



## The HIV Epidemic in Oakland, 2012-2014

Oakland is Alameda County's largest city and has a diverse population. East and West Oakland communities experience among the highest rates of poverty, unemployment, housing cost burden, and lack of health insurance coverage, and among the lowest high school graduation rates in the county. Oakland residents have a lower life expectancy and a higher burden of mortality and morbidity from chronic disease, injuries, substance use, and severe mental illness than the county.<sup>1</sup>

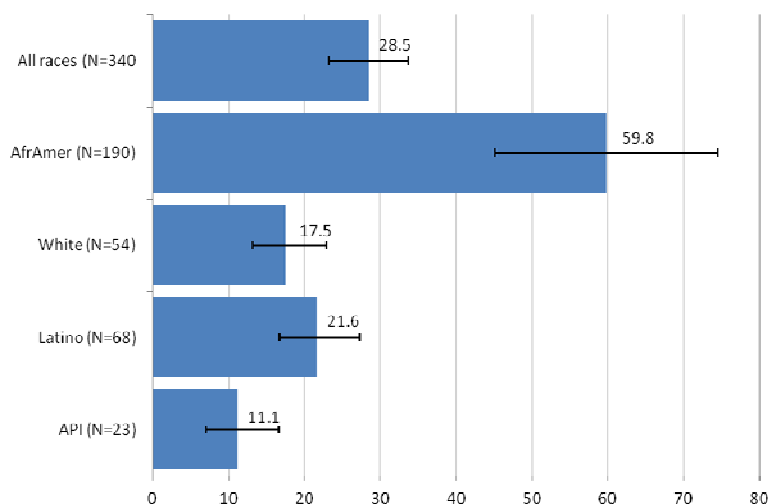
Oakland also experiences a disproportionate burden of HIV and AIDS in the county. In 2010, one in four of Alameda County residents lived in Oakland, yet one in two new diagnoses of HIV in Alameda County during 2012 to 2014 occurred among Oakland residents. The overall rate of new HIV diagnoses in Oakland was twice the rate in the county as a whole.<sup>2</sup> Unfavorable social and economic conditions in several West and East Oakland neighborhoods likely contribute to the profound racial/ethnic inequities in HIV burden in Oakland.

To address the high burden of HIV, in October 2015 the City of Oakland signed on to the Fast-Track Cities Initiative<sup>3</sup>—an initiative to reduce global HIV rates by focusing on high HIV burden cities around the world. This report highlights key features of the Oakland HIV epidemic and its progress towards the targets set by the Fast-Track Cities Initiative.

### New Diagnoses of HIV

Counts and rates of new HIV diagnoses in Oakland during 2012 to 2014 by sex, race/ethnicity, and age group are presented in Table 1 (Appendix).<sup>4</sup> Between 2012 and 2014, 113.3 people on average per year were diagnosed with HIV in Oakland. The vast majority of these diagnoses were among men. African Americans accounted for over half of all new diagnoses, followed by Latinos who comprised about 20%. African Americans had an over five times higher HIV diagnosis rate during 2012 to 2014 compared to Asians and Pacific Islanders (API), and a three times higher rate than whites (Figure 1). Persons aged 20 to 49 accounted for the majority of diagnoses; those aged 20 to 29 accounted for about 30% of all new diagnoses. The lowest diagnosis rates among all age groups occurred among those aged 19 or younger and 60 years or older.

Figure 1: HIV Diagnosis Rates by Race/Ethnicity, Oakland, 2012-2014



African Americans have the highest diagnosis rate of all racial/ethnic groups in Oakland by far—nearly 60 new cases per 100,000 persons. Asians and Pacific Islanders (API) have the lowest rates.<sup>5</sup>

Note: "AfrAmer"=African American, "API"= Asian and Pacific Islander

Figure 2: Trends in HIV Diagnosis Rates by Race/Ethnicity in Men, Oakland, 2006-2014

