

# HIV IN ALAMEDA COUNTY, 2021-2023

Alameda County Public Health Department

HIV Epidemiology & Surveillance Unit



# HIV in Alameda County, 2021-2023

February 2025

HIV Epidemiology and Surveillance Unit

Division of Communicable Disease Control and Prevention

Alameda County Public Health Department

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# Background

## Overview of this Report

This report is based on human immunodeficiency virus (HIV) case surveillance in Alameda County. It summarizes data on HIV in 3 chapters as described below.

2. **New Diagnoses:** This chapter describes patterns of HIV diagnosis in Alameda County, characterizing those who were recently diagnosed according to demographic factors, risk factors and stage of disease.
3. **People Living with HIV:** The second chapter of the report describes the characteristics of all people known to be living with HIV disease (PLHIV) in Alameda County. This chapter describes the total burden of HIV disease in the county and how it varies by demographic factors as well as by geography. It also describes changes in mortality rates (deaths) over time among those ever diagnosed with Acquired Immune Deficiency Syndrome (AIDS).
4. **The Continuum of HIV Care:** This chapter presents the continuum of HIV care in Alameda County. Modern medical treatments for HIV can halt the progression of the disease and prevent its spread, but not all persons living with HIV receive effective treatment. The continuum of HIV care (also known as the “HIV care cascade”) is a framework that presents different indicators of engagement in HIV care among people living with HIV, including linkage to care, retention in care, and viral suppression.

## HIV

HIV attacks the immune system, weakening it over time such that people living with HIV become increasingly susceptible to opportunistic infections and other medical conditions. The most advanced stage of infection, when the immune system is weakest, is called AIDS. HIV treatments are highly effective in controlling HIV replication and reducing transmission, but they do not eliminate viral infection. HIV is typically transmitted through sex, contaminated needles, or spread from birthing parent to fetus during pregnancy.



## Definitions Used in this Report

### Stages of HIV Infection

For surveillance purposes, HIV disease progression is classified into 4 stages, from acute infection (Stage 0) to AIDS (Stage 3). In this report, we use “HIV” to refer to HIV disease at any stage (including Stage 3/AIDS) and AIDS to refer specifically to Stage 3 HIV disease. We use the acronym “PLHIV” to refer to all people living with HIV disease, regardless of stage.

### Case Definition

All reported HIV cases must meet the Centers for Disease Control and Prevention (CDC) case definition based on laboratory or clinical criteria.<sup>1</sup> Clinical criteria include a medical provider diagnosis and evidence of HIV treatment, unexplained low CD4 count, or opportunistic infection. The full criteria may be found at [https://www.cdc.gov/hivnexus/hcp/guidelines/?CDC\\_AAref\\_Val=https://www.cdc.gov/hiv/clinicians/guidelines/index.html](https://www.cdc.gov/hivnexus/hcp/guidelines/?CDC_AAref_Val=https://www.cdc.gov/hiv/clinicians/guidelines/index.html).

### Transmission Category

For surveillance purposes, each reported HIV case must be classified according to their risk factors for acquiring HIV. Cases with multiple risk factors are assigned a transmission category, the risk factor most likely to have resulted in HIV transmission according to a hierarchy developed by the CDC. In this context, “heterosexual contact” refers to sexual contact with a partner of the opposite sex with a known risk factor for HIV. In some cases, partners’ risk factors are unknown, leaving some heterosexual cases without known HIV risk factors. Such cases are assigned to the “unknown” transmission category. The only exception is when a case’s sex at birth is female and she reported sex with males, in which case she is presumed to have been infected through heterosexual contact in accordance with CDC-accepted guidance set by the Council of State and Territorial Epidemiologists.<sup>2</sup>

### Demographics

Demographic data in this report are based on investigations of medical records. Although the transgender community is highly impacted by HIV, data on current gender identity are not reliably captured in medical records. For this reason, analyses are presented for sex assigned at birth as well as known current gender.

Data from racial/ethnic groups in which there were very small numbers were combined for these analyses for the purpose of maintaining privacy. Asians and Pacific Islanders are combined into a single category. American Indians, Alaskan Natives, and those identifying with multiple races are combined along with those of unknown race into another group (“Other/Unk”). In tables and charts, the category “Asians and Pacific Islanders” is abbreviated “API” and “African American” is abbreviated “AfrAmer”. Analyses that are broken out by subgroup (e.g., race/ethnicity) are presented along with the overall group total (e.g., all races) for comparison.

### Geographic Area

Residential addresses are geocoded to census tract and city/Census-designated place. Region and neighborhood boundaries established by the Alameda County Community Assessment, Planning, and Evaluation (CAPE) unit based on census tract aggregates are used. These geographic areas are shown in Figures 1.1 and 1.2.

Figure 1.1: Regions of Alameda County

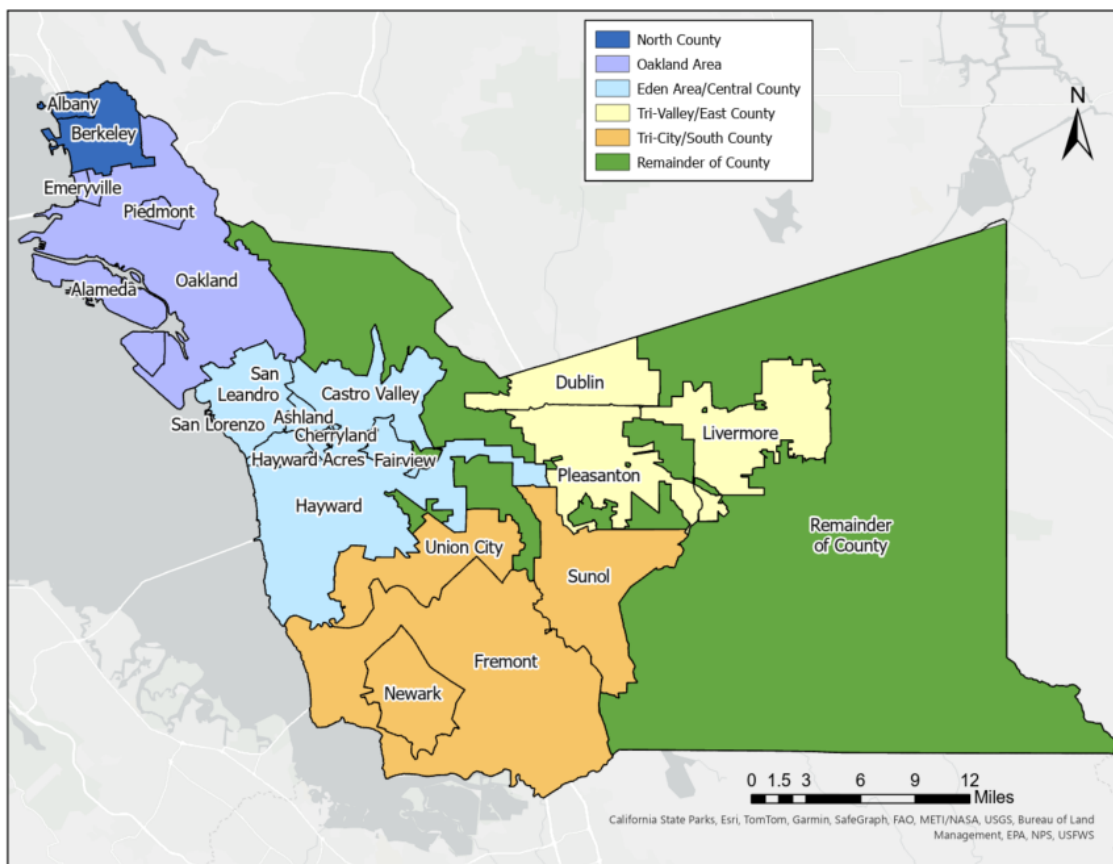
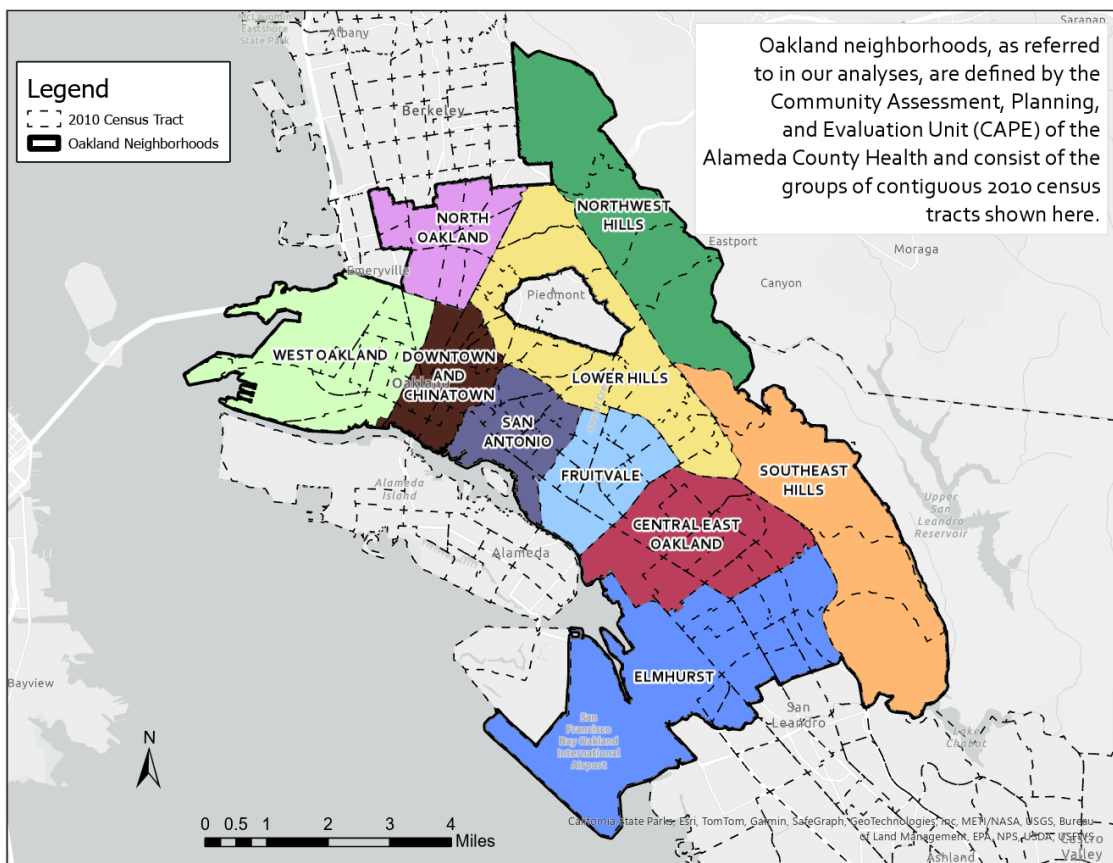


Figure 1.2: Neighborhoods in the City of Oakland





## *New Diagnoses*

Alameda County Public Health Department (ACPHD) monitors the HIV epidemic through mandated reports of new diagnoses and laboratory results. Estimating the true incidence rate of new HIV transmissions is complex due to the variable time interval between when a person becomes infected and when their infection is diagnosed. However, surveillance data reliably describe all new HIV diagnoses and diagnosis rates. In 2022, there were an estimated 38,043 new diagnoses of HIV in the US for an overall diagnosis rate of 11.3 per 100,000 persons.<sup>3</sup> Among people newly diagnosed in 2022, 79% identified as men, 18% as women, and 3% as transgender. The age group with the highest rates for people 13 years and older were among those aged 25 to 34 (30.8 per 100,000). The racial/ethnic groups with the highest rates were African Americans and Latinx (41.6 and 23.4 per 100,000), and the U.S. regions with the highest rates of new diagnoses were the South and West (18.2 and 11.8 per 100,000). Gay and bisexual men who have sex with men, including those who inject drugs, accounted for 67% of all new diagnoses and 82% of newly diagnosed males. Heterosexual contact accounted for 83% of newly diagnosed females.<sup>3</sup>

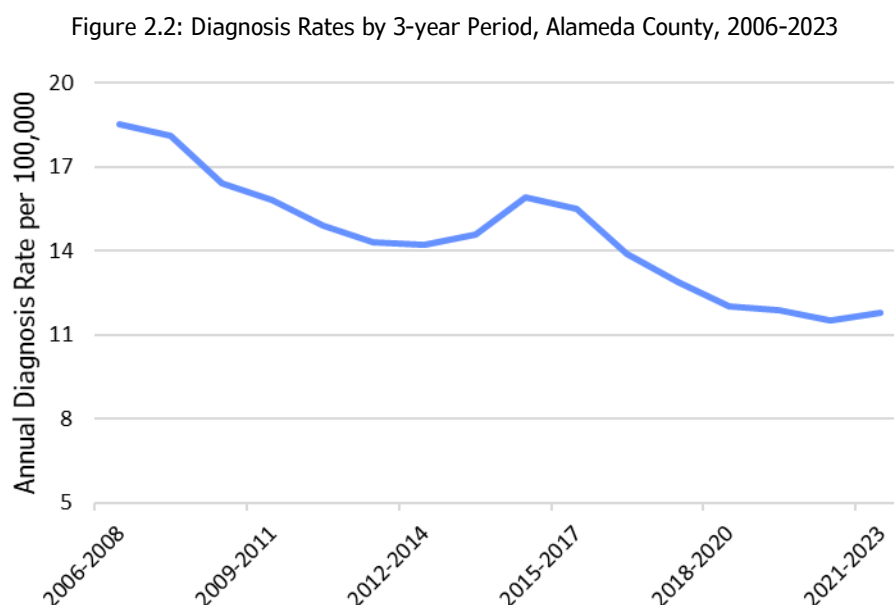
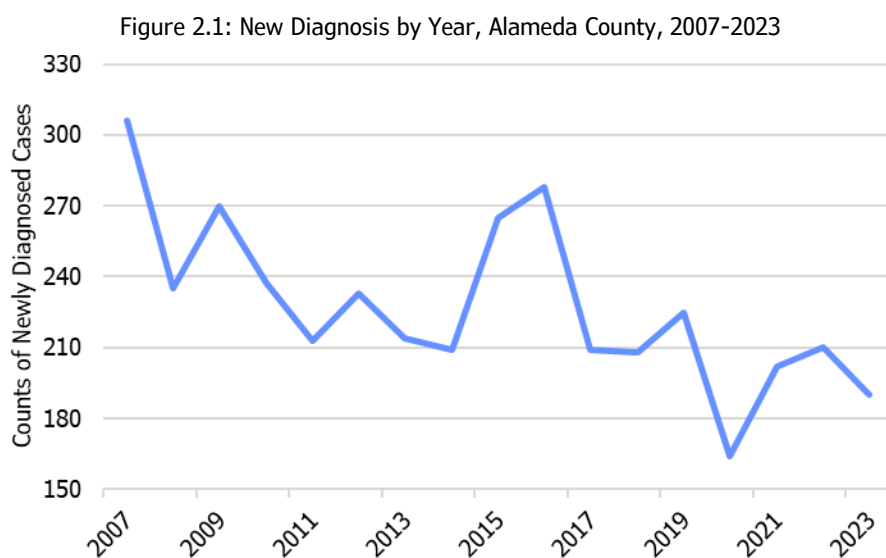
In California, an estimated 4,882 new diagnoses for an overall statewide rate of 12.2 diagnoses per 100,000 in 2022.<sup>4</sup> In Alameda County, the average annual diagnosis rate calculated over the 3-year period from 2021 to 2023 was 11.8 diagnoses per 100,000.

America's HIV Epidemic Analysis Dashboard (AHEAD) displays HIV data and goals for 57 priority areas, including Alameda County. AHEAD tracks national and jurisdictional progress for six Ending the HIV Epidemic (EHE) indicators that aim to reduce new HIV infections in the US by 75% in five years and by 90% in 10 years. According to the dashboard, Alameda County's knowledge of status – the estimated percentage of people with HIV who have received an HIV diagnosis – was 90.1% [CI 82.5-99.3] in 2022.<sup>4</sup>

This chapter describes HIV in Alameda County by examining the characteristics of new diagnoses, new diagnosis rates, and the timeliness of diagnoses by demographic characteristics.

## Characteristics of New Diagnoses

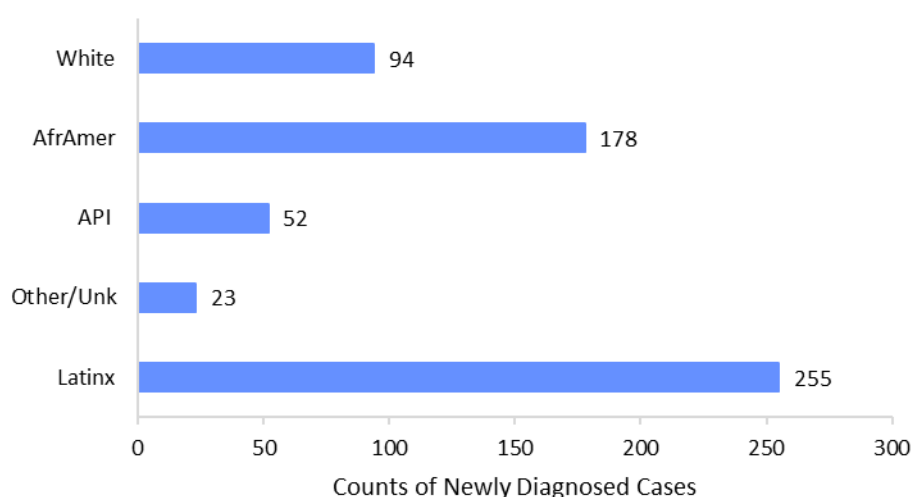
Since HIV became reportable by name in California in 2006, between 200 and 300 new cases of HIV disease have been reported each year among Alameda County residents with the exception of 2020 (160 new diagnoses) and the most recent year, 2023 (190 new diagnoses). The substantial drop in number of newly diagnosed cases in 2020 may be attributed to the impact of the COVID-19 pandemic. Seeking medical testing as well as routine testing outreach activities was limited due to shelter-in-place orders and social distancing. It is probable that many new cases of HIV went undiagnosed in 2020. Social restrictions may have also reduced the number of high-risk sexual interactions between casual partners, possibly resulting in fewer transmissions. Additionally, reduced case reporting capability during the pandemic could have contributed to the apparent decline in cases. The data to quantify the role of these factors is not yet available through routine surveillance methods or other sources.



Diagnosis rates are not equivalent to HIV incidence rates. Trends in diagnosis rates may reflect changes in HIV incidence over time but may also reflect changes in HIV testing practices, access to care, stigma, and other barriers to testing. For example, HIV incidence could decrease while HIV diagnosis rates increase if more HIV-unaware persons are tested and diagnosed. Due to the relatively small number of diagnoses occurring in Alameda County in any given year, annual diagnosis rates are statistically unstable.

Diagnosis rates were calculated using new case counts over a 3-year period to accrue large enough numbers to calculate statistically stable rates. The rate of new diagnoses across Alameda County has been steadily decreasing by an average annual change of -2.95%, starting at 18.5 per 100,000 in 2006-2008 to 11.8 per 100,000 in 2021-2023.

Figure 2.3: New Diagnosis by Race/Ethnicity, Alameda County, 2021-2023



When broken down by race/ethnicity, the largest number of new diagnoses were among Latinx residents, accounting for 42.4% of new cases. This is a shift from previous years where African American residents have historically represented the plurality of new diagnoses. Asian and Pacific Islander residents continue to have the fewest new diagnoses despite making up a large portion of Alameda County's population. The category Other/Unknown includes those who identify as American Indian, Other, or Multiracial, and those for whom race/ethnicity is unknown.



Figure 2.4: Percent of New Diagnoses by Race/Ethnicity, Alameda County, 2021-2023

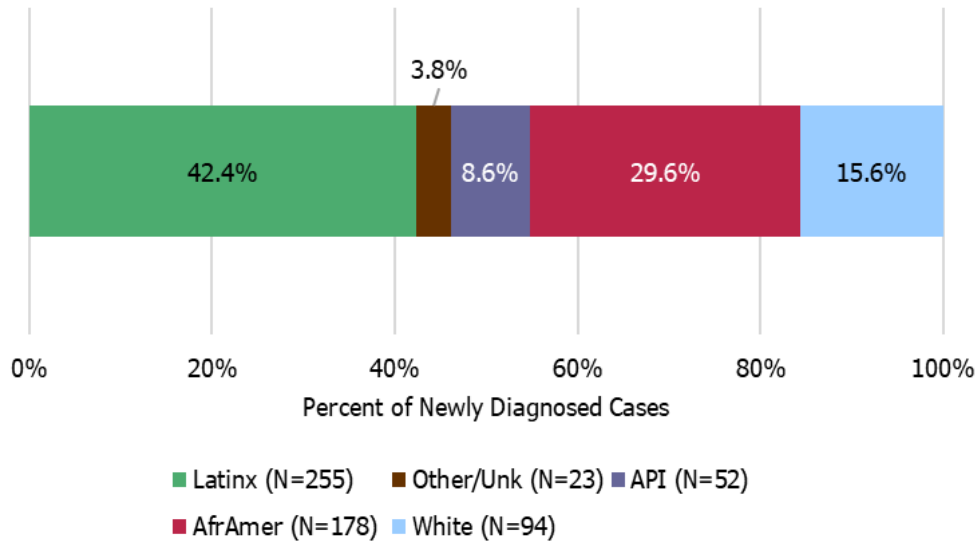
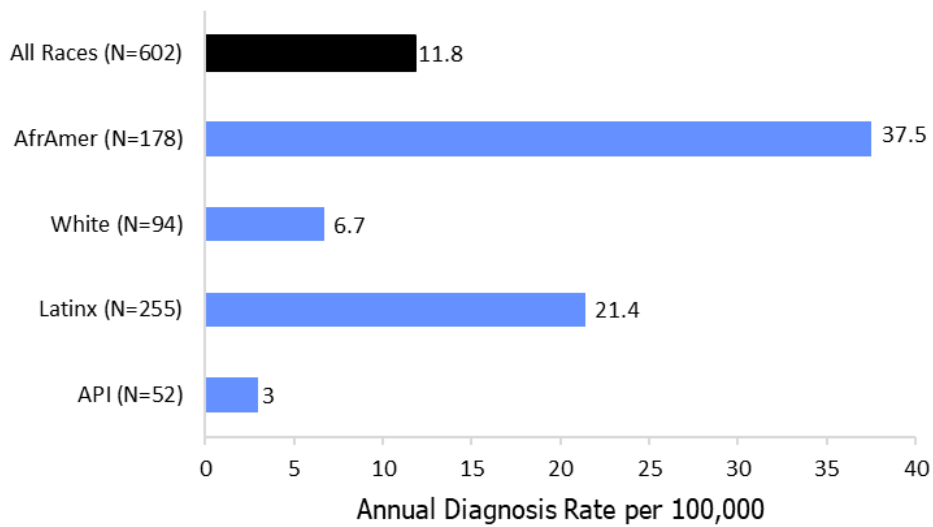
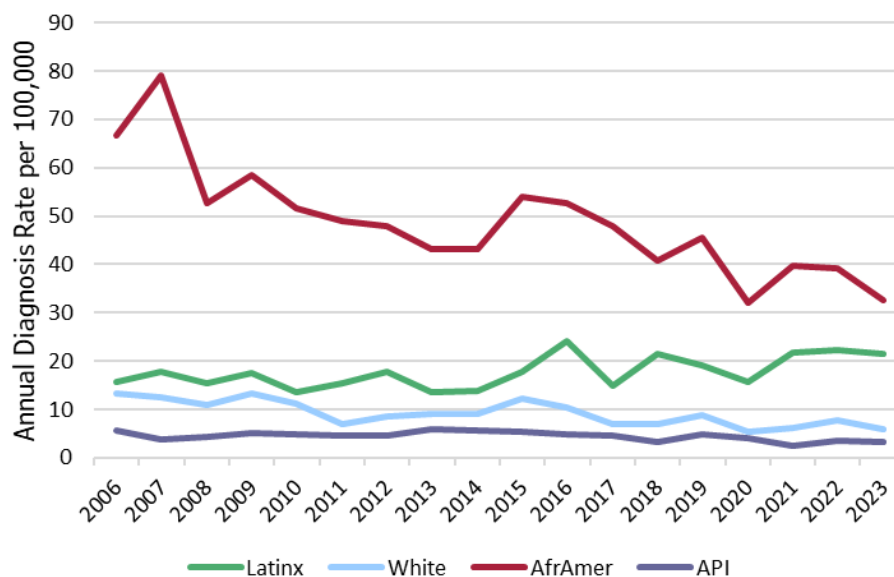


Figure 2.5: Average Diagnosis Rates by Race/Ethnicity, Alameda County, 2021-2023



Despite having the second most new diagnoses, African American residents still have the highest rate of new diagnoses in Alameda County with 37.5 new diagnoses per 100,000 residents, a rate 5.6 times higher than White residents and over 10 times higher than Asian and Pacific Islander residents.

