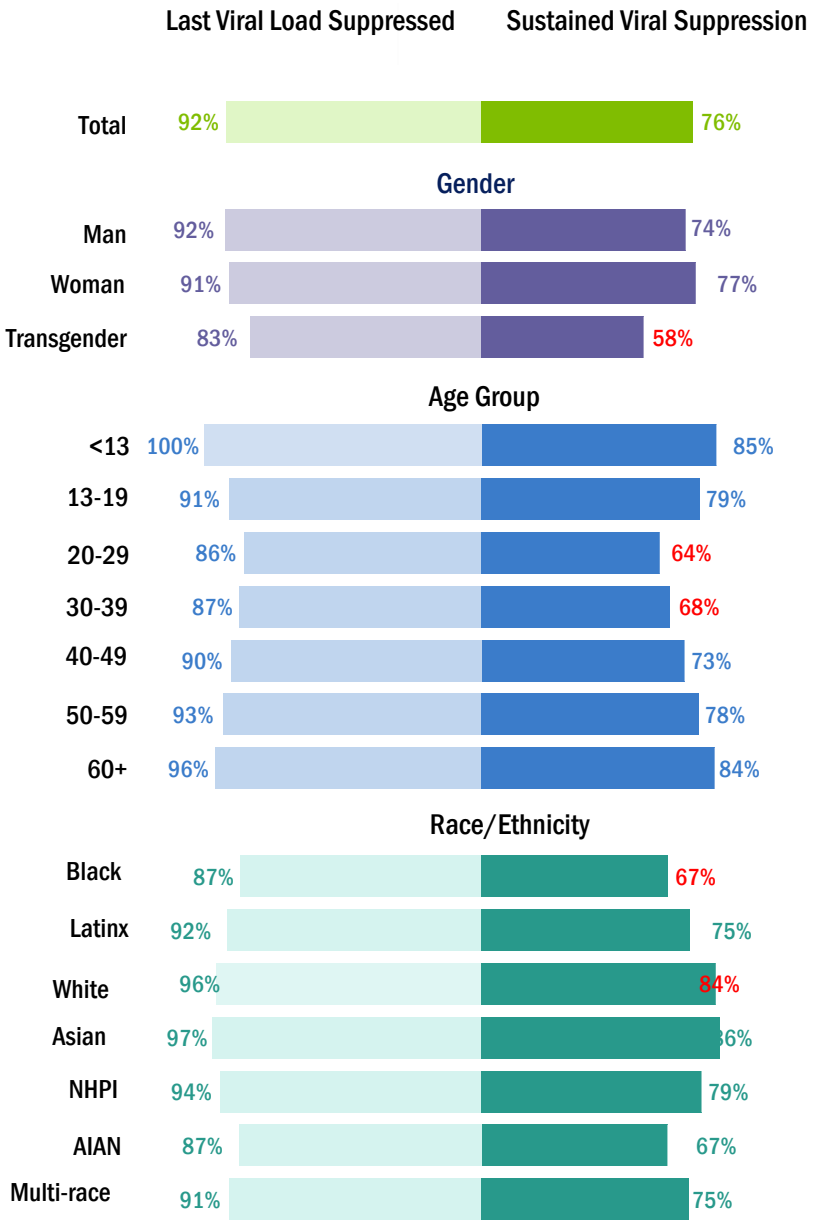


Census tracts located in the Central and Hollywood-Wilshire Health Districts had the highest levels of unsuppressed viral load. These are locations where a robust public health response is needed to 1) identify networks of ongoing transmission and 2) deploy rapid interventions to minimize transmission. 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.

[137] 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 <500 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 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.

Figure 73: Viral load dynamics among persons living with diagnosed HIV and receiving HIV care, LAC 2021-2023[138]



Transgender persons, persons aged 20-39 years, Black persons, and American Indians and Alaska Natives (AIAN) had the lowest levels of sustained viral suppression.

[138] Analysis 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.

Data to Action

Progress and Opportunities in the HIV Care Continuum

- The COVID-19 pandemic impacted health service delivery in 2020 with a subsequent reduced provision of and access to HIV care services. Sustained reduction in retention in HIV care may reflect clinical trends toward less frequent visits.

- Only 76% of PLWDH were linked to HIV care within 1 month of diagnosis, falling below the EHE target of 95% linked to care within 1 month. More work is needed to improve mechanisms to ensure that newly diagnosed persons are promptly linked to HIV care at the time of diagnosis.

- Gaps in linkage to care within 1 month of diagnosis are particularly high among Black persons, young persons aged 13-19 years, females, and persons whose transmission category was 'Other" followed by heterosexual contact. Targeted interventions are needed to link these populations immediately to care after HIV diagnosis. Special attention is needed in the Foothill Health District where linkage rates are very low despite low burden of HIV disease.

- Across the care continuum, the levels of receipt of care, retention in care, and viral suppression was low in 2023. Groups with greatest disparities in the HIV care continuum are unhoused persons, those with injection drug use risk, and Black persons. Person-centered interventions that respond directly to the challenges and needs of these populations continue to be necessary.

- Of concern is that only 8 in 10 PLWDH were estimated to be on treatment and 5 in 10 had 100% adherence to their ART doses in the past 30 days, based on a representative survey of PLWDH. Delayed treatment and suboptimal adherence have hindered progress towards achieving viral suppression among PLWDH. More work is needed to ensure that treatment is started immediately after HIV diagnosis. Rapid ART programs should be scaled across the County and prioritized for subgroups of PLWDH with the lowest treatment coverage rates (e.g., Black and young PLWDH).

- Viral suppression is measured using the last viral load test for PLWDH in HIV care but this does not consider how soon after an HIV diagnosis PLWDH are reaching viral suppression nor whether suppression is maintained over time. Sustained viral suppression (76%) is 16 percentage points lower than viral suppression (92%) based on the last viral load. Interventions to improve sustained viral suppression will be critical to ending the HIV epidemic.

- Hollywood-Wilshire Health District had the highest counts of unsuppressed viral load, followed by Central, Long Beach, and West Valley Health Districts. The response must be more intensive in these areas to ensure that all PLWDH are linked and all out-of-care PLWDH are re-linked, so that viral suppression can be achieved.

Data to Action (continued)

Progress and Opportunities in the HIV Care Continuum

- Among PLWDH in care, lower levels of viral suppression are disproportionately occurring in low-income areas, with the lowest levels of viral suppression in the Central, South, and Southeast Health Districts. In-depth assessments at the Heath District level are needed to understand the social and structural barriers that may be impacting access to and use of health services so that stronger systems of HIV care can be established for PLWDH, particularly for those residing in low-income areas.

- The HIV Surveillance data reported by HIV service providers offers direct information on care services for HIV patients. More attention is requested from providers to document complete information on patient visits, including treatment information, when reporting to Public Health. This will improve our understanding and response to the HIV care continuum among persons living with HIV.

- Outcomes in the HIV care continuum rely on availability and access to laboratory testing to measure linkage to HIV care, receipt of care, retention in care, and viral suppression among PLWDH. The availability of laboratory testing for PLWDH may have been reduced because of the COVID-19 pandemic on health services delivery, although the impact of this bias is not yet known. Nonetheless coordination should be strengthened with laboratory partners to ensure that reported laboratory data are timely, complete, and of high quality.

- Health information systems should be leveraged to routinely monitor and evaluate the quality of HIV services provided to PLWDH receiving care, inform quality management of services, and evaluate the impact of quality services on HIV survival.

Technical Notes

Surveillance of HIV in Los Angeles County

Surveillance of HIV, including AIDS in Los Angeles County (LAC), is conducted through active and passive surveillance as well as electronic case reporting to identify and collect information on persons with newly diagnosed HIV at hospitals, clinics, private physician offices, laboratories, community-based organizations, and hospices. Active HIV surveillance requires staff to routinely contact and visit sites to facilitate the completion of HIV case reports. Providers participating in passive HIV surveillance submit case reports to the LAC Department of Public Health (DPH) Division of HIV and STD Programs (DHSP). In the past 12 months, 38% of LAC's case reports for newly diagnosed HIV were collected through active surveillance activities. Comparatively, 49% were collected through electronic case reporting process involving major healthcare providers. 13% were passive case reports by other providers, either by mail or through the LAC designated HIV case reporting phone line.

HIV surveillance database

The Enhanced HIV/AIDS Reporting System (eHARS) is a CDC-developed information system for collecting, storing, and retrieving HIV surveillance data. Case definitions are based on CDC documents "Stage-3-Defining Opportunistic Illnesses in HIV Infection" and "Revised Surveillance Case Definition for HIV Infection — United States, 2014".[139]

Reporting delay

HIV reporting delay is defined as the time interval between HIV diagnosis or death and the reporting of HIV diagnosis or death to the Public Health department. By the end of 2023 when the data set used in this report was finalized, approximately 74% of new HIV diagnoses in 2023 and 93% of new HIV diagnoses in 2022 were reported. Thus, the HIV diagnosis data presented in this report are limited to year 2022. All data presented in this report are considered provisional and subject to change as additional reports of HIV cases and deaths may be submitted later than the date of the report. In addition, the interstate deduplication and data validation activities may also provide more updated data. Because reporting delays can impact the reliability of data presented in this report, caution should be applied when interpreting the results.

Underreporting

HIV surveillance data may not be representative of all persons living with HIV (PLWH) because not all persons are aware of their infection or have been reported to the Public Health department. Many factors, such as the extent to which testing is routinely offered to specific groups and the accessibility and availability of medical care and testing services, may influence HIV testing patterns. Additionally, the results of anonymous tests are not required to be reported in California. As such, LAC HIV surveillance data are likely underestimate the true numbers of all PLWH in LAC.

[139] CDC. Revised Surveillance Case Definition for HIV Infection – United States, 2014. *MMWR* 2014; 63(No. RR03):1-10.

Population rates

All population rates presented in this report are per 100,000 population, except for HIV diagnoses rates among persons experiencing homelessness (PEH), which are presented per 10,000 homeless population. The population denominators used to compute the rates in the general population were based on 2013-2022 estimates provided by LAC Internal Services Department and contracted through Hedderson Demographic Services, with SPA and HD geographies integrated in by Population Health Assessment Team, Office of Health Assessment and Epidemiology (OHAE). Rates for 2023 are based on the 2022 provisional population estimates released in March 2023. In Figure 1, Appendix Tables A1.a, A1.b, and A3, the data are adjusted to account for non-Latinx persons with any mention of AI/AN race.[140] Population denominators for persons experiencing homelessness were derived from the Greater Los Angeles County Homeless Count, 2024 Results (https://www.lahsa.org/documents?id=8164-2024-greater-los-angeles-homeless-count-results-long-version-.pdf; accessed 07/29/2024).

All rates are subject to random variation. This variation is inversely related to the number of cases, meaning a small number of cases can result in unstable rates. Conforming to standard criterion used by the National Center for Health Statistics, rates presented in this report were considered unreliable when the relative standard errors were greater than or equal to 30%, which corresponds to rates based on 12 or fewer observations.

Geographic information

Residence at HIV diagnosis was used to determine the geographic location of persons newly diagnosed with HIV. Similarly residential information at the time of AIDS diagnosis was used to determine the geographic location for AIDS diagnoses. However, if the specific residential information at the time of AIDS diagnosis was not available, then the residence at time of HIV diagnosis information was used for AIDS case provided that the address was within the LAC jurisdiction.

For persons living with diagnosed HIV data, the area of residence was based on a person's most recent known address at the end of each calendar year. A CDC SAS program was used to calculate last known residence at each specified year-end.

For death data, a person's geographic location was based on their residence at death, and when missing, on their most recently known address.

When street address was missing, then ZIP Code, city, and/or county fields were used. Geographic breakdowns by SPA, HD, and census tract are limited to persons with at least ZIP Code level information. Census tract and ZIP Code to SPA and HD correspondence tables were provided by LAC DPH Information Management and Analytics Office, GIS Unit team. Caution should be used when interpreting geographic level case counts and rates because these values are inclusive of correctional populations and may be artificially inflated.

[140] Adjusted Population Estimates for 2013-202 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 2013-2022. Adjusted estimates were produced by LAC DPH OHAE, Vital Records and Demography Unit.

Maps

Los Angeles County is divided into 26 Health Districts (HD)[141] and 2,496 census tracts.[142] All HD related maps are based on the 2022 boundary definitions and census tract maps are based on the Census 2020 census tract definition.

For 5-year HIV diagnoses (2018-2022), the census tract was assigned based on projected geo-coordinates (X, Y) of the person's address at diagnosis. When a detailed street address was not available, the ZIP Code was used to assign a census tract using the U.S. Department of Housing and Urban Development (HUD) United States Postal Service ZIP Code Crosswalk Files, 4th quarter 2023.[143] Rates are based on July 1, 2020 Population Estimates (Second Provisional), prepared by Hedderson Demographic Services for Los Angeles County Internal Services Department, released October 2022.

For PLWDH at year-end 2023, the census tract was assigned based on projected geo-coordinates (X, Y) of the most current residential information. When a detailed street address was not available, the ZIP Code of the most current residence was used to assign a census tract using the U.S. Department of Housing and Urban Development (HUD) United States Postal Service ZIP Code Crosswalk Files, 4th quarter 2023.[143] Rates are based on July 1, 2020 Population Estimates (Second Provisional), prepared by Hedderson Demographic Services for Los Angeles County Internal Services Department, released October 2022.

For persons whose last viral load in 2023 was ≥ 200 copies/mL, the census tract was assigned based on projected geo-coordinates (X, Y) of the most current residential information.

The following criteria were applied to the data presented in maps to protect the confidentiality, privacy, and security of PLWDH in LAC. If the estimated population[144] within a census tract was less than 500 persons or the counts of the outcome of interest was less than 5 observations in a census tract, then the count was set to missing.

Gender and sex at birth

Surveillance collects information about both sex assigned at birth ("sex at birth") and individuals' current gender identity ("gender"). This report displays data by gender when counts are presented. This report displays data by sex at birth when rates are presented due to the unavailability of population size estimates in LAC by gender categories. For gender, this report displays the following gender categories: men, women, and transgender. Transgender individuals are people who have ever identified as trans women or trans men or whose reported gender identity differs from their sex assigned at birth. Persons who are reported as female at birth and have no other gender identity noted are classified as women. Persons who are reported as male at birth and have no other gender identity noted are classified as men. This report likely underestimates the number of transgender people

[141] 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/.
[142] 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.
[143] U.S. Department of Housing and Urban Development (HUD), Office of Policy Development and Research (PD&R). 2024. HUD United States Postal Service ZIP Code Crosswalk Files, ZIP-TRACT 4th Quarter 2023. Accessed 01/29/2024. https://www.huduser.gov/portal/datasets/usps_crosswalk.html.
[144] County of Los Angeles, Internal Services Department, Information Technology Service, Urban Research-GIS Section, July 1, 2022, Population Estimates (provisional) for Los Angeles County Tract-City and Countywide Statistical Area Splits by Age, Sex and Race/Ethnicity, Los Angeles, CA, March 2023. SPA, HD, and SD geographies integrated in by Population Health Assessment Team, Office of Health Assessment and Epidemiology.

affected by HIV because gender status information is often incomplete in HIV case reports.