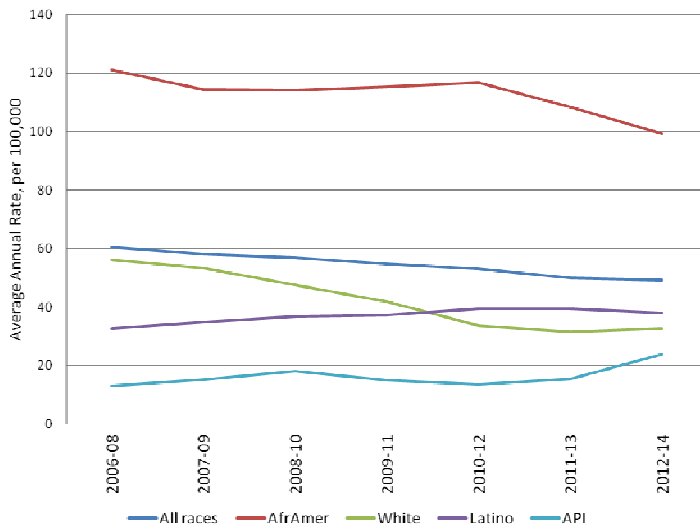
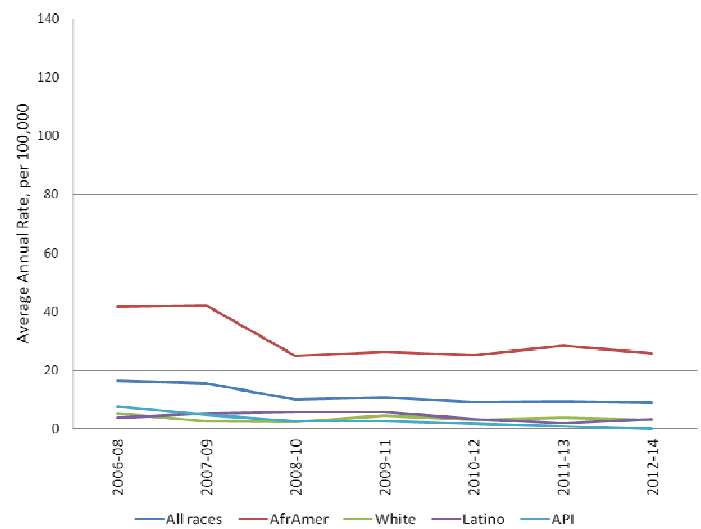


Figure 3: Trends in HIV Diagnosis Rates by Race/Ethnicity in Women, Oakland, 2006-2014

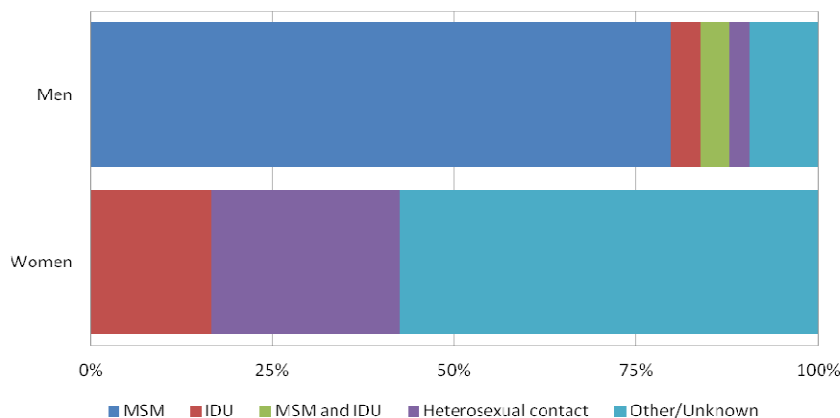


Note: “AfrAmer”=African American, “API”= Asian and Pacific Islander

Between 2006 and 2014 rates of new HIV diagnoses remained relatively stable among Latino and API men, and decreased among white men (Figure 2). Rates among African American men also decreased during this time period, but continued to be the highest of all racial/ethnic groups. During 2012 to 2014, African American men were three times more likely to be diagnosed with HIV than white men, and a four times more likely to be diagnosed with HIV than API men.