Figure 2.6: Diagnosis Rates by Year and Race/Ethnicity, Alameda County, 2006-2023



However, the new diagnosis rate among African American residents has been declining since 2006 with an average annual change of -3.6%, driving the county-wide decline in diagnosis rates. The decline is even more dramatic among African American people designated female at birth with an average annual change of -5.8%. In contrast, Latinx have experienced an average annual increase of 2.0% with Latinos designated male at birth increasing at 2.3%. The rate among Latinas designated female at birth has been increasing by an average of 6.5% a year since 2013, however, these counts are still relatively low and therefore the rates are not as stable. This trend among Latinx, while noticed over the last few years, has only become statistically significant when 2023 data is considered.

Figure 2.7: New Diagnoses by Sex at Birth, Alameda County, 2021-2023

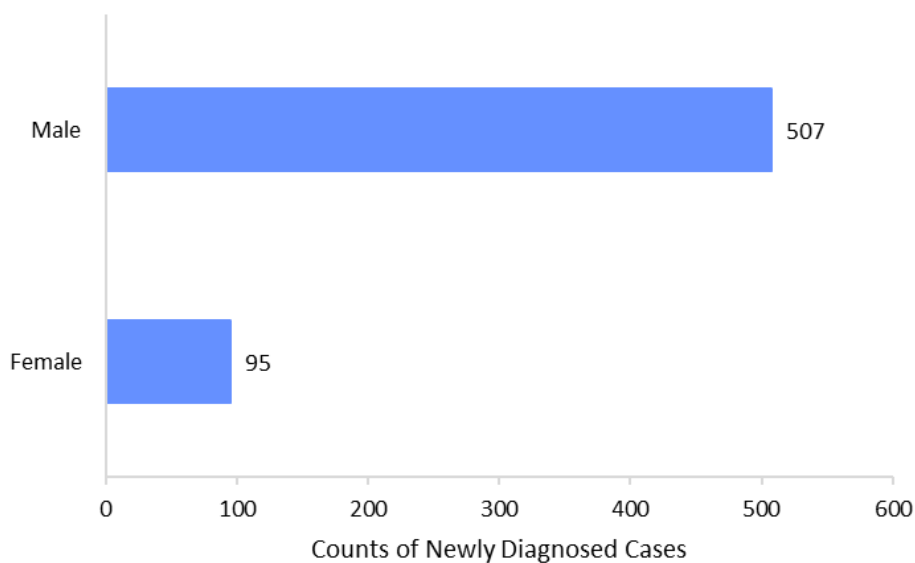
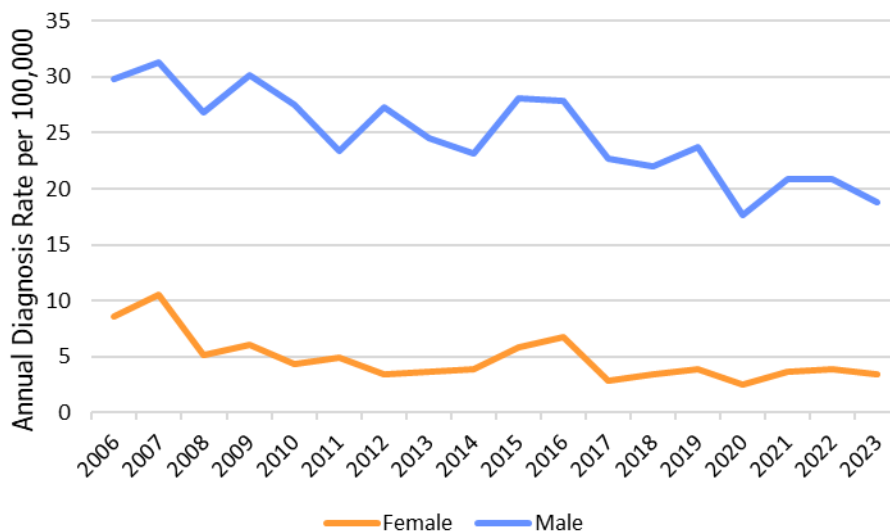
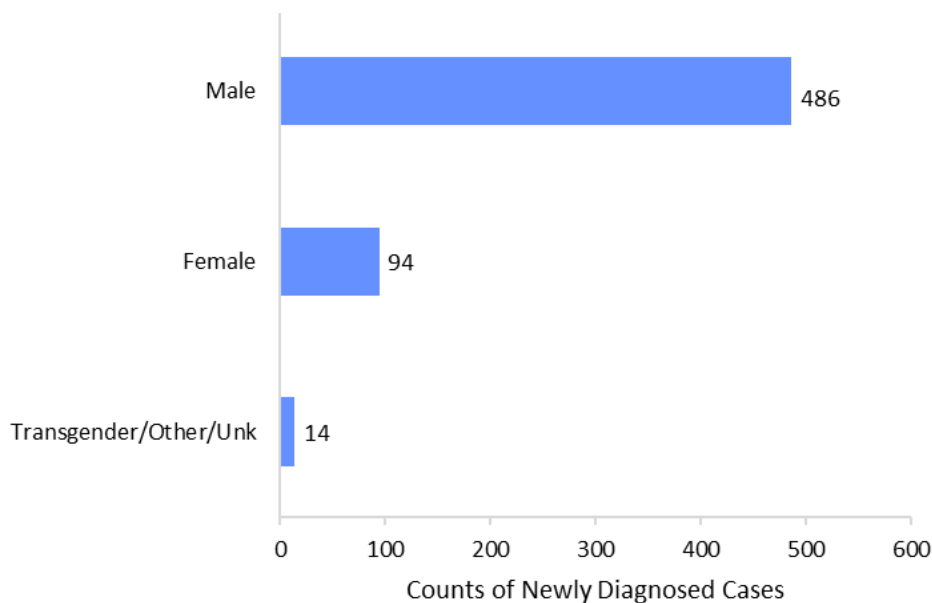


Figure 2.8: New Diagnosis Rates by Year and Sex at Birth, Alameda County, 2006-2023



Note: "Sex" here refers to sex assigned at birth.

Figure 2.9: New Diagnoses by Gender, Alameda County, 2021-2023



Data for current gender has historically been inaccurate and continues to be flawed, likely undercounting the number of transgender individuals being reported, but the data collection has been improving and state and local jurisdictions make greater efforts to accurately represent people's gender identity. In the figure above, transgender individuals were grouped with other non-binary gender identities as well as with individuals believed to be transgender, but not confirmed from demographic information reported in lab records. While imperfect, this provided the best estimate for the non-binary community. Between 2021-2023, 2.4% of new diagnoses were among transgender individuals, a majority of which were transwomen.

Figure 2.10: Newly Diagnosed by Age at Diagnosis, Alameda County, 2021-2023

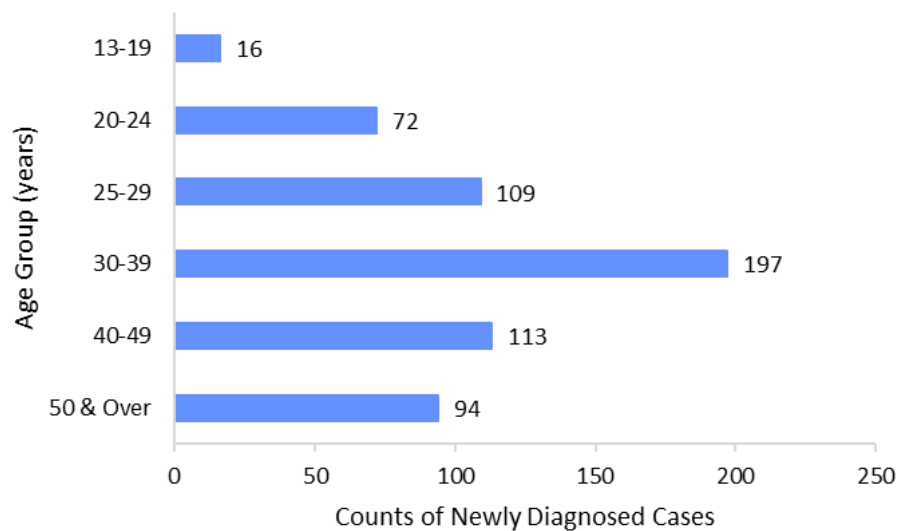
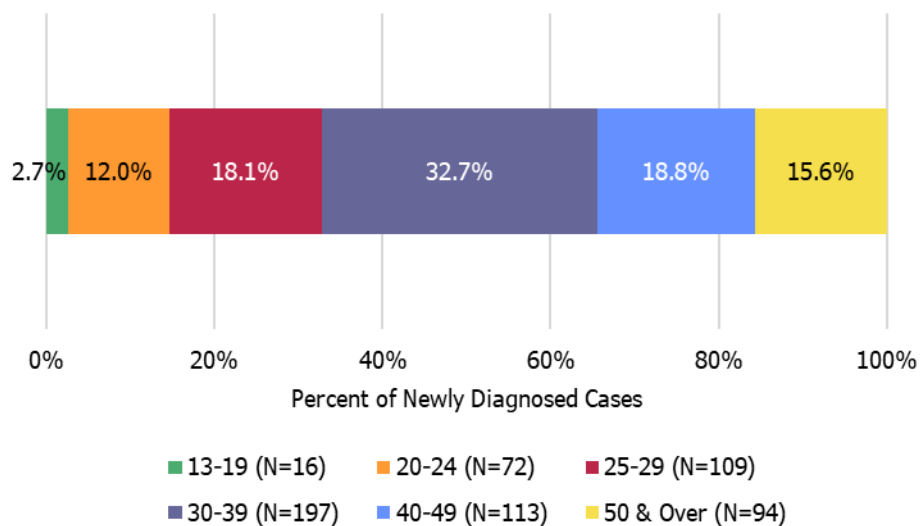


Figure 2.11: Percent of Newly Diagnosed by Age at Diagnosis, Alameda County, 2021-2023





Nearly 2/3 of new diagnoses were among those younger than 40 years, with the largest group between 30-39 years. The median age of new diagnoses was 34 years and the average age was 36.6. The highest diagnosis rate was among those 25-29 years of age with 29.7 per 100,000, more than twice the county-wide rate in 2021-2023.

Figure 2.12: Average Diagnosis Rate by Age Group at Diagnosis, Alameda County, 2021-2023

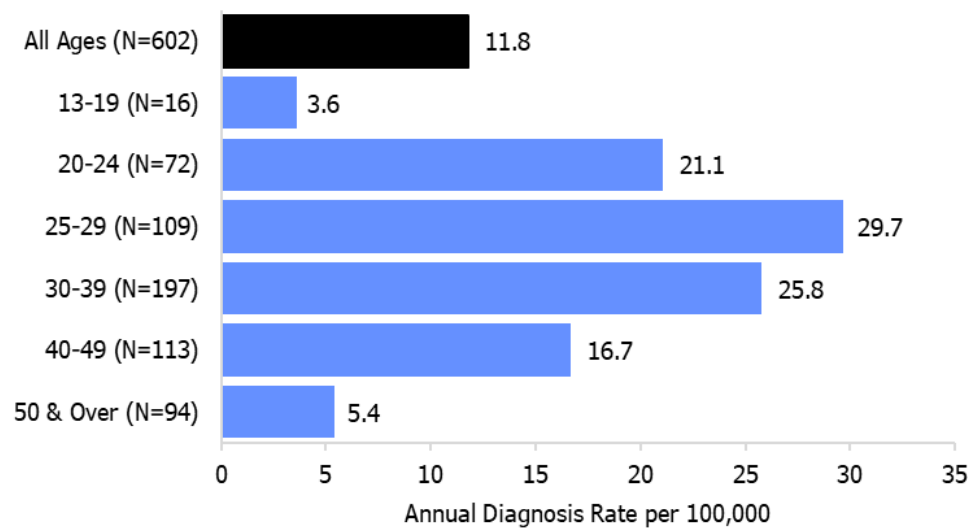
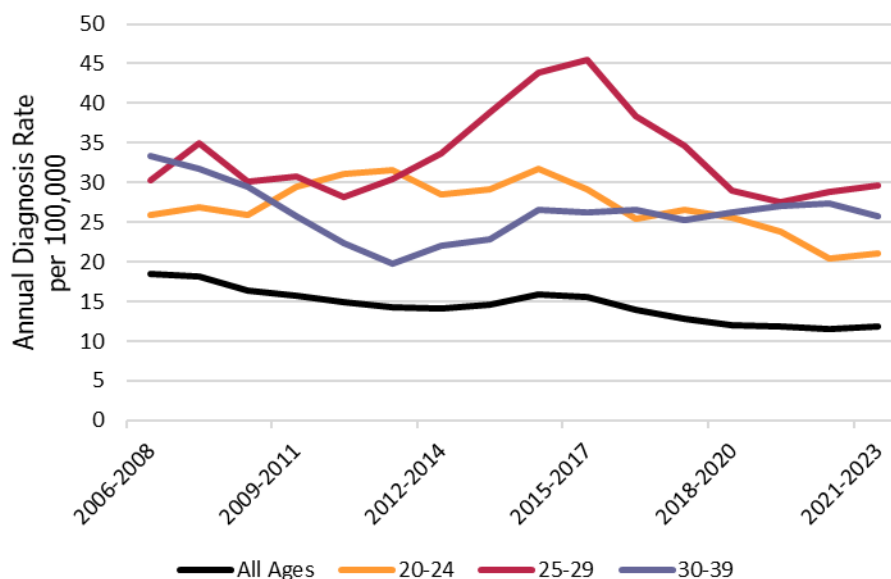
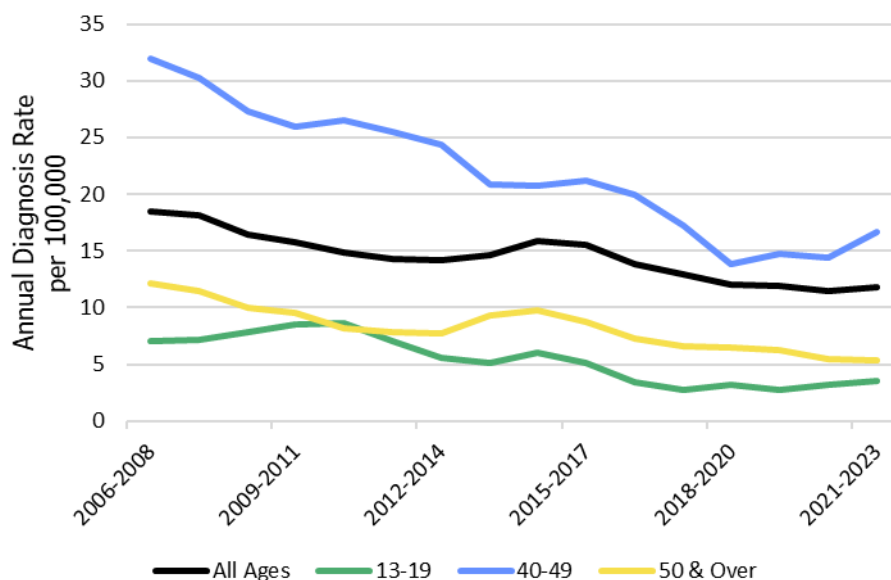


Figure 2.13: Diagnosis Rate by Year and Age (highest) at Diagnosis, Alameda County, 2006-2023



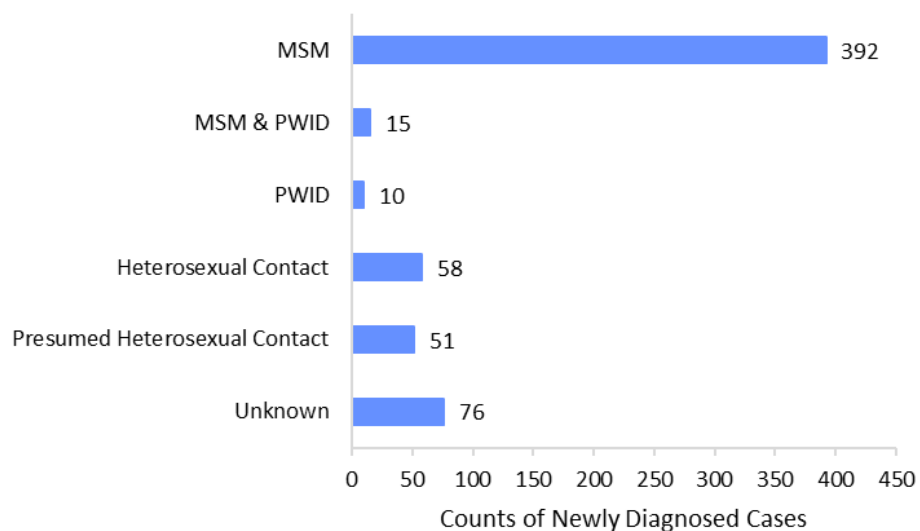
Diagnosis rates over time were split across two graphs to avoid having the scale of the higher rates flatten out the trends among the lower rates. The age groups with the higher rates include ages 20-24, 25-29, and 30-39 years. Rates among these age groups did not significantly change over time despite the overall trend going down.

Figure 2.14: Diagnosis Rate by Year and Age (lowest) at Diagnosis, Alameda County, 2006-2023



The age groups with the lowest rates include ages 13-19, 40-49, and 50 and over years. All three have seen declining trends in diagnosis rates since 2006 with average annual changes of -5.8%, -5.1%, and -4.7%, respectively.

Figure 2.15: New Diagnoses by Transmission Category, Alameda County, 2021-2023



Almost two-thirds (65.1%) of new diagnoses during 2021 to 2023 were among men who have sex with men (MSM). When this category is combined with men who have sex with men who also are people who inject drugs (PWID), this group is more than 2/3 of all new diagnoses. The category “Heterosexual Contact” indicates that the person had heterosexual contact with someone known to be HIV positive whereas “Presumed Heterosexual Contact” indicates that a person assigned female at birth or transgender woman had a heterosexual male partner with an unknown HIV status and no other likely exposure.

Figure 2.16: Percent of New Diagnoses by Transmission Category, Alameda County, 2021-2023

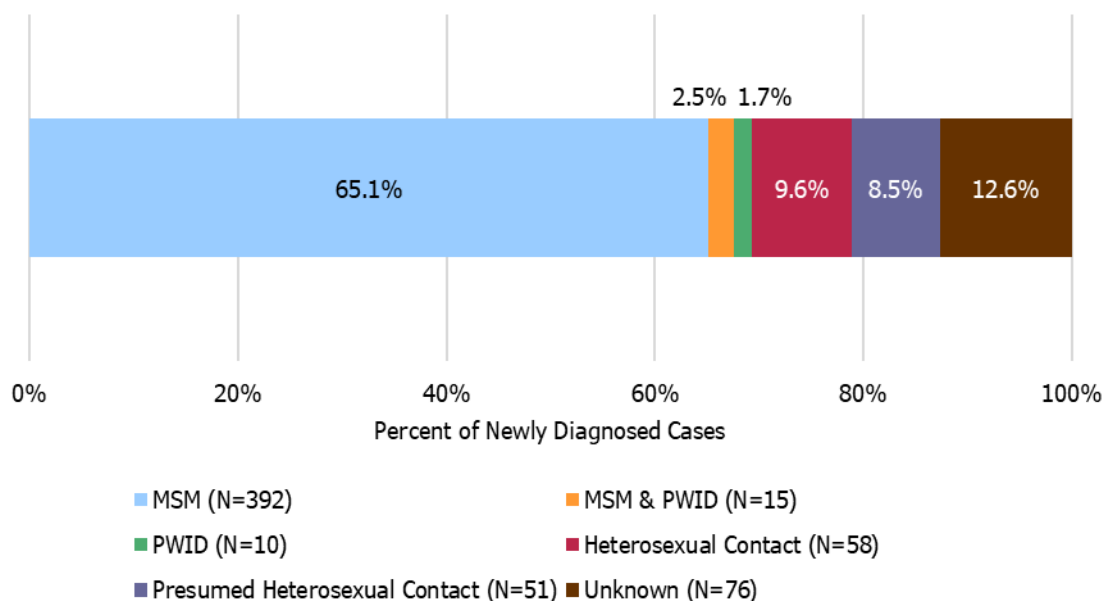
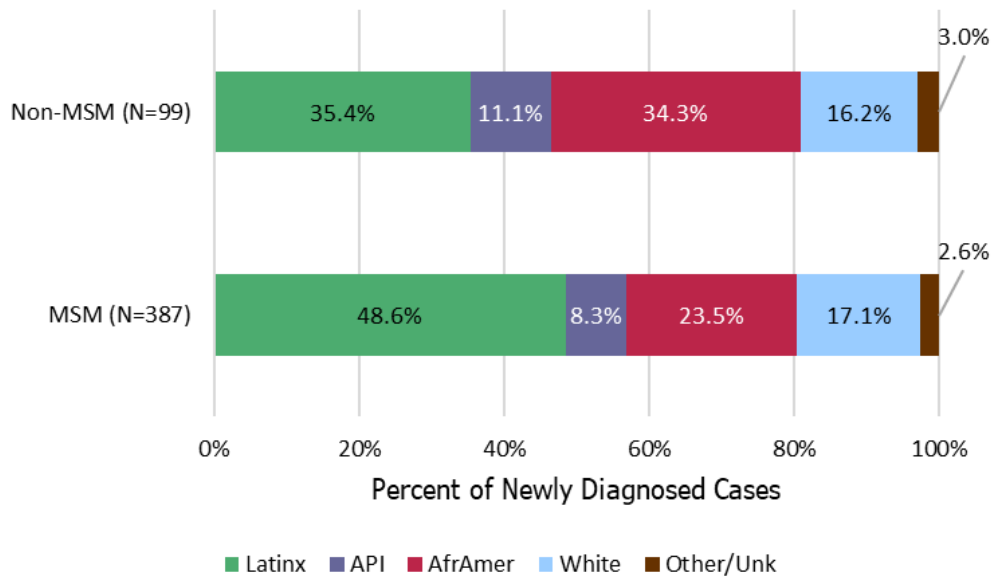


Figure 2.17: New Diagnoses by Transmission Category and Race/Ethnicity Among Males, Alameda County, 2021-2023



Looking at racial/ethnic differences among men who reported having sex with other men versus men who did not, Latino men made up a higher proportion of men who have sex with other men (48.6%) than men who did not report sex with other men (35.4%) and African American men made up a smaller proportion of men who had sex with other men (23.5%) than men who did not report sex with other men (34.3%). When looking at age differences, younger age groups were more represented among men who have sex with other men than older age groups.