Race and ethnicity

Mandated collection of race and ethnicity information for persons newly diagnosed with HIV was implemented on January 1, 2003, as per OMB Statistical Policy Directive 15. A minimum of 5 race categories are collected for HIV surveillance including: American Indian and Alaska Native, Asian, Black, Native Hawaiian and Pacific Islander, and White. Additionally, systems must be able to retain information when multiple racial categories are reported.

Race and ethnicity in this report were grouped using the following criteria exclusively: A person was considered 'Latinx' if indicated 'Latino' or 'Latina' in the race or ethnicity field, regardless of any other race information found for the person. When not indicated as 'Latino' or 'Latina', a person was considered 'American Indian and Alaska Native (AIAN)' if the race field contained AIAN information, regardless of any other race information found for this person. Asians and Pacific Islanders were categorized into two separate groups: Asian or Native Hawaiian and Pacific Islander (NHPI). This categorization was based on an extensive review among available reporting sources, including electronic medical records, original case report forms, Ryan White client registry, and STD Case Watch. In addition, information on extended race, country of birth, and full name were also considered in the review. Persons identified with presumed NHPI race were included in the NHPI group regardless of their identification of Asian race in the records. Except for AIAN and NHPI groups, a person was categorized as 'Multi-racial' when two or more races were reported in the above race fields. All other persons reported with only one single race were placed in the corresponding race/ethnicity category.

HIV transmission risk categories

For surveillance purposes, a 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.

Persons whose transmission category is classified as male-to-male sexual contact include men who have ever had sexual contact with men and men who have ever had sexual contact with both men and women. Persons whose transmission category is classified as heterosexual contact are persons who have ever had heterosexual contact with a person known to have, or to be at high risk for HIV (e.g., a person who injects drugs). The heterosexual contact category excludes men who have ever had sexual contact with both men and women.

Transfusion or hemophilia transmission category is limited to persons who received blood transfusion no later than 1985 or persons who had been investigated and confirmed as having received transfusion of contaminated blood after 1985.

Newly diagnosed HIV cases reported without a transmission category were classified as "undetermined" or "unknown" transmission category. These included cases that were under

investigation by LAC staff; cases whose risk factor information was missing because they died, declined to be interviewed, were lost to follow-up; or persons with a lack of exposure information in his/her medical chart; and cases who were interviewed or for whom other follow-up information was available, but no risk factor was identified.

Because a substantial proportion of persons newly diagnosed with HIV are reported without an identified risk factor, multiple imputation was used to assign a transmission risk category for those cases limited to persons aged ≥13 years.[145] Multiple imputation is a statistical approach in which each missing transmission category is replaced with a set of plausible values that represent the uncertainty about the true, but missing value[146]. The plausible values were analyzed by using standard procedures, and the results from these analyses were combined to produce the final results.

Estimates HIV incidence and undiagnosed HIV

HIV incidence and undiagnosed HIV are approximated using CDC's CD4 depletion model.[147] The CD4-based model uses HIV surveillance data and the first CD4 value after HIV diagnosis to estimate HIV incidence (diagnosed and undiagnosed persons infected with HIV), HIV prevalence (diagnosed and undiagnosed persons living with HIV), and percentage of undiagnosed HIV. The date of HIV acquisition is estimated for each person with a CD4 test using the model. To account for persons without a CD4 test result, persons with CD4 test results are assigned a weight based on the year of HIV diagnosis, sex, race/ethnicity, transmission category, age at diagnosis, disease classification, and vital status at the end of the specified year.

Based on the estimated time from HIV infection to diagnosis, the diagnosis delay distribution can be estimated by using standard survival analysis for right truncated data and used to estimate annual HIV incidence. HIV prevalence, which represents counts of persons with diagnosed or undiagnosed HIV at year-end each year, is estimated by subtracting reported cumulative deaths from cumulative infections. The number of persons with undiagnosed HIV is estimated by subtracting the number of persons living with diagnosed HIV from total prevalence. The percentage of diagnosed (or undiagnosed) HIV is determined by dividing the number of persons living with diagnosed (or undiagnosed) HIV by the total prevalence for each year.

The CD4 model relies on a series of assumptions: (1) the CD4 depletion model is accurate; (2) persons received no treatment before the first CD4 test; (3) all data adjustments (e.g., multiple imputation for missing values of transmission category, weighting to account for cases without a CD4 test) are unbiased; and (4) a person's infection, diagnosis, and death occur in a "closed" population (no migration) or balanced population (approximately the same number of infected people moved into or out of the area under consideration). Of note, the model estimates are impacted by a 12-month reporting delay. In this report, estimates from the CD4 model v6.0 are presented through 2022.

[145] Harrison KM, Kajese T, Hall HI, Song R. Risk factor redistribution of the national HIV/AIDS surveillance data: an alternative approach. Public Health Rep 2008;123(5):618–627.
[146] Rubin DB. Multiple Imputation for Nonresponse in Surveys. New York: John Wiley & Sons Inc; 1987.
[147] Song R, Hall HI, Green TA, Szwarcwald CL, Pantazis N. Using CD4 Data to Estimate HIV Incidence, Prevalence, and Percent of Undiagnosed Infections in the United States. J Acquir Immune DeficSyndr. 2017; 74(1):3-9.

National HIV Behavioral Surveillance

The National HIV Behavioral Surveillance (NHBS) system was designed to generate estimates of HIV prevalence and behavioral indicators in priority populations through nationally representative surveys in these populations. These surveys are funded by the US Centers for Disease Control and Prevention and implemented by local health departments. Time location sampling, a method of recruiting participants from venues where eligible participants are known to socialize during specific time periods, was used to recruit MSM participants. Respondent driven sampling, a peer-driven chain-referral sampling method, was used to recruit PWID, heterosexual persons at elevated risk for HIV (HET) and Transgender women participants. In addition to population specific eligibility criteria, NHBS participants were residents of LAC and at least 18 years of age. Participants who provided informed consent completed an interviewer-administered, anonymous standardized questionnaire about HIV-related behaviors and underwent confidential rapid HIV and standard Hepatitis B and C testing. All testers received HIV counseling and referrals for social and medical services as needed.

Medical Monitoring Project

The Medical Monitoring Project (MMP) is a national HIV surveillance system funded by the US Centers for Disease Control and Prevention and implemented by local health departments. The aim of MMP is to provide locally and nationally representative data on behavioral and clinical outcomes in a sample of persons living with diagnosed HIV. MMP uses a two-stage probability-based sampling strategy that draws from the National HIV Surveillance System (NHSS) to select survey participants. The first stage is selecting the geographic areas to participate, and the second stage is selecting adults diagnosed with HIV and reported to NHSS within those participating areas.

Sampled persons were recruited to participate in person, by telephone, or by mail. To be eligible for MMP, the person had to be living with diagnosed HIV, aged ≥18 years, and residing in an MMP project area. A trained interviewer conducted either a computer-assisted telephone interview or an in-person interview. Persons who provided informed consent and agreed to participate were interviewed over the telephone or in a private location, as well as had the past 2 years of their medical records abstracted by a trained medical record abstractor. The interview included questions about demographics, health care use, met and unmet needs for ancillary services, sexual behavior, depression and anxiety, gynecologic and reproductive history (females only), drug and alcohol use, and utilization of HIV/STD prevention services.

Procedure for obtaining MMP weights: To generate locally and nationally representative data, survey data are weighted using base weights that reflect individuals' probability of selection at the national level and within each project area. Unique national and project area base weights were calculated for all 9,700 sampled cases. For a small group of cases, the base weights were adjusted for multiplicity. The weights were adjusted for nonresponse based on the national, city-state combination, or project area nonresponse analysis. The national nonresponse-adjusted weights were post stratified to national population totals, and each project area and city-state combinations were post stratified to project area and city-state specific population totals. In 2019, no trimming was required for the post stratified weights at the national, city-state combination or project area level. Thus, the post stratified weight was the final MMP weight.

The national and city-state combination design variables were constructed ensuring that each design stratum had at least two clusters to calculate variances. The report also presented weight statistics and variance estimates that reflected the complex sampling design, and these were reviewed as part of the quality assurance process.

HIV Care Continuum

LA County has aligned with the targets set in the Ending the HIV Epidemic (EHE) in the US initiative to track progress along the HIV care continuum, which includes increasing the proportion of newly diagnosed patients linked to clinical care within one month of their diagnosis to 95% by 2025 and increasing the proportion of persons with diagnosed HIV who are virally suppressed to 95% by 2025.

Biomarkers such as HIV viral load (VL), CD4+ T-cell counts, and HIV genotype tests are used as markers to approximate early HIV infection and track outcomes along the HIV care continuum. Since the start of mandatory name-based HIV reporting in California in 2006, laboratories have been required to report "all tests that are indicative of HIV, including tests for HIV diagnosis, a component of HIV, or antibodies to or antigen of HIV (Title 17 CCR 2641.30)" to their local health department. In 2008, the reporting of all CD4 tests was mandated in California. These laboratory tests are used to estimate early HIV infection and initial linkage to care for persons newly diagnosed with HIV and to monitor receipt of care, retention in care, and degree of viral suppression among PLWDH in care. Caution should be exercised when interpreting these results because not all CD4/VL results were reported to the health department. This was especially the case when a PLWDH received care outside the local jurisdiction or moved out of state or to another country. This limitation may have resulted in underestimates of one or more of the outcomes along the HIV care continuum.

Stage 0 HIV disease: Stage 0 is designed to capture early HIV infection, which includes acute HIV and infections within 180 days before HIV diagnosis. Stage 0 infection is based on a sequence of discordant HIV test results in which a negative or indeterminate result was within 180 days of a positive result. The date of the negative HIV test is based on laboratory documentation and, for this analysis, the patient's self-report of last negative test was used in the absence of laboratory documentation. Stage 0 cases are likely underestimated due to the under-reporting of HIV negative test results.

Linkage to care: Linkage to care was defined as having a viral load, CD4, or HIV genotype test performed within 1 week, 1 month, 6 months, or 12 months after a new HIV diagnosis.

Receipt of care: Receipt of care was defined as having at least one viral load, CD4, or HIV genotype test reported during a twelve-month period.

Retention in care: Retention in care was defined as two or more viral load, CD4, or HIV genotype tests performed at least three months apart during a twelve-month period.

HIV viral suppression: Viral suppression was defined as having a viral load result of < 200 copies per milliliter (copies/mL). It is based on a person's most recent viral load test result

within the specified calendar year. Persons who had no viral load tests reported in the specified calendar year were presumed to be virally unsuppressed.

Sustained viral suppression: Sustained viral suppression was defined as having all viral load results of < 200 copies per milliliter (copies/mL) over a period of at least 1 year. In this report, sustained viral load is defined using either a one-year or three-year period.

Persons living with diagnosed HIV: Because of the need for at least 12 months of follow-up to monitor achievements in the HIV care continuum after linkage to care, the denominator used to calculate receipt of care, retention in care, and viral suppression was restricted to persons diagnosed with HIV through 2022 and living in LAC as of December 31, 2023.

Death information ascertainment

Death information among persons living with diagnosed HIV is obtained through medical chart review, provider reports, autopsy reports by the Los Angeles County Department of Medical Examiner, and routine record linkages with Los Angeles County/California Vital Statistics registry, Social Security Death Master File (SSDMF), and National Death Index (NDI). Caution should be applied when interpreting trends based on reported deaths and associated causes. This is particularly relevant for more recent years as death information is provisional due to reporting delay. Moreover, potential misclassification in causes of deaths may have occurred in 2020 during the COVID-19 pandemic. Cause of death information was based on the first-listed underlying cause of death. International Classification of Diseases, Tenth Revision (ICD-10) codes B20-B24, O98.7, or R75 were used to denote HIV/AIDS-related deaths that occurred in 2013-2022. The following ICD-10 codes were used to categorize non-HIV related deaths: Diseases of heart (I00-I09, I11, I13, I20-I51); Malignant neoplasms (C00-C97); Drug poisonings (overdose) unintentional (X40-X44); COVID-19 U07.1); Accidents (unintentional injuries) (V01-X59, Y85-Y86); Diabetes mellitus (E10-E14); Chronic liver disease and cirrhosis (K70, K73-K74); Chronic lower respiratory diseases (J40-J47); Intentional self-harm (suicide) (U03, X60-X84, Y87.0); All other causes (remaining non-missing ICD-10 codes) or Unknown causes (R99 or missing).

Social Determinants of Health (SDOH) indicators

Recognizing that disparities in social determinants can significantly impact health outcomes, it is also crucial to understand how these factors may contribute to disparities and intersect with HIV outcomes among individuals living with diagnosed HIV infection in Los Angeles County (LAC). For this reason, we linked HIV Surveillance data to census tract level SDOH data sourced from the U.S. Census Bureau's American Community Survey (ACS) 2018-2022 5-year estimates to obtain SDOH indicator values for each person aged ≥18 years who was diagnosed with HIV, AIDS, died in 2022 as well as PLWDH at year-end 2023 in LAC. The SDOH indicator variables were categorized using empirically derived quartiles using data from all census tracts in LAC for which SDOH were determined.

The following five key SDOH indicators are presented in this report:

1. **Federal poverty status**: Percentage of adult residents (≥18 years) living below the federal poverty level.
2. **Education level**: Percentage of adult residents (≥18 years) without a high school diploma.

3. **Median household income**: Median household income in the past 12 months (in 2022 inflation-adjusted dollars).
4. **Health insurance coverage**: Percentage of adult residents (>18 years) without health insurance coverage.
5. **Gini index**: The Gini index of income inequality measures the dispersion of the household income distribution. It ranges from 0 (perfect equality, where all households have an equal share of income) to 1 (perfect inequality, where one household has all the income and the rest have none). The Gini index is based on the difference between the Lorenz curve (the observed cumulative income distribution) and the straight line denoting a perfectly equal income distribution.