A large drop in HIV cases among women occurred between 2006 and 2014, particularly among African American women (Figure 3). However, African American women continue to experience the highest rates of HIV among women. Rates among white, Latino, and API women have remained low during this time period, with less than 10 new diagnoses on average annually in each group. During 2012 to 2014, African American women in Oakland were eight times more likely to be diagnosed with HIV compared to white women.

Figure 4: Mode of Transmission by Sex, Oakland, 2012-2014



Men having sex with men (MSM) was the most common mode of transmission for new HIV diagnoses among men in Oakland from 2012 to 2014 (Figure 4). MSM made up about 80% of diagnoses among men and 67% of diagnoses overall. Among women with a documented risk factor, heterosexual contact was the most common mode of transmission, followed by intravenous drug use (IDU).<sup>6</sup>

## People Living with HIV

Table 2 (Appendix) presents data for people living with HIV (PLHIV) residing in Oakland at the end of 2014. There were 3,275 PLHIV living in Oakland, including people with stage 3 HIV infection (AIDS)—this represented nearly 60% of all PLHIV residing in Alameda County. The large majority of PLHIV in Oakland were men (over 80%). Over half of PLHIV in Oakland were African American and one-fourth was white. Among male PLHIV 40% were African American; API made up the smallest proportion of PLHIV. Though the highest rates of new diagnosis during 2012 to 2014 occurred among people aged 20 to 49, over half of PLHIV in Oakland were aged 50 or over. The growing number of older PLHIV in Oakland is consistent with the epidemics in Alameda County and the United States—a consequence of longer survival with improved HIV treatment in recent years.

Figures 5 and 6 illustrate the geographic distribution of residents living in poverty in Oakland<sup>7</sup> and rate of PLHIV in Oakland (prevalence) at the end of 2014, respectively. HIV prevalence in Oakland is substantially higher in the Downtown, West Oakland, San Antonio, and East Oakland (Oakland Flats) neighborhoods compared to the North- and Southwest Hills and Lower Hills (Oakland Hills) neighborhoods.<sup>8</sup> This distribution closely mirrors the distribution of poverty in Oakland neighborhoods.