Figure 2.18: New Diagnoses by Transmission Category and Age Among Males, Alameda County, 2021-2023

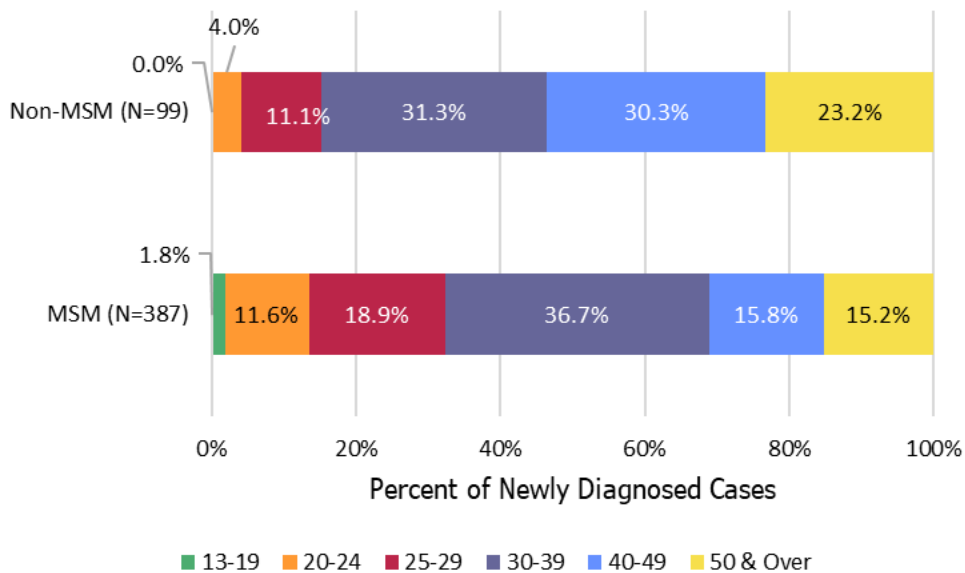
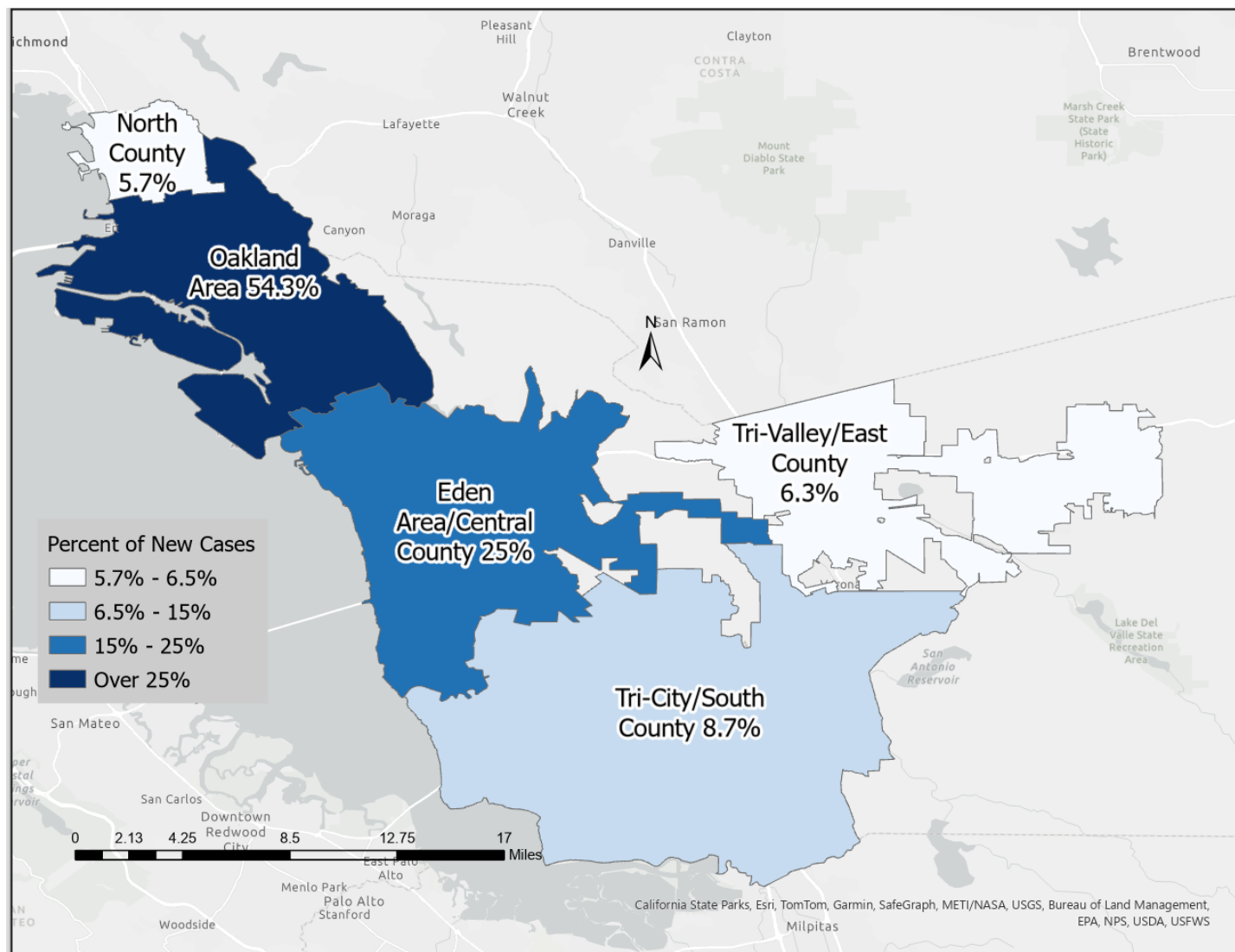


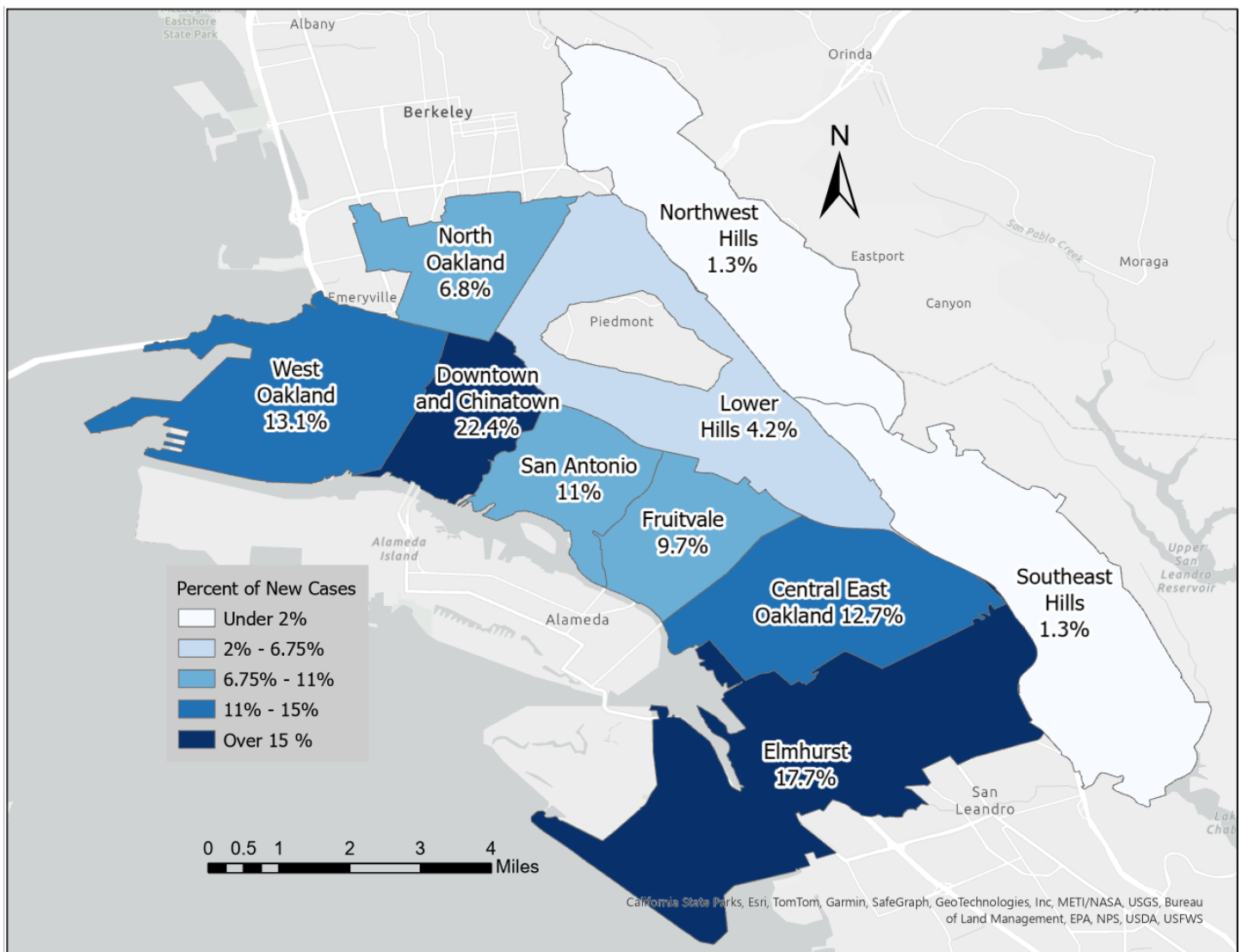


Figure 2.19: Geographic Distribution of New HIV Diagnoses by Residence at HIV Diagnosis, Alameda County, 2021-2023



New diagnoses of HIV were most concentrated in the Oakland area and central county regions (as defined in Figure 1.1 on page 3). This distribution mirrors the major population centers in the county and can help guide the distribution of services for HIV care and prevention.

Figure 2.20: Residence at HIV Diagnosis, Oakland, and Surrounding Area, 2021-2023



The highest concentration of new diagnoses in the Oakland area was in Downtown/Chinatown and Elmhurst in East Oakland. The Oakland Hills had the lowest percent of new HIV diagnoses in the region.

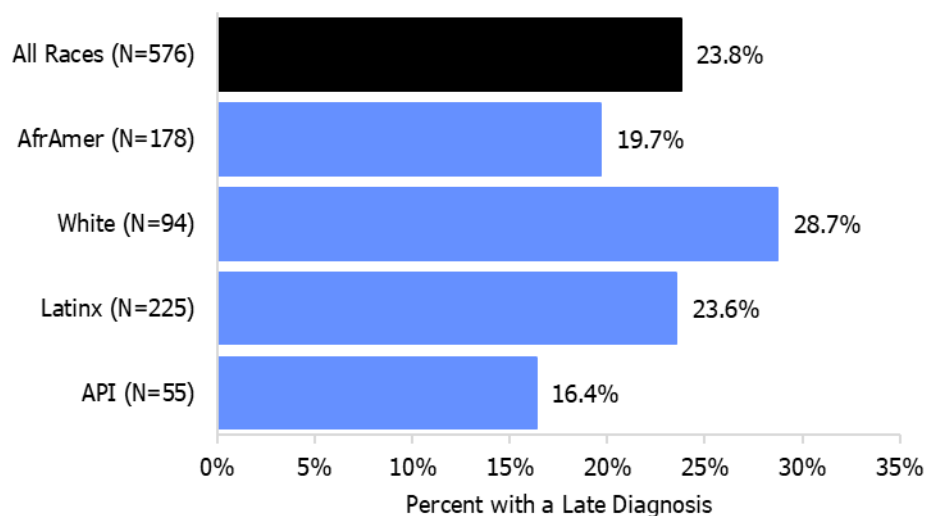
## Timeliness of Diagnosis

Diagnosis of HIV early in the course of infection is an important component of effective HIV prevention and treatment with highly active antiviral medications as early intervention generally reduces both the risk of transmission to others and the impact of HIV infection on a person's health.

## Late Diagnosis

A key indicator of late HIV diagnosis is the time to progression to AIDS (stage 3 HIV infection). A diagnosis is deemed late if AIDS is diagnosed at the same time as a person's initial HIV diagnosis or if the person progresses to AIDS within one year of the initial HIV diagnosis. The analyses presented in this section are for the years 2020 to 2022 in order to provide a full year of data following diagnosis. Apparent differences should be interpreted with caution due to the small numbers of diagnoses seen in some subgroups, resulting in statistical instability.

Figure 2.21: Late Diagnosis by Race/Ethnicity, Alameda County, 2020-2022



The highest percentage of late diagnoses, at 28.7% of new diagnoses, occurred among White residents. The lowest percent of diagnoses that were considered late diagnoses was among Asian/Pacific Islander residents, at 16.4%. Late diagnosis percent was higher among people designated as male at birth, however, the difference between males and females is not statistically significant.

Figure 2.22: Late Diagnosis by Birth Sex, Alameda County, 2020-2022

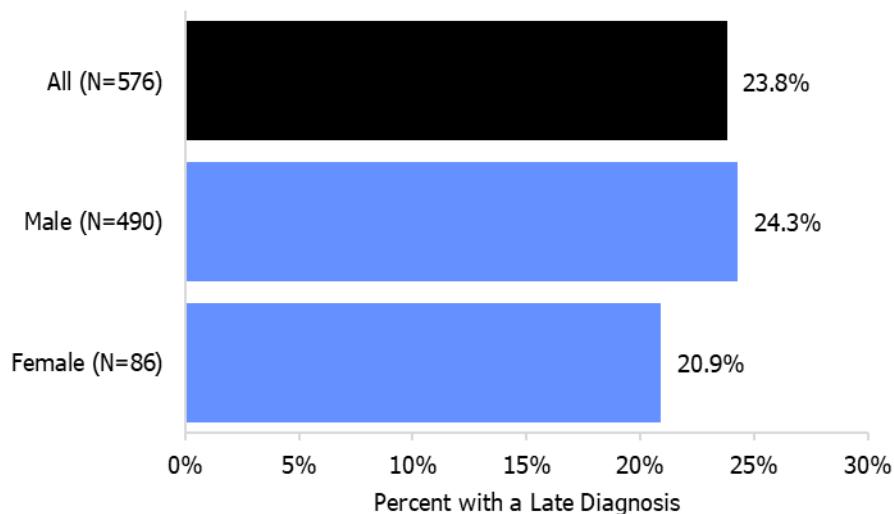
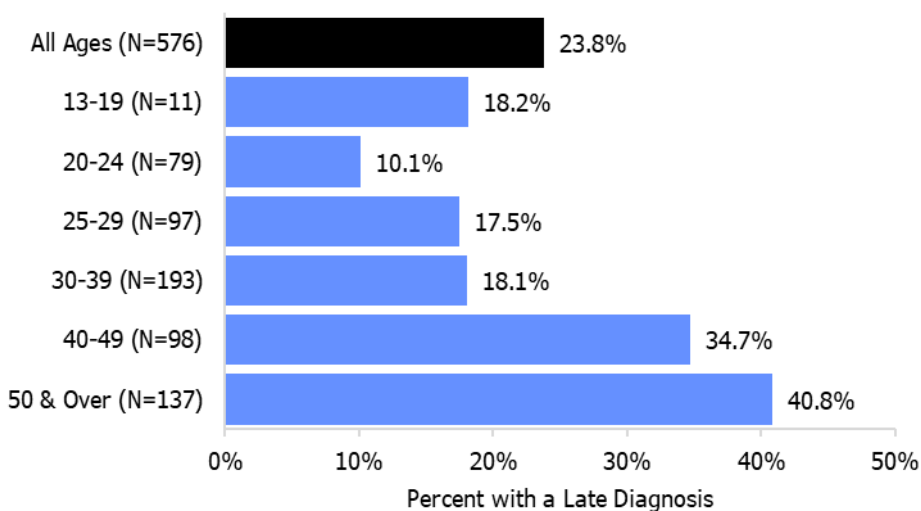


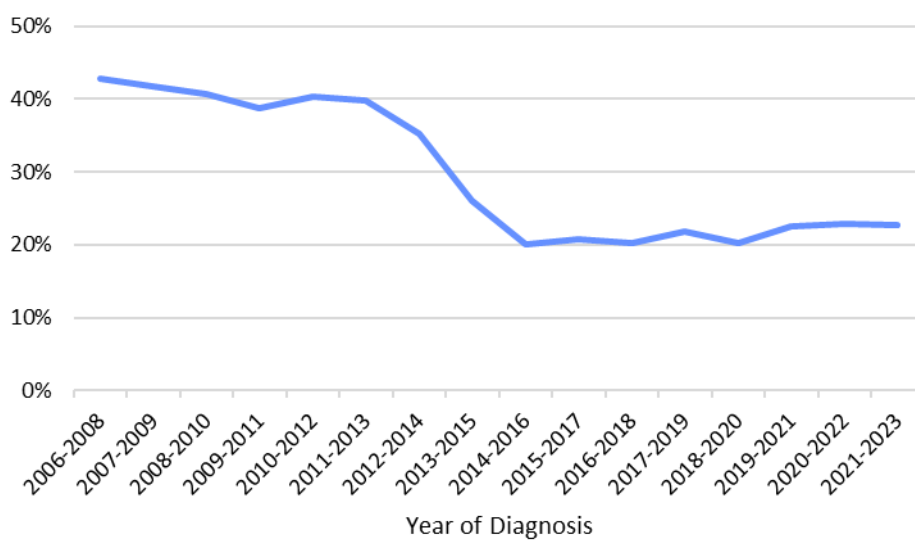
Figure 2.23: Late Diagnosis by Age, Alameda County, 2020-2022



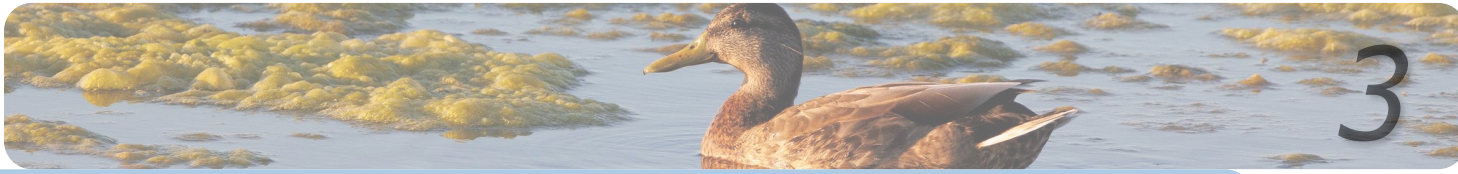
Almost 41% of new diagnoses among people aged 50 years and older were late diagnoses, the highest within any age group. This makes intuitive sense given that more time could have passed since the transmission event occurred if a person is older. The youngest age group, 13 to 19 years of age has an elevated late diagnosis percent, but this is an unstable estimate given the smaller number of cases in the cohort.



Figure 2.24: Late Diagnosis by Year, Alameda County, 2006-2023



The percentage of late diagnosis has declined since 2006 when it was over 40% to now 23.7%. After a relatively steep decline percentages have plateaued around 20% for the past several years.



## *People Living with HIV*

In the United States, there were an estimated 1,108,292 persons aged 13 years or older living with diagnosed HIV at the end of 2022 for an overall rate of 387.9 per 100,000. People who identified as men made up 76% of all people living with HIV (PLHIV). The highest prevalence rates were among those aged 55 to 59 (753.4 per 100,000), African Americans and Latinx (1,036.6 and 423 per 100,000 respectively), and in the Northeast and South (414.3 and 393.5 per 100,000 respectively).<sup>3</sup> At year-end 2022, California had an estimated 142,700 people living with HIV for a statewide prevalence of 355.6 per 100,000 population. HIV prevalence among cisgender women in California is 83.9 per 100,000 compared to 173.5 per 100,000 among cisgender women nationally.<sup>5</sup> At year-end 2023 in Alameda County, the prevalence of HIV was 368.1 per 100,000 residents.

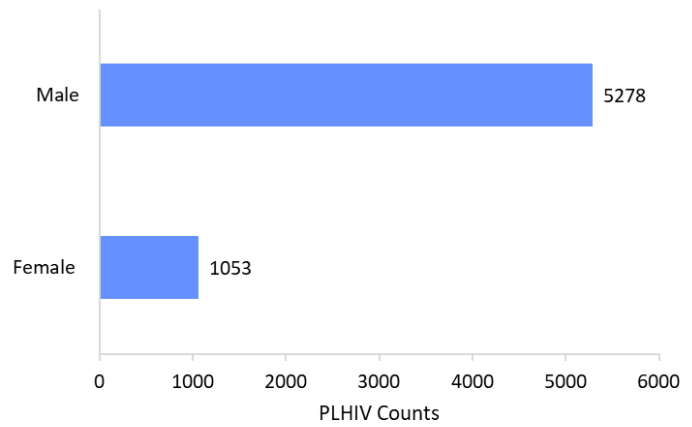
This chapter examines the prevalence, or the proportion of people in Alameda County living with HIV infection, reflecting the overall impact of HIV in the population. Data presented do not include people living with HIV with undiagnosed infection but include all those with diagnosed HIV (including newly diagnosed), regardless of the stage of HIV infection. First, characteristics of people living with HIV in the county are presented. Then, the prevalence of HIV disease in different subpopulations is described. Finally, the mortality (deaths) among people living with HIV ever diagnosed with AIDS is described.

## Characteristics of People Living with HIV

At the end of 2023, there were an estimated 6,331 people living with HIV in Alameda County.

As with the distribution by sex among new diagnoses of HIV, people living with HIV in Alameda County at year-end 2023 were predominantly male (83.4%). This distribution has remained relatively constant since 2010.

Figure 3.1: PLHIV by Sex Assigned at Birth, Alameda County, Year-End 2023



Note: "Sex" refers to sex assigned at birth.

Figure 3.2: Prevalence Rate by Year and Sex Assigned at Birth, Alameda County, 2010-2023

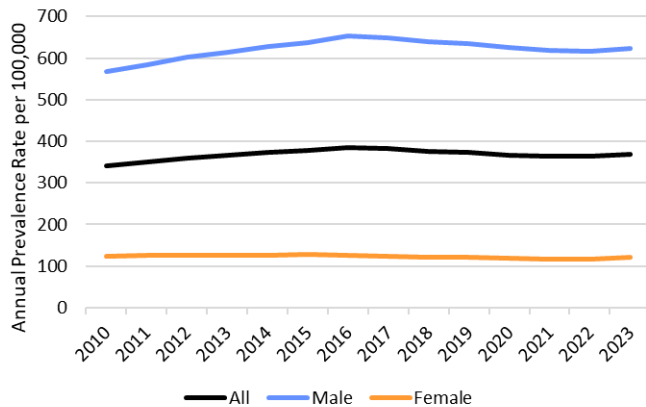
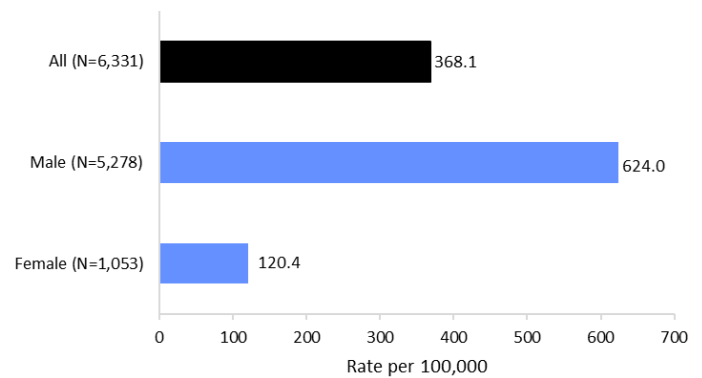


Figure 3.3: Prevalence Rate by Sex Assigned at Birth, Alameda County, Year-End 2023



The prevalence rate among people assigned male at birth is over five times as high as those assigned female at birth. While the rate among men has increased since 2010, the rate among women has remained roughly the same.