Data Tables

Table A1.a: Counts, percentages, and rates of HIV and stage 3 (AIDS) diagnoses, and deaths among persons aged ≥ 13 years living with diagnosed HIV by sex, age group, race/ethnicity, and transmission category, LAC 2022-2023[1]

	Male[2]												Female[2]												Total											
	2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Age Group (Yr.)																																				
13-19	35	(2)	8	5	(1)	1	62	(<1)	14	<5	(-)	-	6	(3)	1	<5	(-)	-	33	(1)	8	<5	(-)	-	41	(2)	5	5	(1)	1	95	(<1)	11	<5	(-)	-
20-29	501	(35)	72	110	(19)	16	2,900	(6)	416	28	(4)	4	52	(25)	8	11	(12)	2	307	(5)	46	<5	(-)	-	553	(34)	40	121	(18)	9	3,207	(6)	235	31	(4)	2
30-39	466	(33)	63	191	(33)	26	9,546	(21)	1,289	80	(12)	11	66	(31)	9	19	(21)	3	894	(15)	125	7	(7)	1	532	(32)	37	210	(32)	14	10,440	(20)	717	87	(11)	6
40-49	219	(15)	32	116	(20)	17	9,311	(20)	1,381	104	(15)	15	45	(21)	7	20	(22)	3	1,322	(22)	196	16	(15)	2	264	(16)	20	136	(21)	10	10,633	(21)	788	120	(15)	9
50-59	145	(10)	22	93	(16)	14	11,922	(26)	1,816	188	(27)	29	23	(11)	3	20	(22)	3	1,623	(27)	239	31	(29)	5	168	(10)	13	113	(17)	8	13,545	(26)	1,015	219	(28)	16
≥60	65	(5)	7	57	(10)	6	12,128	(26)	1,298	285	(42)	31	18	(9)	2	20	(22)	2	1,730	(29)	151	49	(46)	4	83	(5)	4	77	(12)	4	13,858	(27)	667	334	(42)	16
Race/Ethnicity[5]																																				
American Indian/Alaskan Native[6]	5	(<1)	16	<5	(-)	-	255	(1)	825	7	(1)	23	<5	(-)	-	<5	(-)	-	43	(1)	133	<5	(-)	-	6	(<1)	9	<5	(-)	-	298	(1)	471	9	(1)	14
Asian	48	(3)	8	28	(5)	5	1,829	(4)	303	21	(3)	3	7	(3)	1	6	(7)	1	185	(3)	26	<5	(-)	-	55	(3)	4	34	(5)	3	2,014	(4)	154	21	(3)	2
Black	262	(18)	85	118	(21)	38	8,147	(18)	2,652	149	(22)	49	57	(27)	16	25	(28)	7	1,771	(30)	507	45	(42)	13	319	(19)	49	143	(22)	22	9,918	(19)	1,511	194	(25)	30
Latinx	864	(60)	44	309	(54)	16	22,310	(49)	1,144	273	(40)	14	96	(46)	5	43	(48)	2	2,826	(48)	143	38	(36)	2	960	(59)	24	352	(53)	9	25,136	(49)	640	311	(39)	8
Native Hawaiian/Pacific Islander	7	(<1)	79	<5	(-)	-	81	(<1)	913	<5	(-)	-	<5	(-)	-	<5	(-)	-	6	(<1)	68	<5	(-)	-	8	(<1)	45	<5	(-)	-	87	(<1)	491	<5	(-)	-
White	199	(14)	17	81	(14)	7	11,282	(25)	984	194	(28)	17	39	(19)	3	11	(12)	1	787	(13)	70	14	(13)	1	238	(15)	10	92	(14)	4	12,069	(23)	530	208	(26)	9
Multi-race	26	(2)	27	27	(5)	28	1,878	(4)	1,937	40	(6)	41	7	(3)	7	<5	(-)	-	281	(5)	276	7	(7)	7	33	(2)	17	31	(5)	16	2,159	(4)	1,086	47	(6)	24
Transmission Category[7]																																				
Male-to-male sexual contact (MMSC)	1,267	(89)	-	480	(84)	-	40,669	(89)	-	529	(77)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	-	1,267	(77)	-	480	(73)	-	40,669	(79)	-	529	(67)	-
Injection drug use (IDU)	54	(4)	-	31	(5)	-	1,391	(3)	-	41	(6)	-	66	(31)	-	28	(31)	-	1,329	(22)	-	42	(40)	-	120	(7)	-	59	(9)	-	2,720	(5)	-	83	(10)	-
MMSC/IDU	76	(5)	-	45	(8)	-	2,765	(6)	-	86	(13)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	-	76	(5)	-	45	(7)	-	2,765	(5)	-	86	(11)	-
Hemophilia/transfusion	<5	(-)	-	<5	(-)	-	58	(<1)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	39	(1)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	97	(<1)	-	<5	(-)	-
Heterosexual contact[8]	23	(2)	-	11	(2)	-	821	(2)	-	25	(4)	-	142	(68)	-	60	(67)	-	4,387	(74)	-	61	(58)	-	165	(10)	-	71	(11)	-	5,208	(10)	-	86	(11)	-
Perinatal exposure	<5	(-)	-	<5	(-)	-	100	(<1)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	136	(2)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	236	(<1)	-	<5	(-)	-
Other risk[9]	11	(1)	-	<5	(-)	-	66	(<1)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	18	(<1)	-	<5	(-)	-	13	(1)	-	<5	(-)	-	84	(<1)	-	<5	(-)	-
Total[5,10]	1,431	[87]	35	572	[86]	14	45,869	[89]	1,107	685	[87]	17	210	[13]	5	90	[14]	2	5,909	[11]	137	106	[13]	2	1,641	[100]	19	662	[100]	8	51,778	[100]	613	791	[100]	9

[1] Data are provisional due to reporting delay. Rates per 100,000 based on population estimates (provisional) for 2022 prepared by Hedderson Demographic Services for LAC ISD, released March 2023. Rates based on fewer than 12 observations may not be reliable (see Technical Notes).

[2] Male and female categories are based on sex at birth.

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

[4] Includes persons whose residence at death was in Los Angeles County (LAC) or whose most recent known address before death was in LAC, when residence at death is missing.

[5] Persons with unknown race/ethnicity are not shown but are included in the total.

[6] Includes all non-Latinx persons who have been reported with American Indian/Alaskan Native race, regardless of whether any other race or ethnicity information is reported; rates are based on 2022 adjusted population estimates prepared by LAC DPH OHAE, Vital Records and Demography Unit (see Technical Notes).

[7] Persons without an identified risk factor are assigned a risk factor using multiple imputation (MI) methods (see Technical Notes). Due to rounding, the sum may not add up to the total. Rates for transmission category are not calculated because of the lack of denominator data.

[8] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[9] Other risk includes risk factor not reported/identified.

[10] Percent of total cases that are male and female is shown in this row.

Table A1.b: Counts, percentages, and rates of HIV and stage 3 (AIDS) diagnoses, and deaths among persons aged ≥ 13 years living with diagnosed HIV who received care within the past 10 years by sex, age group, race/ethnicity, and transmission category, LAC 2022-2023[1]

	Male[2]												Female[2]												Total											
	2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Age Group (Yr.)																																				
13-19	35	(2)	8	5	(1)	1	62	(<1)	14	<5	(-)	-	6	(3)	1	<5	(-)	-	33	(1)	8	<5	(-)	-	41	(2)	5	5	(1)	1	95	(<1)	11	<5	(-)	-
20-29	501	(35)	72	110	(19)	16	2,892	(7)	415	28	(4)	4	52	(25)	8	11	(12)	2	301	(6)	45	<5	(-)	-	553	(34)	40	121	(18)	9	3,193	(7)	234	31	(4)	2
30-39	466	(33)	63	191	(33)	26	9,182	(23)	1,240	80	(12)	11	66	(31)	9	19	(21)	3	780	(16)	109	7	(7)	1	532	(32)	37	210	(32)	14	9,962	(22)	684	87	(11)	6
40-49	219	(15)	32	116	(20)	17	8,246	(20)	1,223	101	(15)	15	45	(21)	7	20	(22)	3	1,106	(22)	164	15	(15)	2	264	(16)	20	136	(21)	10	9,352	(21)	693	116	(15)	9
50-59	145	(10)	22	93	(16)	14	10,088	(25)	1,537	180	(27)	27	23	(11)	3	20	(22)	3	1,354	(27)	200	30	(29)	4	168	(10)	13	113	(17)	8	11,442	(25)	858	210	(27)	16
≥60	65	(5)	7	57	(10)	6	9,844	(24)	1,053	273	(41)	29	18	(9)	2	20	(22)	2	1,435	(29)	126	47	(46)	4	83	(5)	4	77	(12)	4	11,279	(25)	543	320	(42)	15
Race/Ethnicity[5]																																				
American Indian/Alaskan Native[6]	5	(<1)	16	<5	(-)	-	237	(1)	766	7	(1)	23	<5	(-)	-	<5	(-)	-	40	(1)	124	<5	(-)	-	6	(<1)	9	<5	(-)	-	277	(1)	438	9	(1)	14
Asian	48	(3)	8	28	(5)	5	1,666	(4)	276	20	(3)	3	7	(3)	1	6	(7)	1	155	(3)	22	<5	(-)	-	55	(3)	4	34	(5)	3	1,821	(4)	139	20	(3)	2
Black	262	(18)	85	118	(21)	38	7,204	(18)	2,345	145	(22)	47	57	(27)	16	25	(28)	7	1,550	(31)	444	43	(42)	12	319	(19)	49	143	(22)	22	8,754	(19)	1,334	188	(25)	29
Latinx	864	(60)	44	309	(54)	16	19,062	(47)	977	264	(40)	14	96	(46)	5	43	(48)	2	2,318	(46)	117	37	(36)	2	960	(59)	24	352	(53)	9	21,380	(47)	544	301	(39)	8
Native Hawaiian/Pacific Islander	7	(<1)	79	<5	(-)	-	75	(<1)	846	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	8	(<1)	45	<5	(-)	-	79	(<1)	445	<5	(-)	-
White	199	(14)	17	81	(14)	7	10,139	(25)	885	185	(28)	16	39	(19)	3	11	(12)	1	656	(13)	58	13	(13)	1	238	(15)	10	92	(14)	4	10,795	(24)	474	198	(26)	9
Multi-race	26	(2)	27	27	(5)	28	1,850	(5)	1908	40	(6)	41	7	(3)	7	<5	(-)	-	277	(6)	272	7	(7)	7	33	(2)	17	31	(5)	16	2,127	(5)	1070	47	(6)	24
Transmission Category[7,8]																																				
Male-to-male sexual contact (MMSC)	1,267	(89)	-	480	(84)	-	36,002	(89)	-	510	(77)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	-	1,267	(77)	-	480	(73)	-	36,002	(79)	-	510	(67)	-
Injection drug use (IDU)	54	(4)	-	31	(5)	-	1,046	(3)	-	39	(6)	-	66	(31)	-	28	(31)	-	1,131	(23)	-	40	(39)	-	120	(7)	-	59	(9)	-	2,177	(5)	-	79	(10)	-
MMSC/IDU	76	(5)	-	45	(8)	-	2,425	(6)	-	85	(13)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	-	76	(5)	-	45	(7)	-	2,425	(5)	-	85	(11)	-
Hemophilia/transfusion	<5	(-)	-	<5	(-)	-	42	(<1)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	28	(1)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	70	(<1)	-	<5	(-)	-
Heterosexual contact[9]	23	(2)	-	11	(2)	-	640	(2)	-	25	(4)	-	142	(68)	-	60	(67)	-	3,704	(74)	-	59	(58)	-	165	(10)	-	71	(11)	-	4,344	(10)	-	84	(11)	-
Perinatal exposure	<5	(-)	-	<5	(-)	-	97	(<1)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	130	(3)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	227	(1)	-	<5	(-)	-
Other risk[10]	11	(1)	-	<5	(-)	-	62	(<1)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	16	(<1)	-	<5	(-)	-	13	(1)	-	<5	(-)	-	78	(<1)	-	<5	(-)	-
Total[5,11]	1,431	[87]	35	572	[86]	14	40,314	[89]	973	662	[87]	16	210	[13]	5	90	[14]	2	5,009	[11]	116	102	[13]	2	1,641	[100]	19	662	[100]	8	45,323	[100]	536	764	[100]	9

[1] Excludes persons who have not had a care indicator lab (viral load, CD4+ T-cell, or genotype test) within the past 10 years, or if no care indicator labs were reported at all, were diagnosed over 10 years ago.
Data are provisional due to reporting delay. Rates per 100,000 based on population estimates (provisional) for 2022 prepared by Hedderson Demographic Services for LAC ISD, released March 2023. Rates based on fewer than 12 observations may not be reliable (see Technical Notes).

[2] Male and female categories are based on sex at birth.

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

[4] Includes persons whose residence at death was in Los Angeles County (LAC) or whose most recent known address before death was in LAC, when residence at death is missing.

[5] Persons with unknown race/ethnicity are not shown but are included in the total.

[6] Includes all non-Latinx persons who have been reported with American Indian/Alaskan Native race, regardless of whether any other race or ethnicity information is reported; rates are based on 2022 adjusted population estimates prepared by LAC DPH OHAE, Vital Records and Demography Unit (see Technical Notes).

[7] Rates for transmission category are not calculated because of the lack of denominator data.

[8] Persons without an identified risk factor are assigned a risk factor using multiple imputation (MI) methods (see Technical Notes). Due to rounding, the sum may not add up to the total.

[9] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[10] Other risk includes risk factor not reported/identified.

[11] Percent of total cases that are male and female is shown in this row.

Table A2.a: Counts, percentages, and rates of HIV and stage 3 (AIDS) diagnoses, and deaths among persons aged ≥ 13 years living with diagnosed HIV by sex, Service Planning Area (SPA), and Health District (HD), LAC 2022-2023[1]

