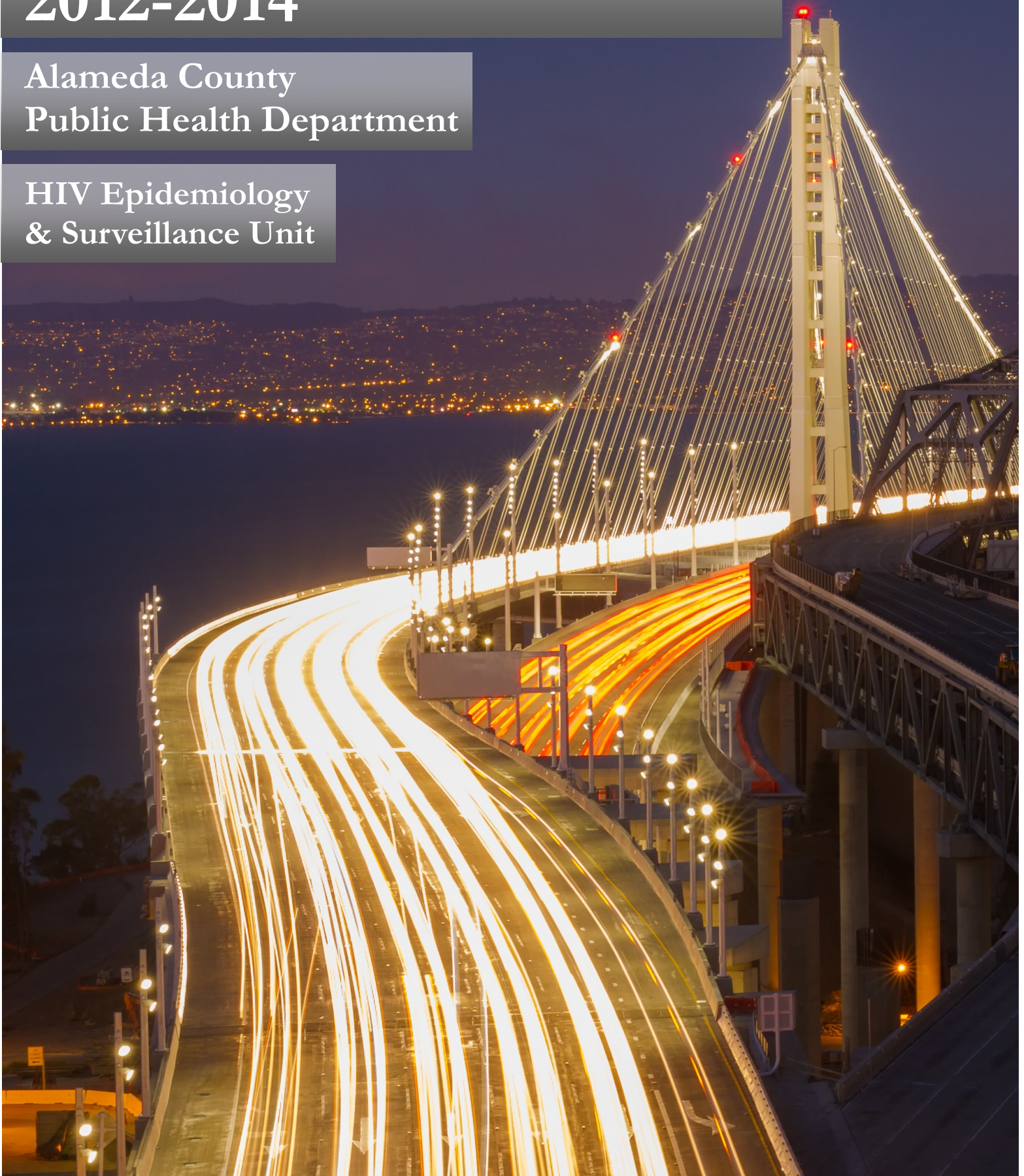


HIV in Alameda County, 2012-2014

Alameda County
Public Health Department

HIV Epidemiology
& Surveillance Unit



HIV in Alameda County, 2012-2014

July 2016

HIV Epidemiology and Surveillance Unit

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Contents

1 Background	1
Overview of this Report	1
HIV/AIDS	1
Definitions Used in this Report	1
Other Conventions Used	4
2 New Diagnoses	5
Characteristics of New Diagnoses	5
Diagnosis Rates	9
Timeliness of Diagnosis	12
3 People Living with HIV	17
Characteristics of PLHIV	17
Prevalence Rates	18
Deaths Among PLHIV	21
4 The Continuum of HIV Care	23
The Overall Continuum of Care	23
Linkage to Care	24
Retention in Care	26
Virologic Status	28
Technical Notes	30
Data Sources	30
Calculations of Confidence Intervals for Rates	30
Death Ascertainment	30
Reporting Requirements	31
Health Care Providers	31
Laboratories	32
HIV Surveillance in Alameda County	34
Security and Confidentiality of Data	34
Bibliography	41

List of Figures

1.1	Regions of Alameda County	3
1.2	Neighborhoods in the City of Oakland	3
2.1	New Diagnoses by Sex, Alameda County, 2006-2014	6
2.2	New Diagnoses by Sex and Mode of Transmission, Alameda County, 2012-2014	6
2.3	New Diagnoses by Race/Ethnicity, Alameda County, 2012-2014	7
2.4	Age of New Diagnoses, Alameda County, 2012-2014	7
2.5	Geographic Distribution of New HIV Cases by Residence at HIV Diagnosis, Alameda County, 2012-2014	8
2.6	Residence at HIV Diagnosis, Oakland and Surrounding Area, 2012-2014	8
2.7	Rates of New Diagnoses by Sex, Alameda County, 2012-2014	9
2.8	Trends in Rates of New Diagnoses by Sex, Alameda County, 2006-2014	9
2.9	Rates of New Diagnoses by Race/Ethnicity, Alameda County, 2012-2014	10
2.10	Trends in Rates of New Diagnoses by Race/Ethnicity, Alameda County, 2006-2014	10
2.11	Trends in Rates of New Diagnoses by Race/Ethnicity and Sex, Alameda County, 2006-2014	11
2.12	Rates of New Diagnoses by Age, Alameda County, 2012-2014	11
2.13	Trends in Rates of New Diagnoses by Age, Alameda County, 2006-2014	12
2.14	Late Diagnosis by Race/Ethnicity, Alameda County, 2011-2013	13
2.15	Late Diagnosis by Sex, Alameda County, 2011-2013	13

2.16	Late Diagnosis by Age, Alameda County, 2011-2013	13
2.17	First CD4 Count at Diagnosis by Race/Ethnicity, Alameda County, 2011-2013	14
2.18	First CD4 Count at Diagnosis by Sex, Alameda County, 2011-2013	14
2.19	First CD4 Count at Diagnosis by Age, Alameda County, 2011-2013	15
3.1	PLHIV by Sex, Alameda County, year-end 2014	17
3.2	PLHIV by Race/Ethnicity, Alameda County, year-end 2014	18
3.3	Age of PLHIV, Alameda County, year-end 2014	18
3.4	Prevalence of HIV by Sex, Alameda County, year-end 2014	19
3.5	Prevalence of HIV by Race/Ethnicity, Alameda County, year-end 2014	19
3.6	Prevalence of HIV by Age, Alameda County, year-end 2014	19
3.7	Prevalence of HIV by Census Tract of Residence, Alameda County, year-end 2014	20
3.8	Prevalence of HIV by Census Tract of Residence, Oakland and Surrounding Area, year-end 2014	20
3.9	Death Rate among Alameda County Residents Ever Diagnosed with AIDS, 1985-2013	21
4.1	The Continuum of HIV Care in Alameda County	24
4.2	Days Elapsing Between Diagnosis and First CD4 or Viral Load, Alameda County, 2011-2013	25
4.3	Linkage to HIV Care within 90 Days of Diagnosis by Sex, Alameda County, 2011-2013	25
4.4	Linkage to HIV Care within 90 Days of Diagnosis by Race/Ethnicity, Alameda County, 2011-2013	26
4.5	Linkage to HIV Care within 90 Days of Diagnosis by Age, Alameda County, 2011-2013	26
4.6	Number of HIV Care Visits per PLHIV in 2013, Alameda County	27
4.7	Retention in HIV Care by Sex, Alameda County, 2013	27
4.8	Retention in HIV Care by Race/Ethnicity, Alameda County, 2013	28

4.9	Retention in HIV Care by Age, Alameda County, 2013	28
4.10	Virologic Status by Sex, Alameda County, 2013	29
4.11	Virologic Status by Race/Ethnicity, Alameda County, 2013	29
4.12	Virologic Status by Age, Alameda County, 2013	29
4.13	Timeline of Mandated HIV Reporting in California	35
4.14	The HIV Surveillance System in Alameda County	36

List of Tables

2.1 New HIV Diagnoses, Alameda County, 2012-2014 16

3.1 People Living with HIV Disease and Prevalence Rates, Alameda County, Year-End 2014 22

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 three sections as described below.

1. **New Diagnoses:** This section describes patterns of HIV diagnosis in Alameda County, characterizing those who were recently diagnosed according to demographic factors, risk factors and stage of disease.
2. **People Living with HIV:** The second section of the report describes the characteristics of all people known to be living with HIV disease (PLHIV) in Alameda County. This section 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).
3. **The Continuum of HIV Care:** The final section of this report 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 for a given population, including linkage to care, retention in care, and viral suppression.

HIV/AIDS

HIV attacks the immune system, depleting it over time such that HIV-infected persons 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. Medical treatments can inhibit HIV’s ability to replicate and greatly temper its effect but the human body cannot clear HIV. HIV primarily is transmitted through unprotected sex, needle-sharing, or spread from mother 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 will 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 will 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.[1] 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 <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6303a1.htm>.

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.

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, all analyses are presented by sex assigned at birth, for which we will use “sex” as shorthand.

Data from racial/ethnic groups in which there are very small numbers were combined for these analyses. 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”.

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 the figures below.

Figure 1.1: Regions of Alameda County

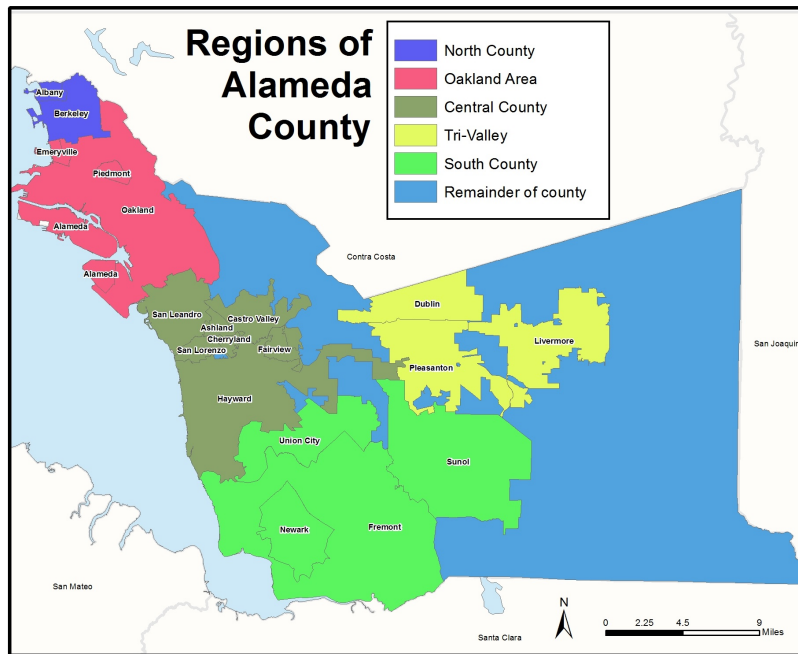
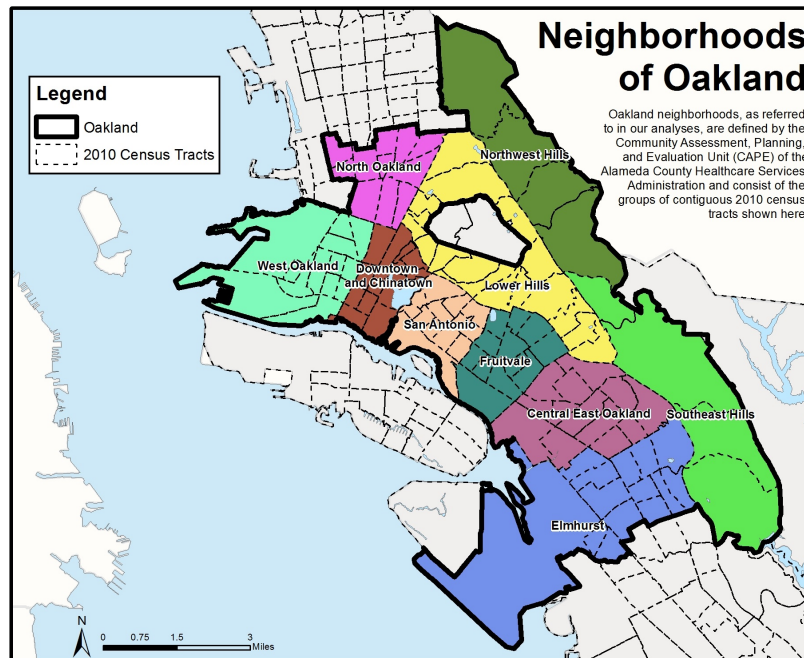


Figure 1.2: Neighborhoods in the City of Oakland



Other Conventions Used

In order to protect privacy, case counts less than 5 are not presented in this report. Additionally, rates for subpopulations with 10 or fewer cases are not presented due to statistical instability. Where some measures are broken out by subgroup (e.g., timely linkage to care by race/ethnicity), we provide the overall measure in the entire population to which it applies (e.g., timely linkage to care among all new diagnoses regardless of race) for comparison.

Where rates are presented, they are often accompanied by error bars to convey their degree of statistical variability. These error bars depict 95% confidence intervals (a “margin of error”) for the estimates. In the case of trends, error bands (formed by connecting the ends of these margins of error) are shown.