Figure 5: Percent Residents Living in Poverty by Census Tract, Oakland 2014

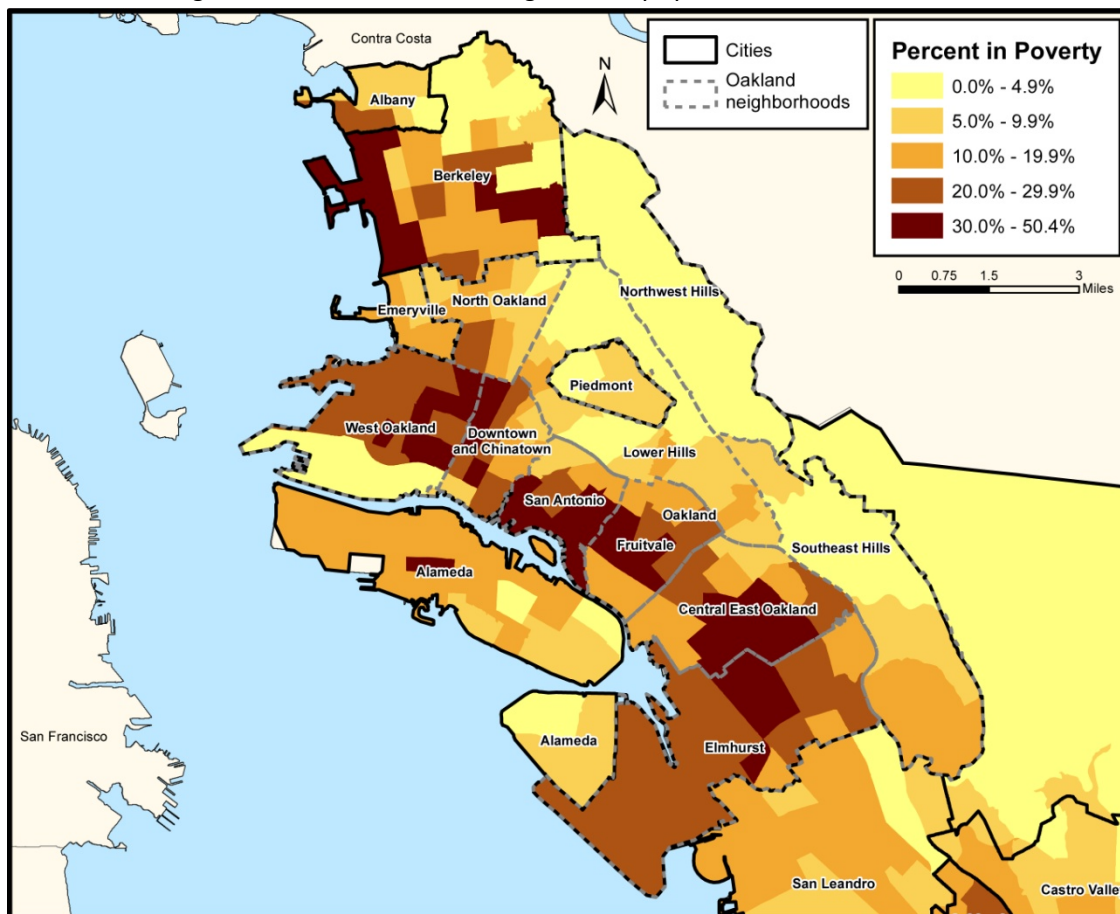
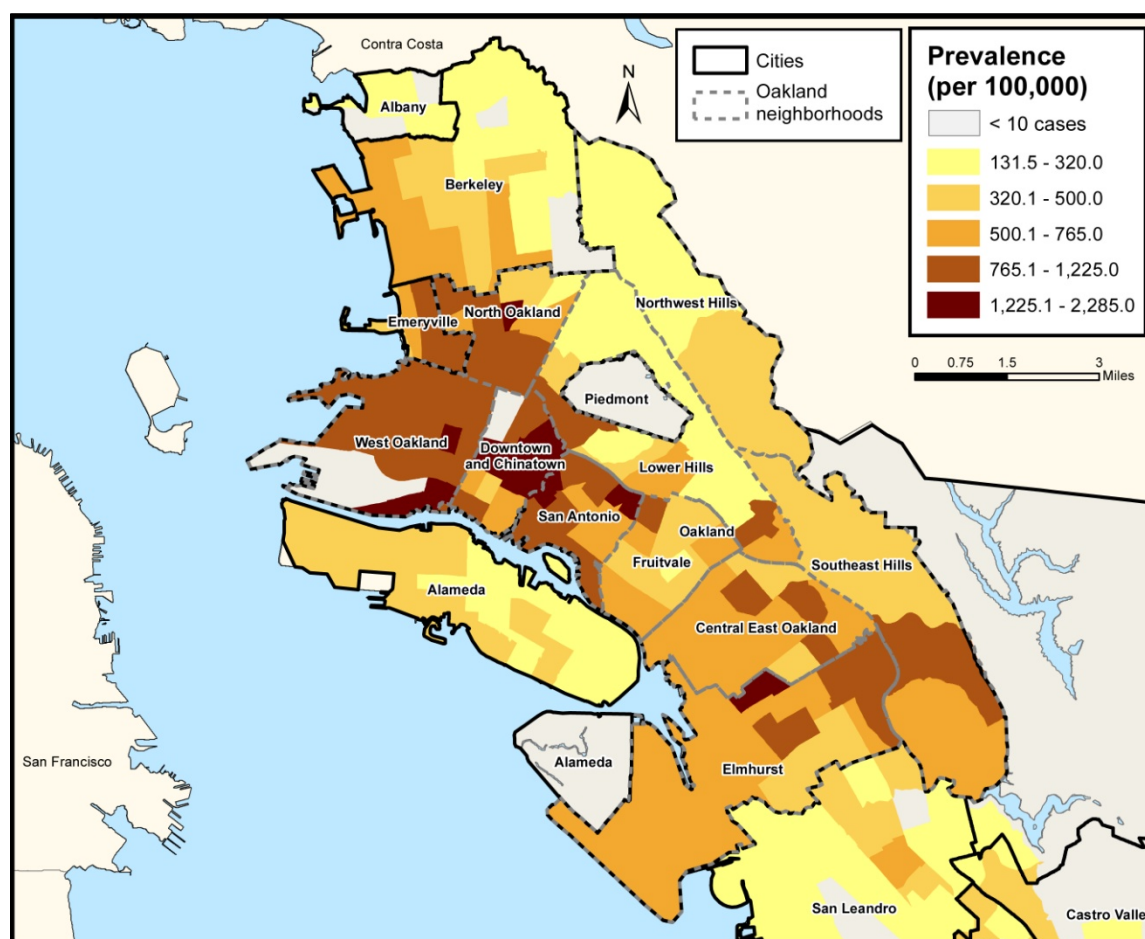