SPA/HD[3]	Male[2]												Female[2]												Total					
	2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[4]			2022 Deaths[5]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[4]			2022 Deaths[5]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[4]			2022 Deaths[5]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Antelope Valley [1]	**49**	**(3)**	**29**	**18**	**(3)**	**11**	**933**	**(2)**	**558**	**22**	**(3)**	**13**	**11**	**(5)**	**6**	**<5**	**(-)**	**-**	**288**	**(5)**	**166**	**<5**	**(-)**	**-**	**60**	**(4)**	**18**	**21**	**(3)**	**6**	**1,221**	**(2)**	**358**	**26**	**(3)**	**8**
Antelope Valley	49	(3)	29	18	(3)	11	933	(2)	558	22	(3)	13	11	(5)	6	<5	(-)	-	288	(5)	166	<5	(-)	-	60	(4)	18	21	(3)	6	1,221	(2)	358	26	(3)	8
San Fernando [2]	**219**	**(15)**	**24**	**74**	**(13)**	**8**	**6,844**	**(15)**	**745**	**108**	**(16)**	**12**	**24**	**(11)**	**3**	**8**	**(9)**	**1**	**947**	**(16)**	**100**	**8**	**(8)**	**1**	**243**	**(15)**	**13**	**82**	**(12)**	**4**	**7,791**	**(15)**	**417**	**116**	**(15)**	**6**
East Valley	67	(5)	36	27	(5)	15	2,159	(5)	1161	27	(4)	15	7	(3)	4	<5	(-)	-	228	(4)	122	<5	(-)	-	74	(5)	20	29	(4)	8	2,387	(5)	641	27	(3)	7
Glendale	19	(1)	13	5	(1)	4	804	(2)	565	21	(3)	15	<5	(-)	-	<5	(-)	-	86	(1)	56	<5	(-)	-	20	(1)	7	5	(1)	2	890	(2)	300	21	(3)	7
San Fernando	41	(3)	18	10	(2)	5	896	(2)	404	14	(2)	6	<5	(-)	-	<5	(-)	-	157	(3)	70	<5	(-)	-	44	(3)	10	12	(2)	3	1,053	(2)	236	15	(2)	3
West Valley	92	(6)	25	32	(6)	9	2,985	(7)	810	46	(7)	12	13	(6)	3	<5	(-)	-	476	(8)	125	7	(7)	2	105	(6)	14	36	(5)	5	3,461	(7)	461	53	(7)	7
San Gabriel [3]	**135**	**(9)**	**19**	**59**	**(10)**	**8**	**3,652**	**(8)**	**505**	**61**	**(9)**	**8**	**23**	**(11)**	**3**	**13**	**(14)**	**2**	**520**	**(9)**	**67**	**11**	**(10)**	**1**	**158**	**(10)**	**11**	**72**	**(11)**	**5**	**4,172**	**(8)**	**279**	**72**	**(9)**	**5**
Alhambra	20	(1)	14	7	(1)	5	581	(1)	418	10	(1)	7	7	(3)	5	6	(7)	4	84	(1)	55	<5	(-)	-	27	(2)	9	13	(2)	4	665	(1)	227	12	(2)	4
El Monte	45	(3)	26	16	(3)	9	917	(2)	529	13	(2)	7	6	(3)	3	<5	(-)	-	129	(2)	72	<5	(-)	-	51	(3)	14	19	(3)	5	1,046	(2)	297	17	(2)	5
Foothill	12	(1)	9	8	(1)	6	588	(1)	465	7	(1)	6	<5	(-)	-	<5	(-)	-	76	(1)	55	<5	(-)	-	13	(1)	5	9	(1)	3	664	(1)	251	9	(1)	3
Pasadena	8	(1)	13	<5	(-)	-	505	(1)	848	8	(1)	13	<5	(-)	-	<5	(-)	-	59	(1)	93	<5	(-)	-	10	(1)	8	5	(1)	4	564	(1)	459	8	(1)	7
Pomona	50	(3)	22	24	(4)	11	1,061	(2)	471	23	(3)	10	7	(3)	3	<5	(-)	-	172	(3)	72	<5	(-)	-	57	(3)	12	26	(4)	6	1,233	(2)	265	26	(3)	6
Metro [4]	**380**	**(27)**	**76**	**146**	**(26)**	**29**	**16,252**	**(35)**	**3,234**	**201**	**(29)**	**40**	**48**	**(23)**	**10**	**14**	**(16)**	**3**	**1,085**	**(18)**	**232**	**19**	**(18)**	**4**	**428**	**(26)**	**44**	**160**	**(24)**	**16**	**17,337**	**(33)**	**1,787**	**220**	**(28)**	**23**
Central	150	(10)	90	71	(12)	43	5,922	(13)	3,552	86	(13)	52	24	(11)	17	10	(11)	7	559	(9)	394	13	(12)	9	174	(11)	56	81	(12)	26	6,481	(13)	2,100	99	(13)	32
Hollywood-Wilshire	188	(13)	87	61	(11)	28	8,629	(19)	3,999	87	(13)	40	15	(7)	7	<5	(-)	-	367	(6)	179	<5	(-)	-	203	(12)	48	63	(10)	15	8,996	(17)	2,138	91	(12)	22
Northeast	42	(3)	35	14	(2)	12	1,701	(4)	1,417	28	(4)	23	9	(4)	7	<5	(-)	-	159	(3)	132	<5	(-)	-	51	(3)	21	16	(2)	7	1,860	(4)	772	30	(4)	12
West [5]	**44**	**(3)**	**16**	**14**	**(2)**	**5**	**2,120**	**(5)**	**759**	**27**	**(4)**	**10**	**<5**	**(-)**	**-**	**<5**	**(-)**	**-**	**217**	**(4)**	**72**	**<5**	**(-)**	**-**	**48**	**(3)**	**8**	**17**	**(3)**	**3**	**2,337**	**(5)**	**402**	**31**	**(4)**	**5**
West	44	(3)	16	14	(2)	5	2,120	(5)	759	27	(4)	10	<5	(-)	-	<5	(-)	-	217	(4)	72	<5	(-)	-	48	(3)	8	17	(3)	3	2,337	(5)	402	31	(4)	5
South [6]	**230**	**(16)**	**58**	**90**	**(16)**	**23**	**5,627**	**(12)**	**1,409**	**117**	**(17)**	**29**	**43**	**(20)**	**10**	**16**	**(18)**	**4**	**1,246**	**(21)**	**295**	**26**	**(25)**	**6**	**273**	**(17)**	**33**	**106**	**(16)**	**13**	**6,873**	**(13)**	**836**	**143**	**(18)**	**17**
Compton	41	(3)	38	23	(4)	21	906	(2)	838	10	(1)	9	6	(3)	5	<5	(-)	-	176	(3)	153	7	(7)	6	47	(3)	21	27	(4)	12	1,082	(2)	485	17	(2)	8
South	47	(3)	63	15	(3)	20	1,059	(2)	1,426	31	(5)	42	16	(8)	20	<5	(-)	-	250	(4)	320	6	(6)	8	63	(4)	41	19	(3)	12	1,309	(3)	859	37	(5)	24
Southeast	53	(4)	80	17	(3)	26	965	(2)	1,453	20	(3)	30	5	(2)	8	<5	(-)	-	194	(3)	298	<5	(-)	-	58	(4)	44	18	(3)	14	1,159	(2)	881	22	(3)	17
Southwest	89	(6)	59	35	(6)	23	2,697	(6)	1,790	56	(8)	37	16	(8)	10	7	(8)	4	626	(11)	380	11	(10)	7	105	(6)	33	42	(6)	13	3,323	(6)	1054	67	(8)	21
East [7]	**144**	**(10)**	**28**	**59**	**(10)**	**11**	**3,485**	**(8)**	**667**	**40**	**(6)**	**8**	**19**	**(9)**	**3**	**9**	**(10)**	**2**	**520**	**(9)**	**95**	**12**	**(11)**	**2**	**163**	**(10)**	**15**	**68**	**(10)**	**6**	**4,005**	**(8)**	**374**	**52**	**(7)**	**5**
Bellflower	39	(3)	27	16	(3)	11	792	(2)	543	10	(1)	7	7	(3)	5	<5	(-)	-	117	(2)	76	<5	(-)	-	46	(3)	15	19	(3)	6	909	(2)	303	13	(2)	4
East Los Angeles	27	(2)	34	11	(2)	14	686	(1)	866	5	(1)	6	<5	(-)	-	<5	(-)	-	82	(1)	100	<5	(-)	-	27	(2)	17	11	(2)	7	768	(1)	476	7	(1)	4
San Antonio	50	(3)	30	20	(3)	12	1,327	(3)	807	17	(2)	10	8	(4)	5	6	(7)	4	220	(4)	129	5	(5)	3	58	(4)	17	26	(4)	8	1,547	(3)	462	22	(3)	7
Whittier	28	(2)	21	12	(2)	9	680	(1)	512	8	(1)	6	<5	(-)	-	<5	(-)	-	101	(2)	71	<5	(-)	-	32	(2)	12	12	(2)	4	781	(2)	285	10	(1)	4
South Bay [8]	**190**	**(13)**	**30**	**71**	**(12)**	**11**	**6,517**	**(14)**	**1,031**	**101**	**(15)**	**16**	**25**	**(12)**	**4**	**11**	**(12)**	**2**	**1,023**	**(17)**	**153**	**20**	**(19)**	**3**	**215**	**(13)**	**17**	**82**	**(12)**	**6**	**7,540**	**(15)**	**579**	**121**	**(15)**	**9**
Harbor	18	(1)	22	7	(1)	8	616	(1)	743	6	(1)	7	<5	(-)	-	<5	(-)	-	100	(2)	117	<5	(-)	-	20	(1)	12	8	(1)	5	716	(1)	425	7	(1)	4
Inglewood	73	(5)	44	18	(3)	11	1,646	(4)	998	20	(3)	12	12	(6)	7	7	(8)	4	355	(6)	200	6	(6)	3	85	(5)	25	25	(4)	7	2,001	(4)	584	26	(3)	8
Long Beach	72	(5)	37	37	(6)	19	3,489	(8)	1,805	60	(9)	31	8	(4)	4	<5	(-)	-	439	(7)	216	9	(8)	4	80	(5)	20	38	(6)	10	3,928	(8)	990	69	(9)	17
Torrance	27	(2)	14	9	(2)	5	766	(2)	402	15	(2)	8	<5	(-)	-	<5	(-)	-	129	(2)	64	<5	(-)	-	30	(2)	8	11	(2)	3	895	(2)	228	19	(2)	5
Total[6,7]	**1,431**	**[87]**	**35**	**572**	**[86]**	**14**	**45,869**	**[89]**	**1,107**	**685**	**[87]**	**17**	**210**	**[13]**	**5**	**90**	**[14]**	**2**	**5,909**	**[11]**	**137**	**106**	**[13]**	**2**	**1,641**	**[100]**	**19**	**662**	**[100]**	**8**	**51,778**	**[100]**	**613**	**791**	**[100]**	**9**

[1] Data are provisional due to reporting delay. Rates per 100,000 based on July 1, 2022 Population Estimates (Provisional), prepared by Hedderson Demographic Services for LAC ISD, released March 2023. SPA and HD geographies integrated in by Population Health Assessment Team, Office of Health Assessment and Epidemiology (OHAE). Rates based on fewer than 12 observations may not be reliable (see Technical Notes).

[2] Male and female categories are based on sex at birth.

[3] Service Planning Area and Health District are based on 2022 boundaries. Persons are assigned a SPA/HD 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.

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

[5] Includes persons whose residence at death was in Los Angeles County (LAC) or whose most recent known address before death was in LAC, when residence at death is missing.

[6] Percent of total cases that are male and female is shown in this row.

[7] Persons with no information on Service Planning Area/Health District are not shown but are included in the total.

Table A2.b: Counts, percentages, and rates of HIV and stage 3 (AIDS) diagnoses, and deaths among persons aged ≥ 13 years living with diagnosed HIV **who received care within the past 10 years** by sex, Service Planning Area (SPA), and Health District (HD), LAC 2022-2023[1]

SPA/HD[3]	Male[2]												Female[2]												Total					
	2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[4]			2022 Deaths[5]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[4]			2022 Deaths[5]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[4]			2022 Deaths[5]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Antelope Valley [1]	**49**	**(3)**	**29**	**18**	**(3)**	**11**	**860**	**(2)**	**515**	**22**	**(3)**	**13**	**11**	**(5)**	**6**	**<5**	**(-)**	**-**	**268**	**(5)**	**154**	**<5**	**(-)**	**-**	**60**	**(4)**	**18**	**21**	**(3)**	**6**	**1,128**	**(2)**	**331**	**25**	**(3)**	**7**
Antelope Valley	49	(3)	29	18	(3)	11	860	(2)	515	22	(3)	13	11	(5)	6	<5	(-)	-	268	(5)	154	<5	(-)	-	60	(4)	18	21	(3)	6	1,128	(2)	331	25	(3)	7
San Fernando [2]	**219**	**(15)**	**24**	**74**	**(13)**	**8**	**6,224**	**(15)**	**678**	**104**	**(16)**	**11**	**24**	**(11)**	**3**	**8**	**(9)**	**1**	**830**	**(17)**	**88**	**8**	**(8)**	**1**	**243**	**(15)**	**13**	**82**	**(12)**	**4**	**7,054**	**(16)**	**378**	**112**	**(15)**	**6**
East Valley	67	(5)	36	27	(5)	15	1,967	(5)	1058	27	(4)	15	7	(3)	4	<5	(-)	-	197	(4)	106	<5	(-)	-	74	(5)	20	29	(4)	8	2,164	(5)	581	27	(4)	7
Glendale	19	(1)	13	5	(1)	4	730	(2)	513	20	(3)	14	<5	(-)	-	<5	(-)	-	72	(1)	47	<5	(-)	-	20	(1)	7	5	(1)	2	802	(2)	270	20	(3)	7
San Fernando	41	(3)	18	10	(2)	5	829	(2)	374	14	(2)	6	<5	(-)	-	<5	(-)	-	146	(3)	65	<5	(-)	-	44	(3)	10	12	(2)	3	975	(2)	218	15	(2)	3
West Valley	92	(6)	25	32	(6)	9	2,698	(7)	732	43	(6)	12	13	(6)	3	<5	(-)	-	415	(8)	109	7	(7)	2	105	(6)	14	36	(5)	5	3,113	(7)	415	50	(7)	7
San Gabriel [3]	**135**	**(9)**	**19**	**59**	**(10)**	**8**	**3,336**	**(8)**	**461**	**61**	**(9)**	**8**	**23**	**(11)**	**3**	**13**	**(14)**	**2**	**454**	**(9)**	**59**	**11**	**(11)**	**1**	**158**	**(10)**	**11**	**72**	**(11)**	**5**	**3,790**	**(8)**	**253**	**72**	**(9)**	**5**
Alhambra	20	(1)	14	7	(1)	5	533	(1)	383	10	(2)	7	7	(3)	5	6	(7)	4	74	(1)	48	<5	(-)	-	27	(2)	9	13	(2)	4	607	(1)	207	12	(2)	4
El Monte	45	(3)	26	16	(3)	9	820	(2)	473	13	(2)	7	6	(3)	3	<5	(-)	-	111	(2)	62	<5	(-)	-	51	(3)	14	19	(3)	5	931	(2)	264	17	(2)	5
Foothill	12	(1)	9	8	(1)	6	554	(1)	438	7	(1)	6	<5	(-)	-	<5	(-)	-	65	(1)	47	<5	(-)	-	13	(1)	5	9	(1)	3	619	(1)	234	9	(1)	3
Pasadena	8	(1)	13	<5	(-)	-	460	(1)	773	8	(1)	13	<5	(-)	-	<5	(-)	-	52	(1)	82	<5	(-)	-	10	(1)	8	5	(1)	4	512	(1)	417	8	(1)	7
Pomona	50	(3)	22	24	(4)	11	969	(2)	430	23	(3)	10	7	(3)	3	<5	(-)	-	152	(3)	63	<5	(-)	-	57	(3)	12	26	(4)	6	1,121	(2)	241	26	(3)	6
Metro [4]	**380**	**(27)**	**76**	**146**	**(26)**	**29**	**13,744**	**(34)**	**2,735**	**194**	**(29)**	**39**	**48**	**(23)**	**10**	**14**	**(16)**	**3**	**844**	**(17)**	**180**	**18**	**(18)**	**4**	**428**	**(26)**	**44**	**160**	**(24)**	**16**	**14,588**	**(32)**	**1,503**	**212**	**(28)**	**22**
Central	150	(10)	90	71	(12)	43	4,676	(12)	2,805	82	(12)	49	24	(11)	17	10	(11)	7	421	(8)	297	12	(12)	8	174	(11)	56	81	(12)	26	5,097	(11)	1,651	94	(12)	30
Hollywood-Wilshire	188	(13)	87	61	(11)	28	7,632	(19)	3,537	85	(13)	39	15	(7)	7	<5	(-)	-	295	(6)	144	<5	(-)	-	203	(12)	48	63	(10)	15	7,927	(17)	1,884	89	(12)	21
Northeast	42	(3)	35	14	(2)	12	1,436	(4)	1,196	27	(4)	22	9	(4)	7	<5	(-)	-	128	(3)	106	<5	(-)	-	51	(3)	21	16	(2)	7	1,564	(3)	649	29	(4)	12
West [5]	**44**	**(3)**	**16**	**14**	**(2)**	**5**	**1,859**	**(5)**	**666**	**25**	**(4)**	**9**	**<5**	**(-)**	**-**	**<5**	**(-)**	**-**	**182**	**(4)**	**60**	**<5**	**(-)**	**-**	**48**	**(3)**	**8**	**17**	**(3)**	**3**	**2,041**	**(5)**	**351**	**29**	**(4)**	**5**
West	44	(3)	16	14	(2)	5	1,859	(5)	666	25	(4)	9	<5	(-)	-	<5	(-)	-	182	(4)	60	<5	(-)	-	48	(3)	8	17	(3)	3	2,041	(5)	351	29	(4)	5
South [6]	**230**	**(16)**	**58**	**90**	**(16)**	**23**	**5,053**	**(13)**	**1,265**	**114**	**(17)**	**29**	**43**	**(20)**	**10**	**16**	**(18)**	**4**	**1,069**	**(21)**	**253**	**26**	**(25)**	**6**	**273**	**(17)**	**33**	**106**	**(16)**	**13**	**6,122**	**(14)**	**744**	**140**	**(18)**	**17**
Compton	41	(3)	38	23	(4)	21	815	(2)	754	10	(2)	9	6	(3)	5	<5	(-)	-	149	(3)	130	7	(7)	6	47	(3)	21	27	(4)	12	964	(2)	432	17	(2)	8
South	47	(3)	63	15	(3)	20	942	(2)	1,268	29	(4)	39	16	(8)	20	<5	(-)	-	208	(4)	266	6	(6)	8	63	(4)	41	19	(3)	12	1,150	(3)	754	35	(5)	23
Southeast	53	(4)	80	17	(3)	26	840	(2)	1,265	19	(3)	29	5	(2)	8	<5	(-)	-	167	(3)	257	<5	(-)	-	58	(4)	44	18	(3)	14	1,007	(2)	766	21	(3)	16
Southwest	89	(6)	59	35	(6)	23	2,456	(6)	1,630	56	(8)	37	16	(8)	10	7	(8)	4	545	(11)	331	11	(11)	7	105	(6)	33	42	(6)	13	3,001	(7)	952	67	(9)	21
East [7]	**144**	**(10)**	**28**	**59**	**(10)**	**11**	**3,138**	**(8)**	**601**	**38**	**(6)**	**7**	**19**	**(9)**	**3**	**9**	**(10)**	**2**	**440**	**(9)**	**80**	**11**	**(11)**	**2**	**163**	**(10)**	**15**	**68**	**(10)**	**6**	**3,578**	**(8)**	**334**	**49**	**(6)**	**5**
Bellflower	39	(3)	27	16	(3)	11	736	(2)	505	9	(1)	6	7	(3)	5	<5	(-)	-	105	(2)	68	<5	(-)	-	46	(3)	15	19	(3)	6	841	(2)	280	11	(1)	4
East Los Angeles	27	(2)	34	11	(2)	14	596	(1)	753	<5	(-)	-	<5	(-)	-	<5	(-)	-	65	(1)	79	<5	(-)	-	27	(2)	17	11	(2)	7	661	(1)	410	6	(1)	4
San Antonio	50	(3)	30	20	(3)	12	1,177	(3)	716	17	(3)	10	8	(4)	5	6	(7)	4	181	(4)	106	5	(5)	3	58	(4)	17	26	(4)	8	1,358	(3)	406	22	(3)	7
Whittier	28	(2)	21	12	(2)	9	629	(2)	474	8	(1)	6	<5	(-)	-	<5	(-)	-	89	(2)	63	<5	(-)	-	32	(2)	12	12	(2)	4	718	(2)	262	10	(1)	4
South Bay [8]	**190**	**(13)**	**30**	**71**	**(12)**	**11**	**5,770**	**(14)**	**913**	**96**	**(15)**	**15**	**25**	**(12)**	**4**	**11**	**(12)**	**2**	**869**	**(17)**	**130**	**19**	**(19)**	**3**	**215**	**(13)**	**17**	**82**	**(12)**	**6**	**6,639**	**(15)**	**510**	**115**	**(15)**	**9**
Harbor	18	(1)	22	7	(1)	8	506	(1)	610	6	(1)	7	<5	(-)	-	<5	(-)	-	89	(2)	104	<5	(-)	-	20	(1)	12	8	(1)	5	595	(1)	353	7	(1)	4
Inglewood	73	(5)	44	18	(3)	11	1,494	(4)	906	19	(3)	12	12	(6)	7	7	(8)	4	310	(6)	174	6	(6)	3	85	(5)	25	25	(4)	7	1,804	(4)	526	25	(3)	7
Long Beach	72	(5)	37	37	(6)	19	3,071	(8)	1,589	57	(9)	29	8	(4)	4	<5	(-)	-	359	(7)	176	8	(8)	4	80	(5)	20	38	(6)	10	3,430	(8)	864	65	(9)	16
Torrance	27	(2)	14	9	(2)	5	699	(2)	367	14	(2)	7	<5	(-)	-	<5	(-)	-	111	(2)	55	<5	(-)	-	30	(2)	8	11	(2)	3	810	(2)	206	18	(2)	5
Total[6,7]	**1,431**	**[87]**	**35**	**572**	**[86]**	**14**	**40,314**	**[89]**	**973**	**662**	**[87]**	**16**	**210**	**[13]**	**5**	**90**	**[14]**	**2**	**5,009**	**[11]**	**116**	**102**	**[13]**	**2**	**1,641**	**[100]**	**19**	**662**	**[100]**	**8**	**45,323**	**[100]**	**536**	**764**	**[100]**	**9**