New Diagnoses

Estimating the incidence of new HIV infections is complex due to the variable and, in some cases, long time interval between when a person becomes infected and when their infection is diagnosed. However surveillance data reliably describe new HIV diagnoses. In the United States in 2014, there were an estimated 44,073 new diagnoses of HIV infection for an overall diagnosis rate of 13.8 per 100,000 persons. Rates were highest among men as compared to women (27.4 vs. 6.1 diagnoses per 100,000), those aged 20-24 or 25-29 (34.3 and 35.8 per 100,000, respectively), African Americans and Latinos (49.4 and 18.4 per 100,000), and in the South and Northeast (18.5 and 14.2 per 100,000). Men who have sex with men (MSM) account for 70% of infections, heterosexual contact accounts for 24%, and other modes of transmission account for the remaining 6%. In California, there were an estimated 5,533 new diagnoses for an overall statewide rate of 17.2 diagnoses per 100,000 in 2014.[2]

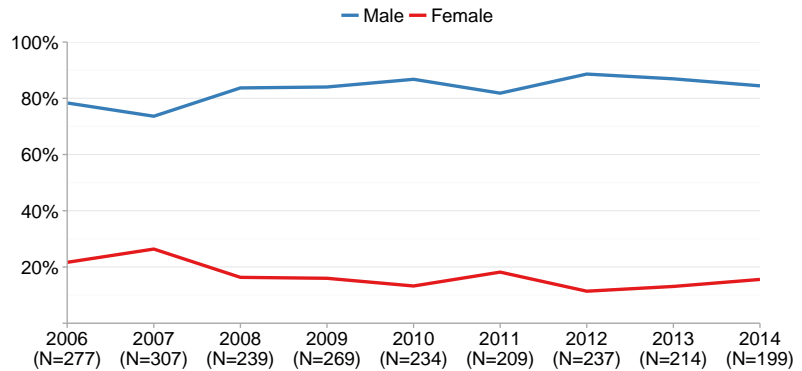
The sections below describe HIV in Alameda County by examining characteristics of new diagnoses, new diagnosis rates, and the timeliness of diagnoses by demographic characteristics. Data presented in this section are also summarized in Table 2.1.

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.

In Alameda County, those newly diagnosed with HIV disease were overwhelmingly male. In fact, the proportion that is male has increased slowly and steadily from nearly 80% in 2006 to nearly 85% in 2014.

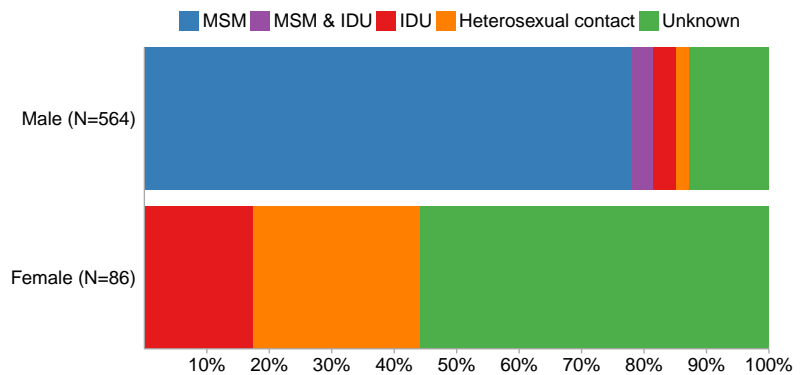
Figure 2.1: New Diagnoses by Sex, Alameda County, 2006-2014



NOTE: “Sex” here refers to sex assigned at birth.

Among the 564 men diagnosed with HIV from 2012 to 2014, the overwhelming majority were men who have sex with men (MSM). Transmission category could not be specified for just over half of women diagnosed during the same period; among those for whom it could be, the majority—about 60%—had become infected through heterosexual contact and the rest through injection drug use (IDU).

Figure 2.2: New Diagnoses by Sex and Mode of Transmission, Alameda County, 2012-2014

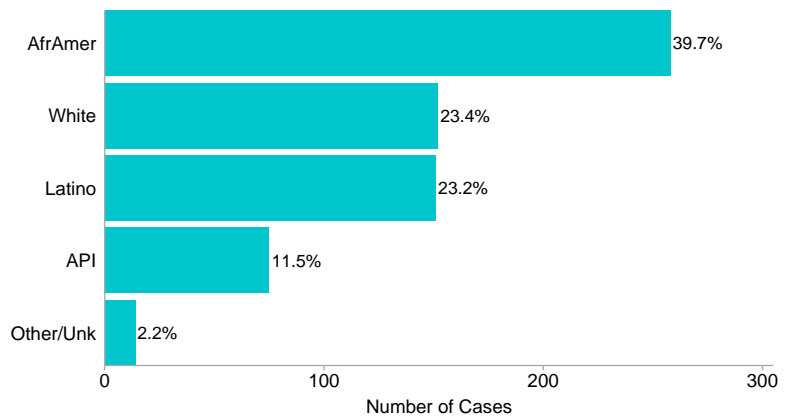


NOTES:

- 1) “Sex” here refers to sex assigned at birth.
- 2) The reason a large proportion of female diagnoses have an unknown risk factor is that, for a case to be attributed to heterosexual contact by CDC’s definition of the category, one or more risk factors must be documented for the person’s opposite-sex partner(s) and this information is rarely captured in medical records or known to reporting health care providers.

From 2012 to 2014, the largest proportion of new HIV diagnoses was in African Americans, which made up about 40% of new diagnoses. Whites and Latinos each accounted for just over 23% each and 11% was among Asians and Pacific Islanders.

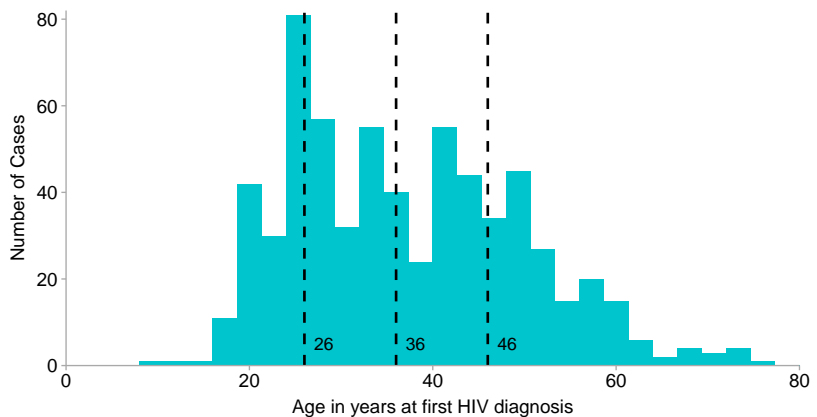
Figure 2.3: New Diagnoses by Race/Ethnicity, Alameda County, 2012-2014



NOTE: “Other/Unk” includes American Indians, Alaskan Natives, and those identifying with multiple racial categories as well as those for whom race/ethnicity could not be identified.

The median age among Alameda County residents diagnosed with HIV disease from 2012 to 2014 was 36 years; most diagnoses were among those in their twenties to forties.

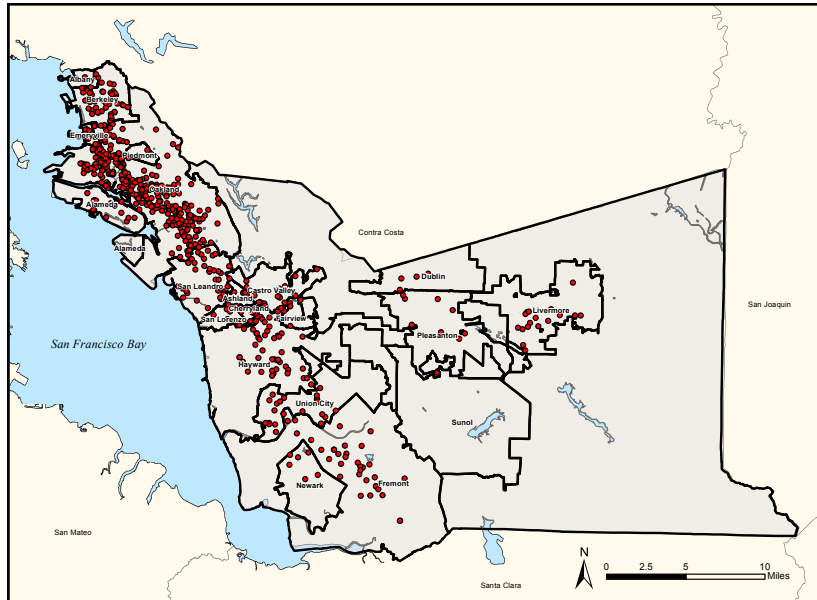
Figure 2.4: Age of New Diagnoses, Alameda County, 2012-2014



NOTE: The dashed lines indicate the 25th, 50th, and 75th percentile values for age among the new diagnoses.

New diagnoses of HIV were most concentrated in the Oakland area and in the central region of the county encompassing the cities of San Leandro, Hayward, and Castro Valley.

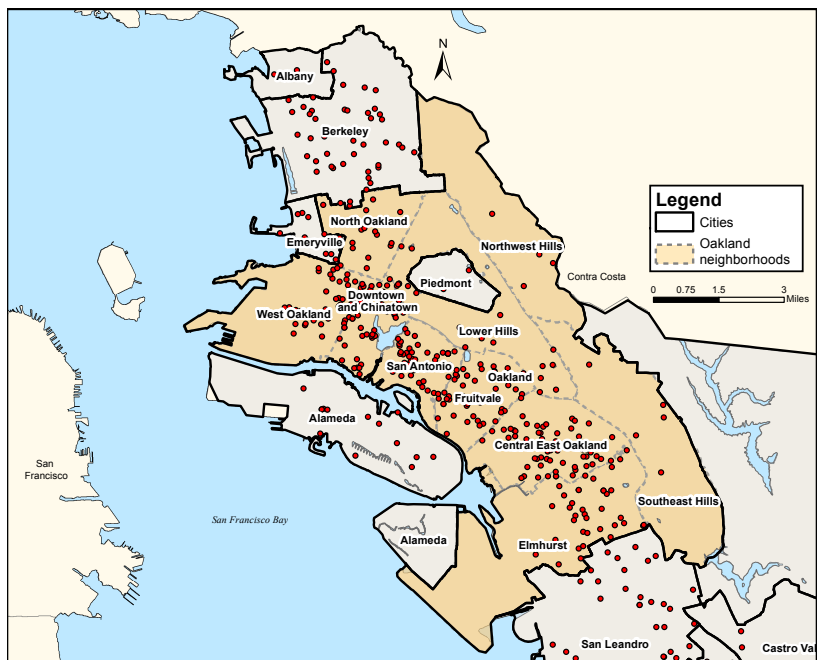
Figure 2.5: Geographic Distribution of New HIV Cases by Residence at HIV Diagnosis, Alameda County, 2012-2014



NOTE: N=628; an additional 22 diagnoses (3.38% of all) are not represented due to incomplete street address.

Within the Oakland area, new diagnoses were less concentrated in the Oakland hills (Northwest Hills, Southeast Hills, and Lower Hills neighborhoods, as shown in the map) than the rest of the city.

Figure 2.6: Residence at HIV Diagnosis, Oakland and Surrounding Area, 2012-2014

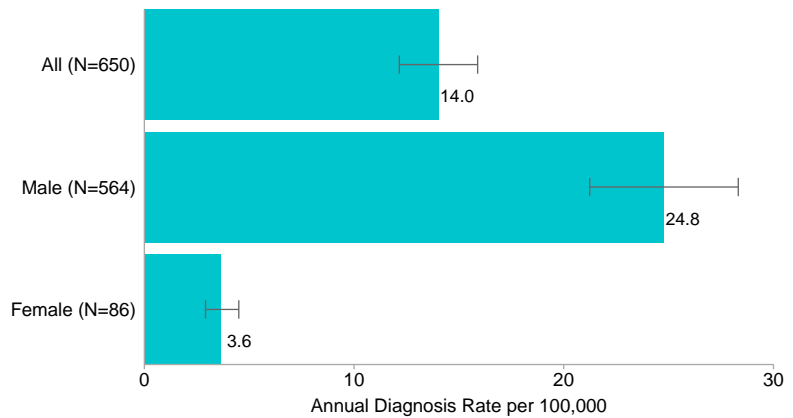


Diagnosis Rates

From 2012 to 2014, there were 650 new HIV diagnoses with an annual rate of 14.0 per 100,000 residents in Alameda County.

Diagnoses were nearly seven times more common among males than among females during 2012-2014.

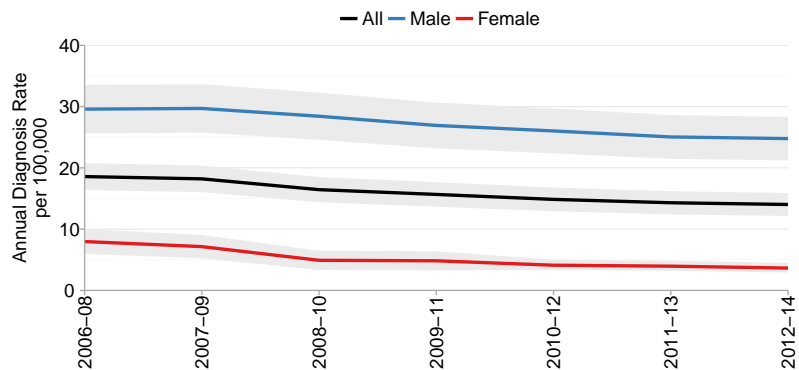
Figure 2.7: Rates of New Diagnoses by Sex, Alameda County, 2012-2014



NOTE: “Sex” here refers to sex assigned at birth.

HIV diagnosis rates declined steadily between 2006 and 2014. Rates are consistently higher in men.