Figure 6: Prevalence of HIV by Census Tract, Oakland, Year-End 2014

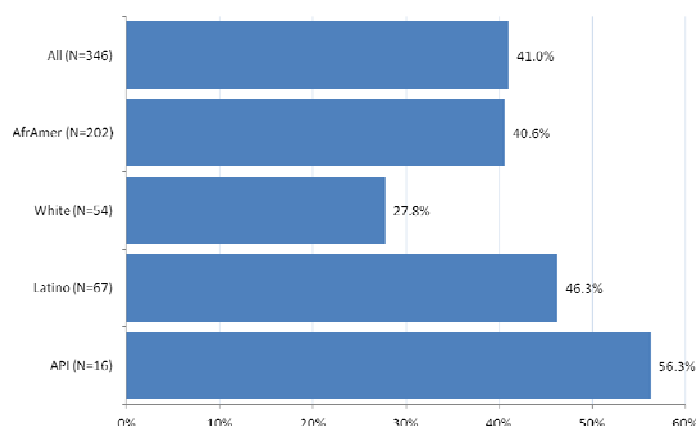


## Fast-Track Cities Indicators

The Fast-Track Cities Initiative is an initiative led by international HIV/AIDS relief organizations and local governments to improve and accelerate HIV/AIDS response in urban environments where much of the global HIV burden lies. It uses the "90-90-90 targets": that 90% of PLHIV will know their HIV status; 90% of those who are HIV positive and know their status will be on HIV treatment (antiretroviral therapy, or ART); and 90% of those on HIV treatment will be virally suppressed (have a low level of the HIV virus in their blood).<sup>3</sup> While Oakland data are not available for all of these measures, data on selected indicators provide useful insights into the state of the HIV epidemic in Oakland. These measures include: late diagnosis; linkage to care; retention in care; and viral suppression.