[1] Excludes persons who have not had a care indicator lab (viral load, CD4+ T-cell, or genotype test) within the past 10 years, or if no care indicator labs were reported at all, were diagnosed over 10 years ago.
Data are provisional due to reporting delay. Rates per 100,000 based on July 1, 2022 Population Estimates (Provisional), prepared by Hedderson Demographic Services for LAC ISD, released March 2023. SPA and HD geographies integrated in by Population Health Assessment Team, Office of Health Assessment and Epidemiology (OHAE). Rates based on fewer than 12 observations may not be reliable (see Technical Notes).

[2] Male and female categories are based on sex at birth.

[3] Service Planning Area and Health District are based on 2022 boundaries. Persons are assigned a SPA/HD 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.

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

[5] Includes persons whose residence at death was in Los Angeles County (LAC) or whose most recent known address before death was in LAC, when residence at death is missing.

[6] Percent of total cases that are male and female is shown in this row.

[7] The sum may not add up to the total due to persons with no information on Service Planning Area/Health District who are not shown but are included in the total.

Table A3: HIV diagnoses counts, percentages, and rates[1] by gender, age group, race/ethnicity, and transmission category among persons aged ≥ 13 years newly diagnosed with HIV, LAC 2013-2022

	Year of Diagnosis																											
	2013			2014			2015			2016			2017			2018			2019			2020			2021			2022[2]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Gender																														
Male	1,525	(86)	37	1,835	(88)	45	1,773	(88)	42	1,692	(87)	40	1,577	(87)	37	1,526	(87)	36	1,375	(85)	32	1,234	(85)	29	1,327	(85)	32	1,352	(82)	33
Female	193	(11)	5	220	(11)	5	187	(9)	4	194	(10)	4	181	(10)	4	190	(11)	4	184	(11)	4	150	(10)	3	163	(10)	4	208	(13)	5
Transgender[3]	53	(3)	-	38	(2)	-	65	(3)	-	56	(3)	-	57	(3)	-	48	(3)	-	67	(4)	-	72	(5)	-	68	(4)	-	81	(5)	-
Age Group (Yr)																														
13-19	73	(4)	7	70	(3)	7	79	(4)	8	67	(3)	7	55	(3)	6	70	(4)	7	60	(4)	7	39	(3)	4	55	(4)	6	41	(2)	5
20-29	608	(34)	39	785	(38)	51	773	(38)	50	763	(39)	50	712	(39)	47	677	(38)	45	579	(36)	39	532	(37)	37	493	(32)	35	553	(34)	40
30-39	483	(27)	34	591	(28)	41	535	(26)	37	547	(28)	37	506	(28)	34	519	(29)	35	496	(31)	33	434	(30)	29	533	(34)	36	532	(32)	37
40-49	369	(21)	26	376	(18)	27	358	(18)	25	318	(16)	23	285	(16)	20	265	(15)	19	244	(15)	17	251	(17)	18	230	(15)	17	264	(16)	20
50-59	180	(10)	14	204	(10)	16	215	(11)	16	193	(10)	14	181	(10)	13	149	(8)	11	183	(11)	13	142	(10)	10	173	(11)	13	168	(10)	13
≥60	58	(3)	3	67	(3)	4	65	(3)	4	54	(3)	3	76	(4)	4	84	(5)	4	64	(4)	3	58	(4)	3	74	(5)	4	83	(5)	4
Race/Ethnicity[4]																														
American Indian/Alaskan Native[5]	9	(1)	15	12	(1)	19	11	(1)	20	14	(1)	26	18	(1)	34	13	(1)	22	<5	(-)	-	8	(1)	15	12	(1)	20	6	(<1)	9
Asian	75	(4)	6	122	(6)	10	114	(6)	9	94	(5)	7	117	(6)	9	88	(5)	7	87	(5)	7	61	(4)	5	71	(5)	5	55	(3)	4
Black	338	(19)	48	373	(18)	53	421	(21)	59	419	(22)	59	349	(19)	49	370	(21)	51	323	(20)	45	293	(20)	43	351	(23)	53	319	(19)	49
Latinx	852	(48)	23	1,074	(51)	28	961	(47)	25	973	(50)	25	884	(49)	22	893	(51)	22	818	(50)	20	781	(54)	20	839	(54)	21	960	(59)	24
Native Hawaiian/Pacific Islander	5	(<1)	26	<5	(-)	-	<5	(-)	-	<5	(-)	-	5	(<1)	25	6	(<1)	29	<5	(-)	-	<5	(-)	-	<5	(-)	-	8	(<1)	45
White	402	(23)	16	418	(20)	17	428	(21)	17	334	(17)	14	355	(20)	14	315	(18)	13	321	(20)	13	261	(18)	11	233	(15)	10	238	(15)	10
Multi-race	89	(5)	82	91	(4)	80	83	(4)	68	104	(5)	84	85	(5)	67	77	(4)	60	62	(4)	45	45	(3)	22	32	(2)	16	33	(2)	17
Transmission Category[3,6]																														
Male-to-male sexual contact (MMSC)	1,455	(82)	-	1,732	(83)	-	1,711	(84)	-	1,620	(83)	-	1,513	(83)	-	1,435	(81)	-	1,296	(80)	-	1,169	(80)	-	1,236	(79)	-	1,267	(77)	-
Injection drug use (IDU)	93	(5)	-	94	(4)	-	93	(5)	-	101	(5)	-	107	(6)	-	108	(6)	-	98	(6)	-	90	(6)	-	123	(8)	-	120	(7)	-
MMSC/IDU	62	(4)	-	76	(4)	-	64	(3)	-	65	(3)	-	63	(3)	-	64	(4)	-	73	(4)	-	70	(5)	-	59	(4)	-	76	(5)	-
Heterosexual contact[7]	160	(9)	-	189	(9)	-	157	(8)	-	155	(8)	-	131	(7)	-	156	(9)	-	151	(9)	-	124	(9)	-	130	(8)	-	165	(10)	-
Perinatal exposure	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-
Other risk[8]	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	7	(<1)	-	<5	(-)	-	9	(1)	-	13	(1)	-
Total[4]	1,771	[100]	21	2,093	[100]	25	2,025	[100]	24	1,942	[100]	23	1,815	[100]	21	1,764	[100]	20	1,626	[100]	19	1,456	[100]	17	1,558	[100]	18	1,641	[100]	19

[1] Rates per 100,000 based on population estimates 2013-2022 prepared by Hedderson Demographic Services for Los Angeles County Internal Services Department, whereby rates for 2020 are based on the 2nd provisional and rates for 2021 are based on provisional population estimates, both released October 2022, and rates for 2022 are based on population estimates (provisional) released March 2023. Rates based on fewer than 12 observations may not be reliable (see Technical Notes).

[2] Data are provisional due to reporting delay.

[3] Rates for transgender and transmission category are not calculated because of the lack of denominator data.

[4] Rates by race/ethnicity are based on 2013-2022 adjusted population estimates produced by LAC DPH OHAE, Vital Records and Demography Unit (see Technical Notes); persons with unknown race/ethnicity are not shown but are included in the total.

[5] American Indian/Alaskan Native race includes all non-Latinx persons who have been reported with American Indian/Alaskan Native race, regardless of whether any other race or ethnicity information is reported.

[6] Persons without an identified risk factor are assigned a risk factor using multiple imputation (MI) methods (see Technical Notes). Due to rounding, the sum may not add up to the total.

[7] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[8] Other risk includes risk factor not reported/identified.

Table A4: HIV diagnoses counts, percentages, and rates[1] by Service Planning Area (SPA)/Health District (HD) of residence among persons aged ≥ 13 years newly diagnosed with HIV, LAC 2013-2022