Figure 3.4: PLHIV by Gender, Alameda County, Year-End 2023

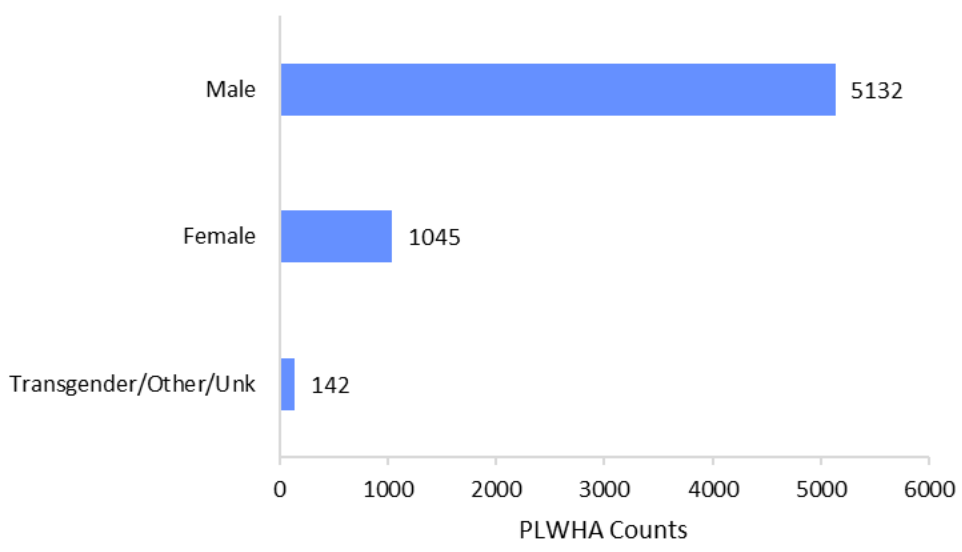
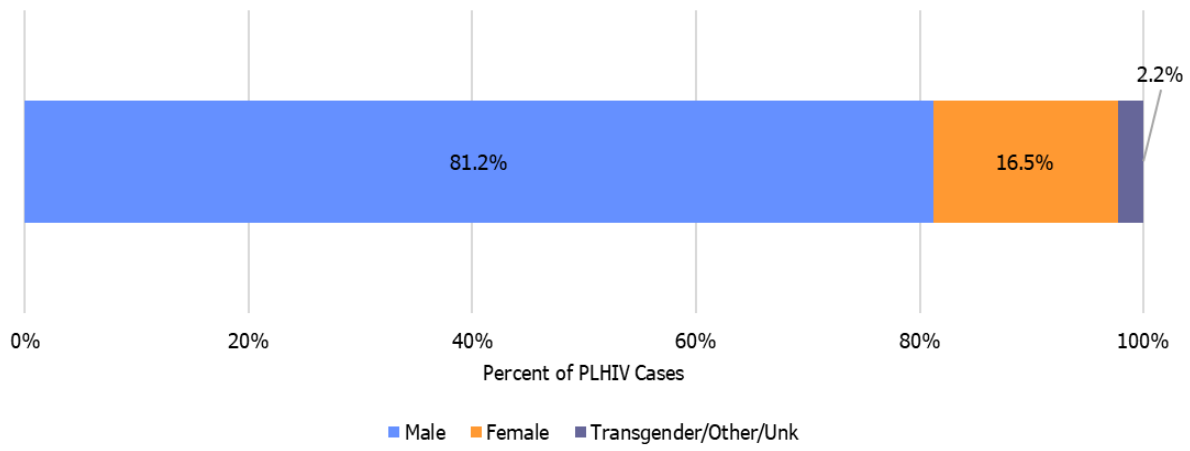


Figure 3.5: Percent of PLHIV by Gender, Alameda County, Year-End 2023



Data regarding gender identity has been difficult to reliably collect and analyze. It is likely the number of people living with HIV identifying as transgender is undercounted, however, greater effort has been made in recent years to improve reporting of current gender. Even with the correct count, a prevalence rate cannot be calculated due to a lack of denominators. With those caveats in mind, an estimated 2.2% of people living with HIV were identified as transgender or another non-binary gender identity.

People living with HIV in Alameda County were predominantly African American (36.8%), White (26.3%), or Latino (24.7%). API comprised a smaller proportion of people living with HIV (7.4%) despite making up a third of Alameda County’s population.

Figure 3.6: PLHIV by Race/Ethnicity, Alameda County, Year-End 2023

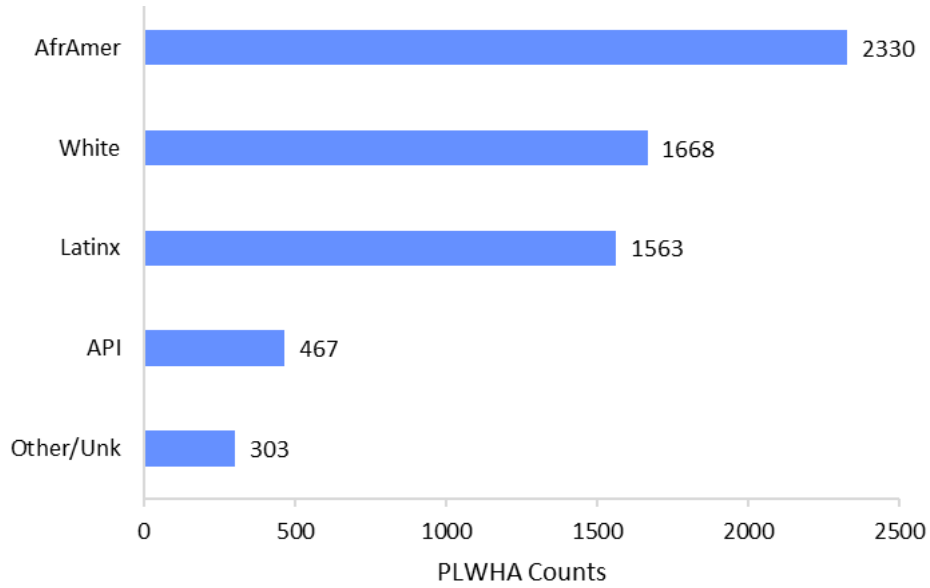


Figure 3.7: Percent of PLHIV by Race/Ethnicity, Alameda County, Year-End 2023

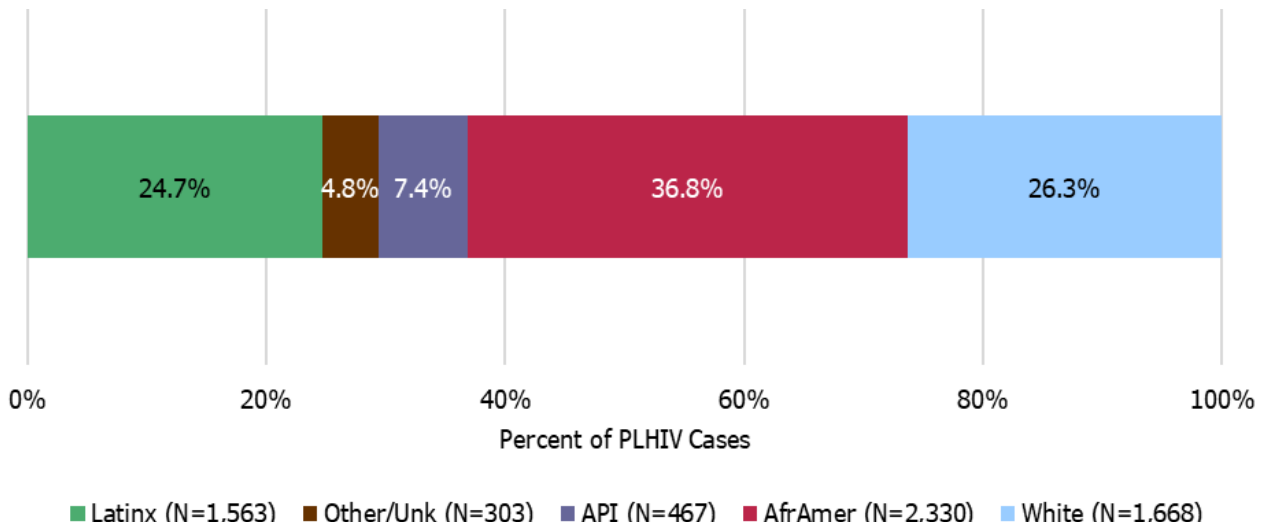




Figure 3.8: Prevalence Rates by Race/Ethnicity, Alameda County, Year-End 2023

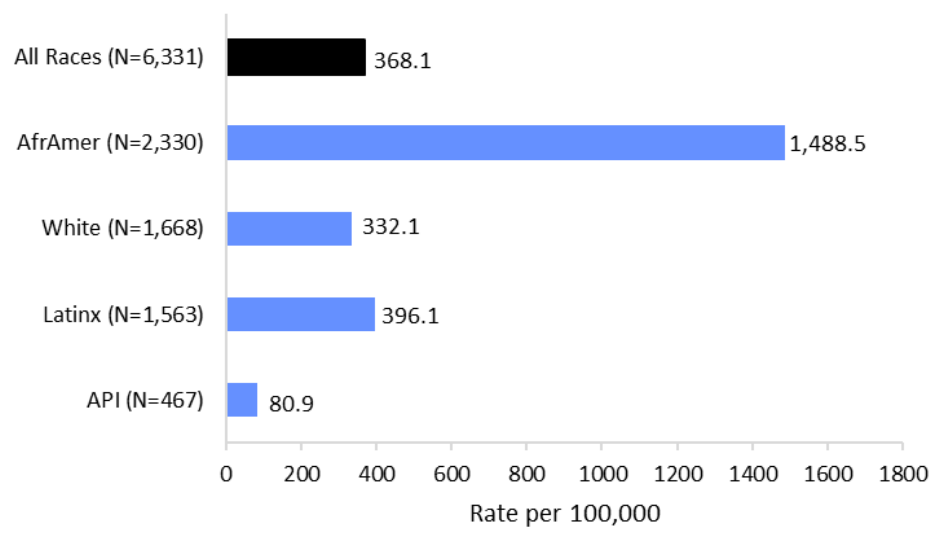
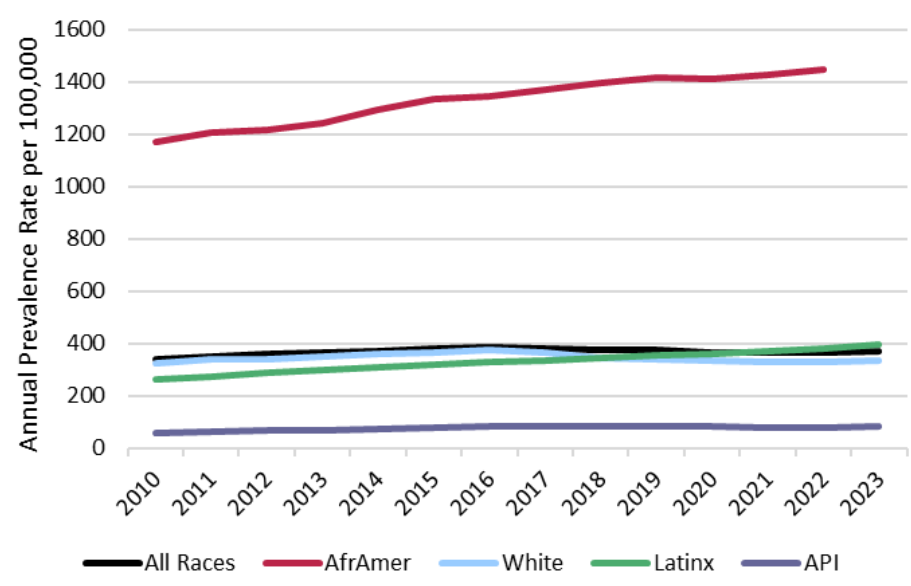


Figure 3.9: Prevalence Rates by Race/Ethnicity and Year, Alameda County, 2010-2023



African Americans had a 3.75 times higher burden of HIV prevalence compared to the next most impacted racial group, Latinx. Prevalence was lowest among API. It is worth noting that while the prevalence rate continues to increase among African Americans, the diagnosis rate continues to fall. This is related to life expectancy for those living with HIV improving over time due to effective medication.

Figure 3.10: Number of PLHIV by Age, Alameda County, Year-End 2023

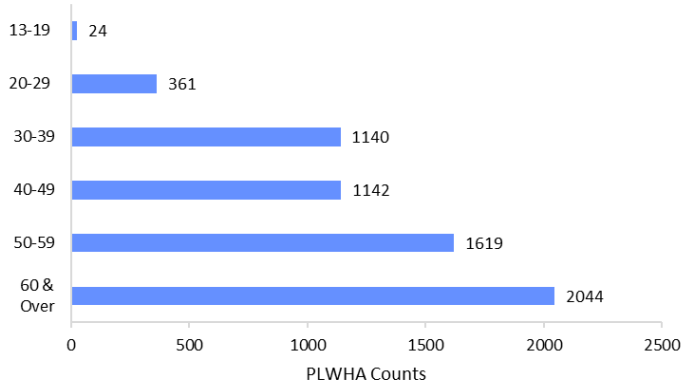


Figure 3.11: Prevalence Rate by Age, Alameda County, Year-End 2023

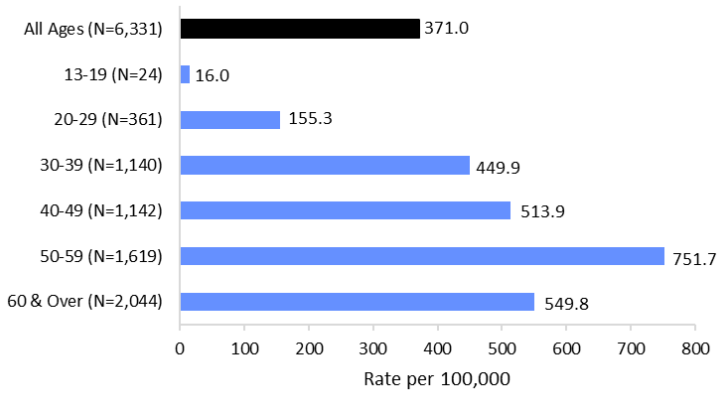
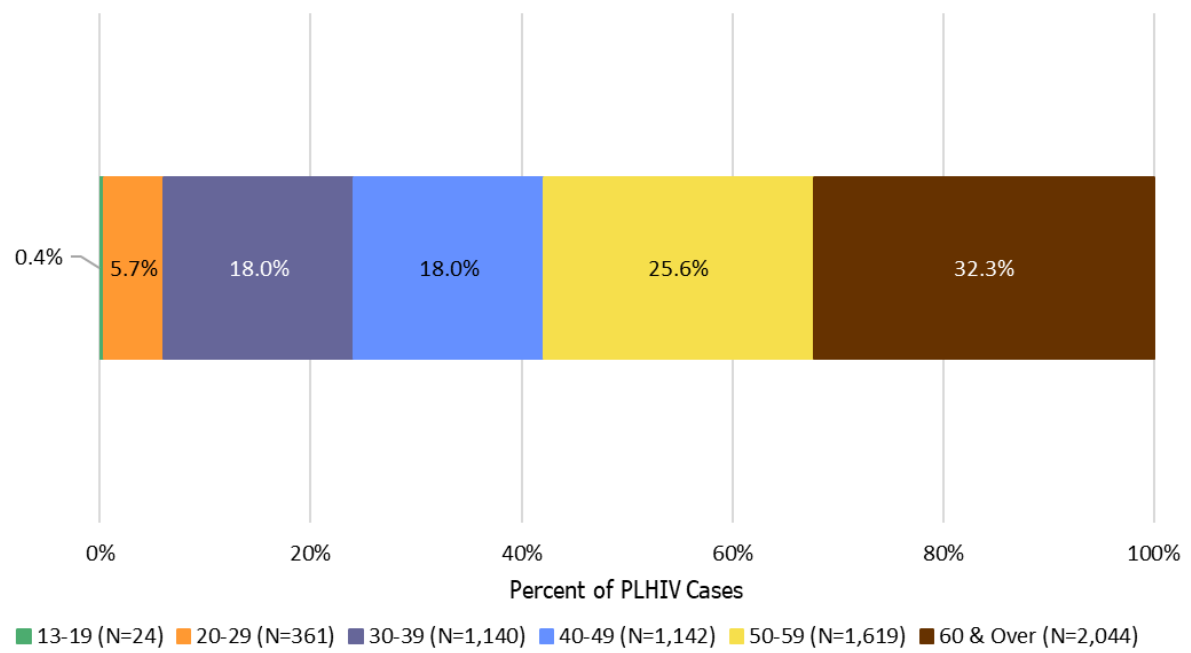


Figure 3.12: Percent PLHIV by Age, Alameda County, Year-End 2023



Over half of people living with HIV are 50 years and older in Alameda County. Fewer than a quarter were in their 30s or younger. The median age was 53 and the mean was 50.5 in 2023.

Figure 3.13: Prevalence Rates by Age and Year, Alameda County, 2010-2023 (younger cohort)

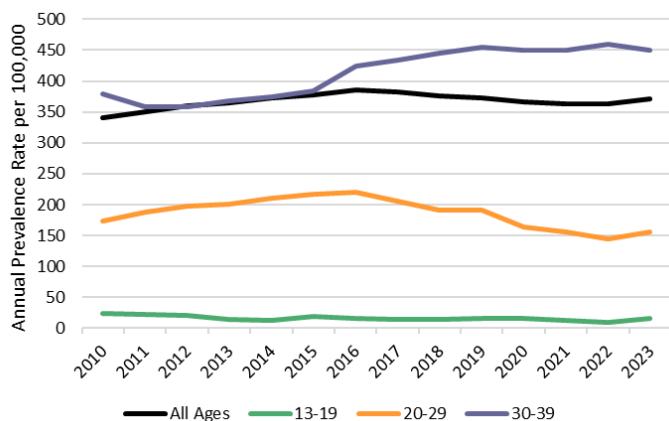
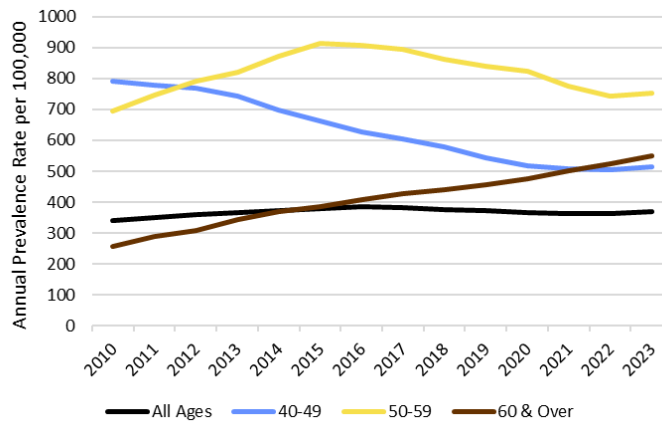


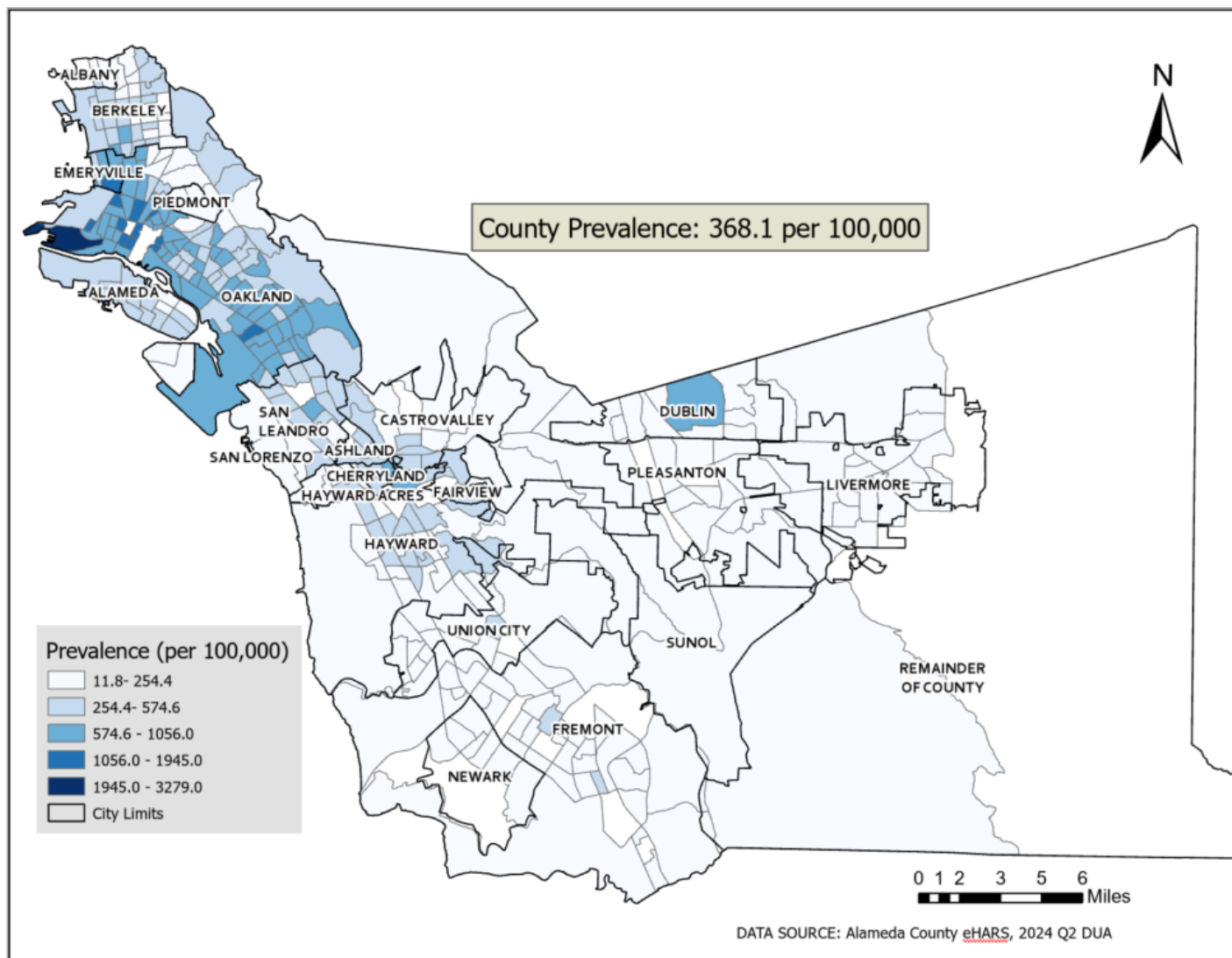
Figure 3.14: Prevalence Rates by Age and Year, Alameda County, 2010-2023 (older cohort)



Prevalence rates have been increasing among those 60 years and over and 30-39 years of age. The prevalence rates in those aged 40-49 years have decreased from around 800 per 100,000 in 2010 to 513.9 per 100,000 in 2023. Of course, individuals will move into older age groups as time passes, contributing to higher prevalence rates among older age groups. HIV prevalence was higher in each successive age group through ages 50-59, ranging from 15.0 per 100,000 youth aged 13 to 19 to a high of 841.3 per 100,000 people aged 50 to 59 years. The number of children aged 0 to 12 living with HIV was too low to estimate a statistically reliable prevalence rate. The increasing prevalence of HIV with age is consistent with the greatly improved survival of people living with HIV in the post-antiretroviral therapy (ART) era.