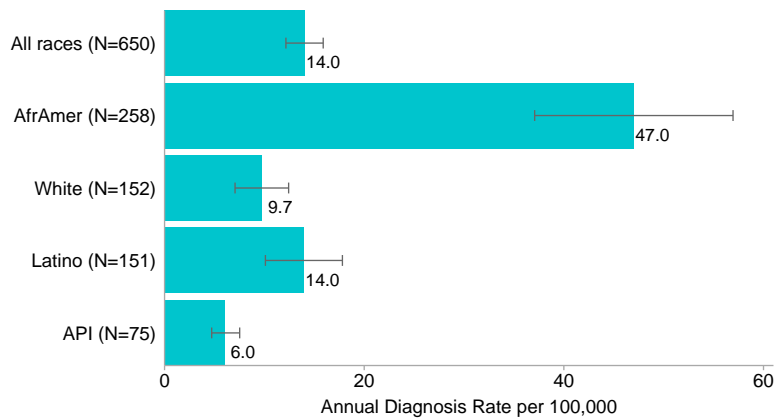
Figure 2.8: Trends in Rates of New Diagnoses by Sex, Alameda County, 2006-2014



NOTE: “Sex” here refers to sex assigned at birth.

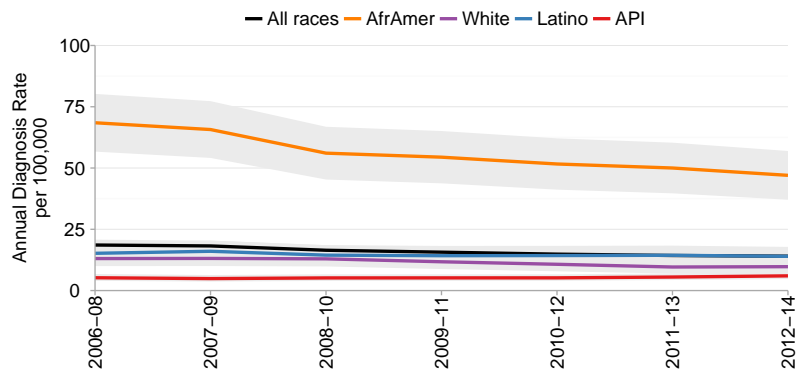
From 2012 to 2014 the highest diagnosis rate, by far, was seen among African Americans who were diagnosed with HIV three times as frequently than the next most impacted group, Latinos. The lowest diagnosis rate was seen among Asians and Pacific Islanders.

Figure 2.9: Rates of New Diagnoses by Race/Ethnicity, Alameda County, 2012-2014



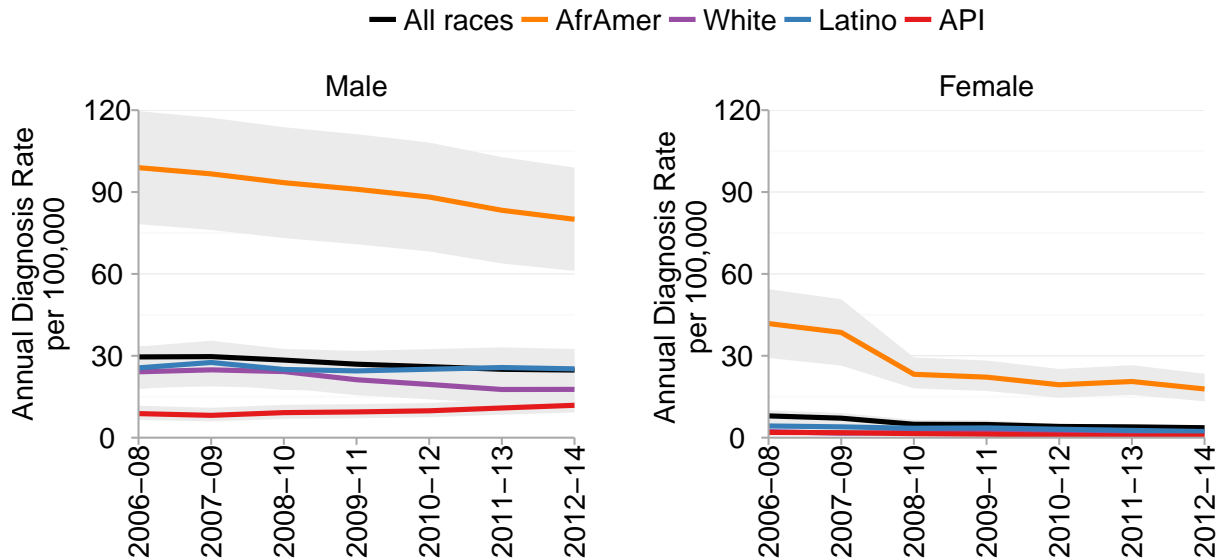
While diagnosis rates have held relatively constant since 2006 in most racial/ethnic groups, the rate of new diagnoses has declined notably among African Americans. With nearly 200,000 African Americans living in Alameda County, this amounts to approximately 21 fewer African Americans newly diagnosed with HIV each year.

Figure 2.10: Trends in Rates of New Diagnoses by Race/Ethnicity, Alameda County, 2006-2014



The overall decline in the county-wide diagnosis rate appears to be driven largely by declines in diagnoses among African Americans, and relative declines in diagnosis rates appear to have been especially prominent among African American women. Whereas there were 41.8 new diagnoses per 100,000 African American women in 2006-2008, that rate more than halved by 2012-2014 to 17.8 new diagnoses per 100,000.

Figure 2.11: Trends in Rates of New Diagnoses by Race/Ethnicity and Sex, Alameda County, 2006-2014



NOTE: “Sex” here refers to sex assigned at birth.

From 2012 to 2014, new HIV diagnoses were most common among those in their 20s, 30s, and 40s, with an average 30.0, 22.3, and 24.5 diagnoses per 100,000 respectively. New HIV diagnoses were somewhat less common among those in their 50s and least common among those at the extremes of the age spectrum (i.e., teens and those ages 60 & over).

Figure 2.12: Rates of New Diagnoses by Age, Alameda County, 2012-2014

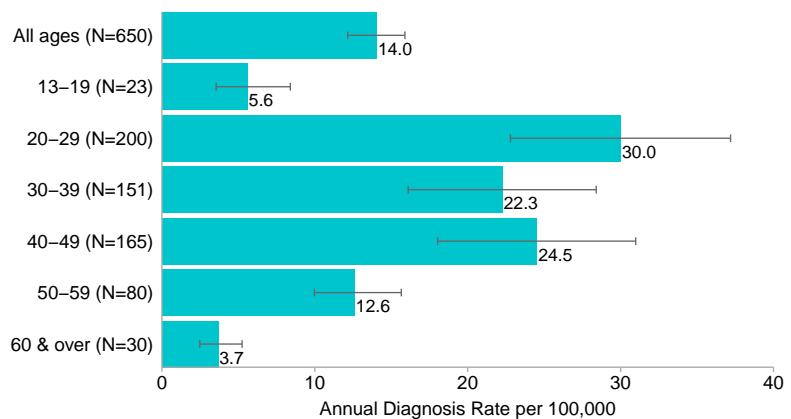
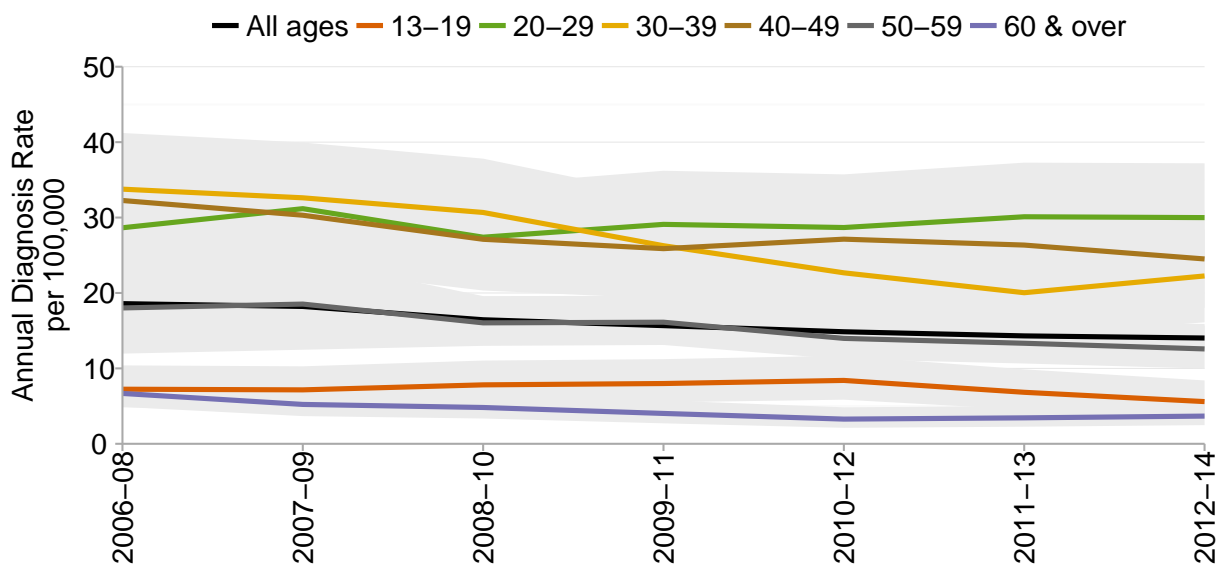


Figure 2.13: Trends in Rates of New Diagnoses by Age, Alameda County, 2006-2014



By age, the most marked trend was a decline in diagnosis rates among those aged 30-39, from nearly 35 per 100,000 in 2006-2008 to just over 20 per 100,000 from 2012 to 2014. Rate changes in other age groups were lower in magnitude.

Timeliness of Diagnosis

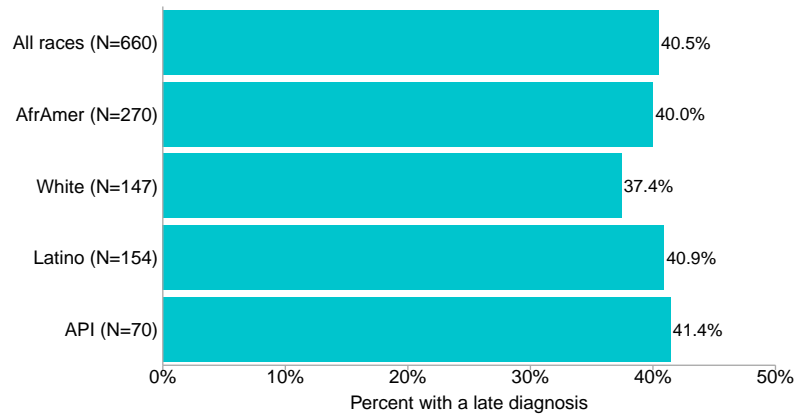
Diagnosis of HIV early in the course of infection is an important component of effective HIV prevention and control as it reduces both the risk of transmission to others and, with treatment, the impact of HIV infection on a person's health.

Late Diagnosis

A commonly-used indicator of late HIV diagnosis is the time to progression to AIDS (stage 3 infection). A diagnosis is considered to be late if AIDS is diagnosed at the same time as a person's initial HIV diagnosis or if they progress to AIDS within a year of an initial diagnosis of HIV infection. The analyses presented in this section are for the period 2011 to 2013 to allow a full year of follow-up from initial HIV diagnosis.

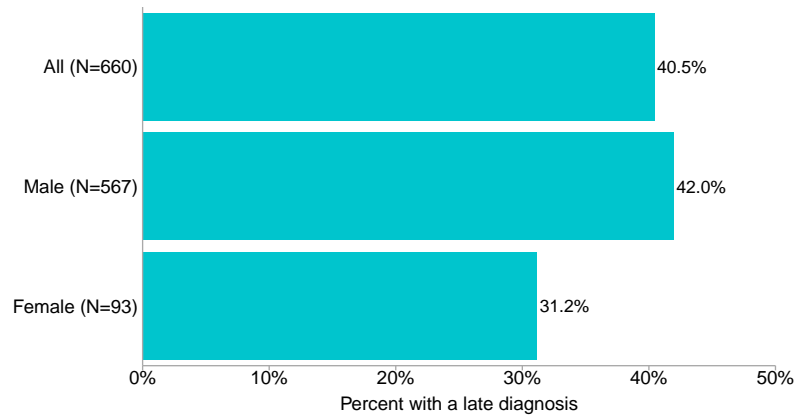
In Alameda County, 40.5% of new diagnoses between 2011 and 2013 were late. This differed only slightly by race/ethnicity.

Figure 2.14: Late Diagnosis by Race/Ethnicity, Alameda County, 2011-2013



Late diagnosis did, however, differ by sex. The proportion of females with a late diagnosis was lower than that of males.

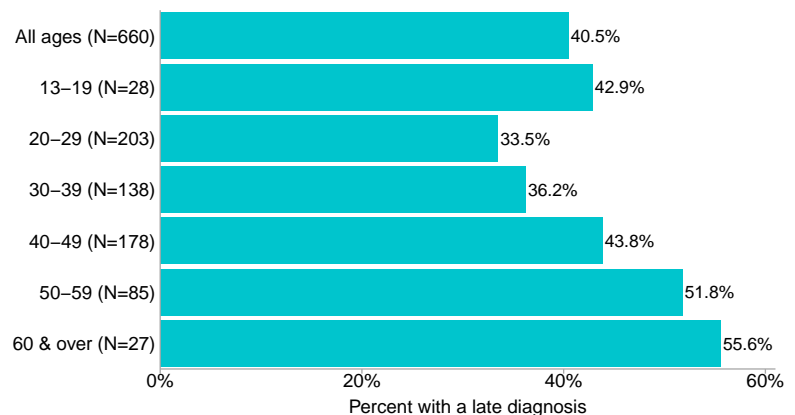
Figure 2.15: Late Diagnosis by Sex, Alameda County, 2011-2013



NOTE: “Sex” here refers to sex assigned at birth.

With the exception of those ages 13 to 19, the proportion of late diagnoses increased with age: over half of HIV diagnoses among those aged 50 and over were late. Late diagnosis was least common among those aged 20 to 29—just over a third were diagnosed late in this age group.