SPA/HD[2]	Year of Diagnosis																					
	2013			2014			2015			2016			2017			2018			2019			2020			2021			2022[3]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Antelope Valley [1]	**34**	**(2)**	**11**	**46**	**(2)**	**14**	**31**	**(2)**	**10**	**42**	**(2)**	**13**	**37**	**(2)**	**12**	**45**	**(3)**	**14**	**38**	**(2)**	**12**	**52**	**(4)**	**15**	**47**	**(3)**	**14**	**60**	**(4)**	**18**
Antelope Valley	34	(2)	11	46	(2)	14	31	(2)	10	42	(2)	13	37	(2)	12	45	(3)	14	38	(2)	12	52	(4)	15	47	(3)	14	60	(4)	18
San Fernando [2]	**243**	**(14)**	**13**	**308**	**(15)**	**17**	**306**	**(15)**	**16**	**312**	**(16)**	**16**	**266**	**(15)**	**14**	**302**	**(17)**	**16**	**284**	**(17)**	**15**	**223**	**(15)**	**12**	**239**	**(15)**	**13**	**243**	**(15)**	**13**
East Valley	75	(4)	20	86	(4)	23	92	(5)	24	91	(5)	23	79	(4)	20	100	(6)	26	77	(5)	20	58	(4)	15	80	(5)	21	74	(5)	20
Glendale	24	(1)	8	32	(2)	11	38	(2)	12	28	(1)	9	23	(1)	8	30	(2)	10	39	(2)	12	41	(3)	14	21	(1)	7	20	(1)	7
San Fernando	32	(2)	8	41	(2)	10	32	(2)	7	51	(3)	11	42	(2)	9	41	(2)	9	32	(2)	7	27	(2)	6	35	(2)	8	44	(3)	10
West Valley	112	(6)	15	149	(7)	20	144	(7)	19	142	(7)	19	122	(7)	16	131	(7)	17	136	(8)	17	97	(7)	13	103	(7)	14	105	(6)	14
San Gabriel [3]	**151**	**(9)**	**10**	**195**	**(9)**	**13**	**179**	**(9)**	**12**	**181**	**(9)**	**12**	**203**	**(11)**	**13**	**161**	**(9)**	**10**	**160**	**(10)**	**10**	**169**	**(12)**	**11**	**162**	**(10)**	**11**	**158**	**(10)**	**11**
Alhambra	23	(1)	8	34	(2)	11	31	(2)	10	30	(2)	10	37	(2)	12	23	(1)	7	20	(1)	6	13	(1)	4	26	(2)	9	27	(2)	9
El Monte	33	(2)	9	55	(3)	15	48	(2)	13	57	(3)	16	49	(3)	13	46	(3)	12	38	(2)	10	57	(4)	16	43	(3)	12	51	(3)	14
Foothill	28	(2)	11	38	(2)	15	29	(1)	11	23	(1)	9	34	(2)	13	24	(1)	9	23	(1)	8	16	(1)	6	26	(2)	10	13	(1)	5
Pasadena	24	(1)	20	25	(1)	21	27	(1)	22	18	(1)	15	20	(1)	16	19	(1)	15	15	(1)	12	15	(1)	12	12	(1)	10	10	(1)	8
Pomona	43	(2)	9	43	(2)	9	44	(2)	9	53	(3)	11	63	(3)	13	49	(3)	10	64	(4)	13	68	(5)	15	55	(4)	12	57	(3)	12
Metro [4]	**586**	**(33)**	**60**	**676**	**(32)**	**69**	**602**	**(30)**	**60**	**533**	**(27)**	**53**	**524**	**(29)**	**52**	**452**	**(26)**	**44**	**415**	**(26)**	**40**	**356**	**(24)**	**36**	**343**	**(22)**	**35**	**428**	**(26)**	**44**
Central	213	(12)	72	232	(11)	79	219	(11)	73	219	(11)	72	184	(10)	60	204	(12)	67	172	(11)	55	129	(9)	41	139	(9)	45	174	(11)	56
Hollywood-Wilshire	311	(18)	72	369	(18)	85	329	(16)	75	266	(14)	60	281	(15)	63	201	(11)	45	207	(13)	46	173	(12)	40	160	(10)	37	203	(12)	48
Northeast	62	(4)	25	75	(4)	29	54	(3)	21	48	(2)	18	59	(3)	22	47	(3)	18	36	(2)	14	54	(4)	22	44	(3)	18	51	(3)	21
West [5]	**84**	**(5)**	**15**	**108**	**(5)**	**19**	**101**	**(5)**	**17**	**65**	**(3)**	**11**	**66**	**(4)**	**11**	**71**	**(4)**	**12**	**86**	**(5)**	**15**	**53**	**(4)**	**9**	**58**	**(4)**	**10**	**48**	**(3)**	**8**
West	84	(5)	15	108	(5)	19	101	(5)	17	65	(3)	11	66	(4)	11	71	(4)	12	86	(5)	15	53	(4)	9	58	(4)	10	48	(3)	8
South [6]	**231**	**(13)**	**29**	**258**	**(12)**	**32**	**294**	**(15)**	**35**	**309**	**(16)**	**36**	**290**	**(16)**	**34**	**275**	**(16)**	**32**	**227**	**(14)**	**27**	**199**	**(14)**	**24**	**263**	**(17)**	**32**	**273**	**(17)**	**33**
Compton	47	(3)	21	54	(3)	24	46	(2)	20	62	(3)	27	59	(3)	26	60	(3)	26	48	(3)	21	41	(3)	18	55	(4)	25	47	(3)	21
South	45	(3)	31	54	(3)	37	58	(3)	39	69	(4)	45	54	(3)	35	65	(4)	42	48	(3)	31	36	(2)	24	57	(4)	37	63	(4)	41
Southeast	34	(2)	26	46	(2)	35	42	(2)	31	47	(2)	33	46	(3)	33	48	(3)	35	39	(2)	28	43	(3)	33	42	(3)	32	58	(4)	44
Southwest	105	(6)	34	104	(5)	33	148	(7)	47	131	(7)	40	131	(7)	40	102	(6)	31	92	(6)	28	79	(5)	25	109	(7)	34	105	(6)	33
East [7]	**145**	**(8)**	**14**	**184**	**(9)**	**17**	**174**	**(9)**	**16**	**185**	**(10)**	**17**	**167**	**(9)**	**15**	**171**	**(10)**	**16**	**143**	**(9)**	**13**	**151**	**(10)**	**14**	**188**	**(12)**	**17**	**163**	**(10)**	**15**
Bellflower	45	(3)	15	43	(2)	14	45	(2)	15	45	(2)	15	38	(2)	13	37	(2)	12	40	(2)	13	27	(2)	9	41	(3)	13	46	(3)	15
East Los Angeles	24	(1)	15	28	(1)	17	29	(1)	17	35	(2)	21	29	(2)	18	28	(2)	17	21	(1)	13	32	(2)	20	39	(3)	24	27	(2)	17
San Antonio	46	(3)	14	68	(3)	20	68	(3)	20	68	(4)	20	68	(4)	20	67	(4)	19	55	(3)	16	56	(4)	17	76	(5)	23	58	(4)	17
Whittier	30	(2)	11	45	(2)	17	32	(2)	12	37	(2)	14	32	(2)	12	39	(2)	14	27	(2)	10	36	(2)	13	32	(2)	12	32	(2)	12
South Bay [8]	**272**	**(15)**	**21**	**292**	**(14)**	**23**	**295**	**(15)**	**23**	**278**	**(14)**	**21**	**232**	**(13)**	**18**	**244**	**(14)**	**18**	**238**	**(15)**	**18**	**199**	**(14)**	**15**	**212**	**(14)**	**16**	**215**	**(13)**	**17**
Harbor	18	(1)	11	35	(2)	20	20	(1)	11	23	(1)	13	17	(1)	10	28	(2)	16	24	(1)	14	13	(1)	8	15	(1)	9	20	(1)	12
Inglewood	85	(5)	25	87	(4)	26	95	(5)	28	94	(5)	27	73	(4)	21	81	(5)	23	79	(5)	23	67	(5)	19	72	(5)	21	85	(5)	25
Long Beach	131	(7)	34	131	(6)	34	136	(7)	34	127	(7)	32	113	(6)	28	100	(6)	25	102	(6)	25	90	(6)	22	89	(6)	22	80	(5)	20
Torrance	38	(2)	10	39	(2)	10	44	(2)	11	34	(2)	9	29	(2)	7	35	(2)	9	33	(2)	8	29	(2)	7	36	(2)	9	30	(2)	8
Total[4]	**1,771**	**[100]**	**21**	**2,093**	**[100]**	**25**	**2,025**	**[100]**	**24**	**1,942**	**[100]**	**23**	**1,815**	**[100]**	**21**	**1,764**	**[100]**	**20**	**1,626**	**[100]**	**19**	**1,456**	**[100]**	**17**	**1,558**	**[100]**	**18**	**1,641**	**[100]**	**19**

[1] Rates are per 100,000 and based on population estimates 2013-2022 prepared by Hedderson Demographic Services for Los Angeles County Internal Services Department, whereby 2020 rates are based on the July 1, 2020 population estimates (second provisional) released October 2022, 2021 rates are based on July 1, 2021 population estimates (provisional) released October 2022, and 2022 rates are based on July 1, 2022 population estimates (provisional) released March 2023. SPA and HD geographies integrated in by Population Health Assessment Team, Office of Health Assessment and Epidemiology (OHAE). Rates based on fewer than 12 observations may not be reliable (see Technical Notes).

[2] Service Planning Areas (SPA) and Health Districts (HD) are based on 2012 boundaries for diagnoses 2013-2019 and 2022 boundaries for diagnoses 2020-2022. Persons are assigned a SPA/HD using their geocoded residence at diagnosis joined to census tracts (CT), followed by their ZIP Code if no valid street address at diagnosis was available. The CT to SPA/HD and ZIP Code to SPA/HD correspondence tables were provided by LAC DPH Information Management and Analytics Office, Office of Health Assessment and Epidemiology, GIS Unit team.

[3] Data are provisional due to reporting delay.

[4] The sum may not add up to the total due to persons with no information on Service Planning Area/Health District (SPA/HD) who are not shown but are inclu

Table A5.a: HIV care continuum indicators among persons aged ≥ 13 years living with diagnosed HIV by gender, age group, race/ethnicity, and transmission category, LAC 2022-2023[1]

	HIV diagnoses 2022	Linked to care 1 month[2,3]		PLWDH as of 2023[4]	Engaged in care 2023[2,5]		Retained in care 2023[2,5]		No. of persons with ≥ 1 VL test in 2023	Viral Suppression[2] (VL < 200)		
										Virally suppressed	Among PLWDH[5]	Among persons with ≥ 1 VL test[6]
	N	N	%	N	N	%	N	%	N	N	%	%
Gender												
Male	1,352	1,026	76	43,456	31,326	72	22,179	51	29,861	27,809	64	93
Female	208	149	72	5,663	3,927	69	2,826	50	3,788	3,474	61	92
Transgender	81	67	83	1,302	980	75	691	53	966	814	63	84
Age Group (Yr)[7]												
13-19	41	29	71	97	84	87	60	62	82	70	72	85
20-29	553	404	73	3,563	2,753	77	1,730	49	2,666	2,335	66	88
30-39	532	421	79	10,194	7,464	73	4,804	47	7,190	6,410	63	89
40-49	264	202	77	10,379	7,256	70	4,977	48	6,944	6,379	61	92
50-59	168	122	73	13,861	9,934	72	7,320	53	9,505	8,965	65	94
≥ 60	83	64	77	12,327	8,742	71	6,805	55	8,228	7,938	64	96
Race/Ethnicity[8]												
American Indian/Alaskan Native[9]	6	6	100	295	230	78	155	53	220	197	67	90
Asian	55	50	91	1,950	1,413	72	1,071	55	1,371	1,339	69	98
Black	319	216	68	9,688	6,630	68	4,394	45	6,359	5,643	58	89
Latinx	960	736	77	24,340	17,143	70	12,475	51	16,605	15,369	63	93
Native Hawaiian/Pacific Islander	8	7	88	81	57	70	42	52	53	49	60	92
White	238	187	79	11,846	8,872	75	6,291	53	8,224	7,888	67	96
Multi-race	33	28	85	2,143	1,845	86	1,240	58	1,747	1,581	74	90
Transmission Category[10]												
Male-to-male sexual contact (MMSC)	1,267	971	77	39,624	28,891	73	20,495	52	27,564	25,738	65	93
Injection drug use (IDU)	120	89	74	2,608	1,574	60	1,092	42	1,514	1,343	51	89
MMSC/IDU	76	56	74	2,722	1,984	73	1,380	51	1,894	1,661	61	88
Hemophilia/transfusion	<5	<5	-	97	63	65	44	45	60	60	62	100
Heterosexual contact[11]	165	118	72	5,065	3,486	69	2,538	50	3,362	3,118	62	93
Perinatal exposure	<5	<5	-	231	188	81	119	52	181	144	62	80
Other risk[12]	13	7	54	74	47	64	29	39	40	33	45	83
Total[8]	1,641	1,242	76	50,421	36,233	72	25,696	51	34,615	32,097	64	93

[1] Data are provisional due to reporting delay.

[2] Persons are considered linked to care if there was at least one viral load, CD4+ T-cell, or genotype test within 1 month of an HIV diagnosis; persons are considered engaged in care if there was at least one viral load, CD4+ T-cell, or genotype test in 2023; persons are considered retained in care if there were ≥ 2 viral load, CD4+ T-cell, or genotype tests in 2023, at least 3 months apart; persons are considered virally suppressed when their last VL test in 2023 was < 200 copies/mL.

[3] Denominator for linkage to care includes persons who were reported with a new HIV diagnosis in 2022; does not include estimated persons unaware of HIV infection.

[4] Persons living with diagnosed HIV include those diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence.

[5] Denominator for engagement and retention in care and overall viral load suppression in 2023 includes persons diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

[6] Denominator includes persons diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence, who had at least one documented VL test in 2023.

[7] Age group for new diagnoses was based on age at the time of initial HIV diagnosis, whereas age group for persons living with diagnosed HIV was based on age at the beginning of 2023.

[8] Persons with unknown race/ethnicity are not shown but are included in the total.

[9] Includes all non-Latinx persons who have been reported with American Indian/Alaskan Native race, regardless of whether any other race or ethnicity information is reported.

[10] Persons without an identified risk factor are assigned a risk factor using multiple imputation (MI) methods (see Technical Notes). Due to rounding, the sum may not add up to the total.

[11] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[12] Other risk includes risk factor not reported/identified.

Table A5.b: HIV care continuum indicators among persons aged ≥ 13 years living with diagnosed HIV **who received care within the past 10 years** by gender, age group, race/ethnicity, and transmission category, LAC 2022-2023[1]

	HIV diagnoses 2022	Linked to care 1 month[2,3]		PLWDH as of 2023[4]	Engaged in care 2023[2,5]		Retained in care 2023[2,5]		No. of persons with ≥ 1 VL test in 2023	Viral Suppression[2] (VL < 200)		
										Virally suppressed	Among PLWDH[5]	Among persons with ≥ 1 VL test[6]
	N	N	%	N	N	%	N	%	N	N	%	%
Gender												
Male	1,352	1,026	76	37,995	31,326	82	22,179	58	29,861	27,809	73	93
Female	208	149	72	4,767	3,927	82	2,826	59	3,788	3,474	73	92
Transgender	81	67	83	1,204	980	81	691	57	966	814	68	84
Age Group (Yr)[7]												
13-19	41	29	71	97	84	87	60	62	82	70	72	85
20-29	553	404	73	3,538	2,753	78	1,730	49	2,666	2,335	66	88
30-39	532	421	79	9,641	7,464	77	4,804	50	7,190	6,410	66	89
40-49	264	202	77	9,039	7,256	80	4,977	55	6,944	6,379	71	92
50-59	168	122	73	11,657	9,934	85	7,320	63	9,505	8,965	77	94
≥ 60	83	64	77	9,994	8,742	87	6,805	68	8,228	7,938	79	96
Race/Ethnicity[8]												
American Indian/Alaskan Native[9]	6	6	100	274	230	84	155	57	220	197	72	90
Asian	55	50	91	1,757	1,413	80	1,071	61	1,371	1,339	76	98
Black	319	216	68	8,524	6,630	78	4,394	52	6,359	5,643	66	89
Latinx	960	736	77	20,584	17,143	83	12,475	61	16,605	15,369	75	93
Native Hawaiian/Pacific Islander	8	7	88	73	57	78	42	58	53	49	67	92
White	238	187	79	10,572	8,872	84	6,291	60	8,224	7,888	75	96
Multi-race	33	28	85	2,111	1,845	87	1,240	59	1,747	1,581	75	90
Transmission Category[10]												
Male-to-male sexual contact (MMSC)	1,267	971	77	34,958	28,891	83	20,495	59	27,564	25,738	74	93
Injection drug use (IDU)	120	89	74	2,066	1,574	76	1,092	53	1,514	1,343	65	89
MMSC/IDU	76	56	74	2,382	1,984	83	1,380	58	1,894	1,661	70	88
Hemophilia/transfusion	<5	<5	-	70	63	90	44	63	60	60	86	100
Heterosexual contact[11]	165	118	72	4,200	3,486	83	2,538	60	3,362	3,118	74	93
Perinatal exposure	<5	<5	-	222	188	85	119	54	181	144	65	80
Other risk[12]	13	7	54	68	47	69	29	43	40	33	49	83
Total[8]	1,641	1,242	76	43,966	36,233	82	25,696	58	34,615	32,097	73	93

[1] Excludes persons who have not had a care indicator lab (viral load, CD4+ T-cell, or genotype test) within the past 10 years, or if no care indicator labs were reported at all, were diagnosed over 10 years ago. Data are provisional due to reporting delay.

[2] Persons are considered linked to care if there was at least one viral load, CD4+ T-cell, or genotype test within 1 month of an HIV diagnosis; persons are considered engaged in care if there was at least one viral load, CD4+ T-cell, or genotype test in 2023; persons are considered retained in care if there were ≥ 2 viral load, CD4+ T-cell, or genotype tests in 2023, at least 3 months apart; persons are considered virally suppressed when their last VL test in 2023 was < 200 copies/mL.

[3] Denominator for linkage to care includes persons who were reported with a new HIV diagnosis in 2022; does not include estimated persons unaware of HIV infection.