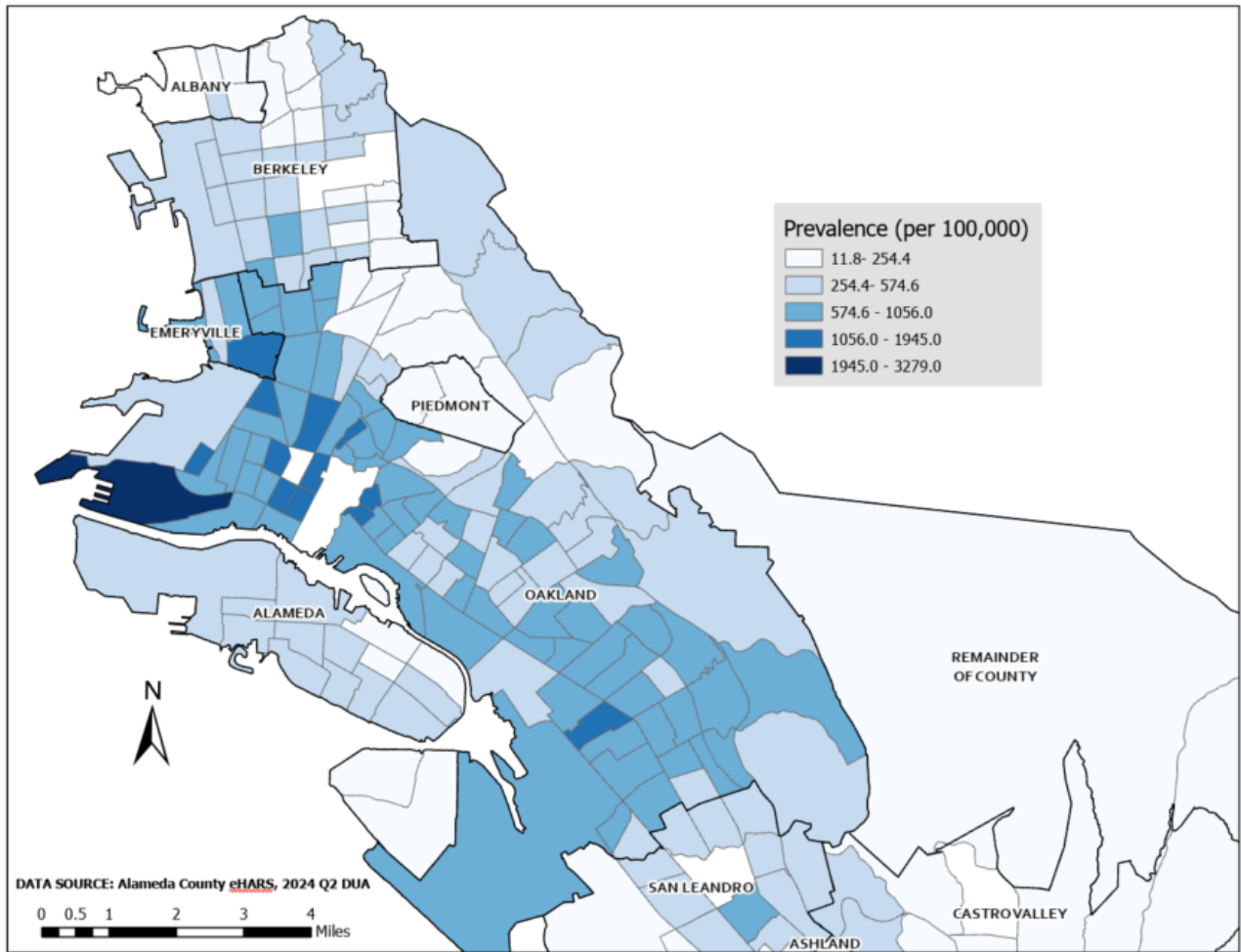
Disparities in prevalence rates by race/ethnicity were more pronounced among females than males. While prevalence in 2023 was almost four times higher among African American males (2355.3 per 100,000) compared to White males (600.0 per 100,000), it was 10 times higher among African American females (714.3 per 100,000) compared to White females (70.0 per 100,000). Additionally, although HIV prevalence was only 11.3% higher among Latino males (667.8 per 100,000) than White males, prevalence was 34.9% higher among Latina females (94.4 per 100,000) than White females.

Figure 3.15: Prevalence of HIV by Census Tract of Residence, Alameda County, Year-End 2023



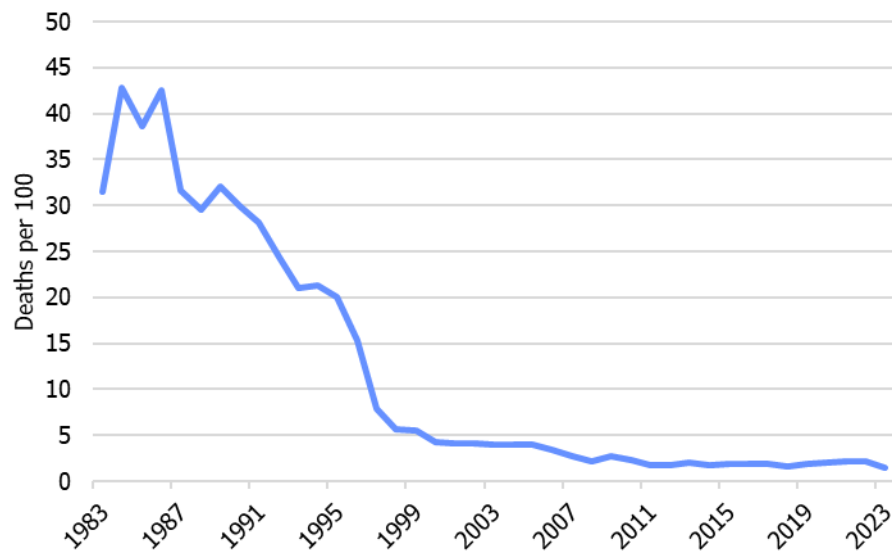
The city of Emeryville had the highest HIV prevalence within Alameda County (1240.5 per 100,000), followed by Oakland (760.9 per 100,000), San Leandro (381.5 per 100,000), and Berkeley (375.8 per 100,000). Among the Oakland neighborhoods, West Oakland, Downtown, and Chinatown had the highest HIV prevalence, up to 2870.7 per 100,000, which translates to almost 3% of all residents in a census tract.

Figure 3.16: Prevalence of HIV by Census Tract of Residence, Oakland and Surrounding Area, Year-End 2023



## Deaths Among Alameda County Residents Ever Diagnosed with AIDS

Figure 3.17: Death Rates by Year among Alameda County Residents Diagnosed with AIDS, Alameda County, 1983-2023



Note: Death rates calculated among persons ever diagnosed with AIDS while a resident of Alameda County, regardless of county of residence at death. Deaths in PLHIV without AIDS are not reported here.

AIDS has been a reportable disease since the early 1980s, allowing examination of long-term trends in death rates among the subset of people living with HIV ever diagnosed with AIDS. In 1985, there were 38.7 deaths (from any cause, whether HIV-related or not) per 100 Alameda County residents ever diagnosed with AIDS. This rate dropped to 7.5 deaths per 100 by 1997 and has declined slowly but steadily since then. In 2023, there were 58 deaths among the 3,705 residents living with AIDS for a rate of 1.5 deaths per 100 residents living with AIDS.



Figure 3.18: Deaths by Year among Alameda County Residents Diagnosed with AIDS, Alameda County, 1983-2023

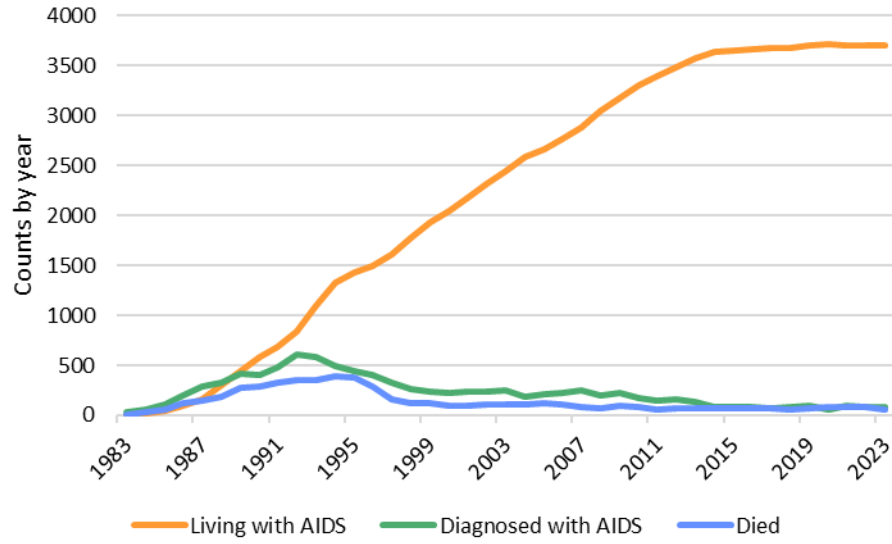
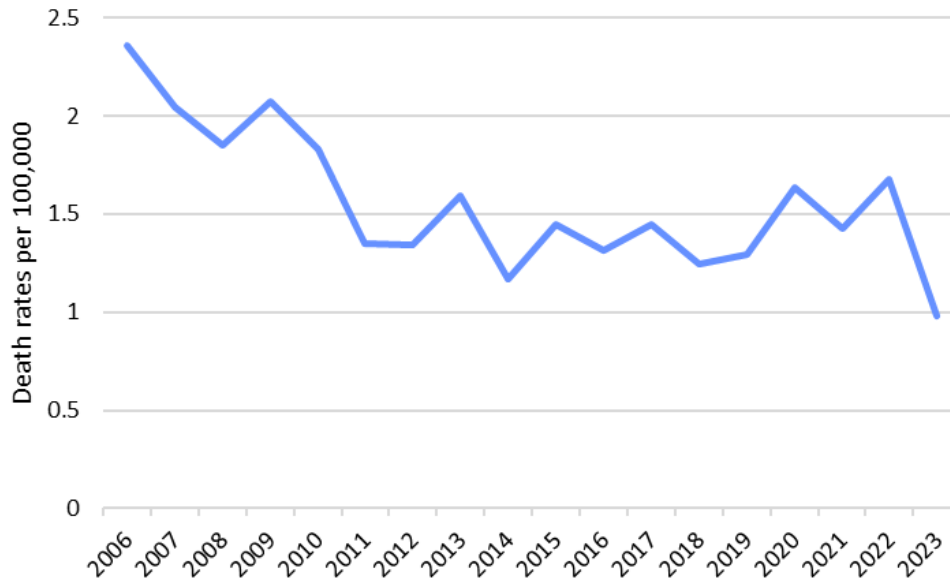


Figure 3.19: Death Rate among PLHIV by Year, Alameda County, 2006-2023



## HIV-MPOX Coinfection

MPOX, formerly known as Monkey Pox, is a communicable disease that can be spread through sexual contact. Since 2022, it has been circulating within the United States. It can be prevented with two doses of a vaccine and presents an acute danger to those who are immunocompromised such as people living with HIV. For that reason, coinfection of MPOX and HIV is of public health importance and vaccination of the community of people living with HIV is a priority for public health departments in areas where MPOX is prevalent.

Figure 3.20: MPOX Cases by Coinfection with HIV, Alameda County, Year-end 2023

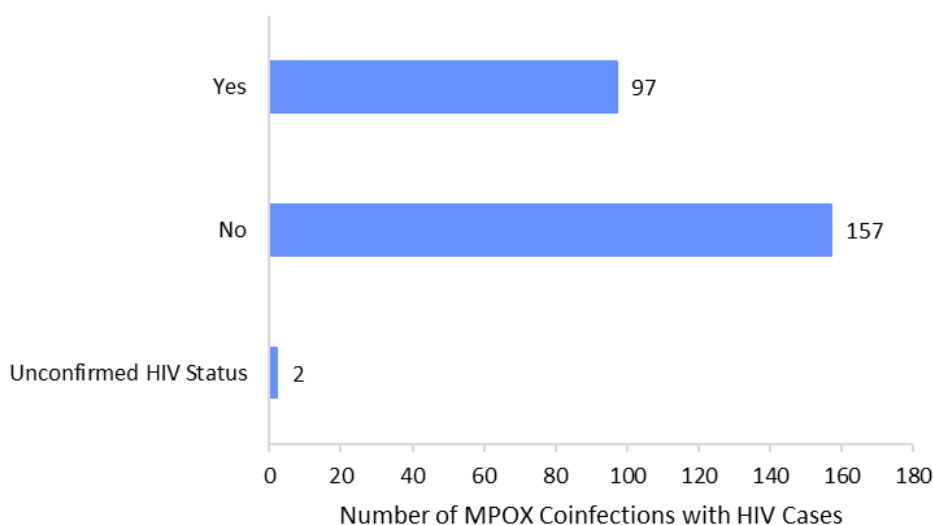
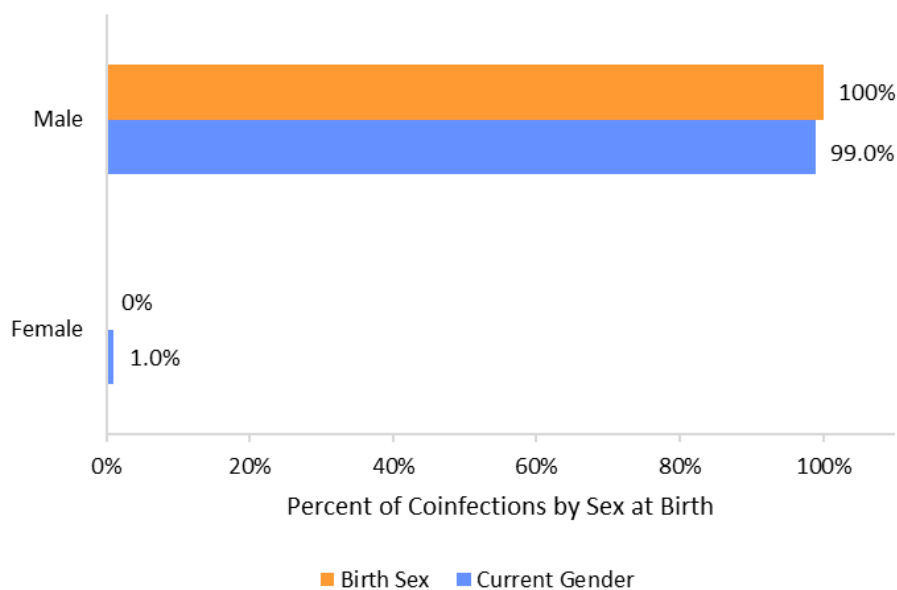


Figure 3.21: MPOX Cases with HIV Coinfection by Gender, Alameda County, Year-end 2023



In Alameda County, of the 254 diagnosed cases of MPOX by year-end 2023, almost 40% (97) were among people living with HIV. Of those coinfecting, all were assigned male at birth and 99% were cisgender men.

Figure 3.22: MPOX Cases with HIV Coinfection by Race/Ethnicity, Alameda County, Year-end 2023

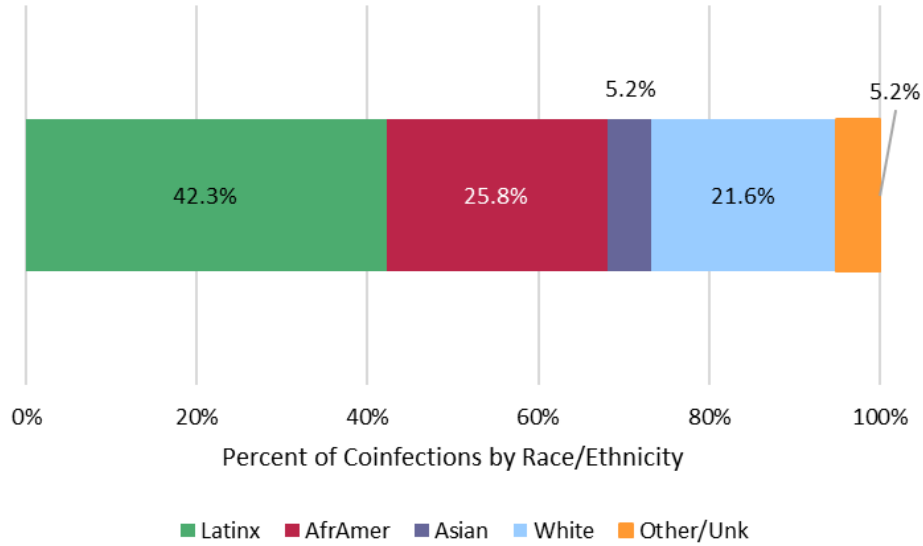
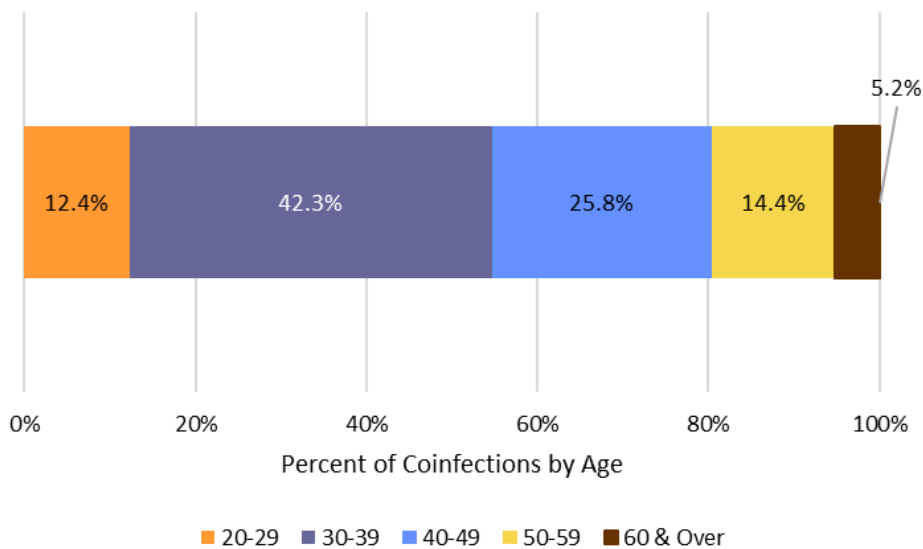
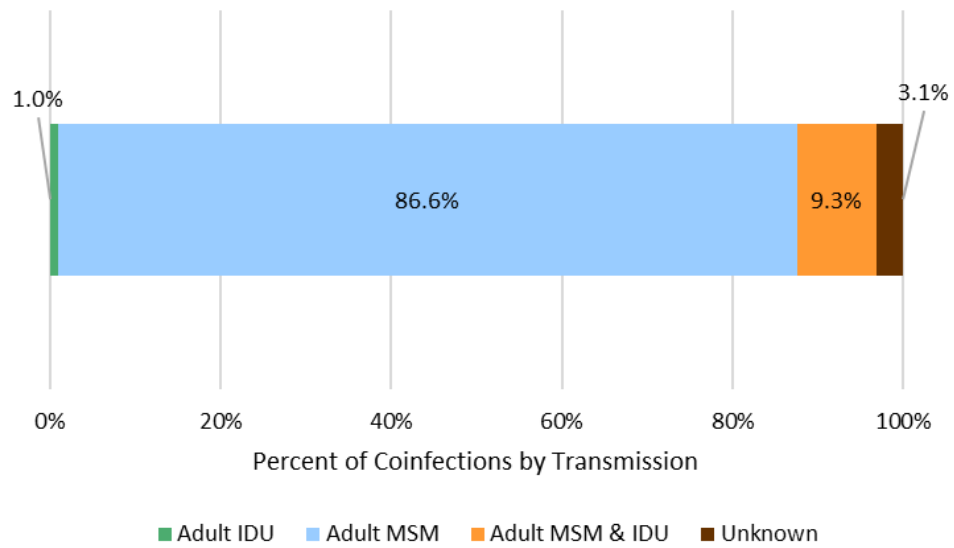


Figure 3.23: MPOX Cases with HIV Coinfection by Age, Alameda County, Year-end 2023



Latinx residents made up a disproportionate number of coinfecting cases relative to their proportion of people living with HIV. Latinx residents were 42.3% of coinfecting cases compared to 24.7% of people living with HIV in 2023 whereas African Americans were 25.8% of coinfecting cases and 36.8% of people living with HIV. Over 68.1% of coinfecting cases were between 30 and 49 years of age.

Figure 3.24: MPOX Cases with HIV Coinfection by Transmission, Alameda County, Year-end 2023



Among those with an MPOX and HIV coinfection, 95.9% were categorized as men who have sex with other men or men who have sex with other men and who inject drugs at the time of their HIV diagnosis.

## Continuum of Care

Anti-retroviral therapy (ART), when taken regularly, can suppress HIV, preventing disease progression as well as preventing the transmission of HIV entirely. Thus, ART benefits people living with HIV as well as the larger community. To maximize these benefits, it is crucial that people living with HIV be diagnosed, linked to and retained in regular HIV care. The prescription of antiretroviral treatment, adherence to treatment and viral suppression is critical for prevention of HIV transmission. Together, these steps comprise the continuum of HIV care or HIV care cascade: Linkage to care, retention in care, and viral suppression.

The CDC's Ending the HIV Epidemic (EHE) initiative aims to achieve 95% of people diagnosed with HIV are linked to care and 95% of those linked to care are virally suppressed by 2025.<sup>4</sup> Alameda County previously reported linkage within 90 days; however, data on 30-day linkage is presented in this year's report to reflect timely linkage. This report defines linkage as a viral load or CD4 test conducted on or after the date of diagnosis. Viral load and CD4 lab tests collected at the same time as diagnosis may not indicate connection to a medical home for care and treatment, however, some organizations have rapid linkage programs that connect patients to care on the same day as diagnosis. In this report, linkage percentages for both definitions are reported, defined by if viral loads and CD4 tests on the date of diagnosis were included or excluded.

Evaluation of care for people living with HIV is shown through two measures: engagement in care—defined as at least one provider visit in a year, and retention—defined as two or more visits at least 90 days apart.

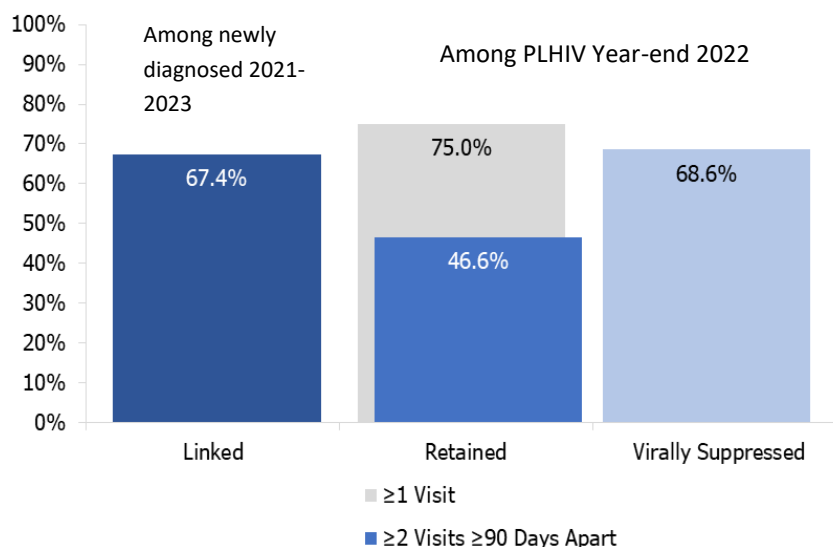
In the United States, the CDC estimated that 81.6% of persons aged 13 year and over diagnosed from January 2022 through September 2023 were linked to care within one month. Additionally, the CDC estimated that among all people living with HIV aged 13 years and older diagnosed by 2021 and alive at year-end 2022, 75.6% received any HIV care, 53.8% were retained in continuous care, and 65.1% were virally suppressed.<sup>4</sup>

In California, 82.1% of those diagnosed in 2022 were estimated to have linked to care within one month.<sup>4</sup> Among those living with diagnosed HIV in California, 73.7% were estimated to have received any HIV care in 2022 and 64.7% were estimated to have been virally suppressed at the last test.<sup>5</sup>

This chapter examines the continuum of HIV care in Alameda County and select metrics for the Data to Care program. Care outcomes are described by demographics such as race/ethnicity, age, sex at birth, and gender.