Figure 2.16: Late Diagnosis by Age, Alameda County, 2011-2013

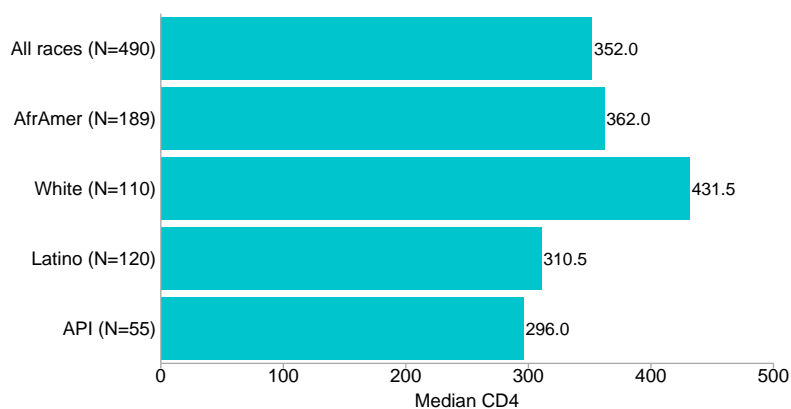


First CD4 Count

CD4 cell count at the time of diagnosis is another indicator of the timeliness of HIV diagnosis. CD4+ T-cells, an important component of the human immune system, are infected and killed by the HIV virus. Anti-retroviral therapy (ART) helps the CD4 count to recover, but the longer a person goes without taking ART to control the level of HIV in their body, the lower their CD4 count will be and the more susceptible they will be to opportunistic infections. Once a person's CD4 count falls below 200cells/mm³, they are considered to have AIDS.¹

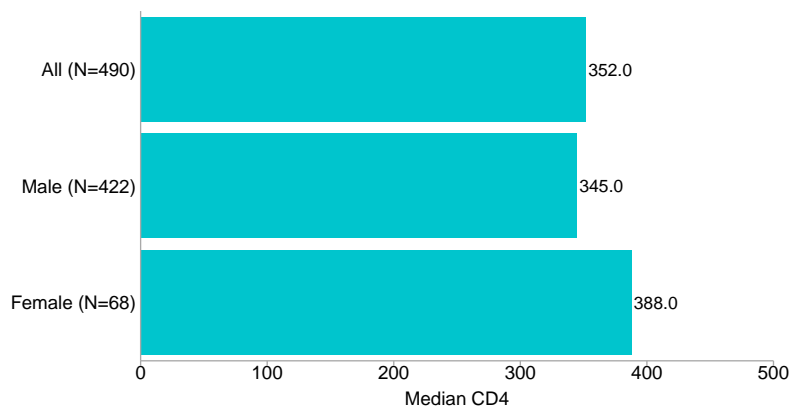
Among those diagnosed with HIV disease in 2011-2013 and for whom a CD4 count was conducted within 90 days, the median CD4 count at the time of diagnosis was 352.0 cells/mm³. Whites had the highest median CD4 count at diagnosis among all racial/ethnic groups.

Figure 2.17: First CD4 Count at Diagnosis by Race/Ethnicity, Alameda County, 2011-2013



Consistent with the finding of fewer late diagnoses among females, median CD4 at diagnosis was somewhat higher among females diagnosed in 2011-13 than for males diagnosed in the same period.

Figure 2.18: First CD4 Count at Diagnosis by Sex, Alameda County, 2011-2013



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

¹Note that the analyses presented in this section exclude 169 cases (25.6% of all diagnoses) with a first CD4 count more than 90 days after diagnosis and one case (0.2% of all) for whom there was a CD4 percent but not a count.

Those aged 20-29 had a substantially higher median CD4 count at diagnosis than any other age group, and median CD4 count was generally lower in successively older age groups. Those 60 and older had the lowest median CD4 count at diagnosis by far. However, data for this group and for those aged 13-19 should be interpreted with caution as there were relatively few diagnoses reported in these age groups. It is also worth noting that older individuals would be expected to have lower CD4 counts at diagnosis as they could have been infected longer.

Figure 2.19: First CD4 Count at Diagnosis by Age, Alameda County, 2011-2013

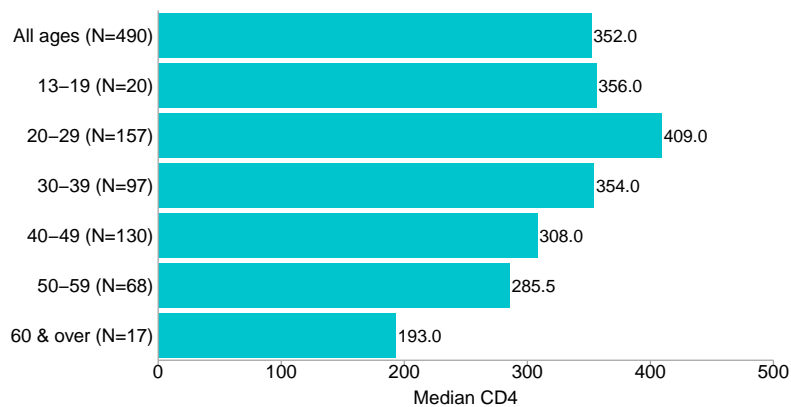


Table 2.1: New HIV Diagnoses, Alameda County, 2012-2014

		Average Annual Count	Percent	Average Annual Diagnosis Rate per 100,000	95% Confidence Interval
All diagnoses		216.7	100.0%	14.0	12.2 - 15.9
Sex[^]	Male	188.0	86.8%	24.8	21.2 - 28.3
	Female	28.7	13.2%	3.6	2.9 - 4.5
Race/Ethnicity	AfrAmer	86.0	39.7%	47.0	37.1 - 56.9
	White	50.7	23.4%	9.7	7.1 - 12.4
	Latino	50.3	23.2%	14.0	10.1 - 17.8
	API	25.0	11.5%	6.0	4.7 - 7.5
	Other/Unk ^{^^}	4.7	2.2%	NA	NA
	Age	0-12	*	*	**
	13-19	7.7	3.5%	5.6	3.5 - 8.4
	20-29	66.7	30.8%	30.0	22.8 - 37.2
	30-39	50.3	23.2%	22.3	16.1 - 28.4
	40-49	55.0	25.4%	24.5	18.0 - 31.0
	50-59	26.7	12.3%	12.6	10.0 - 15.7
	60 & over	10.0	4.6%	3.7	2.5 - 5.2
Region	Oakland Area	123.3	56.9%	24.9	20.5 - 29.3
	North County	16.3	7.5%	12.3	9.1 - 16.2
	Central County	44.0	20.3%	12.0	8.4 - 15.5
	South County	22.0	10.2%	6.6	5.1 - 8.4
	Tri-Valley	10.0	4.6%	4.9	3.3 - 7.0
	Remainder of County	*	*	**	**

* Small counts suppressed to protect confidentiality

** Unstable rates not shown

NA = Rate not calculable

[^]“Sex” here refers to sex assigned at birth.

^{^^}Includes American Indians, Alaskan Natives, and those identifying with multiple racial categories as well as those for whom race/ethnicity could not be identified

3

People Living with HIV

In the United States, there were an estimated 933,941 PLHIV at the end of 2013. Prevalence was highest among men as compared to women (547.4 vs. 167.7 PLHIV per 100,000 population), those aged 45-49 and 50-54 (754.3 and 717.2 per 100,000 respectively), African Americans and Latinos (1,018.1 and 350.8 per 100,000 respectively), and in the northeast and south (420.5 and 343.6 per 100,000 respectively). In California, there were an estimated 119,845 PLHIV for an overall statewide prevalence of 376.2 PLHIV per 100,000 population. By race, prevalence in California was highest among African Americans (1,115.1 per 100,000).[2]

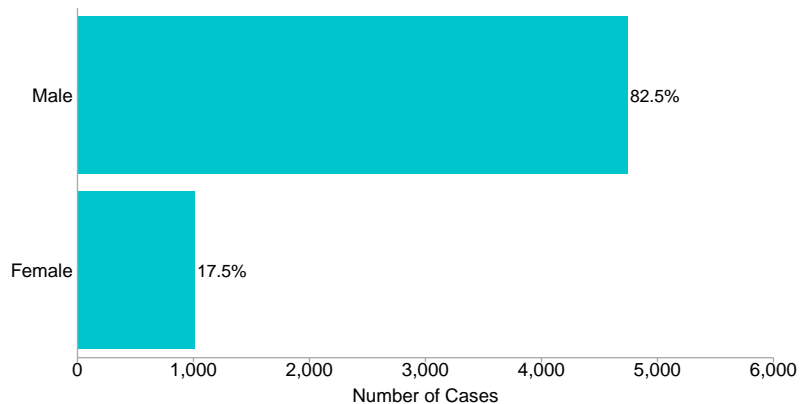
This section examines prevalence, or the proportion of people in Alameda County with HIV infection, reflecting the overall burden of HIV in the population. Data presented include all PLHIV, regardless of the stage of their infection and of whether or not they are newly diagnosed. First, the prevalence of HIV disease in different sub-populations is described. Then characteristics of PLHIV in the county are presented. Finally, mortality (deaths) among PLHIV ever diagnosed with AIDS is described. Table 3.1 summarizes data presented in this section.

Characteristics of PLHIV

At the end of 2014, there were an estimated 5,751 PLHIV in Alameda County.

As with new diagnoses of HIV, those living with HIV in Alameda County at year-end 2014 were mostly male (82.5%).

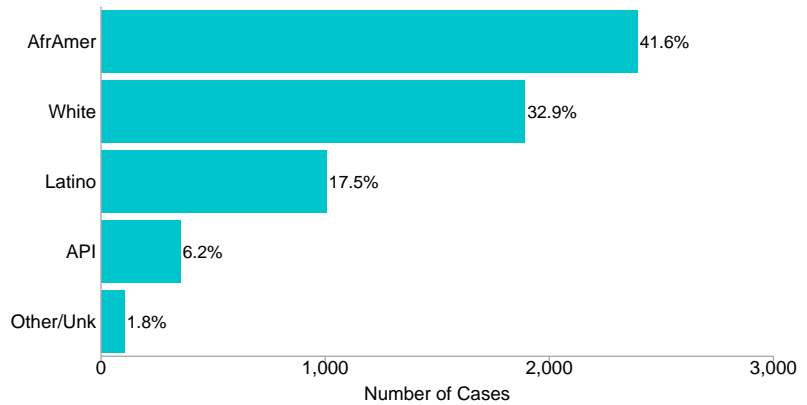
Figure 3.1: PLHIV by Sex, Alameda County, year-end 2014



NOTE: “Sex” here refers to sex assigned at birth.

Approximately 42% PLHIV in Alameda County were African American and 32.9% were white. Latinos and Asians and Pacific Islanders each comprised a smaller proportion of PLHIV.

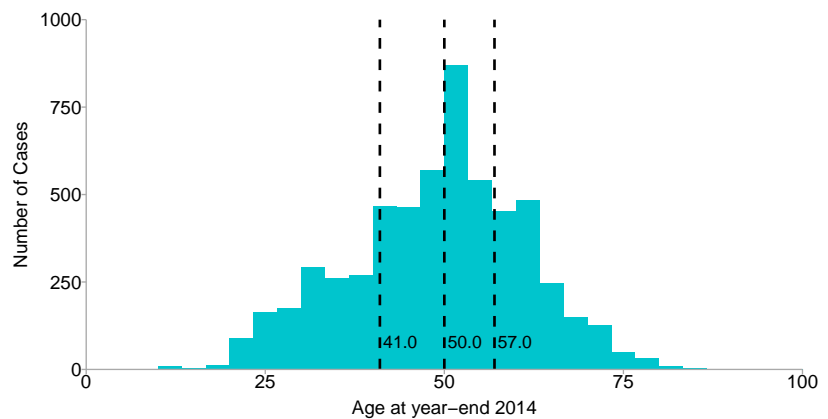
Figure 3.2: PLHIV by Race/Ethnicity, Alameda County, year-end 2014



NOTE: “Other/Unk” includes American Indians, Alaskan Natives, multiracial, and unknown categories.

About half of PLHIV were in their 50s or older. Only about a quarter were in their 30s or younger at year-end 2014.

Figure 3.3: Age of PLHIV, Alameda County, year-end 2014



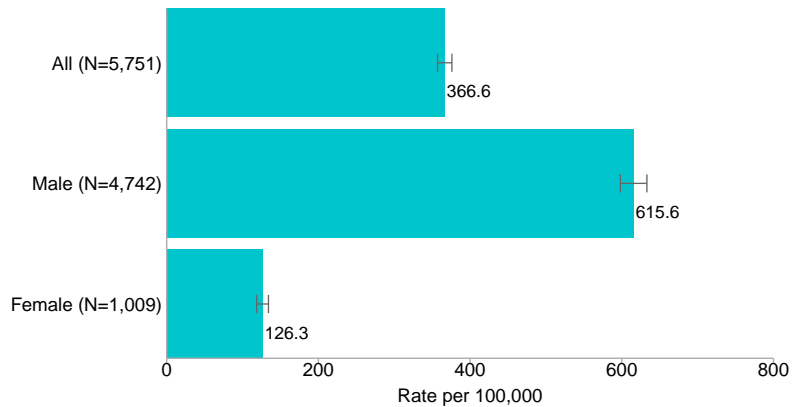
NOTE: The dashed lines indicate the 25th, 50th, and 75th percentile values for age among the PLHIV.

Prevalence Rates

At the end of 2014 there were 5,751 people living with HIV in Alameda County for a prevalence rate of 366.6 per 100,000 or 0.4% of residents.

HIV prevalence was far higher—about 5 times as high—among males as compared to females at year-end 2014.

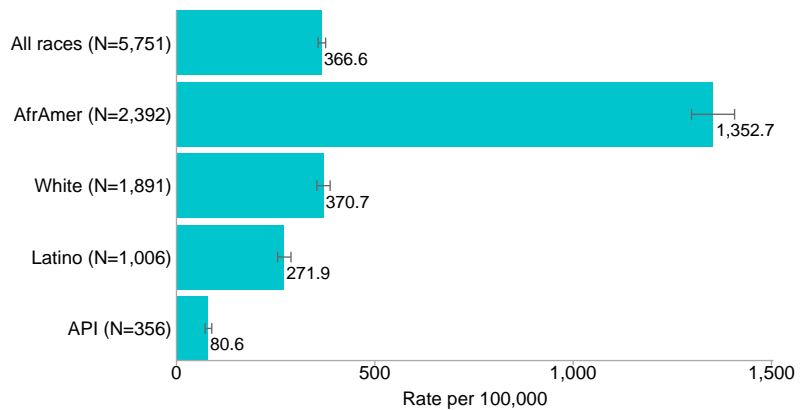
Figure 3.4: Prevalence of HIV by Sex, Alameda County, year-end 2014



NOTE: “Sex” here refers to sex assigned at birth.