[4] Persons living with diagnosed HIV include those diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence. Excludes persons who have not had a care indicator lab within the past 10 years or if no care at all, were diagnosed over 10 years ago.

[5] Denominator for engagement and retention in care and overall viral load suppression in 2023 includes persons diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

[6] Denominator includes persons diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence, who had at least one documented VL test in 2023.

[7] Age group for new diagnoses was based on age at the time of initial HIV diagnosis, whereas age group for persons living with diagnosed HIV was based on age at year-end 2023.

[8] Persons with unknown race/ethnicity are not shown but are included in the total.

[9] Includes all non-Latinx persons who have been reported with American Indian/Alaskan Native race, regardless of whether any other race or ethnicity information is reported.

[10] Persons without an identified risk factor are assigned a risk factor using multiple imputation (MI) methods (see Technical Notes). Due to rounding, the sum may not add up to the total.

[11] Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

[12] Other risk includes risk factor not reported/identified.

Table A6.a: HIV care continuum indicators among persons aged ≥ 13 years living with diagnosed HIV by Service Planning Area (SPA) and Heath District (HD) of residence, LAC 2022-2023[1]

SPA/HD[2]	HIV diagnoses 2022	Linked to care 1 month[3,4]		PLWDH as of 2023[5]	Engaged in care 2023[3,6]		Retained in care 2023[3,6]		No. of persons with ≥ 1 VL test in 2023	Viral Suppression[3] (VL < 200)		
										Virally suppressed	Among PLWDH[6]	Among persons with ≥ 1 VL test[7]
	N	N	%	N	N	%	N	%	N	N	%	%
Antelope Valley [1]	**60**	**40**	**67**	**1,183**	**900**	**76**	**627**	**53**	**883**	**817**	**69**	**93**
Antelope Valley	60	40	67	1,183	900	76	627	53	883	817	69	93
San Fernando [2]	**243**	**189**	**78**	**7,555**	**5,734**	**76**	**4,083**	**54**	**5,515**	**5,187**	**69**	**94**
East Valley	74	62	84	2,321	1,784	77	1,271	55	1,714	1,619	70	94
Glendale	20	14	70	867	647	75	463	53	617	586	68	95
San Fernando	44	30	68	1,012	804	79	573	57	785	736	73	94
West Valley	105	83	79	3,355	2,499	74	1,776	53	2,399	2,246	67	94
San Gabriel [3]	**158**	**117**	**74**	**4,036**	**3,006**	**74**	**2,121**	**53**	**2,904**	**2,746**	**68**	**95**
Alhambra	27	21	78	640	471	74	350	55	459	434	68	95
El Monte	51	44	86	1,008	736	73	538	53	714	666	66	93
Foothill	13	6	46	645	511	79	358	56	492	464	72	94
Pasadena	10	10	100	550	428	78	311	57	409	396	72	97
Pomona	57	36	63	1,193	860	72	564	47	830	786	66	95
Metro [4]	**428**	**334**	**78**	**17,010**	**11,652**	**69**	**8,090**	**48**	**10,914**	**10,072**	**59**	**92**
Central	174	133	76	6,363	3,893	61	2,652	42	3,695	3,275	51	89
Hollywood-Wilshire	203	163	80	8,838	6,470	73	4,482	51	5,981	5,640	64	94
Northeast	51	38	75	1,809	1,289	71	956	53	1,238	1,157	64	93
West [5]	**48**	**37**	**77**	**2,295**	**1,627**	**71**	**1,120**	**49**	**1,519**	**1,447**	**63**	**95**
West	48	37	77	2,295	1,627	71	1,120	49	1,519	1,447	63	95
South [6]	**273**	**197**	**72**	**6,671**	**4,825**	**72**	**3,437**	**52**	**4,621**	**4,151**	**62**	**90**
Compton	47	33	70	1,053	772	73	550	52	741	674	64	91
South	63	52	83	1,272	880	69	634	50	846	762	60	90
Southeast	58	41	71	1,114	795	71	563	51	773	688	62	89
Southwest	105	71	68	3,232	2,378	74	1,690	52	2,261	2,027	63	90
East [7]	**163**	**125**	**77**	**3,852**	**2,868**	**74**	**2,113**	**55**	**2,803**	**2,612**	**68**	**93**
Bellflower	46	32	70	882	675	77	491	56	658	620	70	94
East Los Angeles	27	25	93	737	529	72	394	53	521	485	66	93
San Antonio	58	46	79	1,484	1,086	73	812	55	1,060	988	67	93
Whittier	32	22	69	749	578	77	416	56	564	519	69	92
South Bay [8]	**215**	**164**	**76**	**7,348**	**5,468**	**74**	**4,029**	**55**	**5,317**	**4,990**	**68**	**94**
Harbor	20	16	80	694	488	70	371	53	471	439	63	93
Inglewood	85	59	69	1,936	1,469	76	1,004	52	1,427	1,310	68	92
Long Beach	80	64	80	3,851	2,883	75	2,209	57	2,821	2,669	69	95
Torrance	30	25	83	867	628	72	445	51	598	572	66	96
Total[8]	**1,641**	**1,242**	**76**	**50,421**	**36,233**	**72**	**25,696**	**51**	**34,615**	**32,097**	**64**	**93**

[1] Data are provisional due to reporting delay.

[2] Service Planning Area and Health District are based on 2022 boundaries (see Technical Notes).

[3] Persons are considered linked to care if there was at least one viral load, CD4+ T-cell, or genotype test within 1 month of an HIV diagnosis; persons are considered engaged in care if there were ≥ 1 viral load, CD4+ T-cell, or genotype tests in 2023; persons are considered retained in care if there were ≥ 2 viral load, CD4+ T-cell, or genotype tests in 2023, at least 3 months apart; persons are considered virally suppressed when the last VL test in 2023 was < 200 copies/mL.

[4] Denominator for linkage to care includes persons who were reported with a new HIV diagnosis in 2022; does not include estimated persons unaware of HIV infection.

[5] Persons living with diagnosed HIV include those diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence.

[6] Denominator for engagement and retention in care and overall viral load suppression in 2023 includes persons diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

[7] Denominator includes persons diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence, who had at least one documented VL test in 2023.

[8] The sum may not add up to the total due to persons with no information on Service Planning Area/Health District who are not shown but are included in the total.

Table A6.b: HIV care continuum indicators among persons aged ≥ 13 years living with diagnosed HIV who received care within the past 10 years by Service Planning Area (SPA) and Heath District (HD) of residence, LAC 2022-2023[1]

SPA/HD[2]	HIV diagnoses 2022	Linked to care 1 month[3,4]		PLWDH as of 2023[5]	Engaged in care 2023[3,6]		Retained in care 2023[3,6]		No. of persons with ≥ 1 VL test in 2023	Viral Suppression[3] (VL < 200)		
										Virally suppressed	Among PLWDH[6]	Among persons with ≥ 1 VL test[7]
	N	N	%	N	N	%	N	%	N	N	%	%
Antelope Valley [1]	**60**	**40**	**67**	**1,090**	**900**	**83**	**627**	**58**	**883**	**817**	**75**	**93**
Antelope Valley	60	40	67	1,090	900	83	627	58	883	817	75	93
San Fernando [2]	**243**	**189**	**78**	**6,818**	**5,734**	**84**	**4,083**	**60**	**5,515**	**5,187**	**76**	**94**
East Valley	74	62	84	2,098	1,784	85	1,271	61	1,714	1,619	77	94
Glendale	20	14	70	779	647	83	463	59	617	586	75	95
San Fernando	44	30	68	934	804	86	573	61	785	736	79	94
West Valley	105	83	79	3,007	2,499	83	1,776	59	2,399	2,246	75	94
San Gabriel [3]	**158**	**117**	**74**	**3,654**	**3,006**	**82**	**2,121**	**58**	**2,904**	**2,746**	**75**	**95**
Alhambra	27	21	78	582	471	81	350	60	459	434	75	95
El Monte	51	44	86	893	736	82	538	60	714	666	75	93
Foothill	13	6	46	600	511	85	358	60	492	464	77	94
Pasadena	10	10	100	498	428	86	311	62	409	396	80	97
Pomona	57	36	63	1,081	860	80	564	52	830	786	73	95
Metro [4]	**428**	**334**	**78**	**14,261**	**11,652**	**82**	**8,090**	**57**	**10,914**	**10,072**	**71**	**92**
Central	174	133	76	4,979	3,893	78	2,652	53	3,695	3,275	66	89
Hollywood-Wilshire	203	163	80	7,769	6,470	83	4,482	58	5,981	5,640	73	94
Northeast	51	38	75	1,513	1,289	85	956	63	1,238	1,157	76	93
West [5]	**48**	**37**	**77**	**1,999**	**1,627**	**81**	**1,120**	**56**	**1,519**	**1,447**	**72**	**95**
West	48	37	77	1,999	1,627	81	1,120	56	1,519	1,447	72	95
South [6]	**273**	**197**	**72**	**5,920**	**4,825**	**82**	**3,437**	**58**	**4,621**	**4,151**	**70**	**90**
Compton	47	33	70	935	772	83	550	59	741	674	72	91
South	63	52	83	1,113	880	79	634	57	846	762	68	90
Southeast	58	41	71	962	795	83	563	59	773	688	72	89
Southwest	105	71	68	2,910	2,378	82	1,690	58	2,261	2,027	70	90
East [7]	**163**	**125**	**77**	**3,425**	**2,868**	**84**	**2,113**	**62**	**2,803**	**2,612**	**76**	**93**
Bellflower	46	32	70	814	675	83	491	60	658	620	76	94
East Los Angeles	27	25	93	630	529	84	394	63	521	485	77	93
San Antonio	58	46	79	1,295	1,086	84	812	63	1,060	988	76	93
Whittier	32	22	69	686	578	84	416	61	564	519	76	92
South Bay [8]	**215**	**164**	**76**	**6,447**	**5,468**	**85**	**4,029**	**62**	**5,317**	**4,990**	**77**	**94**
Harbor	20	16	80	573	488	85	371	65	471	439	77	93
Inglewood	85	59	69	1,739	1,469	84	1,004	58	1,427	1,310	75	92
Long Beach	80	64	80	3,353	2,883	86	2,209	66	2,821	2,669	80	95
Torrance	30	25	83	782	628	80	445	57	598	572	73	96
Total[8]	**1,641**	**1,242**	**76**	**43,966**	**36,233**	**82**	**25,696**	**58**	**34,615**	**32,097**	**73**	**93**

[1] Excludes persons who have not had a care indicator lab (viral load, CD4+ T-cell, or genotype test) within the past 10 years, or if no care indicator labs were reported at all, were diagnosed over 10 years ago. Data are provisional due to reporting delay.

[2] Service Planning Area and Health District are based on 2022 boundaries (see Technical Notes).

[3] Persons are considered linked to care if there was at least one viral load, CD4+ T-cell, or genotype test within 1 month of an HIV diagnosis; persons are considered engaged in care if there were ≥ 1 viral load, CD4+ T-cell, or genotype tests in 2023; persons are considered retained in care if there were ≥ 2 viral load, CD4+ T-cell, or genotype tests in 2023, at least 3 months apart; persons are considered virally suppressed when the last VL test in 2023 was < 200 copies/mL.

[4] Denominator for linkage to care includes persons who were reported with a new HIV diagnosis in 2022; does not include estimated persons unaware of HIV infection.

[5] Persons living with diagnosed HIV include those diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence. Excludes persons who have not had a care indicator lab within the past 10 years or if no care at all, were diagnosed over 10 years ago.

[6] Denominator for engagement and retention in care and overall viral load suppression in 2023 includes persons diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

[7] Denominator includes persons diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence, who had at least one documented VL test in 2023.

[8] The sum may not add up to the total due to persons with no information on Service Planning Area/Health District who are not shown but are included in the total.

Table A7: Counts, percentages, and rates for underlying causes of death among PWDH aged ≥13 years by demographic and risk information LAC 2021-2022[1,2,3]

	HIV/AIDS			Diseases of the heart			Malignant neoplasms			Drug overdoses (unintentional)			COVID-19			Other/Unknown			Total		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Gender																					
Men	322	(83)	345	188	(89)	201	133	(80)	142	125	(82)	134	80	(84)	86	481	(88)	515	1,329	(85)	1,423
Women	48	(12)	402	22	(10)	184	31	(19)	260	21	(14)	176	13	(14)	109	56	(10)	469	191	(12)	1,600
Trans women	15	(4)	581	<5	(-)	-	<5	(-)	-	7	(4)	271	<5	(-)	-	13	(2)	503	40	(3)	1,549
Trans men	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-
Age (Yr)																					
Median age	54			60			62			44			60			58			57		
Age group																					
13-19	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-
20-29	12	(3)	144	<5	(-)	-	<5	(-)	-	17	(11)	204	5	(5)	60	19	(3)	228	57	(4)	683
30-39	54	(14)	247	11	(5)	50	12	(7)	55	38	(25)	174	<5	(-)	-	70	(13)	320	189	(12)	864
40-49	68	(18)	305	17	(8)	76	14	(8)	63	40	(26)	180	12	(13)	54	76	(14)	341	227	(15)	1,019
50-59	122	(32)	397	72	(34)	234	42	(25)	137	38	(25)	124	26	(27)	85	135	(25)	439	435	(28)	1,414
≥60	130	(34)	531	108	(51)	441	97	(58)	397	20	(13)	82	48	(51)	196	250	(45)	1,022	653	(42)	2,669
Race/Ethnicity																					
Asian	10	(3)	246	5	(2)	123	<5	-	-	<5	-	-	<5	-	-	17	(3)	418	40	(3)	984
Black	81	(21)	390	62	(29)	298	44	(27)	212	38	(25)	183	23	(24)	111	118	(21)	567	366	(23)	1,760
Latinx	173	(45)	342	63	(30)	125	57	(34)	113	50	(33)	99	56	(59)	111	212	(39)	419	611	(39)	1,208
White	88	(23)	329	61	(29)	228	51	(31)	191	49	(32)	183	13	(14)	49	158	(29)	591	420	(27)	1,571
Other	34	(9)	596	20	(10)	351	10	(6)	175	14	(9)	245	<5	-	-	44	(8)	771	123	(8)	2,156
Transmission Risk																					
Male-to-male sexual contact (MMSC)	267	(69)	315	153	(73)	180	100	(60)	118	89	(58)	105	66	(70)	78	368	(67)	434	1,044	(67)	1,231
Injection drug use (IDU)	35	(9)	623	20	(9)	356	20	(12)	356	20	(13)	356	8	(8)	142	55	(10)	979	157	(10)	2,794
MMSC/IDU	43	(11)	705	16	(8)	262	13	(8)	213	29	(19)	475	9	(9)	148	70	(13)	1,148	179	(11)	2,935
Heterosexual contact	38	(10)	356	21	(10)	197	29	(17)	272	14	(9)	131	12	(13)	112	54	(10)	506	167	(11)	1,565
Other	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	<5	(-)	-	14	(1)	1,693
Experienced homelessness																					
Yes	95	(25)	904	38	(18)	361	16	(10)	152	58	(38)	552	16	(17)	152	118	(21)	1,122	341	(22)	3,244
No	291	(75)	298	173	(82)	177	150	(90)	154	95	(62)	97	79	(83)	81	432	(79)	443	1,220	(78)	1,251
Virally suppressed (VL <200 mL)																					
Yes	119	(38)	183	114	(57)	175	112	(74)	172	62	(45)	95	54	(68)	83	267	(54)	411	728	(53)	1,120
No	196	(62)	513	85	(43)	223	40	(26)	105	77	(55)	202	25	(32)	65	225	(46)	589	648	(47)	1,697
Total	386	(25)	357	211	(14)	195	166	(11)	154	153	(10)	142	95	(6)	88	550	(35)	509	1,561	(100)	1,445

[1] Includes persons with diagnosed HIV who died in 2021-2022 and whose residence at death was in LAC or whose most recent known address before death was in LAC, when residence at death is missing. Rates per 100,000 are based on persons living in LAC with diagnosed HIV (PLWDH) at the beginning of 2021 or diagnosed in 2021 plus PLWDH at the beginning of 2022 or diagnosed in 2022, based on the most recent known address at that time.*

[2] Cause of death information was based on the first-listed underlying cause of death. International Classification of Diseases (ICD)-10 codes were used to classify the underlying causes of death into six categories: (1) HIV/AIDS (B20-B24, O98.7, R75); (2) Diseases of the heart (I00-I09, I11, I13, I20-I51); (3) Malignant neoplasms (C00-C97); (4) Drug poisonings (overdose) Unintentional (X40-X44); (5) COVID-19 (U07.1); (6) All other causes (remaining non-missing ICD-10 codes) or Unknown causes (R99 or missing).