## The Overall Continuum of Care

Figure 4.1: The Continuum of HIV Care among Newly Diagnosed 2021-2023 and People Living with HIV in 2022, Alameda County



Notes: 1) Of 602 total new diagnoses, 4 died within 30 days and were excluded from analysis.  
2) Of 6,192 PLHIV at year-end 2021, 101 were known to have died and an additional 425 to have moved out of Alameda County in 2022 and were excluded from analysis.

In Alameda County, 67.4% of new diagnoses between 2021 and 2023 were linked to care within 30 days if HIV-related labs done on the date of diagnosis were excluded; 88.6% were linked to care if labs done on the date of diagnosis were included. Approximately 46.6% of people living with HIV who resided in Alameda County for the entirety of 2022 had two or more visits 90 or more days apart and were considered retained in care. Viral suppression was estimated to be 68.6% that same year.

### Linkage to Care

The following figures are the 30-day linkage to care estimates for Alameda County. Both estimates of linkage to care are presented—one that includes labs done on the date of diagnosis and another that excludes them—providing a range of what might be considered linked to care.

Overall, 88.6% of those diagnosed with HIV in Alameda County from 2021 to 2023 were linked to HIV care within 30 days of their diagnosis. Excluding labs ordered on the date of diagnosis, 67.4% of newly diagnosed cases were linked. Differences by sex were not statistically significant.

Excluding labs conducted on the same day as diagnosis, linkage was lowest among Latinx residents (60.2%) and highest among White residents (75.0%). However, when including labs on the day of diagnosis, Latinx had 90.2% linkage compared to Whites with 85.9%.



Figure 4.2: Linkage to Care by Inclusion of Date of Diagnosis Lab, Alameda County, 2021-2023

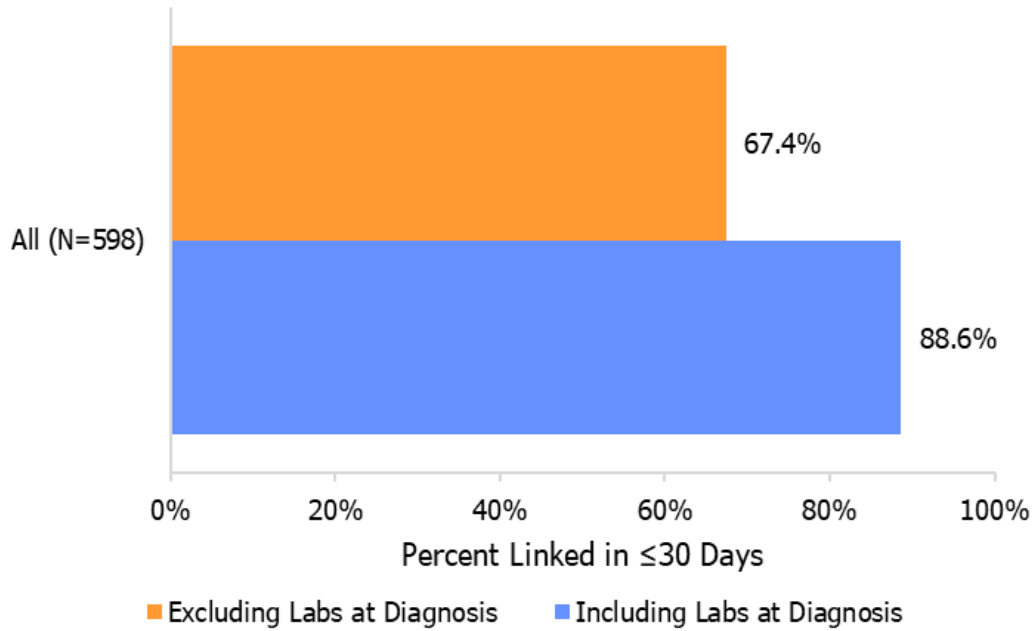
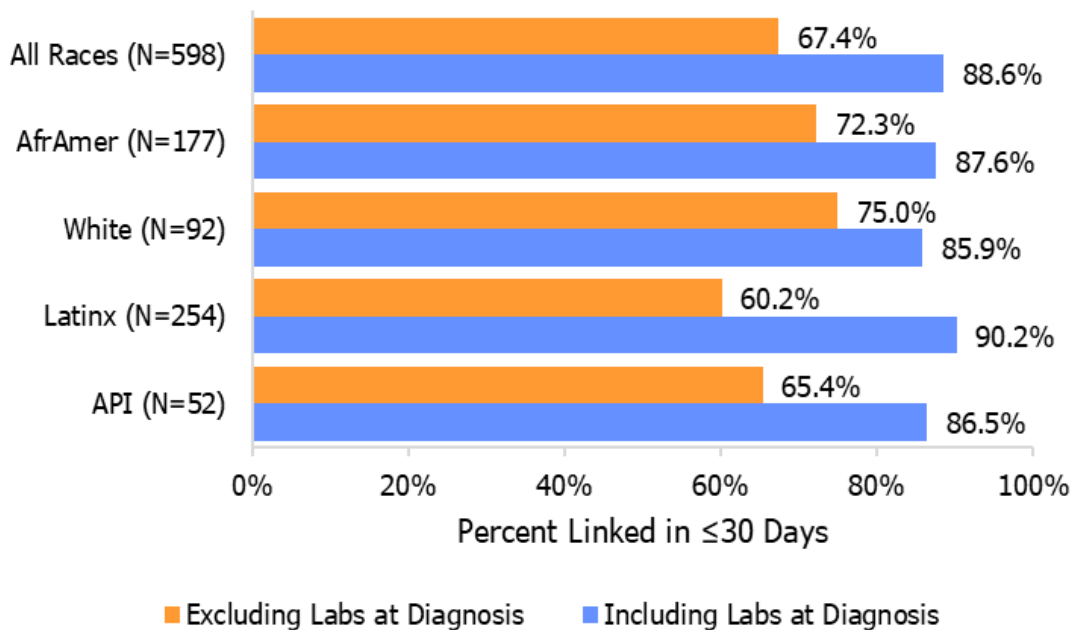


Figure 4.3: Linkage to Care in 30 Days by Race/Ethnicity, Alameda County, 2021-2023



Linkage was lowest among ages 25 to 29 years and highest among ages 13 to 19 years and greater than 49 years at 87.5% and 72.2%, respectively, although the youngest age group only contained 16 individuals. Linkage was higher among people designated male at birth than female. By gender, linkage was lowest among cis women at 66.3%.

Figure 4.4: Linkage to Care in 30 Days by Age, Alameda County, 2021-2023

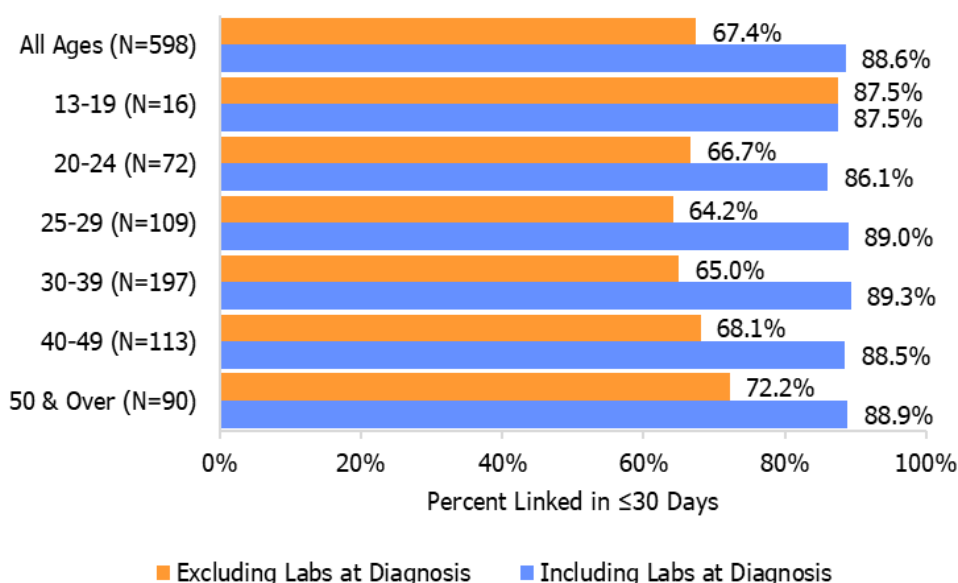


Figure 4.5: Linkage to Care in 30 Days by Sex at Birth, Alameda County, 2021-2023

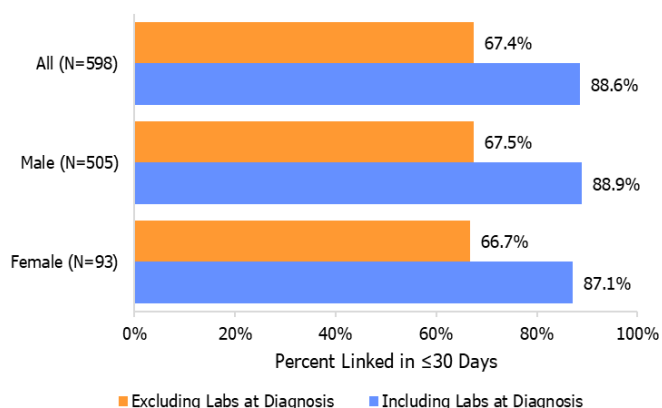
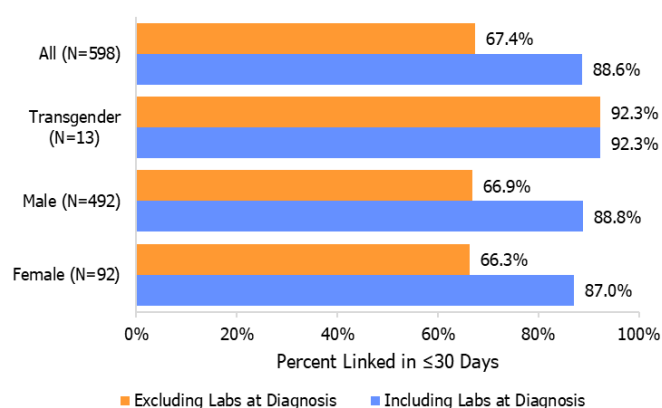
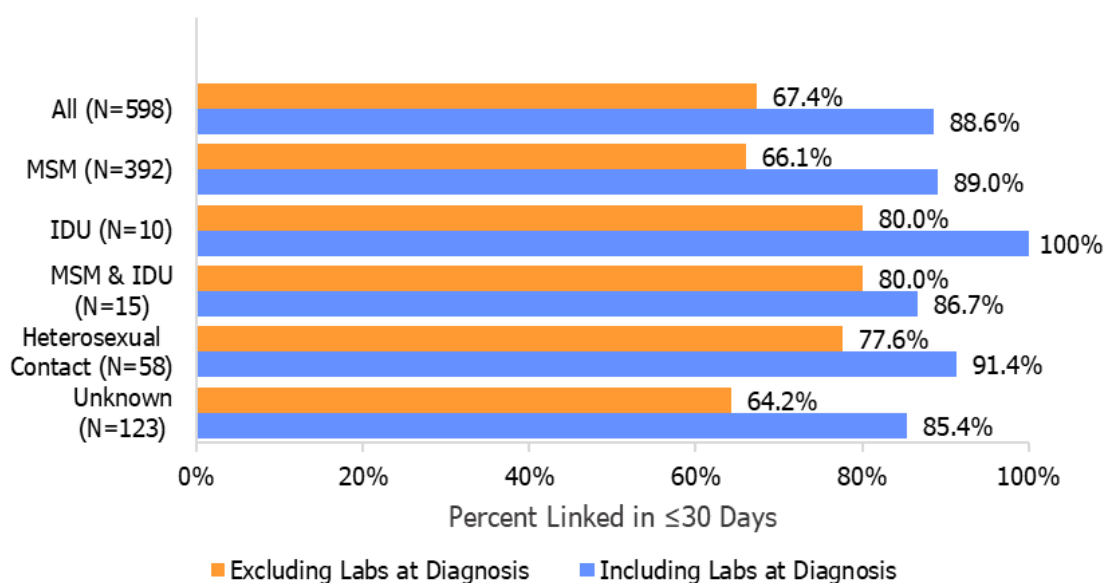


Figure 4.6: Linkage to Care in 30 Days by Gender, Alameda County, 2021-2023



Note: "Sex" refers to sex assigned at birth.

Figure 4.7: Linkage to Care in 30 Days by Transmission Category, Alameda County, 2021-2023



Gay, bisexual and other men who have sex with men and persons who have an unknown transmission risk had the lowest linkage of 66.1% and 64.2%. The highest percentages were among people who inject drugs and men who have sex with other men and who inject drugs with 80.0% linkage, though both groups had relatively few individuals.

## Retention in Care

In 2022, 75% of people living with HIV were engaged in care, which is defined as one or more visits to an HIV care provider as indicated by a new lab result. This differs from retention which requires two or more HIV lab results at least 90 days apart in a calendar year. One limitation of these definitions is that some persons may have had a provider visit without any laboratories drawn. People living with HIV that died or moved in 2022 were excluded from all analyses of retention in care.

In 2022, 46.6% of people living with HIV were retained in care, i.e., had two or more labs 90 or more days apart.

Percentages of retention in HIV care were highest among Asian/Pacific Islander (50.1%) and Latinx (47.5%) people living with HIV in 2022. The lowest percentage was 45.4% of African American people living with HIV retained in care.

People living with HIV aged 30 to 49 years at the end of 2022 had the lowest percentages of retention in care; younger and successively older age groups had higher percentages of retention. Retention was highest among those aged 13 to 19 years and 60 years and over; however, the number of people living with HIV aged 13 to 19 years was small. People living with HIV designated male at birth had higher percentages of retention than those designated female at birth. When stratifying by gender, transgender people living with HIV had the highest retention percentages.

Figure 4.8: Engagement and Retention in Care by Race/Ethnicity, Alameda County, 2022

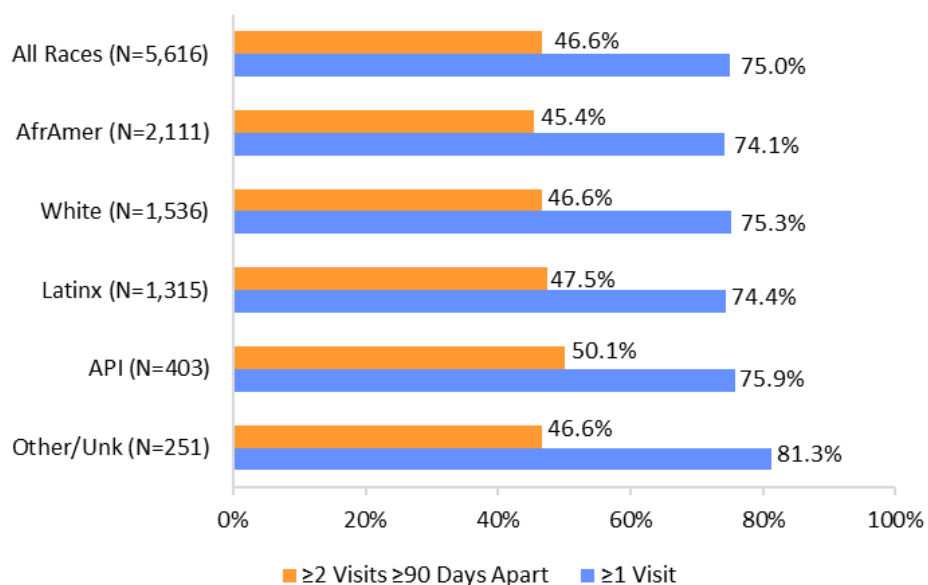


Figure 4.9: Engagement and Retention in Care by Age, Alameda County, 2022

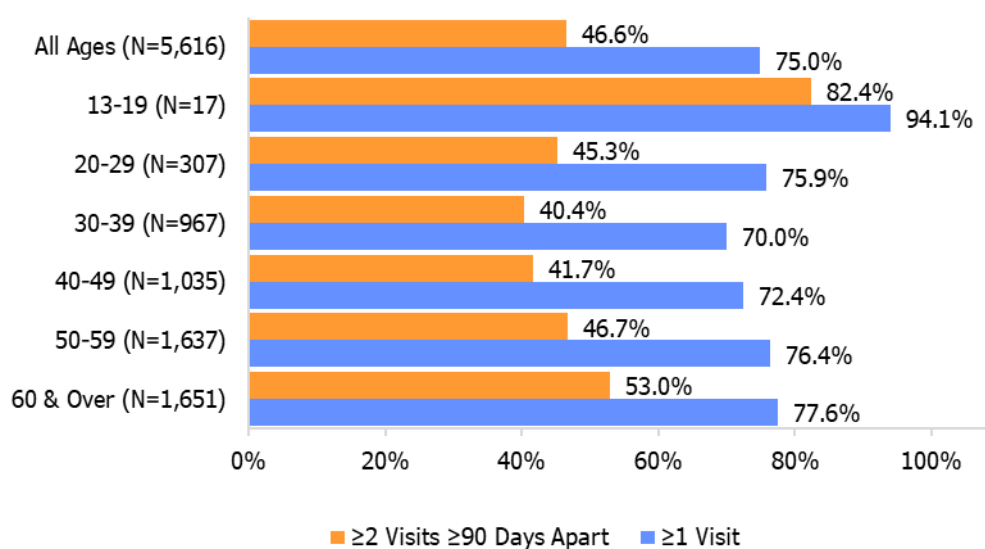
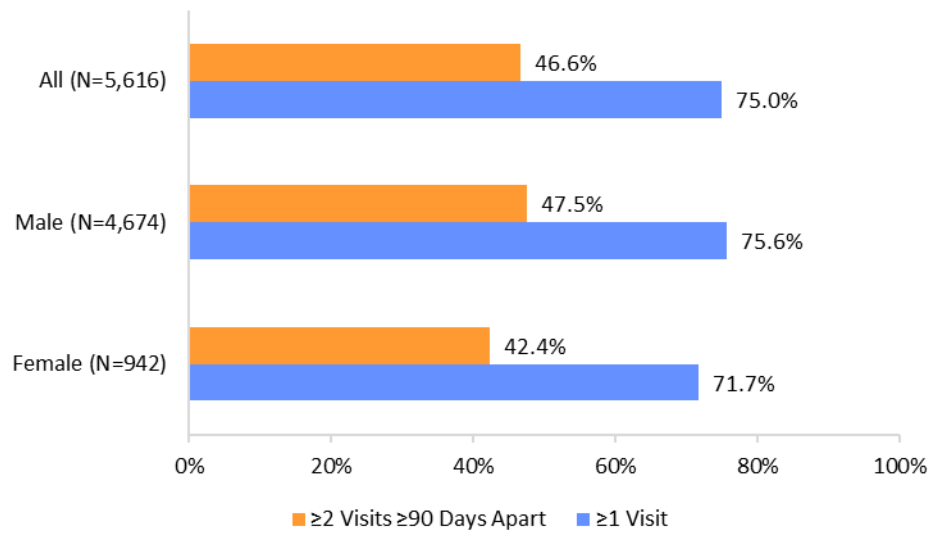
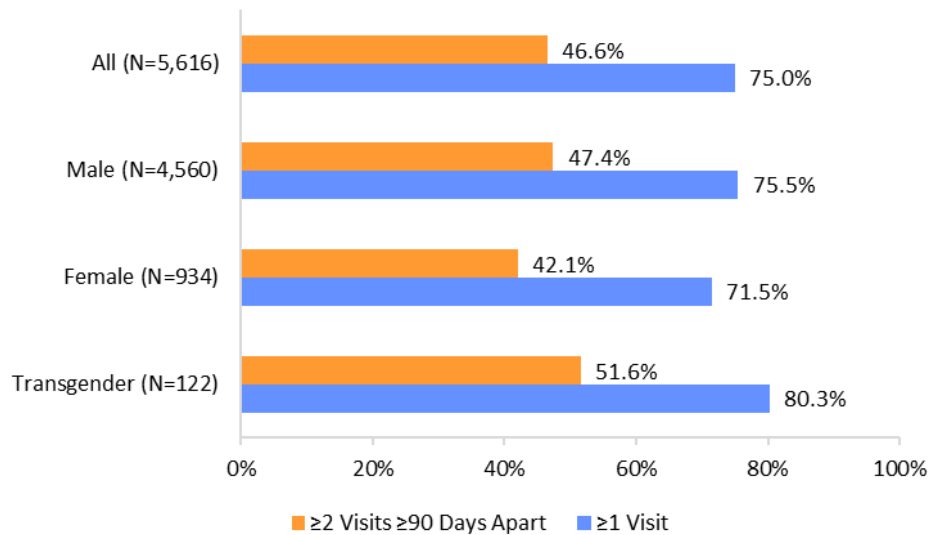


Figure 4.10: Engagement and Retention in Care by Birth Sex, Alameda County, 2022



Note: "Sex" refers to sex assigned at birth.

Figure 4.11: Engagement and Retention in Care by Gender, Alameda County, 2022



The highest retention percentages were recorded in the county's northern region including Oakland, Berkeley, Alameda, and Emeryville. It is worth noting that the number of people living with HIV in the south county is much lower and therefore proportions are prone to larger shifts based on just a few individuals. Within Oakland, the lowest retention percentages were in North Oakland, the Northwest Hills, and the San Antonio neighborhoods.