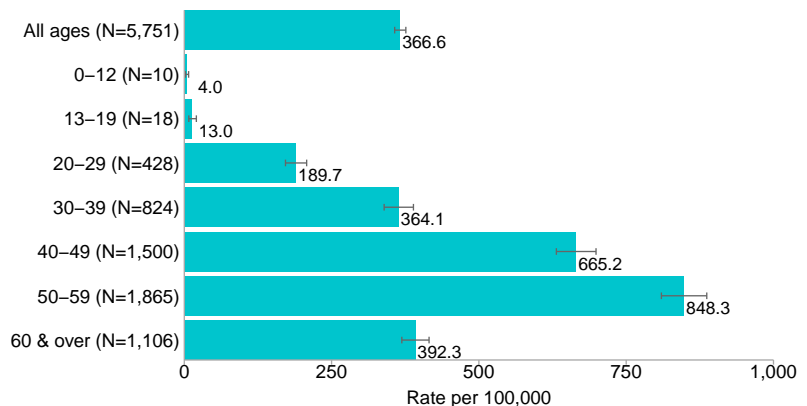
African Americans experienced over 3.5 times the burden of HIV as the next most impacted group in Alameda County—whites. The burden of HIV was lowest by far among Asians and Pacific Islanders.

Figure 3.5: Prevalence of HIV by Race/Ethnicity, Alameda County, year-end 2014



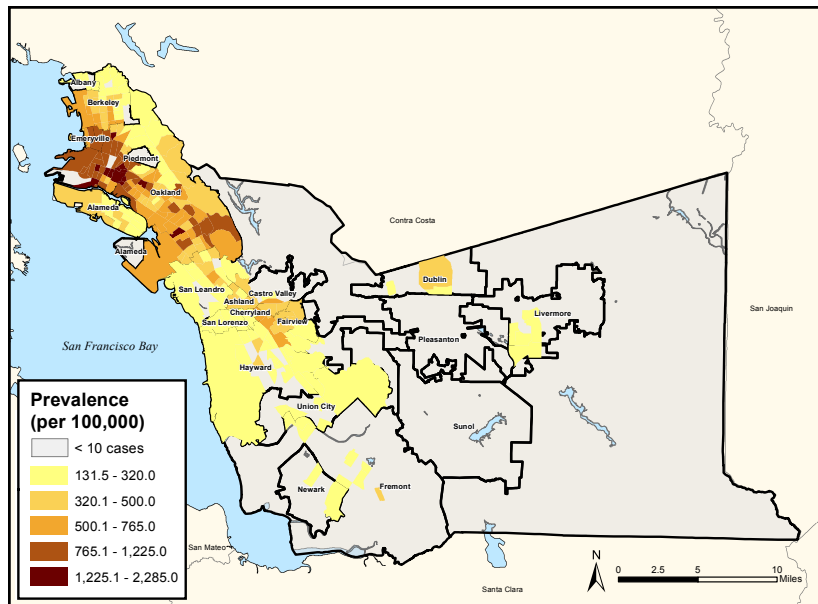
HIV prevalence was higher in each successive age group ranging from 4.0 per 100,000 children ages 0-12 to a high of 848.3 per 100,000 people ages 50-59. Prevalence among those aged 60 and over differed only marginally from those in their 30s. This is consistent with the improved survival of PLHIV in the ART era.

Figure 3.6: Prevalence of HIV by Age, Alameda County, year-end 2014



The city of Oakland had the highest HIV prevalence and the central county region had the next highest prevalence in Alameda County.

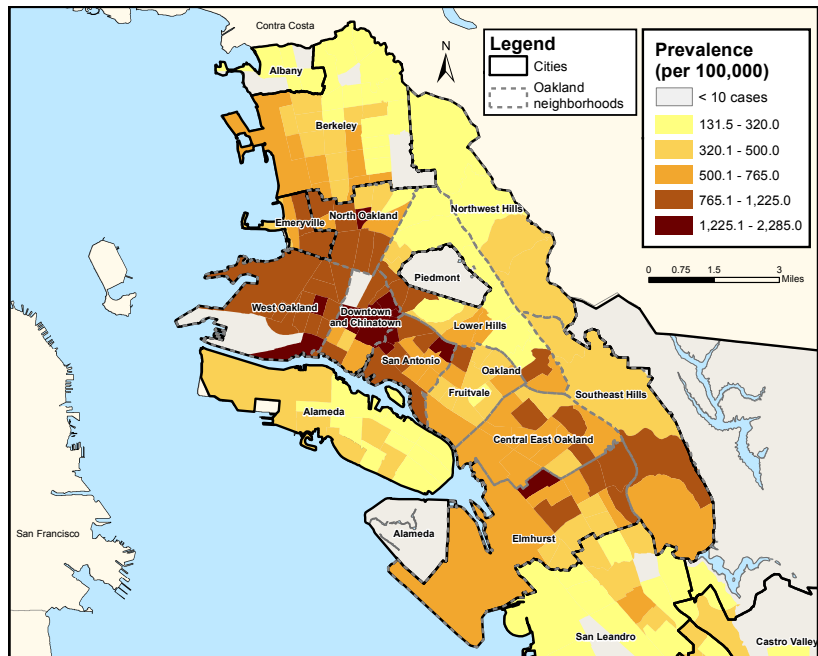
Figure 3.7: Prevalence of HIV by Census Tract of Residence, Alameda County, year-end 2014



NOTE: N=4,990; an additional 761 PLHIV (13.23% of all) are not represented due to incomplete street address.

Oakland, had the highest prevalence rates, with 1-2% of residents diagnosed with HIV disease in parts of the most impacted neighborhoods—North and West Oakland, Downtown and Chinatown—as well as in San Antonio and Elmhurst.

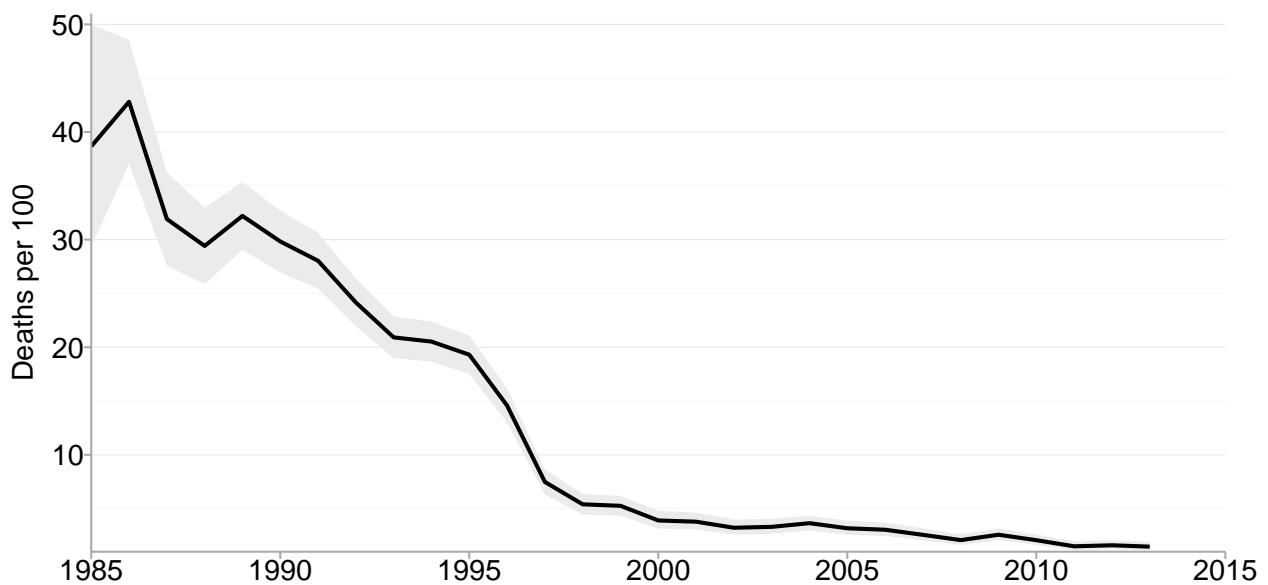
Figure 3.8: Prevalence of HIV by Census Tract of Residence, Oakland and Surrounding Area, year-end 2014



Deaths Among Alameda County Residents Ever Diagnosed with AIDS

Although HIV without AIDS has only been reportable by name in California since 2006, AIDS has been a reportable disease since the early 1980s allowing examination of long-term trends in death rates among the subset of PLHIV 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 2013, there were 57 deaths among the 3,755 residents ever diagnosed with AIDS for a rate of 1.47 deaths per 100.

Figure 3.9: Death Rate among Alameda County Residents Ever Diagnosed with AIDS, 1985-2013



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.

Table 3.1: People Living with HIV Disease and Prevalence Rates, Alameda County, Year-End 2014

		Count	Percent	Prevalence per 100,000	95% Confidence Interval
All PLHIV		5,751	100.0%	366.6	357.1 - 376
Sex[^]	Male	4,742	82.5%	615.6	598.1 - 633.1
	Female	1,009	17.5%	126.3	118.6 - 134.1
Race/Ethnicity	AfrAmer	2,392	41.6%	1352.7	1298.5 - 1406.9
	White	1,891	32.9%	370.7	354.0 - 387.4
	Latino	1,006	17.5%	271.9	255.1 - 288.7
	API	356	6.2%	80.6	72.3 - 89.0
	Other/Unk ^{^^}	106	1.8%	NA	NA
	Age	0-12	10	0.2%	4.0
	13-19	18	0.3%	13.0	7.7 - 20.5
	20-29	428	7.4%	189.7	171.7 - 207.7
	30-39	824	14.3%	364.1	339.2 - 388.9
	40-49	1,500	26.1%	665.2	631.5 - 698.8
	50-59	1,865	32.4%	848.3	809.8 - 886.8
	60 & over	1,106	19.2%	392.3	369.2 - 415.5
Region	Oakland Area	3,607	62.7%	721.2	697.7 - 744.8
	North County	477	8.3%	350.9	319.4 - 382.4
	Central County	1,026	17.8%	274.9	258.1 - 291.8
	South County	397	6.9%	116.8	105.3 - 128.3
	Tri-Valley	226	3.9%	107.2	93.2 - 121.2
	Remainder of County	15	0.3%	168.8	94.5 - 278.5
	Unknown	*	*	NA	NA

* Small counts suppressed to protect confidentiality

** Unstable rates not shown

NA = Rate not calculable

[^]“Sex” here refers to sex assigned at birth.

^{^^}Includes American Indians, Alaskan Natives, and those identifying with multiple racial categories as well as those for whom race/ethnicity could not be identified

The Continuum of HIV Care

Anti-retroviral therapy (ART), when taken regularly, can suppress HIV, limiting the damage done by the virus to the immune system as well as lowering the likelihood of ongoing transmission. ART thus benefits both PLHIV as well as the larger community. In order to maximize these benefits, it is crucial that PLHIV be diagnosed, linked to and retained in regular HIV care, and be prescribed and take ART. These steps—diagnosis, linkage, retention, and prescription to and adherence to ART—are all pre-requisites for achieving virologic suppression. Together, these steps comprise the continuum of HIV care, also called the HIV care cascade or the stages of HIV care. The continuum has gained enormous popularity as a framework for conceptualizing HIV care and prevention efforts.

In the United States as a whole, the CDC estimates that 82.1% of persons diagnosed in 2013 linked to care within 3 months.¹ Additionally, they estimate that 87.2% of all PLHIV were diagnosed by the end of 2012 and that, among them, 68.1% received any HIV care, 53.8% were retained in continuous care, and 50.1% were virally suppressed.² In California, 79.1% of those diagnosed in 2013 are estimated to have linked to care within 3 months. At the end of 2012, 84.0% of PLHIV are believed to have been diagnosed and, among them, 69.2% of are estimated to have received any HIV care that year, 52.2% were estimated to have been retained in continuous care, and 51.5% are estimated to have been virally suppressed at last test.[3]

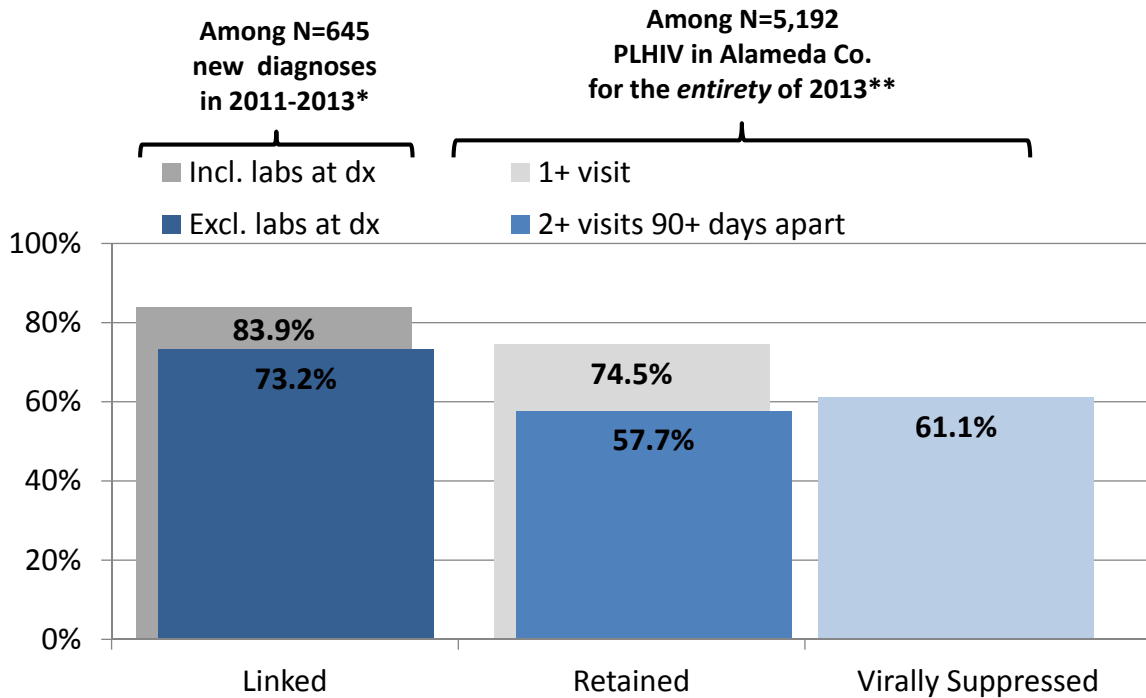
The Overall Continuum of Care

In Alameda County, between 73.2% and 83.9% of new diagnoses are linked to care within 3 months, depending on whether HIV-related labs ordered on the date of diagnosis are considered to be a marker of linkage. Approximately 57.7% of PLHIV in Alameda County for the entirety of 2013 had 2 or more visits 90 or more days apart that year and so were considered retained in care. Viral suppression was estimated to be 3.4% higher (61.1%) that same year.