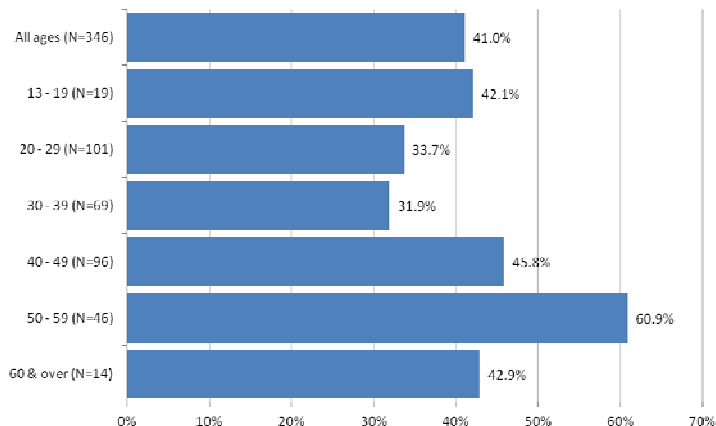
## Late Diagnosis

Figure 7: Late Diagnosis by Race/Ethnicity, Oakland, 2011-2013



Note: “AfrAmer”=African American, “API”= Asian and Pacific Islander

Figure 8: Late Diagnosis by Age, Oakland, 2011-2013



Late diagnosis—or diagnosis of HIV late in the course of infection—is an important measure of the current epidemic, as those who do not know their HIV status and are not virally suppressed contribute considerably to the spread of HIV. A notable difference in the pattern of late diagnoses in Oakland compared to that in Alameda County as a whole was by race/ethnicity (Figure 7). While there were only minor differences in timely HIV diagnosis across racial/ethnic groups in the county, people of color in Oakland had substantially higher proportions of late diagnosis than whites.<sup>2</sup> While API appear to have a high proportion of late HIV diagnoses, this finding should be considered with caution as it is based on a small number of cases among API and may represent a variable or unstable estimate. Differences in late diagnosis were also seen by age group (Figure 8). Among newly diagnosed persons aged 50 to 59, over 60% were late; this may represent a gap in testing of older populations at risk for HIV. Among people aged 20 to 29, a third of new diagnoses were late. Among newly diagnosed MSM, about 43% were diagnosed late. Men were more likely to be diagnosed late (44%) than women (28%).

## Linkage to Care

Linkage to HIV care is defined as the proportion of those newly diagnosed with HIV who had a HIV care visit within 90 days of diagnosis. The proportion linked was calculated both including as well as excluding lab tests done on the date of diagnosis. When examined including labs done on the date of diagnosis, 84% of all those diagnosed between 2011 and 2013 were linked to care within 90 days or less; when excluding the date of diagnosis, the proportion linked was 73% (data not shown). Men and women had similar proportions linked to care including the date of diagnosis (around 84%) and excluding the date of diagnosis (around 73%). APIs had a much higher proportion of linkage to care within 90 days or less by both definitions (100% including, and 88% excluding diagnosis date) compared to other racial/ethnic groups with proportion linked 83-85% including and 72-73% excluding diagnosis date.

## Retention in Care

One measure of retention in care among PLHIV is measured by the proportion that had at least one visit in 2013. Of all PLHIV residing in Oakland throughout 2013, 75% had at least one visit in 2013. The proportion of PLHIV with a single visit varied by age and race/ethnicity. Latinos had the lowest proportion of all racial/ethnic groups (Figure 9) and those 30 to 39 years old had the lowest proportion with a single visit among all age groups (Figure 10).

Another measure of retention in care is the proportion of PLHIV who had two or more visits that were 90 or more days apart. In 2013, 58% of all PLHIV in Oakland were retained in care. White and API PLHIV had the highest and African Americans and Latinos had the lowest retention in care among all racial/ethnic groups. Those aged 30 to 39 had the lowest retention in care among all age groups.

Figure 9: Retention in Care by Race/Ethnicity, Oakland, 2013

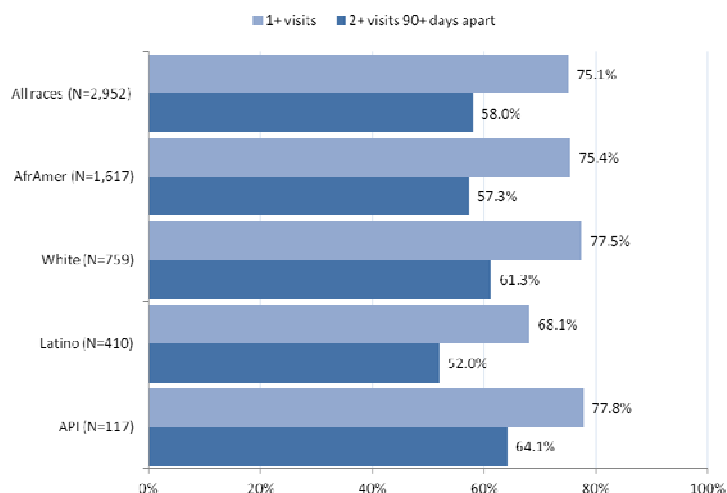
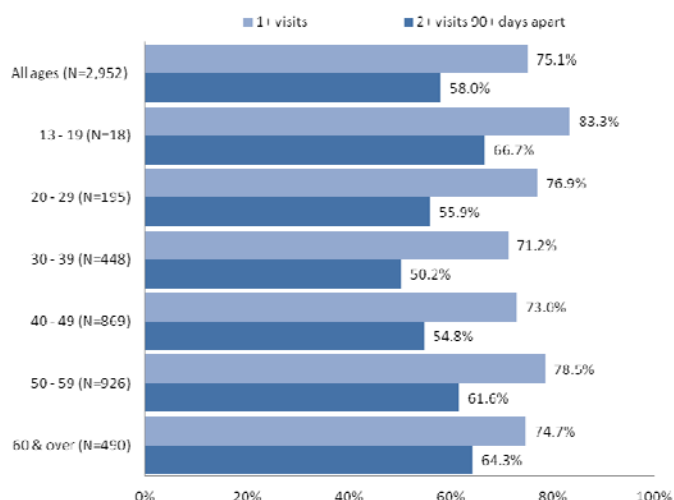