Figure 4.12: Retention in Care by City/Place, Alameda County, 2022

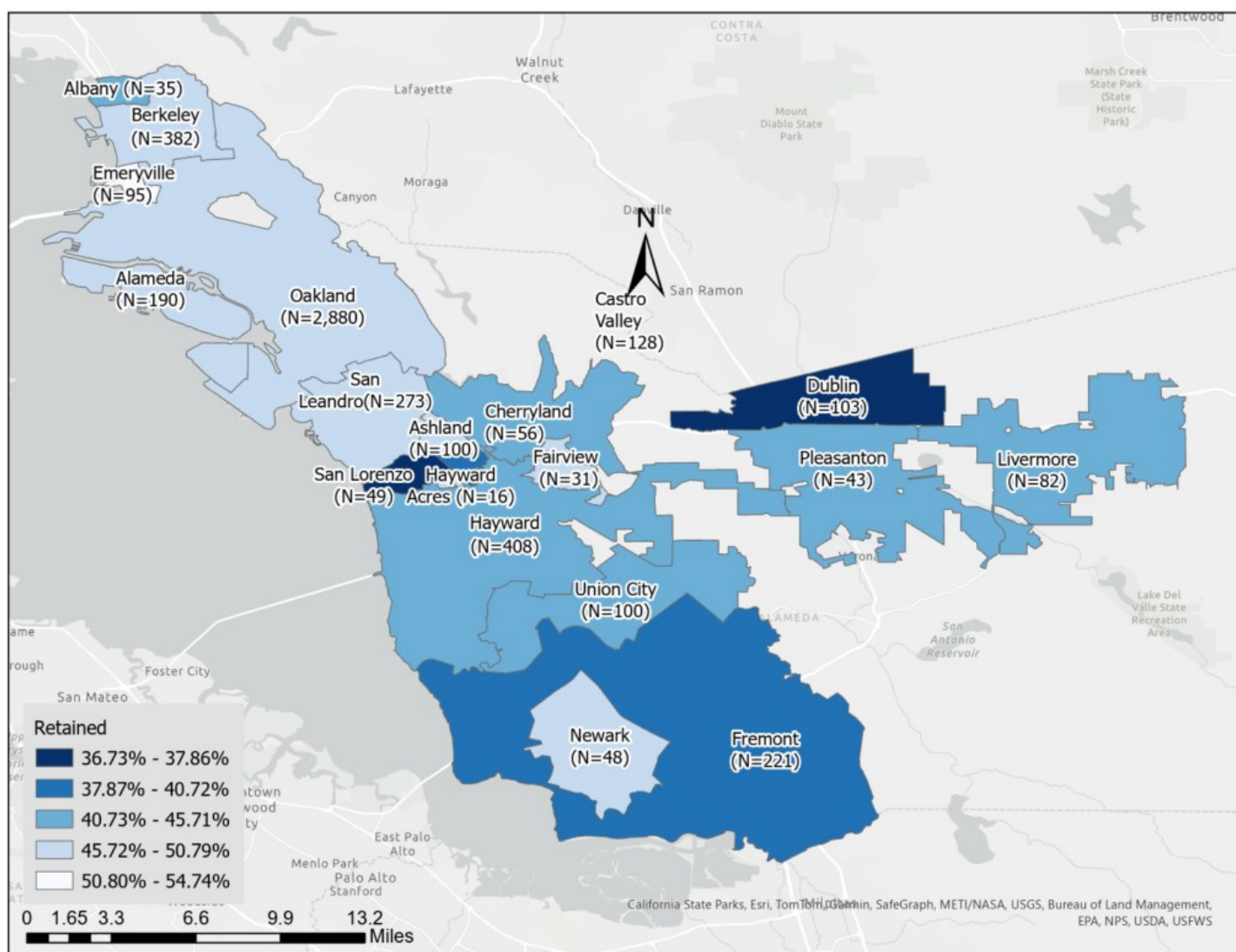




Figure 4.13: Retention in Care by Region, Alameda County, 2022

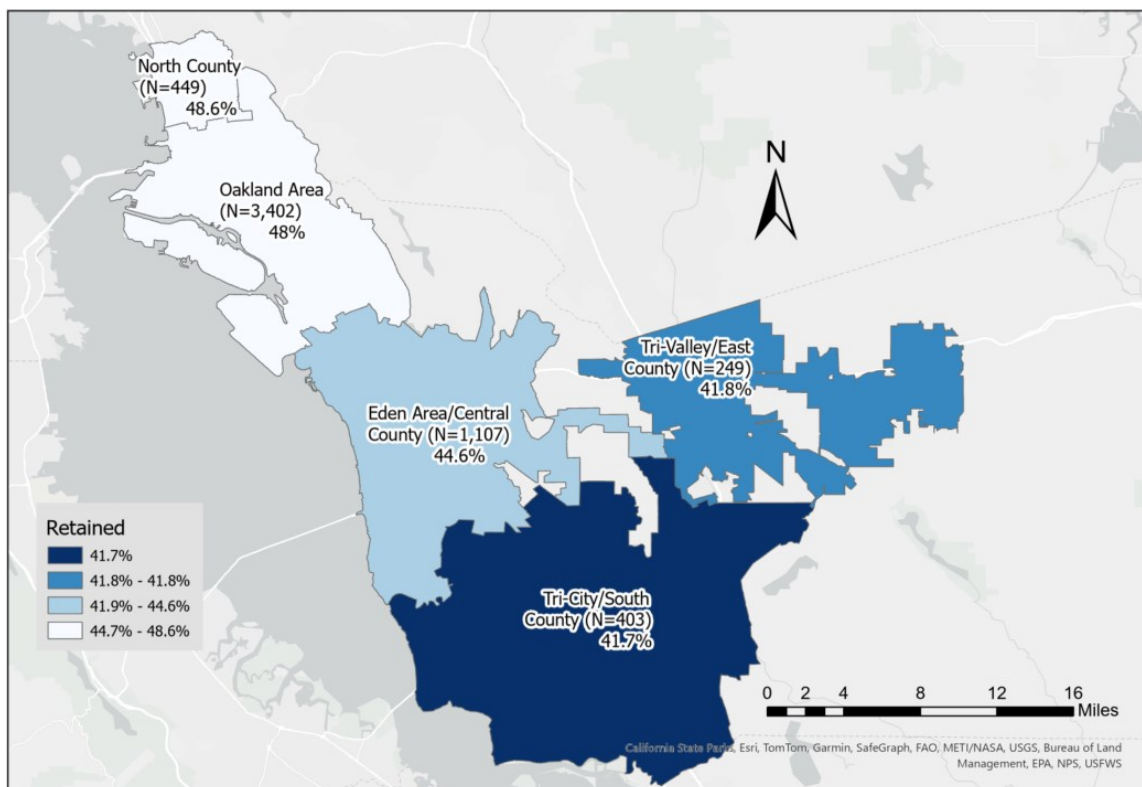
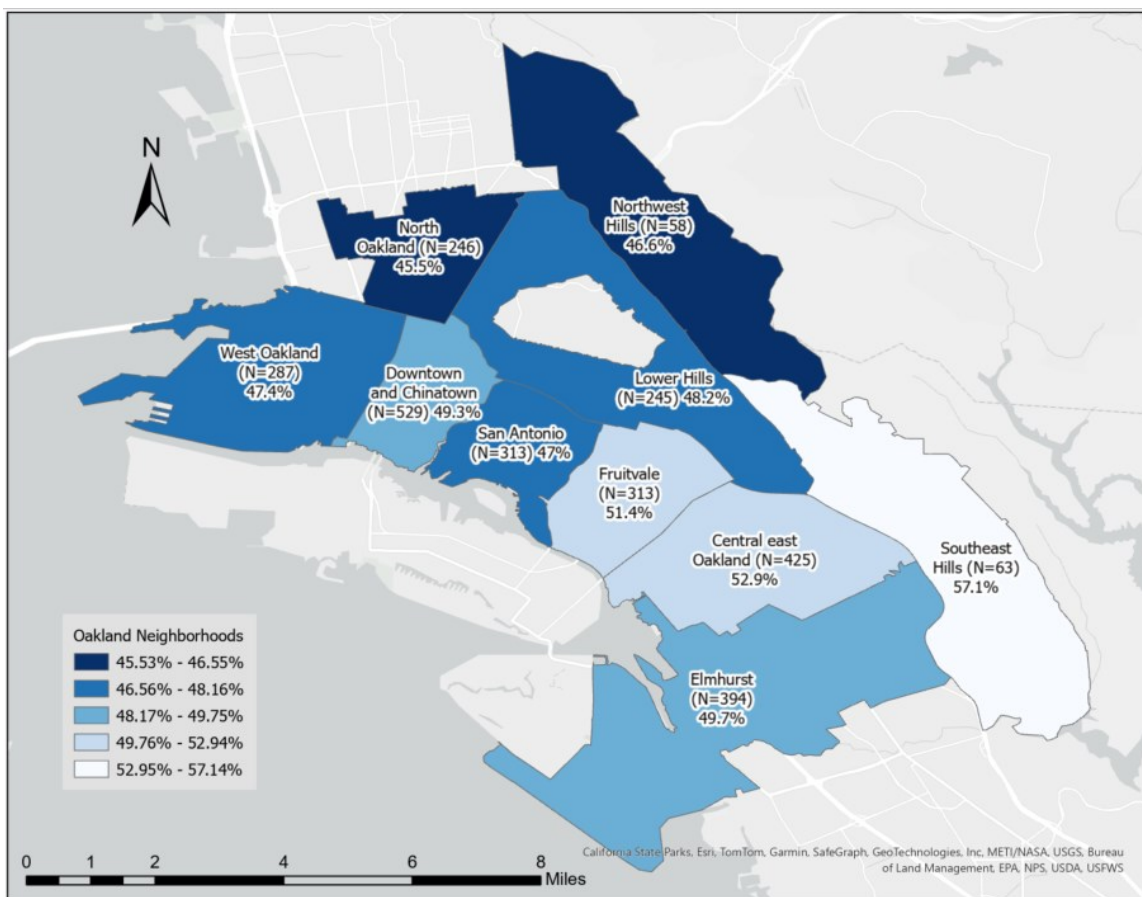


Figure 4.14: Retention in Care by Oakland Neighborhood, Alameda County, 2022



Retention percentages were nearly equivalent between US-born and non-US-born people living with HIV. Engagement was lower among non-US-born people living with HIV. Those born in Europe had the lowest engagement and retention whereas those born in Asia had the highest.

Figure 4.15: Engagement and Retention by Nativity Status among PLHIV, Alameda County, 2022

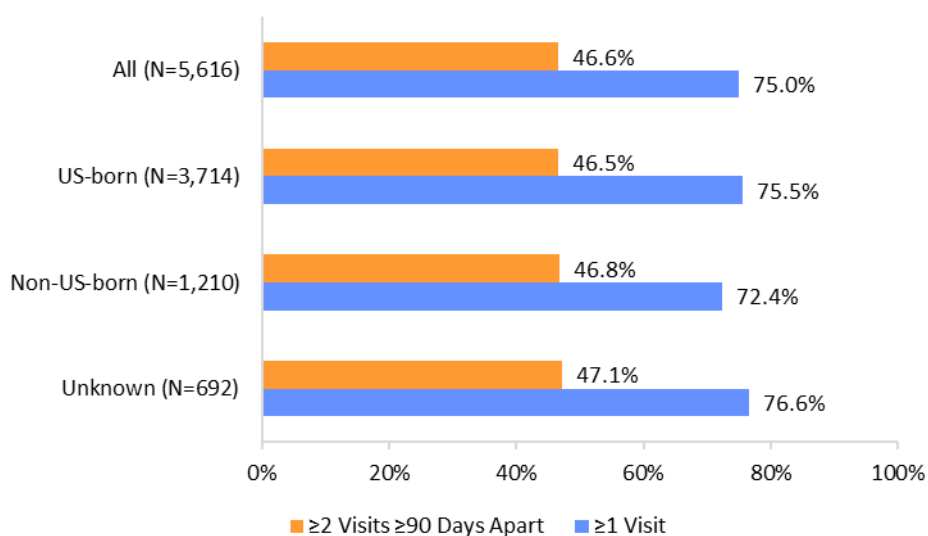
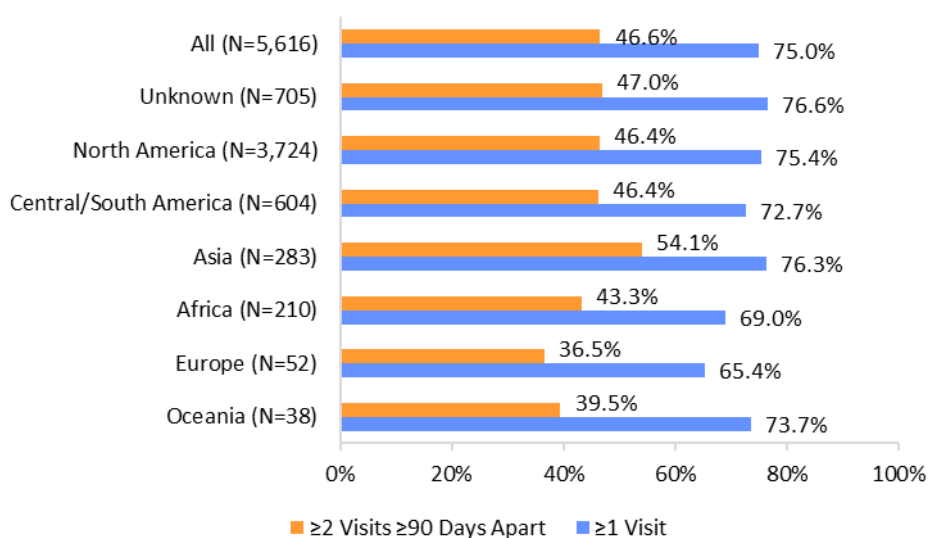


Figure 4.16: Engagement and Retention by Region of Origin among PLHIV, Alameda County, 2022



## Virologic Suppression

The final measure along the care continuum is virologic suppression, defined as a viral load under 200 copies/mL. For the purposes of these analyses, an undetectable viral load is defined as 75 copies/mL or less. A person whose viral load is undetectable is also virally suppressed, but not everyone who is virally suppressed has an undetectable viral load. People living with HIV that died or moved in 2022 were excluded. Disparities in virologic suppression among people living with HIV in care can suggest possible differences in ART use or access to care.

Approximately 68.6% of people living with HIV were virally suppressed at their most recent test in 2022, with the majority being undetectable.

In 2022, 71.2% of White people living with HIV were virally suppressed. Viral suppression was 66.0% among African Americans. Percentages of viral suppression by age mirrored the patterns of retention in care, ranging from 61.2% among those ages 30 to 39 to 73.3% among those ages 60 and over. Viral suppression was highest among people assigned male at birth as well as cis men.

Figure 4.17: Viral Suppression by Race/Ethnicity, Alameda County, 2022

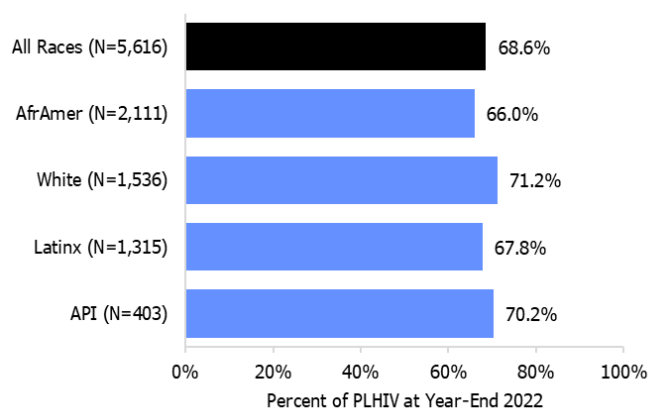
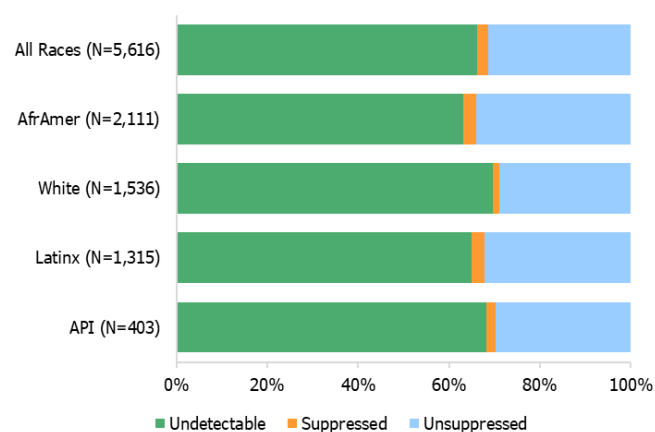


Figure 4.18: Viral Loads by Race/Ethnicity, Alameda County, 2022



The "Suppressed" bar indicates a person who's most recent VL lab in 2022 was between 75 and 200 copies/mL.

Figure 4.19: Viral Suppression by Age, Alameda County, 2022

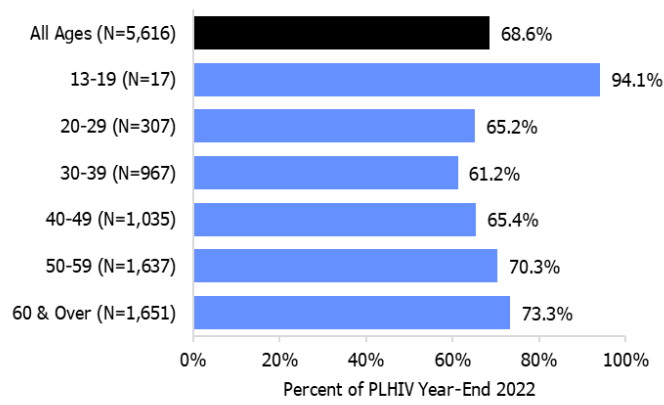
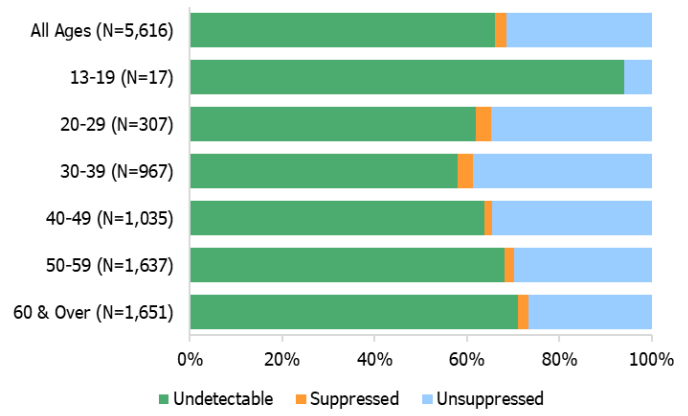


Figure 4.20: Viral Loads by Age, Alameda County, 2022



The "Suppressed" bar indicates a person who's most recent VL lab in 2022 was between 75 and 200 copies/mL.

Figure 4.21: Viral Suppression by Birth Sex, Alameda County, 2022

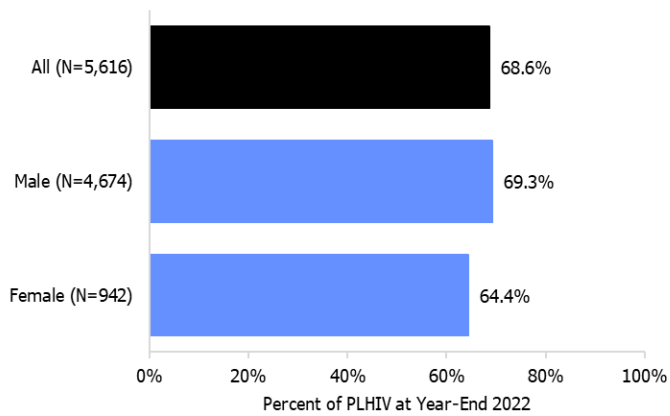
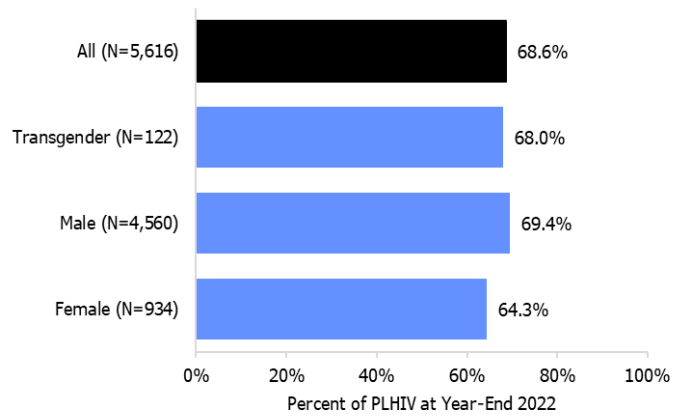


Figure 4.22: Viral Suppression by Gender, Alameda County, 2022



Within a city/place, the percent of persons living with HIV who had viral suppression were highest in Fairview, San Lorenzo, Albany, Emeryville and Alameda and lowest in Dublin and South County. Dublin houses Santa Rita Jail and is impacted by the unique traits of the incarcerated population there. In Oakland the lowest percentages of persons with viral suppression were in West Oakland and Elmhurst.

Figure 4.23: Percentage of PLHIV with Viral Suppression by City/Place, Alameda County, 2022

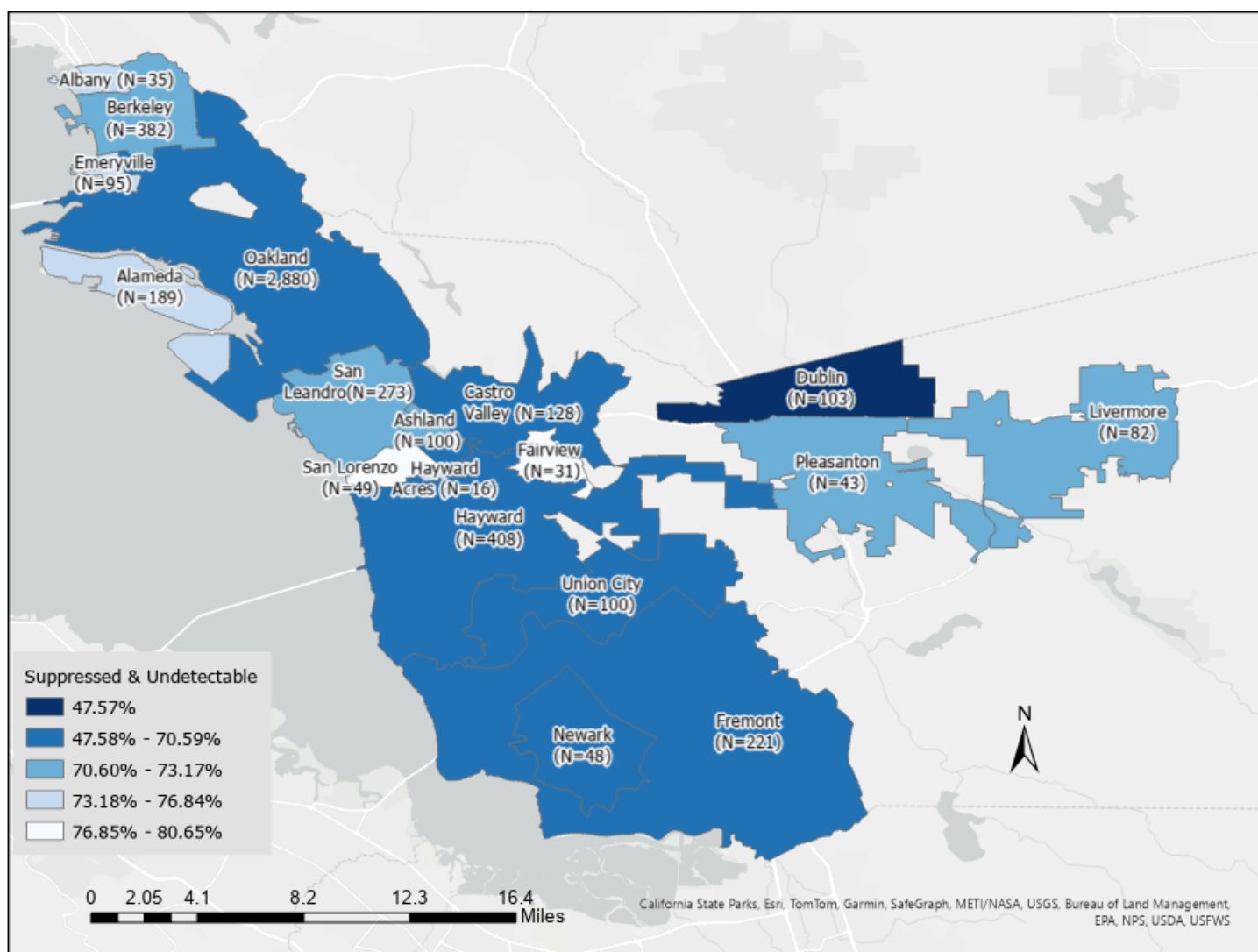


Figure 4.24: Percentage of PLHIV with Viral Suppression by Region, Alameda County, 2022