¹Among those diagnosed in the 28 jurisdictions with complete laboratory reporting.

²Data on receipt of HIV medical care and viral suppression are based on data for PLHIV aged 13 or older, diagnosed by year-end 2011, alive at year-end 2012, and residing in the 28 jurisdictions with complete laboratory reporting. CD4 or viral load tests ordered in 2012 were used as markers of HIV care. Retention in continuous care is defined 2 or more CD4 or viral load tests at least 3 months apart and viral suppression is defined as last viral load in 2012 <200 copies/mL.

Figure 4.1: The Continuum of HIV Care in Alameda County



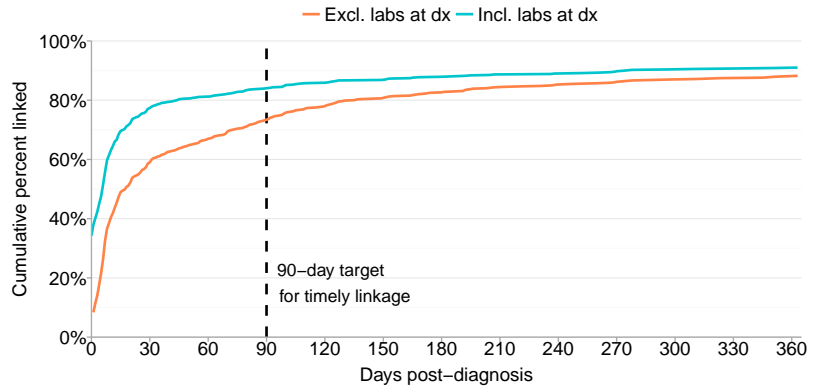
This report presents data on all measures along the continuum of HIV care (except ART use, for which data are not available) including estimates stratified by demographics.

Linkage to Care

Here we present linkage to care estimates for Alameda County. It should be noted that receipt of a CD4 count or viral load test is not always a definitive indicator of linkage to care. For example, a health care provider might order these tests concurrently with a confirmatory test on the assumption that the patient will most likely be confirmed positive for HIV infection. In some instances a patient might not return for the results of these tests. Labs ordered only after the date of diagnosis provide an alternative method for estimating linkage to care. Here, we present both estimates of linkage—one that includes labs done on the date of diagnosis and another that excludes them—providing what might be considered upper and lower bounds on the proportion linked. Patients who died within 90 days of diagnosis are not included (N=15).

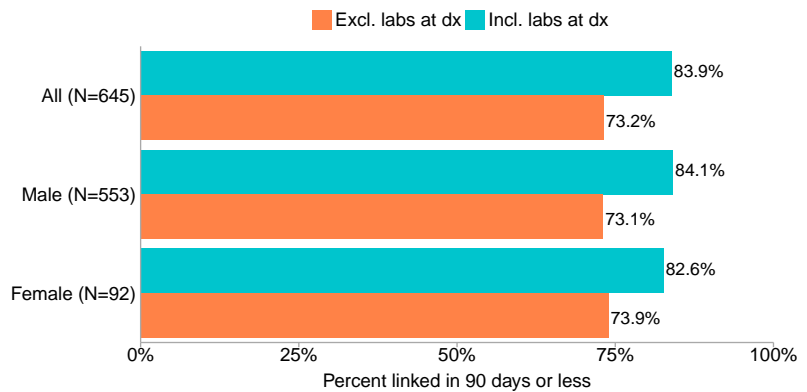
Median time from diagnosis to first CD4 or viral load was 5.5 days for Alameda County residents diagnosed with HIV from 2011 to 2013. Excluding labs ordered on the date of diagnosis, the median was 17.5 days.

Figure 4.2: Days Elapsing Between Diagnosis and First CD4 or Viral Load, Alameda County, 2011-2013



Overall, nearly 85% of those diagnosed with HIV in Alameda County from 2011 to 2013 were linked to HIV care within 90 days of their diagnosis. Excluding labs ordered on date of diagnosis, about 75% of newly diagnosed cases were linked. Differences by sex assigned at birth were minimal.

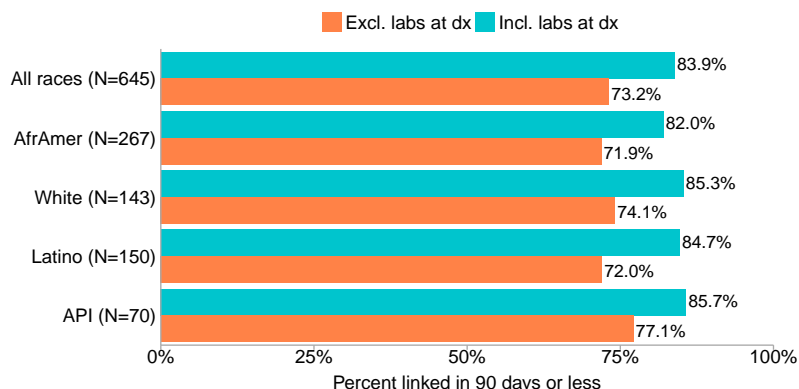
Figure 4.3: Linkage to HIV Care within 90 Days of Diagnosis by Sex, Alameda County, 2011-2013



NOTE: “Sex” here refers to sex assigned at birth.

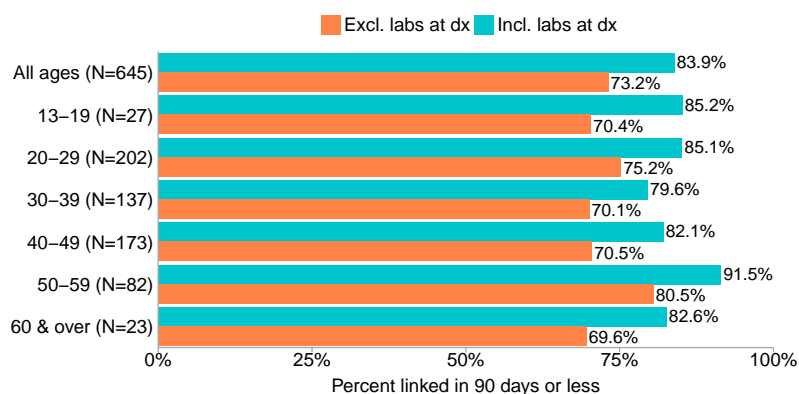
Differences in timely linkage to HIV care by race/ethnicity were minor with Asians and Pacific Islanders reporting the highest rate and African Americans the lowest.

Figure 4.4: Linkage to HIV Care within 90 Days of Diagnosis by Race/Ethnicity, Alameda County, 2011-2013



With the exception of those aged 50-59, among whom linkage was highest regardless of the definition used, timely linkage to HIV care varied little by age.

Figure 4.5: Linkage to HIV Care within 90 Days of Diagnosis by Age, Alameda County, 2011-2013

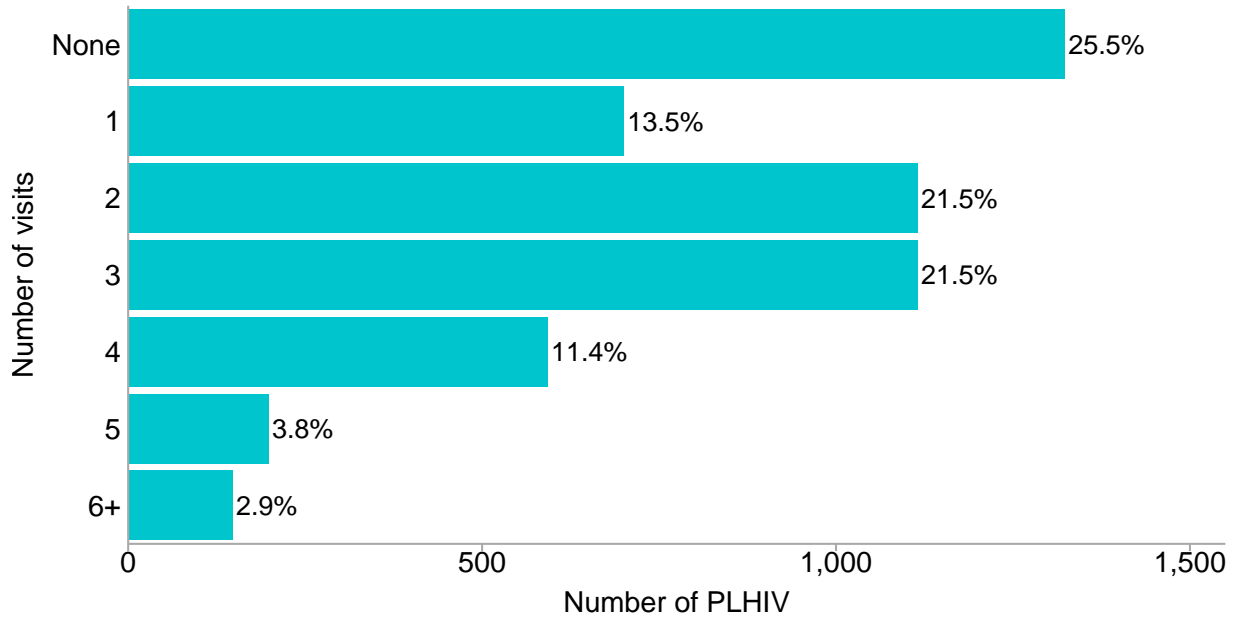


Retention in Care

In 2013, 74.5% of PLHIV¹ had one or more visits to an HIV care provider. Almost a fifth of them (or about 15% of all PLHIV) had only a single visit; however, it is possible that some had additional visits but had lab tests ordered at only one visit.

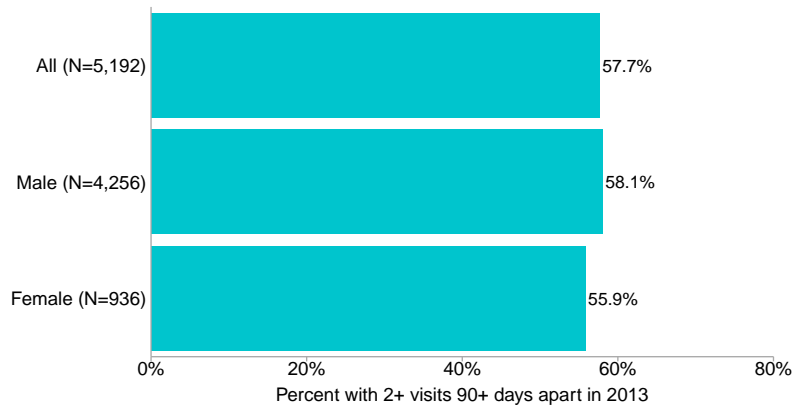
¹PLHIV that died or moved in 2013 were excluded from all analysis of retention in care.

Figure 4.6: Number of HIV Care Visits per PLHIV in 2013, Alameda County



In 2013 57.7% of PLHIV had 2 or more visits 90 days or more apart. A higher proportion of males than females were retained in care.

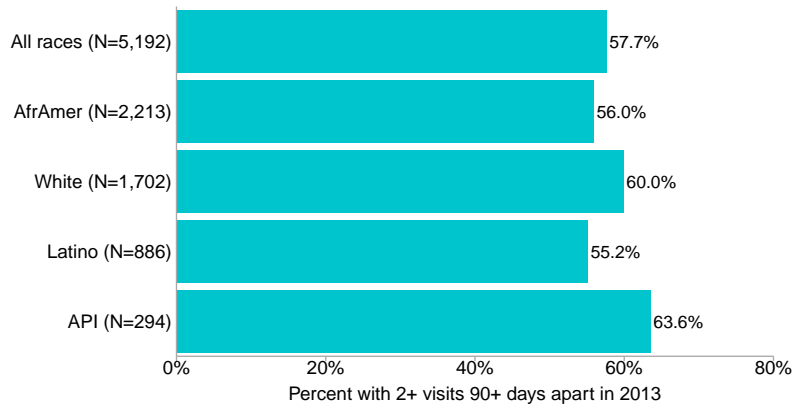
Figure 4.7: Retention in HIV Care by Sex, Alameda County, 2013



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

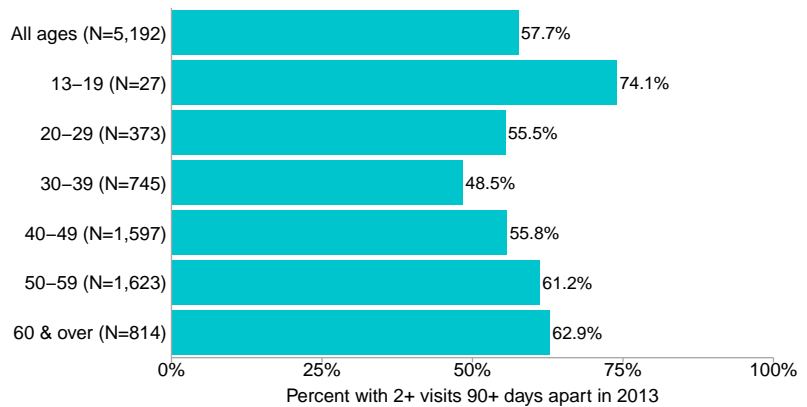
Asian and Pacific Islander PLHIV had the highest rates of retention in HIV care in 2013, followed by whites. Only about 55% of African American or Latino PLHIV were retained in care.