Figure 10: Retention in Care by Age, Oakland, 2013



Note: “AfrAmer”=African American, “API”= Asian and Pacific Islander

## Viral Load

Viral load tests are used to determine the amount of the HIV virus in the blood at a given time. Viral load is an important measure because people with high amounts of virus in the blood are the most infectious to others, making them major drivers of the HIV epidemic. People living with HIV can take antiretroviral therapy—medication that reduces their viral load and strengthens their immune system—which minimizes the risk of ongoing transmission. Attainment of viral suppression among 90% of individuals on antiretroviral therapy is a key target in the Fast-Track Cities Initiative.<sup>8-9</sup> Among all people living with HIV or AIDS at year end 2014 in Oakland, 60% had a suppressed or undetectable viral load and 12% were unsuppressed.<sup>10, 11</sup> African Americans and Latinos had the lowest proportions of virally suppressed or undetectable individuals (58% for both) of all racial/ethnic groups and whites and API the highest proportions (67% and 69% respectively). Viral suppression generally increased with age, with PLHIV aged 20-29 having the lowest proportions (48% suppressed) and those aged 60 and over the highest (69%).

The profile of the Oakland HIV epidemic presented in this brief highlights the substantially higher burden of HIV among people of color, in particular African Americans and Latinos, as well as those in low-income neighborhoods in Oakland. The data also highlight the profound racial/ethnic inequities in timely HIV diagnosis, engagement in care, and virologic suppression.

These findings highlight the need to strengthen policies and programs tailored to the communities most impacted by the HIV epidemic in Oakland, specifically those that reduce social and economic barriers to HIV prevention and care.

## Appendix: Data Tables

**Table 1. New HIV Diagnoses by Selected Characteristics, Oakland, 2012-2014**

		Average Annual total	Percent of Oakland diagnoses	Diagnosis Rate per 100,000 (three-year average)	95% Confidence Interval
All diagnoses in Oakland		113.3	100.0%	28.5	(23.2 - 33.7)
Sex	Male	95.3	84.1%	49.3	(39.4 - 59.2)
	Female	18.0	15.9%	8.8	(6.6 - 11.5)
Race/Ethnicity	African American	63.3	55.9%	59.8	(45.1 - 74.5)
	White	18.0	15.9%	17.5	(13.2 - 22.9)
	Latino	22.7	20.0%	21.6	(16.7 - 27.3)
	API	7.7	6.8%	11.1	(7.0 - 16.6)
	Other/Unknown	*	*	**	**
Age Group	0 - 12	*	*	**	**
	13 - 19	5.0	4.4%	16.3	(9.1 - 26.8)
	20 - 29	34.3	30.3%	56.9	(37.9 - 75.9)
	30 - 39	26.7	23.5%	41.1	(32.6 - 51.2)
	40 - 49	29.7	26.2%	52.1	(41.9 - 64.1)
	50 - 59	12.7	11.2%	24.6	(17.4 - 33.8)
	60 & over	4.7	4.1%	6.6	(3.6 - 11.1)