[3] Age is based on age at death. 'Other' race/ethnicity includes American Indians and Alaska Natives (AIAN) and persons of multiple race/ethnicities; persons without an identified risk factor are assigned a risk factor using multiple imputation (MI) methods (see Technical Notes); 'Other' transmission risk includes perinatal exposure, recipient of clotting factor, transfusion or organ transplant, and risk factor not reported/identified. Persons experiencing homelessness (PEH) includes persons who have ever experienced homelessness, if reported. Viral suppression (< 200 copies/mL) is based on a person's last viral load within the year prior to their year of death; the denominator is based on persons living at year-end prior to their year of death (2020 or 2021) and diagnosed the year before (2019 or 2020) with or without a viral load test.

*PWDH denominator was based on methodology from CDC: Bosh KA, Johnson AS, Hernandez AL, Prejean J, Taylor J, Wingard R, Valleroy LA, Hall HI. Vital Signs: Deaths Among Persons with Diagnosed HIV Infection, United States, 2010-2018. MMWR Morb Mortal Wkly Rep. 2020 Nov 20;69(46):1717-1724. DOI: http://dx.doi.org/10.15585/mmwr.mm6946a1.

Table A8: Counts, percentages, and rates of HIV and stage 3 (AIDS) diagnoses, and deaths among persons aged ≥ 18 years living with diagnosed HIV by select social determinants of health (SDOH), LAC 2022-2023[1]

	Male[2]												Female[2]												Total											
	2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]			2022 HIV Diagnoses			2022 AIDS Diagnoses			PLWDH as of 2023[3]			2022 Deaths[4]		
	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt	N	(%)	Rt
Below FPL (%)																																				
< 7	179	(13)	18	57	(10)	6	5,545	(12)	572	81	(12)	8	27	(13)	3	7	(8)	1	641	(11)	62	14	(13)	1	206	(13)	10	64	(10)	3	6,186	(12)	308	95	(12)	5
7-10	247	(17)	26	87	(15)	9	8,859	(19)	933	101	(15)	11	27	(13)	3	10	(11)	1	973	(17)	96	16	(15)	2	274	(17)	14	97	(15)	5	9,832	(19)	502	117	(15)	6
11-16	357	(25)	36	152	(27)	16	12,182	(27)	1,245	168	(25)	17	56	(27)	5	20	(22)	2	1,522	(26)	149	27	(25)	3	413	(25)	21	172	(26)	9	13,704	(26)	685	195	(25)	10
≥17	554	(39)	60	213	(37)	23	14,621	(32)	1,583	266	(39)	29	74	(36)	8	35	(39)	4	2,167	(37)	232	42	(40)	4	628	(39)	34	248	(38)	13	16788	(32)	903	308	(39)	17
Not determined	83	(6)	-	62	(11)	-	4,644	(10)	-	69	(10)	-	24	(12)	-	18	(20)	-	592	(10)	-	7	(7)	-	107	(7)	-	80	(12)	-	5,236	(10)	-	76	(10)	-
Less than high school (%)																																				
< 6	186	(13)	21	62	(11)	7	9,163	(20)	1,040	110	(16)	12	19	(9)	2	<5	(-)	-	597	(10)	63	<5	(-)	-	205	(13)	11	66	(10)	4	9,760	(19)	536	114	(14)	6
6-15	256	(18)	25	94	(16)	9	9,787	(21)	958	156	(23)	15	27	(13)	2	13	(14)	1	1,030	(17)	94	25	(24)	2	283	(17)	13	107	(16)	5	10,817	(21)	511	181	(23)	9
16-28	395	(28)	40	161	(28)	16	10,554	(23)	1,064	174	(25)	18	57	(27)	6	26	(29)	3	1,653	(28)	160	36	(34)	3	452	(28)	22	187	(28)	9	12,207	(24)	602	210	(27)	10
≥29	500	(35)	53	192	(34)	20	11,752	(26)	1,247	176	(26)	19	81	(39)	9	29	(32)	3	2,024	(34)	215	34	(32)	4	581	(36)	31	221	(33)	12	13,776	(27)	732	210	(27)	11
Not determined	83	(6)	-	62	(11)	-	4,595	(10)	-	69	(10)	-	24	(12)	-	18	(20)	-	591	(10)	-	7	(7)	-	107	(7)	-	80	(12)	-	5186	(10)	-	76	(10)	-
Median household income ($)																																				
≥108,000	151	(11)	16	56	(10)	6	6,839	(15)	717	77	(11)	8	13	(6)	1	7	(8)	1	647	(11)	63	7	(7)	1	164	(10)	8	63	(10)	3	7486	(14)	378	84	(11)	4
82,000-107,999	284	(20)	28	96	(17)	10	9,754	(21)	972	131	(19)	13	36	(17)	3	10	(11)	1	943	(16)	89	25	(24)	2	320	(20)	16	106	(16)	5	10,697	(21)	519	156	(20)	8
61,000-81,999	368	(26)	38	128	(22)	13	10,461	(23)	1,080	144	(21)	15	58	(28)	6	24	(27)	2	1,480	(25)	146	20	(19)	2	426	(26)	21	152	(23)	8	11,941	(23)	602	164	(21)	8
<61,000	530	(37)	60	228	(40)	26	13,993	(31)	1,587	261	(38)	30	76	(37)	8	31	(34)	3	2,216	(38)	248	47	(44)	5	606	(37)	34	259	(39)	15	16,209	(31)	912	308	(39)	17
Not determined	87	(6)	-	63	(11)	-	4,804	(10)	-	72	(11)	-	25	(12)	-	18	(20)	-	609	(10)	-	7	(7)	-	112	(7)	-	81	(12)	-	5,413	(10)	-	79	(10)	-
Without health insurance (%)																																				
< 5	181	(13)	17	63	(11)	6	8,032	(18)	766	120	(18)	11	23	(11)	2	7	(8)	1	737	(13)	65	14	(13)	1	204	(13)	9	70	(11)	3	8,769	(17)	402	134	(17)	6
5-8	275	(19)	31	119	(21)	13	9,886	(22)	1,097	131	(19)	15	30	(14)	3	16	(18)	2	1,064	(18)	111	22	(21)	2	305	(19)	16	135	(20)	7	10,950	(21)	589	153	(19)	8
9-15	391	(28)	39	145	(25)	14	11,469	(25)	1,135	185	(27)	18	53	(25)	5	17	(19)	2	1,528	(26)	146	24	(23)	2	444	(27)	22	162	(25)	8	12,997	(25)	632	209	(26)	10
≥16	490	(35)	56	182	(32)	21	11,821	(26)	1,361	180	(26)	21	78	(38)	9	32	(36)	4	1,974	(33)	226	39	(37)	4	568	(35)	33	214	(32)	12	13795	(27)	792	219	(28)	13
Not determined	83	(6)	-	62	(11)	-	4,643	(10)	-	69	(10)	-	24	(12)	-	18	(20)	-	592	(10)	-	7	(7)	-	107	(7)	-	80	(12)	-	5,235	(10)	-	76	(10)	-
Gini Index																																				
<0.39	310	(22)	31	126	(22)	13	8,235	(18)	817	104	(15)	10	52	(25)	5	21	(23)	2	1,272	(22)	121	26	(25)	2	362	(22)	18	147	(22)	7	9,507	(18)	462	130	(16)	6
0.39-0.42	331	(23)	33	112	(20)	11	9,077	(20)	909	133	(19)	13	54	(26)	5	20	(22)	2	1,318	(22)	125	23	(22)	2	385	(24)	19	132	(20)	6	10,395	(20)	507	156	(20)	8
0.43-0.46	339	(24)	38	119	(21)	13	10,389	(23)	1,172	164	(24)	19	39	(19)	4	16	(18)	2	1,331	(23)	143	26	(25)	3	378	(23)	21	135	(20)	7	11,720	(23)	644	190	(24)	10
≥0.47	355	(25)	38	152	(27)	16	13,467	(29)	1,455	215	(31)	23	39	(19)	4	15	(17)	2	1,381	(23)	143	24	(23)	2	394	(24)	21	167	(25)	9	14848	(29)	784	239	(30)	13
Not determined	85	(6)	-	62	(11)	-	4,683	(10)	-	69	(10)	-	24	(12)	-	18	(20)	-	593	(10)	-	7	(7)	-	109	(7)	-	80	(12)	-	5,276	(10)	-	76	(10)	-
Total[5]	1,420	[87]	37	571	[86]	15	45,851	[89]	1,195	685	[87]	18	208	[13]	5	90	[14]	2	5,895	[11]	147	106	[13]	3	1,628	[100]	21	661	[100]	8	51,746	[100]	659	791	[100]	10

1 Data are provisional due to reporting delay. Rates per 100,000 based on population estimates (provisional) for 2022 prepared by Hedderson Demographic Services for LAC ISD, released March 2023. Rates based on fewer than 12 observations may not be reliable (see Technical Notes). Social determinants of health (SDOH) are based on census tract level ACS estimates for 2018-2022 and joined to addresses geocoded to the census tract level and population estimates (provisional) for 2022. Quartiles are determined based on LAC census tracts. "Not determined" includes persons who were residing in census tracts for which a SDOH measure was not determined or persons for whom a census tract is not available.

2 Male and female categories are based on sex at birth.

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

4 Includes persons whose residence at death was in Los Angeles County (LAC) or whose most recent known address before death was in LAC, when residence at death is missing.

5 Percent of total cases that are male and female is shown in this row.

Table A9: HIV care continuum indicators among persons aged ≥ 18 years living with diagnosed HIV by select social determinants of health (SDOH), LAC 2022-2023[1]

	HIV diagnoses 2022	Linked to care 1 month[2,3]		PLWDH as of 2023[4]	Engaged in care 2023[2,5]		Retained in care 2023[2,5]		No. of persons with ≥ 1 VL test in 2023	Viral Suppression[2] (VL < 200)		
										Virally suppressed	Among PLWDH[5]	Among persons with ≥ 1 VL test[6]
	N	N	%	N	N	%	N	%	N	N	%	%
Below FPL (%)												
< 7	206	155	75	6,055	4,827	80	3,443	57	4,564	4,353	72	95
7-10	274	209	76	9,576	7,545	79	5,371	56	7,170	6,794	71	95
11-16	413	316	77	13,366	9,799	73	6,959	52	9,363	8,760	66	94
≥17	628	483	77	16,281	12,252	75	8,717	54	11,800	10,713	66	91
Not determined	107	70	65	5,108	1,779	35	1,182	23	1,687	1,451	28	86
Less than high school (%)												
< 6	205	165	80	9,595	7,667	80	5,334	56	7,119	6,798	71	95
6-15	283	223	79	10,557	8,318	79	5,899	56	7,969	7,514	71	94
16-28	452	331	73	11,854	9,113	77	6,511	55	8,791	8,103	68	92
≥29	581	444	76	13,322	9,339	70	6,756	51	9,032	8,218	62	91
Not determined	107	70	65	5,058	1,765	35	1,172	23	1,673	1,438	28	86
Median household income ($)												
≥108,000	164	126	77	7,342	5,226	71	3,664	50	4,874	4,639	63	95
82,000-107,999	320	248	78	10,442	8,246	79	5,855	56	7,823	7,445	71	95
61,000-81,999	426	321	75	11,611	9,067	78	6,466	56	8,707	8,114	70	93
<61,000	606	464	77	15,714	11,767	75	8,427	54	11,382	10,316	66	91
Not determined	112	74	66	5,277	1,896	36	1,260	24	1,798	1,557	30	87
Without health insurance (%)												
< 5	204	161	79	8,588	6,821	79	4,827	56	6,395	6,073	71	95
5-8	305	240	79	10,715	7,860	73	5,492	51	7,500	7,053	66	94
9-15	444	330	74	12,621	9,726	77	6,988	55	9,342	8,691	69	93
≥16	568	432	76	13,355	10,017	75	7,183	54	9,661	8,803	66	91
Not determined	107	70	65	5,107	1,778	35	1,182	23	1,686	1,451	28	86
Gini Index												
<0.39	362	270	75	9,204	6,557	71	4,683	51	6,353	5,889	64	93
0.39-0.42	385	302	78	10,078	7,784	77	5,628	56	7,528	7,022	70	93
0.43-0.46	378	283	75	11,416	8,897	78	6,328	55	8,435	7,895	69	94
≥0.47	394	306	78	14,542	11,169	77	7,840	54	10,566	9,799	67	93
Not determined	109	72	66	5,146	1,795	35	1,193	23	1,702	1,466	28	86
Total	1,628	1,233	76	50,386	36,202	72	25,672	51	34,584	32,071	64	93

1 Data are provisional due to reporting delay. Social determinants of health (SDOH) are based on census tract level ACS estimates for 2018-2022 and joined to addresses geocoded to the census tract level. Quartiles are determined based on LAC census tracts. "Not determined" includes persons who were residing in census tracts for which a SDOH measure was not determined or persons for whom a census tract is not available.

2 Persons are considered linked to care if there was at least one viral load, CD4+ T-cell, or genotype test within 1 month of an HIV diagnosis; persons are considered engaged in care if there was at least one viral load, CD4+ T-cell, or genotype test in 2023; persons are considered retained in care if there were ≥ 2 viral load, CD4+ T-cell, or genotype tests in 2023, at least 3 months apart; persons are considered virally suppressed when their last VL test in 2023 was < 200 copies/mL.

3 Denominator for linkage to care includes persons who were reported with a new HIV diagnosis in 2022; does not include estimated persons unaware of HIV infection.

4 Persons living with diagnosed HIV include those diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence.

5 Denominator for engagement and retention in care and overall viral load suppression in 2023 includes persons diagnosed through 2022 and living in LAC at year-end 2023 based on most recent residence.

6 Denominator includes persons diagnosed with an HIV infection through 2022 and living in LAC at year-end 2023, based on most recent residence, who had at least one documented VL test in 2023