Figure 4.8: Retention in HIV Care by Race/Ethnicity, Alameda County, 2013



PLHIV ages 30-39 at year-end 2013 had lower rates of retention in care, with those in successively younger and successively older age groups with higher rates. Retention was highest among those ages 13-19 and 60 and over.

Figure 4.9: Retention in HIV Care by Age, Alameda County, 2013

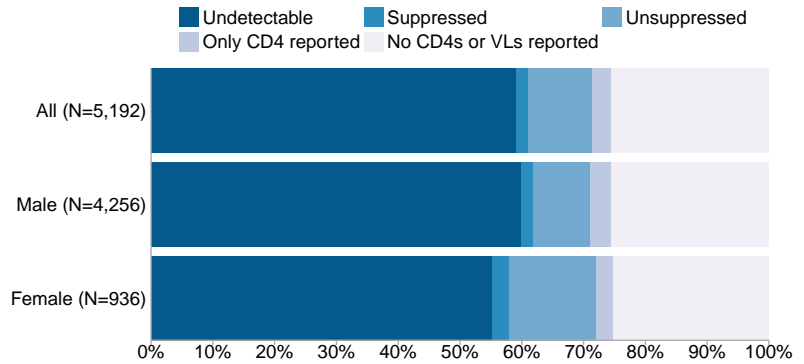


Virologic Status

The final measure along the care continuum is virologic suppression, defined as a viral load under 200 copies per ml. For the purposes of these analyses, an undetectable viral load is defined as 75 copies per ml or less. Also, PLHIV that died or moved in 2013 are excluded.

Sixty-one percent of PLHIV were found to be virally suppressed at their most recent test in 2013, with almost all of them undetectable. Virologic suppression was about 4% lower among female than male PLHIV.

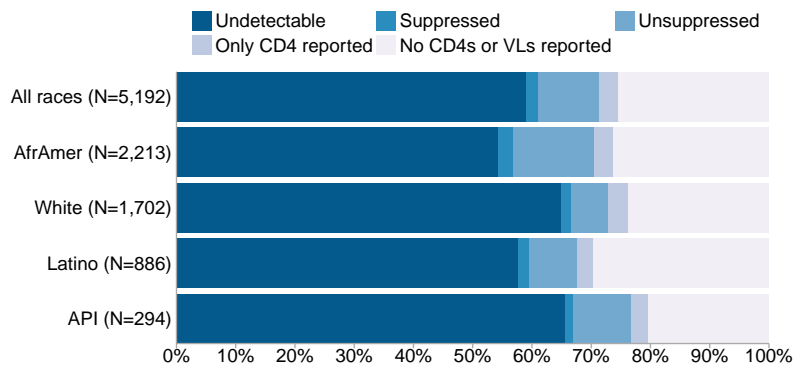
Figure 4.10: Virologic Status by Sex, Alameda County, 2013



NOTE: “Sex” here refers to sex assigned at birth.

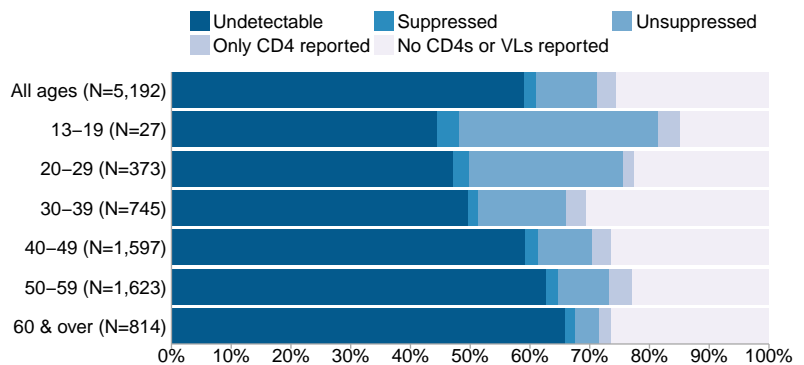
In 2013, almost 70% of Asian and Pacific Islander and white PLHIV were virally suppressed. Viral suppression was about 10% lower in other racial/ethnic groups.

Figure 4.11: Virologic Status by Race/Ethnicity, Alameda County, 2013



Viral suppression rates increased as age increased, ranging from about 48% among those ages 13-19 to over 67% among those ages 60 and over.

Figure 4.12: Virologic Status by Age, Alameda County, 2013



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 (2000 and 2010) and Environmental Systems Research Institute (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.

Calculations of Confidence Intervals for Rates

Where the number of events used to calculate a rate (i.e., the numerator) is less than 100, 95% confidence limits are calculated using a Poisson distribution and multiplying the rate by the 95% confidence factor appropriate to that count. Where the number of events is 100 or greater, confidence limits are calculated assuming the rate is normally distributed.

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 Master Death File. Thus, deaths among PLHIV once associated with Alameda County who die in another jurisdiction or whose HIV is not documented on their death certificate are ultimately captured, albeit with a 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. The Adult HIV/AIDS Case Report Form, which is used to report data on cases of HIV infection, is available at <http://www.cdph.ca.gov/pubsforms/forms/CtrlForms/cdph8641a.pdf>. Help completing it in Alameda County can be obtained by calling (510) 268-2372.

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, U.S. 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, U.S. 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.

HIV 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 (LHJ) in which the encounter occurs. Additionally, CCR Title 17, Section 2643.10 requires all commercial laboratories to report all HIV-related laboratory tests they conduct to the LHJ 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.[4] 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 and routed to Alameda County for follow up or investigation. Establishment of ELR resulted in major changes in the local processing and management of laboratory results for HIV surveillance. Figure 4.14 illustrates the steps involved in processing lab results, including ELR, for HIV surveillance in Alameda County. As shown in the figure, 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 tests(s) or submitted the report and complete a standardized case report form (appearing below) using information abstracted from the patient's medical record and obtained from the HCP. Forms are then transmitted to the state public health department, which in turn periodically submits de-identified data to CDC. When cases reported by different states appear to be the same person, CDC notifies the appropriate states so that they can contact each other directly and exchange information as necessary to determine whether the cases are, in fact, one and the same.

Security and Confidentiality of Data

In accordance with the county's data use and disclosure agreement with the state public health department, all data collected in the course of 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. Electronic data transmissions are encrypted and occur over a secure file transfer network. All electronic data are stored in a restricted access directory on a protected server.

Limitations of Surveillance Data and of County Analysis

A major strength of HIV surveillance data is that it is meant to capture and reflect the entire population of HIV diagnosed individuals. HIV surveillance data are not without their limitations however, which limit the analyses that can be done. These limitations include, but are not limited to:

- **Data quality:** Public health investigators must read through medical records in order to obtain all of the information required on the HIV case report form. However, information such as risk factors and identification as transgender may not be available in the medical record, may not have been elicited from the patient by the HCP, or may be inadequately described.
- **Data quantity:** Although the burden of HIV in Alameda County is substantial, the numbers of new diagnoses and of PLHIV are not large enough to enable certain analyses of small subpopulations. Statistical analyses based on very small groups of people may result in unstable estimates and 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. For these reasons, we allow a 6-12 month delay in estimating numbers of diagnoses or PLHIV and in estimating any measures dependent on laboratory test results.
- **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 only became mandated as recently as 2006, and HIV-related labs only became reportable in California in 2009. Consequently, most of these analyses are limited to 2006 and later, and analyses relying on laboratory reporting are limited to 2010 and later.

Figure 4.13: Timeline of Mandated HIV Reporting in California

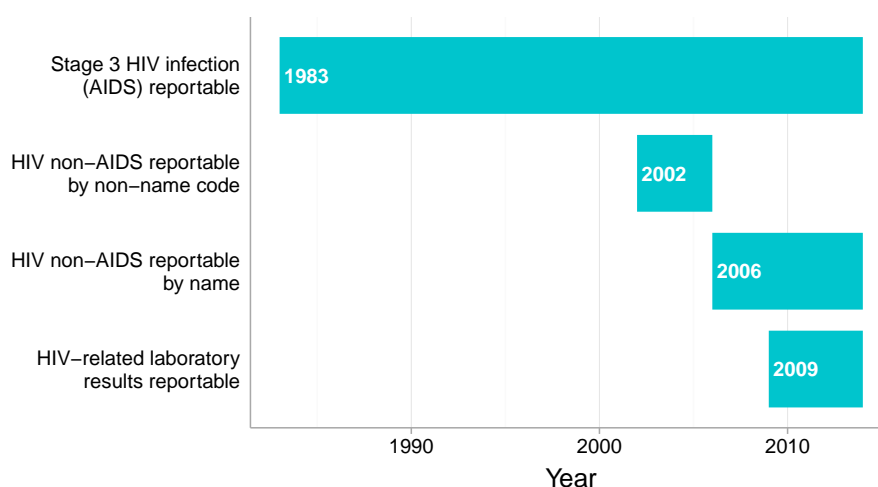
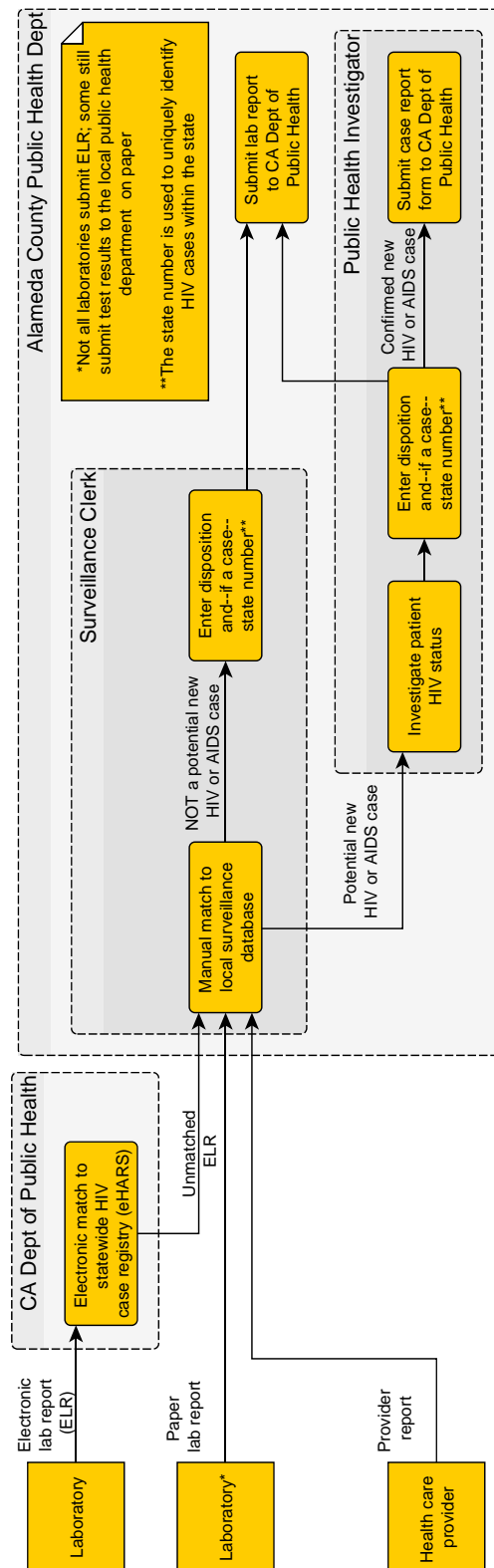


Figure 4.14: The HIV Surveillance System in Alameda County



ADULT HIV/AIDS CASE REPORT FORM

(Patients ≥ 13 Years of Age at Time of Diagnosis)

I. Health Department Use Only (See Appendix 1.0 for Further Details) (Record All Dates as mm/dd/yyyy) *Shaded Fields are Required. All Others are Optional.*

Name of Person Completing Form:		Person's Phone Number: ()	STATENO:	CITYNO:
Date Form Completed: / /	Reporting Health Department - City/County:		Document Source:	
Report Status: <input type="checkbox"/> 1- New <input type="checkbox"/> 2- Update	Physician's Name:	Physician's Phone Number: ()	Hospital/Facility Name:	
Did this report initiate a new case investigation? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Surveillance Method: <input type="checkbox"/> Active <input type="checkbox"/> Passive <input type="checkbox"/> Follow Up <input type="checkbox"/> Reabstraction <input type="checkbox"/> Unknown	Report Medium: <input type="checkbox"/> 1- Field Visit <input type="checkbox"/> 2- Mailed <input type="checkbox"/> 3- Phone <input type="checkbox"/> 4- Electronic Transfer <input type="checkbox"/> 5- CD/Disk		

II. Patient Identification

Patient Last Name:	Middle Name:	First Name:		
Alternate Name Type (e.g. Alias, Married, etc.):	Last Name:	Middle Name:	First Name:	
Address Type: <input type="checkbox"/> Residential <input type="checkbox"/> Bad Address <input type="checkbox"/> Correctional Facility <input type="checkbox"/> Foster Home <input type="checkbox"/> Homeless <input type="checkbox"/> Postal <input type="checkbox"/> Shelter <input type="checkbox"/> Temporary				
Current Street Address:		City:	County:	
State/Country:	ZIP Code:	Phone Number: ()	Social Security Number:	Other ID Type #1:
Other ID Type #1 Number:		Other ID Type #2:	Other ID Type #2 Number:	

III. Patient Demographics (See Appendix 2.0 for Further Details) (Record All Dates as mm/dd/yyyy)

Sex Assigned at Birth: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Unknown	Country of Birth: <input type="checkbox"/> U.S. <input type="checkbox"/> Other/U.S. Dependency (please specify):	Date of Birth: / /
Alias Date of Birth: / /	Vital Status: <input type="checkbox"/> 1- Alive <input type="checkbox"/> 2- Dead	Date of Death: / /
State of Death:		Status: <input type="checkbox"/> HIV <input type="checkbox"/> AIDS
Current Gender Identity: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Transgender: Male-to-Female (MTF) <input type="checkbox"/> Transgender: Female-to-Male (FTM) <input type="checkbox"/> Unknown <input type="checkbox"/> Other Gender Identity (specify):		Race: <input type="checkbox"/> White <input type="checkbox"/> Black/African American <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Pacific Islander <input type="checkbox"/> Chinese <input type="checkbox"/> Vietnamese <input type="checkbox"/> Hawaiian <input type="checkbox"/> Japanese <input type="checkbox"/> Asian Indian <input type="checkbox"/> Guamanian <input type="checkbox"/> Filipino <input type="checkbox"/> Laotian <input type="checkbox"/> Samoan <input type="checkbox"/> Korean <input type="checkbox"/> Cambodian <input type="checkbox"/> Other (specify):
Ethnicity: <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Not Hispanic/Latino <input type="checkbox"/> Unknown	Expanded Ethnicity:	
Expanded Race:		