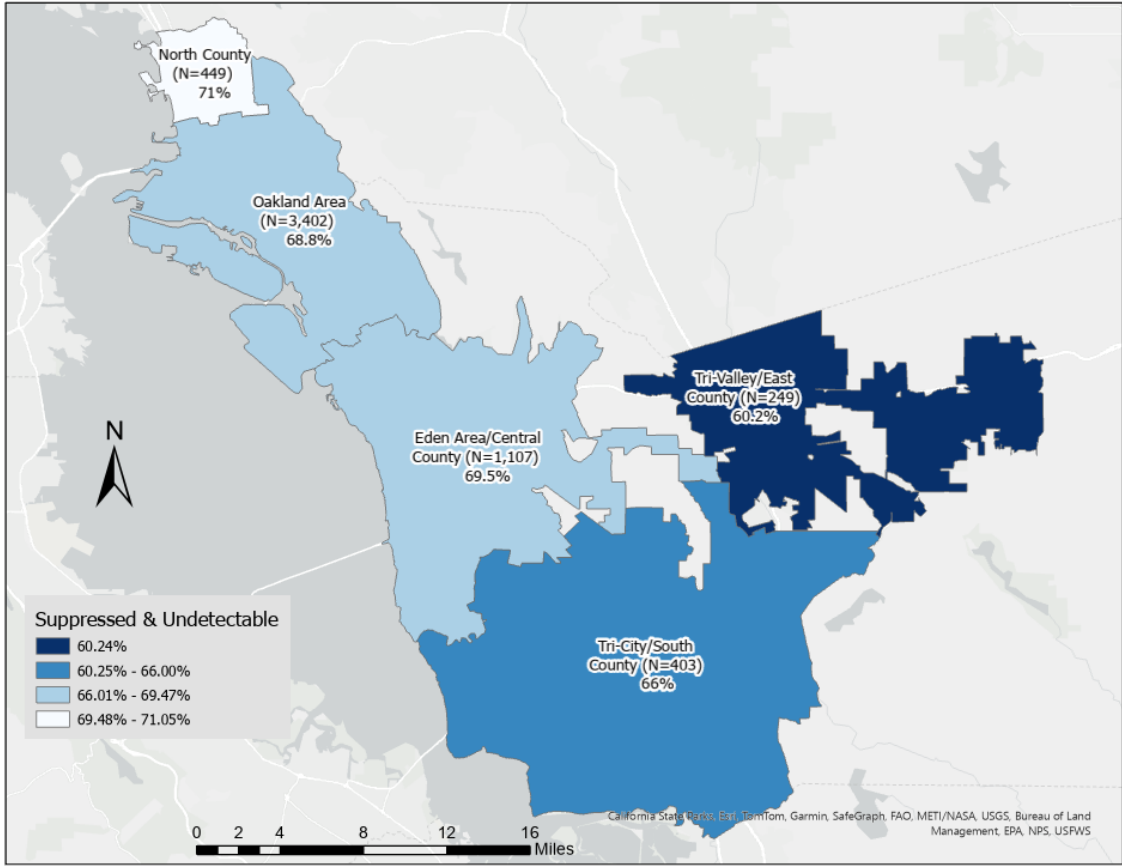
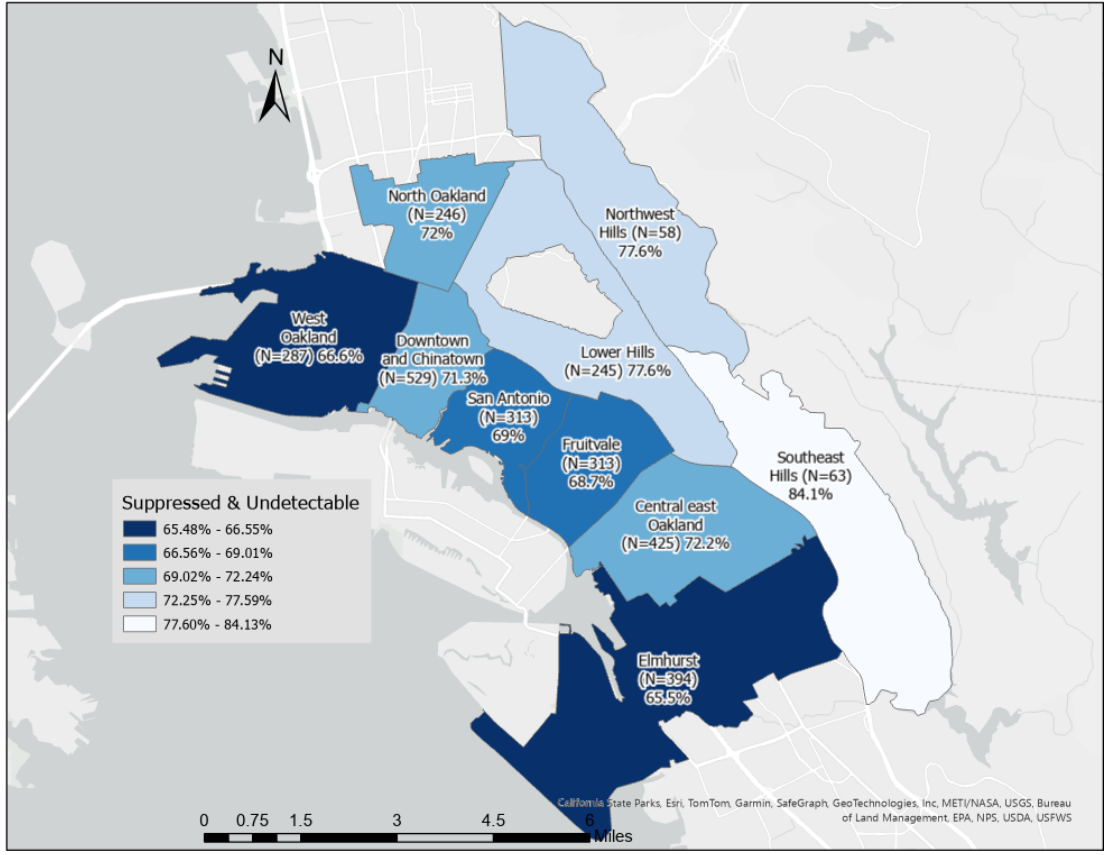
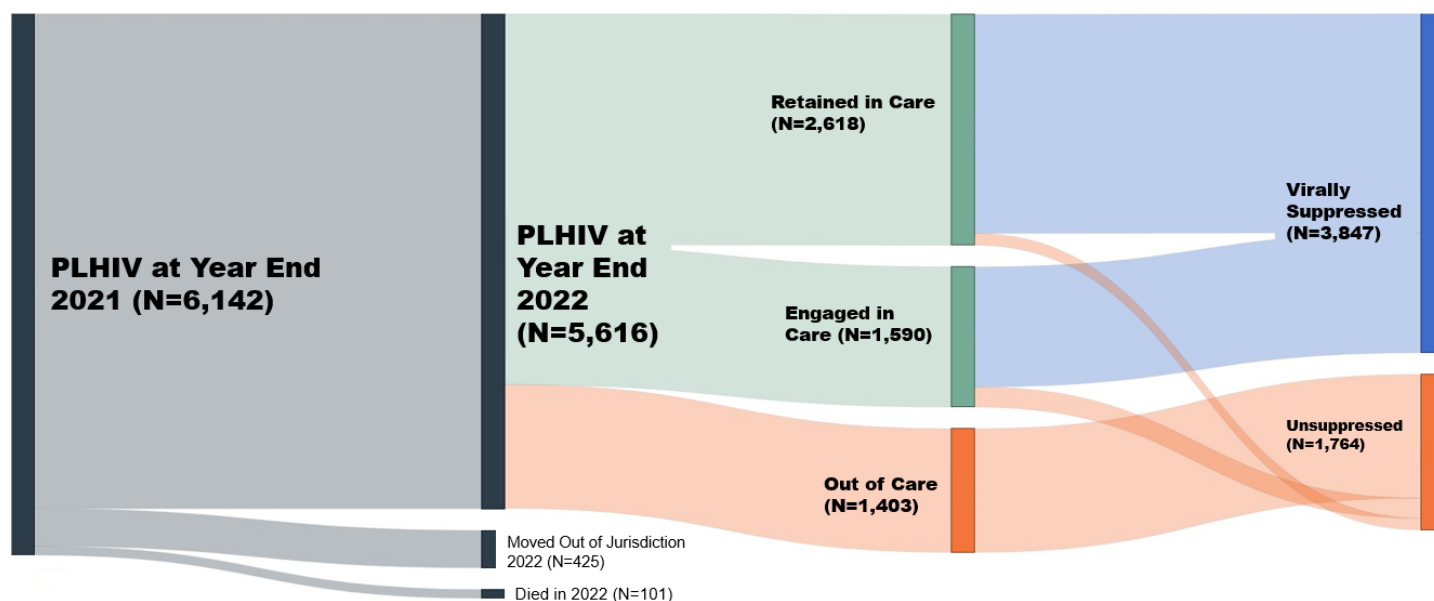


Figure 4.25: Percentage of PLHIV with Viral Suppression by Oakland Neighborhood, Alameda County, 2022



A Sankey diagram is useful for showing how people living with HIV progressed through the care continuum and reached viral suppression. The width of each bar is proportional to the number of people living with HIV represented by the identified outcome. Starting with all people living with HIV at year-end 2021, most were still living in Alameda County at the end of 2022. A majority of people living with HIV in Alameda County for all of 2022 were either engaged or retained in care during in 2022 (green) while some were considered out of care (orange). The diagram shows the number of people living with HIV that were either engaged or retained in care that were virally suppressed in 2022 (blue). Most people living with HIV identified as virally unsuppressed were considered out of care, i.e., did not have a viral load or CD4 test in 2022. Only 14.3% of people living with HIV engaged in care and 5.1% of those retained in care were unsuppressed.

Figure 4.26: Progression Through the Continuum of HIV Care Among PLHIV, Alameda County, 2022





## Technical Notes

### Data Sources

All counts and proportions in this report were calculated using data from the Enhanced HIV/AIDS Reporting System (eHARS). Numerators of rates were also obtained from eHARS; denominators were derived using data from the United States Census<sup>6</sup> (2020) and Esri (2012 and later). Mid-year population estimates for intercensal years prior to 2012 as well as all year-end estimates were obtained through linear interpolation. People living with HIV at the end of 2023 were identified from eHARS.

MPOX case data were extracted from the California Reportable Disease Information Exchange (CalREDIE) data distribution portal.

### Statistical Analysis

#### Significance Testing and Statistical Modeling

The statistical significance of associations between categorical variables was tested by Pearson's chi square test or Fisher's exact test, as appropriate. Trend analyses were performed using Join Point<sup>7</sup> to model crude rates as a log-linear function of year separately for each stratum of the categorical variable(s); errors were assumed to have Poisson variance and to be independent. Grid search and the modified Bayesian Information Criterion were used to select the best fitting model from among those with zero to four join points at least 2 years apart between 2007 and 2022 (the second and second-to-last years examined).

### Data Suppression Rules

#### Rates

Rates for subpopulations with fewer than 12 cases are considered to be statistically unreliable and were not presented. In these instances, the relative standard error of the rate exceeds 30%.

#### Death Ascertainment

Alameda County HIV surveillance officials are notified by the local Office of Vital Registration whenever HIV is documented on a death certificate filed in Alameda County. Additionally, the California Office of AIDS periodically matches state HIV registry data to national death databases such as the National Death Index and the Social Security Administration's Death Master File. People living with HIV who died outside of Alameda County and were ever associated with Alameda

County or whose HIV was not documented on their death certificate are thus generally captured through this process with some delay.

## Reporting Requirements

The representativeness and accuracy of HIV surveillance data depend on the reliable, complete, and timely reporting of data by health care providers and laboratories in accordance with California law.

### Health Care Providers

Title 17, Section 2643.5, “HIV Reporting by Health Care Providers,” requires health care providers to report cases of HIV disease (at any stage) to the local health department in the jurisdiction of their practice:

- a) Each health care provider that orders a laboratory test used to identify HIV, a component of HIV, or antibodies to or antigens of HIV shall submit to the laboratory performing the test a pre-printed laboratory requisition form which includes all documentation as specified in 42 CFR 493.1105 (57 FR 7162, Feb. 28, 1992, as amended at 58 FR 5229, Jan. 19, 1993) and adopted in Business and Professions Code, Section 1220.
- b) The person authorized to order the laboratory test shall include the following when submitting information to the laboratory:
  1. Complete name of patient; and
  2. Patient date of birth (2-digit month, 2-digit day, 4-digit year); and
  3. Patient gender (male, female, transgender male-to-female, or transgender female-to-male); and
  4. Date biological specimen was collected; and
  5. Name, address, telephone number of the health care provider and the facility where services were rendered, if different.
- c) Each health care provider shall, within seven calendar days of receipt from a laboratory of a patient's confirmed HIV test or determination by the health care provider of a patient's confirmed HIV test, report the confirmed HIV test to the local Health Officer for the jurisdiction where the health care provider facility is located. The report shall consist of a completed copy of the HIV/AIDS Case Report form.
  1. All reports containing personal information, including HIV/AIDS Case Reports, shall be sent to the local Health Officer or his or her designee by:
    - A. courier service, US Postal Service Express or Registered mail, or other traceable mail;  
or
    - B. person-to-person transfer with the local Health Officer or his or her designee.
  2. The health care provider shall not submit reports containing personal information to the local Health Officer or his or her designee by electronic facsimile transmission or by electronic mail or by non-traceable mail.
- d) HIV reporting by name to the local Health Officer, via submission of the HIV/AIDS Case Report, shall not supplant the reporting requirements in Article 1 of this Subchapter when a patient's medical

condition progresses from HIV infection to an Acquired Immunodeficiency Syndrome (AIDS) diagnosis.

- e) A health care provider who receives notification from an out-of-state laboratory of a confirmed HIV test for a California patient shall report the findings to the local Health Officer for the jurisdiction where the health care provider facility is located.
- f) When a health care provider orders multiple HIV-related viral load tests for a patient or receives multiple laboratory reports of a confirmed HIV test, the health care provider shall be required to submit only one HIV/AIDS Case Report, per patient, to the local Health Officer.
- g) Nothing in this Subchapter shall prohibit the local health department from assisting health care providers to report HIV cases.
- h) Information reported pursuant to this Article is acquired in confidence and shall not be disclosed by the health care provider except as authorized by this Article, other state or federal law, or with the written consent of the individual to whom the information pertains or the legal representative of that individual.

Note: Authority cited: Sections 120125, 120130, 120140, 121022, 131080 and 131200, Health and Safety Code. Reference: Sections 1202.5, 1206, 1206.5, 1220, 1241, 1265 and 1281, Business and Professions Code; and Sections 1603.1, 101160, 120175, 120250, 120775, 120885-120895, 120917, 120975, 120980, 121015, 121022, 121025, 121035, 121085, 131051, 131052, 131056 and 131080, Health and Safety Code.

## Laboratories

Title 17, Section 2643.10, "HIV Reporting by Laboratories," requires laboratories to report all HIV-related laboratory tests to the local health department in the jurisdiction of the ordering provider:

- a) The laboratory director or authorized designee shall, within seven calendar days of determining a confirmed HIV test, report the confirmed HIV test to the Health Officer for the local health jurisdiction where the health care provider facility is located. The report shall include the
  1. Complete name of patient; and
  2. Patient date of birth (2-digit month, 2-digit day, 4-digit year); and
  3. Patient gender (male, female, transgender male-to-female, or transgender female-to-male); and
  4. Name, address, and telephone number of the health care provider and the facility that submitted the biological specimen to the laboratory, if different; and
  5. Name, address, and telephone number of the laboratory; and
  6. Laboratory report number as assigned by the laboratory; and
  7. Laboratory results of the test performed; and
  8. Date the biological specimen was tested in the laboratory; and
  9. Laboratory Clinical Laboratory Improvement Amendments (CLIA) number.
- b)
  1. All reports containing personal information, including laboratory reports, shall be sent to the local Health Officer or his or her designee by:
    - A. courier service, US Postal Service Express or Registered mail, or other traceable mail;
    - or

- B. person-to-person transfer with the local Health Officer or his or her designee.
2. The laboratory shall not submit reports containing personal information to the local Health Officer or his or her designee by electronic facsimile transmission or by electronic mail or by non-traceable mail.
- c) A laboratory that receives incomplete patient data from a health care provider for a biological specimen with a confirmed HIV test, shall contact the submitting health care provider to obtain the information required pursuant to Section 2643.5(b)(1)-(5), prior to reporting the confirmed HIV test to the local Health Officer.
  - d) If a laboratory transfers a biological specimen to another laboratory for testing, the laboratory that first receives the biological specimen from the health care provider shall report confirmed HIV tests to the local Health Officer.
  - e) Laboratories shall not submit reports to the local health department for confirmed HIV tests for patients of an Alternative Testing Site or other anonymous HIV testing program, a blood bank, a plasma center, or for participants of a blinded and/or unlinked seroprevalence study.
  - f) When a California laboratory receives a biological specimen for testing from an out-of-state laboratory or health care provider, the California director of the laboratory shall ensure that a confirmed HIV test is reported to the state health department in the state where the biological specimen originated.
  - g) When a California laboratory receives a report from an out of state laboratory that indicates evidence of a confirmed HIV test for a California patient, the California laboratory shall notify the local Health Officer and health care provider in the same manner as if the findings had been made by the California laboratory.
  - h) Information reported pursuant to this Article is acquired in confidence and shall not be disclosed by the laboratory except as authorized by this Article, other state or federal law, or with the written consent of the individual to whom the information pertains or the legal representative of the individual.

Note: Authority cited: Section 1224, Business and Professions Code; and Sections 120125, 120130, 120140, 121022, 131080 and 131200, Health and Safety Code. Reference: Sections 1206, 1206.5, 1209, 1220, 1241, 1265, 1281 and 1288, Business and Professions Code; and Sections 101150, 120175, 120775, 120885-120895, 120975, 120980, 121022, 121025, 121035, 131051, 131052, 131056 and 131080, Health and Safety Code.

## *Surveillance in Alameda County*

California Code of Regulations (CCR) Title 17, Section 2643.5 requires all health care providers (HCP) to report all cases of HIV disease they encounter in their clinical practice to the county/local health jurisdiction in which the encounter occurs. Additionally, CCR Title 17, Section 2643.10 requires all commercial laboratories to report all confirmed HIV tests they conduct to the local health jurisdiction of the HCP who ordered the test, providing an additional means by which local health departments may learn of a case of HIV disease.

In November 2015, California adopted the Electronic Laboratory Reporting (ELR) system for laboratories performing HIV testing. HIV test results delivered through ELR meet the statutory and regulatory reporting requirements for HIV test results. HIV-related laboratory results are submitted to the California Department of Public Health (CDPH) and routed to Alameda County for investigation. Establishment of ELR resulted in major changes in the local processing and management of laboratory results for HIV surveillance. Reported labs are checked against a local database to identify cases not previously reported. Potential new cases are investigated by trained field staff, who visit the office of the HCP that ordered the laboratory test(s) or submitted the lab report and complete a case report using information abstracted from the patient's medical record and obtained from the HCP. For adult cases, standardized case report forms are completed and submitted in CalREDIE—the secure CDPH system for electronic disease reporting and surveillance. Hard copies of the Adult Case Report Form have largely been replaced by entry into CalREDIE, but are sometimes used by HCPs to notify the local health jurisdiction. A copy of the Adult Case Report form can be found here: <https://acphd-web-media.s3-us-west-2.amazonaws.com/media/communicable-disease/reporting-control/docs/adult-hiv-aids-casereportform.pdf>.<sup>8</sup> Hard copies of death certificates and pediatric HIV cases documented on a paper case report form found here: [http://publichealth.lacounty.gov/dhsp/ReportCase/HIVAIDSCaseForm\\_CDC\\_Pediatric\\_Jan2019.pdf](http://publichealth.lacounty.gov/dhsp/ReportCase/HIVAIDSCaseForm_CDC_Pediatric_Jan2019.pdf)<sup>9</sup>, are mailed to the CDPH Office of AIDS. All case reports submitted to CDPH are routinely de-identified and transmitted to CDC. When cases reported by different states appear to be the same person, CDC notifies the appropriate states to contact each other directly and determine whether the cases are duplicates.

### **Security and Confidentiality of Data**

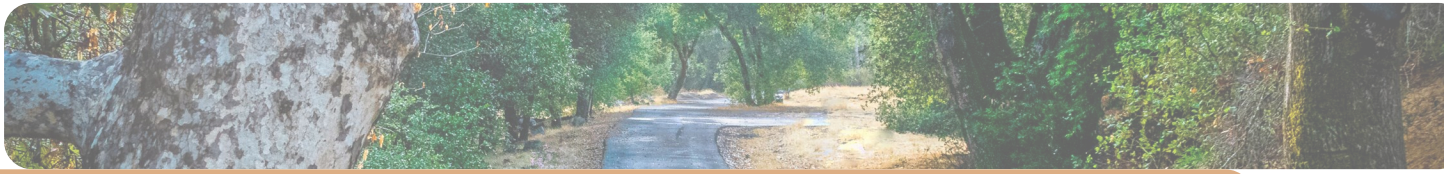
In accordance with the county's data use and disclosure agreement with CDPH, all data collected while conducting HIV surveillance are used solely for public health purposes. Additionally, administrative, technical, and physical safeguards are in place to ensure the security and confidentiality of these data. All paper records are stored in locked file cabinets in an office with restricted access.

## Limitations of Surveillance Data and of County Analysis

A major strength of HIV surveillance data is that it captures and reflects the entire population of HIV diagnosed individuals. HIV surveillance data are not without their limitations however, which restrict the analyses that can be done. These limitations include:

- **Data quality:** Public health investigators extract required information from medical records for HIV reporting. Some information, such as risk factors or identification as transgender may not have been available in the medical record, elicited from the patient by the HCP, or adequately described.
- **Data quantity:** In small subpopulations, the number of new diagnoses or people living with HIV was not large enough to allow certain analyses. Statistical analyses based on small numbers may result in unstable estimates which can be misleading.
- **Timeliness of reporting:** Surveillance data are the product of a long process triggered by a visit to a HCP by an HIV-infected individual and culminating in the entry of case data into the statewide HIV surveillance database at the California Department of Public Health. Intermediate steps include, but are not limited to, laboratory testing, submission of case reports and lab results to the local health department, and investigation of each report. Data preparation, analysis and interpretation take additional time.
- **History of reporting laws:** The laws mandating the reporting of HIV-related laboratory test results and of cases of HIV disease at its different stages have changed over time, and this impacts our ability to characterize the epidemic at different points in the past. Although AIDS has been reportable since 1983, HIV disease at its earlier stages was not reportable until mid-2002 and even then only by a non-name code. More reliable, name-based data on HIV non-AIDS cases became mandated in 2006, and HIV-related labs became reportable in California in 2009. Consequently, most of analyses are limited to 2006 and later, and analyses relying on laboratory reporting are limited to 2010 and later.
- **Diagnosis date assigned to non-US-born cases:** A small number of non-US-born people living with HIV may have been initially diagnosed with HIV in another country before arriving in the US, but due to the absence of verified information on date of initial diagnosis, their diagnosis date in the surveillance data reflects the earliest date of HIV diagnosis in the US. As a consequence, new diagnoses and late diagnoses may be overestimated in our data, especially among certain racial/ethnic groups.





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