Notes: 1) "\*" = count not displayed due to small numbers; 2) "\*\*" = rates unstable or not calculable

**Table 2. People Living with HIV by Selected Characteristics, Oakland, Year End 2014**

		Count	Percent of PLHIV	Prevalence per 100,000	95% Confidence Interval
All PLHIV in Oakland		3,275	100.0%	814.8	(786.9 - 842.7)
Sex	Male	2,672	81.6%	1,367.4	(1,315.5 - 1,419.2)
	Female	603	18.4%	292.0	(268.7 - 315.3)
Race/Ethnicity	African American	1,753	53.5%	1,753.4	(1,654.2 - 1,816.6)
	White	855	26.1%	819.2	(764.3 - 874.1)
	Latino	479	14.6%	445.6	(405.7 - 485.5)
	API	139	4.2%	192.8	(160.8 - 224.9)
	Other/Unknown	49	1.5%	**	**
Age Group	0 - 12	*	*	**	**
	13 - 19	10	0.3%	33.0	(15.8 - 60.7)
	20 - 29	234	7.2%	385.7	(336.3 - 435.1)
	30 - 39	495	15.1%	753.5	(687.1 - 819.8)
	40 - 49	844	25.8%	1,480.4	(1,380.6 - 1,580.3)
	50 - 59	1,024	31.3%	1,926.6	(1,808.6 - 2,044.6)
	60 & over	663	20.2%	909.7	(840.5 - 979.0)

Notes: 1) "\*" = count not displayed due to small numbers; 2) "\*\*" = rates unstable or not calculable



## Sources and Technical Notes

1. Source: Map Set. Alameda County Public Health Department, Community, Assessment, Planning, Education and Evaluation (CAPE) Unit. 2015. [http://www.acphd.org/media/408752/ac\\_maps.pdf](http://www.acphd.org/media/408752/ac_maps.pdf)
2. Source: Alameda County Public Health Department. HIV in Alameda County, 2012-2014. <http://www.acphd.org/data-reports/reports-by-topic/hiv aids.aspx>. Published July 2016.
3. Fast-Track Cities. <http://iapac.org/cities/>
4. Rates are averaged across the three year period from 2012 to 2014. “Sex” here refers to the sex assigned at birth.
5. The bars in black represent the 95% confidence intervals of the rates.
6. Over half of newly reported diagnoses among women did not include information on mode of transmission. These cases likely acquired HIV through heterosexual contact, but are not documented as such because the CDC’s criteria for a person’s mode of transmission to be classified as “heterosexual contact” requires that one or more risk factors are documented for that person’s partner(s). This information is often not known to providers or documented in medical records.
7. Map provided by Alameda County Health Department, CAPE Unit.
8. In Oakland, areas with high poverty rates are found in North Oakland, West Oakland, Downtown and Chinatown, San Antonio, Fruitvale, Central East Oakland, and Elmhurst neighborhoods and are referred to as the Flats. The Lower Hills, Northwest Hills, and Southwest Hills neighborhoods are high-income (i.e., have low poverty rates) and are known as the Oakland Hills.
9. It is important to note that while the Fast-Track Cities goal for 90% viral suppression is out of the total number of people on antiretroviral medication, HIV surveillance data does not capture information on medication use. The measure of viral suppression used here is a proportion of the total number of people living with HIV and not the total number of people on antiretroviral medication.
10. Viral load suppression is defined here as follows: an undetectable viral load is a viral load of  $\leq 75$  copies of the HIV virus per milliliter of blood; a “suppressed” viral load is between 76-199 copies per milliliter; and an “unsuppressed” viral load is 200 or more copies per milliliter.
11. Of all PLHIV in Oakland only 16.7% had a CD4 count reported for 2014 (no viral load test) and 24.5% did not have a CD4 or viral load test reported for 2014. These individuals were not included in these estimates of viral suppression.

## Acknowledgements

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Available online at: <http://www.acphd.org/data-reports/reports-by-topic/hiv aids.aspx>.

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