IV. Residence at Diagnosis (See Appendix 3.0 for Further Details - Add Additional Addresses in Comments and Local/Optional Fields Section) (Required as Appropriate Based on Status)

Address Type (check all that apply): <input type="checkbox"/> Residence at HIV Diagnosis <input type="checkbox"/> Residence at AIDS Diagnosis <input type="checkbox"/> Check if SAME as Current Address					
Address of Residence at HIV Diagnosis	Street Address:	City:	County:	State/Country:	ZIP Code:
Address of Residence at AIDS Diagnosis	Street Address:	City:	County:	State/Country:	ZIP Code:

V. Facility at Diagnosis (See Appendix 4.0 for Further Details - Add Additional Facilities in Comments and Local/Optional Fields Section) **STATENO:** _____

Diagnosis Type (check all that apply to facility): <input type="checkbox"/> HIV Diagnosis <input type="checkbox"/> AIDS Diagnosis <input type="checkbox"/> Check if SAME as Facility Providing Information			
Facility Name:	Phone Number: ()	Street Address:	City:
County:	State/Country:	ZIP Code:	Provider Name:
Facility Type:	Inpatient: <input type="checkbox"/> Hospital <input type="checkbox"/> Other (specify): _____		
	Outpatient: <input type="checkbox"/> Private Physician <input type="checkbox"/> Adult HIV Clinic <input type="checkbox"/> Other (specify): _____		
	Screening, Diagnostic, Referral Agency: <input type="checkbox"/> CTS <input type="checkbox"/> STD Clinic <input type="checkbox"/> Other (specify): _____		
	Other Facility: <input type="checkbox"/> Emergency Room <input type="checkbox"/> Laboratory <input type="checkbox"/> Corrections <input type="checkbox"/> Unknown <input type="checkbox"/> Other (specify): _____		

VI. Patient History (See Appendix 5.0 for Further Details - Respond to All Questions) Pediatric Risk (Please Enter in Comments and Local/Optional Fields Section)

After 1977 and before the earliest known diagnosis of HIV infection, this patient had:		
Sex with a male: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Sex with a female: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Injected non-prescription drugs: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
HETEROSEXUAL relations with any of the following:	Has the patient:	
Contact with intravenous/injection drug user (IDU): <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Received clotting factor for hemophilia/coagulation disorder: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Contact with a bisexual male: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Received transfusion of blood/blood components (non-clotting): <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Contact with a person with AIDS or documented HIV infection, risk not specified: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Other documented risk (if yes, specify): <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Contact with transplant recipient with documented HIV: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	_____	
Contact with transfusion recipient with documented HIV: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	_____	

VII. Laboratory Data (Record All Dates as mm/dd/yyyy) (See Instructions for Details)

HIV Antibody Tests (Non-Type Differentiating) [HIV-1 vs. HIV-2]	
TEST 1: <input type="checkbox"/> HIV-1 EIA <input type="checkbox"/> HIV-1/2 EIA <input type="checkbox"/> HIV-1/2 Ag/Ab <input type="checkbox"/> HIV-1 WB <input type="checkbox"/> HIV-1 IFA <input type="checkbox"/> HIV-2 EIA <input type="checkbox"/> HIV-2 WB <input type="checkbox"/> Other (specify test): _____	
RESULT: <input type="checkbox"/> Positive/Reactive <input type="checkbox"/> Negative/Nonreactive <input type="checkbox"/> Indeterminate Manufacturer: _____	RAPID TEST (check if rapid): <input type="checkbox"/> Collection Date: ____/____/____
TEST 2: <input type="checkbox"/> HIV-1 EIA <input type="checkbox"/> HIV-1/2 EIA <input type="checkbox"/> HIV-1/2 Ag/Ab <input type="checkbox"/> HIV-1 WB <input type="checkbox"/> HIV-1 IFA <input type="checkbox"/> HIV-2 EIA <input type="checkbox"/> HIV-2 WB <input type="checkbox"/> Other (specify test): _____	
RESULT: <input type="checkbox"/> Positive/Reactive <input type="checkbox"/> Negative/Nonreactive <input type="checkbox"/> Indeterminate Manufacturer: _____	RAPID TEST (check if rapid): <input type="checkbox"/> Collection Date: ____/____/____
TEST 3: <input type="checkbox"/> HIV-1 EIA <input type="checkbox"/> HIV-1/2 EIA <input type="checkbox"/> HIV-1/2 Ag/Ab <input type="checkbox"/> HIV-1 WB <input type="checkbox"/> HIV-1 IFA <input type="checkbox"/> HIV-2 EIA <input type="checkbox"/> HIV-2 WB <input type="checkbox"/> Other (specify test): _____	
RESULT: <input type="checkbox"/> Positive/Reactive <input type="checkbox"/> Negative/Nonreactive <input type="checkbox"/> Indeterminate Manufacturer: _____	RAPID TEST (check if rapid): <input type="checkbox"/> Collection Date: ____/____/____
HIV Antibody Tests (Type Differentiating) [HIV-1 vs. HIV-2]	
TEST: <input type="checkbox"/> HIV-1/2 Differentiating (e.g. Multispot)	
RESULT: <input type="checkbox"/> HIV-1 <input type="checkbox"/> HIV-2 <input type="checkbox"/> Both (undifferentiated) <input type="checkbox"/> Neither (negative)	Collection Date: ____/____/____

VII. Laboratory Data (continued) (Record All Dates as mm/dd/yyyy)

STATENO: _____

HIV Detection Tests (Qualitative)			
TEST 1: <input type="checkbox"/> HIV-1 RNA/DNA NAAT (Qual) <input type="checkbox"/> HIV-1 P24 Antigen <input type="checkbox"/> HIV-1 Culture <input type="checkbox"/> HIV-2 RNA/DNA NAAT (Qual) <input type="checkbox"/> HIV-2 Culture			
RESULT: <input type="checkbox"/> Positive/Reactive <input type="checkbox"/> Negative/Nonreactive <input type="checkbox"/> Indeterminate		Collection Date: ____/____/____	
TEST 2: <input type="checkbox"/> HIV-1 RNA/DNA NAAT (Qual) <input type="checkbox"/> HIV-1 P24 Antigen <input type="checkbox"/> HIV-1 Culture <input type="checkbox"/> HIV-2 RNA/DNA NAAT (Qual) <input type="checkbox"/> HIV-2 Culture			
RESULT: <input type="checkbox"/> Positive/Reactive <input type="checkbox"/> Negative/Nonreactive <input type="checkbox"/> Indeterminate		Collection Date: ____/____/____	
HIV Detection Tests (Quantitative Viral Load) Note: Include earliest test after diagnosis			
TEST 1: <input type="checkbox"/> HIV-1 RNA/DNA NAAT (Quantitative Viral Load) <input type="checkbox"/> RT-PCR <input type="checkbox"/> bDNA <input type="checkbox"/> Other (specify test): _____			
RESULT: <input type="checkbox"/> Detectable <input type="checkbox"/> Undetectable		Copies/mL: _____	Log: _____ Collection Date: ____/____/____
TEST 2: <input type="checkbox"/> HIV-1 RNA/DNA NAAT (Quantitative Viral Load) <input type="checkbox"/> RT-PCR <input type="checkbox"/> bDNA <input type="checkbox"/> Other (specify test): _____			
RESULT: <input type="checkbox"/> Detectable <input type="checkbox"/> Undetectable		Copies/mL: _____	Log: _____ Collection Date: ____/____/____
Immunologic Tests (CD4 Count and Percentage)			
CD4 at or closest to current diagnosis status: CD4 count: _____ cells/μL CD4 percentage: _____ % Collection Date: ____/____/____			
First CD4 result <200 cells/μL or <14%: CD4 count: _____ cells/μL CD4 percentage: _____ % Collection Date: ____/____/____			
Other CD4 result <200 cells/μL or <14%: CD4 count: _____ cells/μL CD4 percentage: _____ % Collection Date: ____/____/____			
Documentation of Tests (Complete only if none of the following was positive: HIV-1 Western blot, IFA, culture, p24 Ag test, viral load, or qualitative NAAT [RNA or DNA])			
Did documented laboratory test results meet approved HIV diagnostic algorithm? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
If yes, provide date (specimen collection date if known) of earliest positive test for this algorithm: ____/____/____			
If HIV laboratory tests were not documented, is HIV diagnosis documented by a physician? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
If yes, provide date of documentation by physician: ____/____/____			

VIII. Clinical (Check Boxes Where Applicable) (Record All Dates as mm/dd/yyyy)

	✓	Date		✓	Date
Candidiasis, esophageal			Kaposi's sarcoma		
Cryptococcosis, extrapulmonary			Pneumocystis carinii pneumonia		
Cytomegalovirus disease (other than in liver, spleen or nodes)			Wasting syndrome due to HIV		
Herpes simplex: chronic ulcer(s) (>1 mo. duration), bronchitis, pneumonitis or esophagitis			Other (specify):		

IX. Treatment/Services Referrals (Record All Dates as mm/dd/yyyy)

Has This Patient Been Informed of His/Her HIV Infection? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Patient's Medical Treatment is Primarily Reimbursed by:	
<input type="checkbox"/> 1- Medicaid <input type="checkbox"/> 2- Private Insurance/HMO <input type="checkbox"/> 3- No Coverage <input type="checkbox"/> 4- Other Public Funding <input type="checkbox"/> 9- Unknown	
For Female Patient:	
Is This Patient Currently Pregnant? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Has This Patient Delivered Live-Born Infants? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown

IX. Treatment/Services Referrals (continued) (Record All Dates as mm/dd/yyyy)

STATENO: _____

For Children of Patient: (Record Most Recent Birth Below; Record Additional or Multiple Births in Comments and Local/Optional Fields Section)		
Child's Name:	Child's Soundex:	Child's Date of Birth: ____/____/____
Child's Coded ID:	Child's STATENO:	
Hospital of Birth: (If Child Was Born at Home, Enter "Home Birth" for Hospital Name)		
Hospital Name:		Phone Number: () _____
Street Address:	City:	
County:	State/Country:	ZIP Code:

X. HIV Testing and Antiretroviral Use History (TTH) (Record All Dates as mm/dd/yyyy) (Required Sections for New Case Report Only)

Main Source of Testing and Treatment History Information (select one): <input type="checkbox"/> Patient Interview <input type="checkbox"/> Medical Record Review		Date Patient Reported Information: ____/____/____	
<input type="checkbox"/> Provider Report <input type="checkbox"/> NHM&E/PEMS <input type="checkbox"/> Other (specify): _____			
Ever Had a Positive HIV Test? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused <input type="checkbox"/> Don't Know/Unknown	Date of First Positive HIV Test: ____/____/____	Ever Had a Negative HIV Test? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused <input type="checkbox"/> Don't Know/Unknown	Date of Last Negative HIV Test: (If date is from a lab test with test type, enter in Laboratory Data Section.) ____/____/____
Number of Negative HIV Tests Within 24 Months Before First Positive Test (#): _____ <input type="checkbox"/> Refused <input type="checkbox"/> Don't Know/Unknown			
Ever Taken Any Antiretrovirals (ARVs)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused <input type="checkbox"/> Don't Know/Unknown	If Yes, What ARV Medications? _____		
Date ARVs First Taken: ____/____/____	Date ARVs Last Taken (mm/dd/yyyy): ____/____/____		

XI. Duplicate Review

Status (check one): <input type="checkbox"/> Same As <input type="checkbox"/> Different Than <input type="checkbox"/> Pending	State Name: _____	STATENO: _____
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XII. Comments and Local/Optional Fields

LOCAL HEALTH DEPARTMENTS:

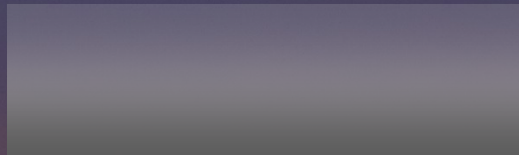
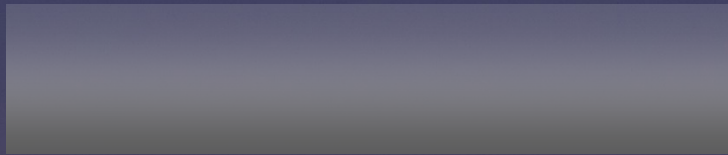
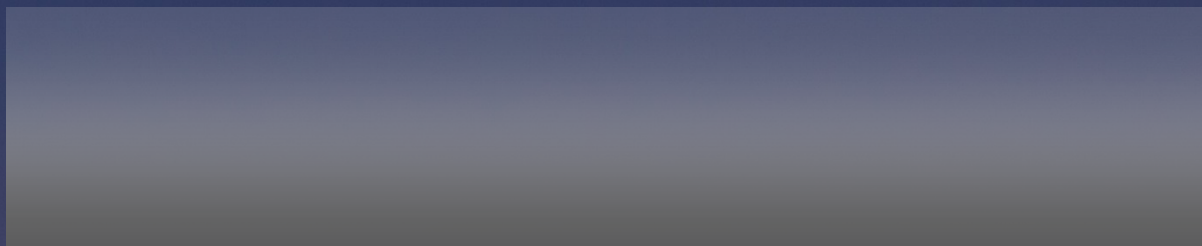
SUBMIT COMPLETED FORM TO THE OFFICE OF AIDS PER YOUR CONTRACT'S SCOPE OF WORK, EXHIBIT A, PART D, OBJECTIVE 2.

PROVIDERS:

SUBMIT COMPLETED FORM MARKED "CONFIDENTIAL" TO THE HIV/AIDS SURVEILLANCE PROGRAM AT YOUR LOCAL HEALTH DEPARTMENT.
Local Health Department HIV/AIDS contact list is available at: www.cdph.ca.gov/programs/AIDS/pages/foAHIVRptgSP.aspx

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