Orange County Health Care Agency
2019 HIV FACT SHEET –RELEASED 5/20/20

This document provides an overview of human immunodeficiency virus (HIV) cases (including AIDS) in Orange County[1]. Since reporting began in 1981, Orange County has received **13,540** reports of newly diagnosed HIV infections. Specifically in 2019, Orange County had the following reported:

- 245 persons were newly diagnosed with HIV .
- 36 persons were concurrently[2] diagnosed with AIDS indicating that the individual was living with HIV but unaware of their status for a significant amount of time.

At the end of 2019, there were 6,449 persons living with HIV (PLWH) in Orange County[3] who are aware of their HIV status. Additionally, there are an estimated 904 persons who are unaware of their HIV status. The Centers for Disease Control and Prevention (CDC) calculation methodology estimates that 87.7% of PLWH know their status. Therefore, the total estimated number of PLWH in Orange County is **7,353**.[4]

Viral load is an indicator of health and adherence to medication. A high viral load is indicative of illness. Viral load suppression (less than 200 copies/ml) is suggestive of improved health. In Orange County, of the 7,353 PLWH (aware and unaware of HIV status), 4,629 (63.0%) are known to have a suppressed viral load.

Figure 1 displays the HIV Continuum of Care. Of the total estimated to be infected (7,353), 87.7% have been diagnosed, 81.9% had ever linked to HIV care[5], 67.4% were retained in HIV care[6], while 64.2% PLWH are estimated to be receiving anti-retroviral therapy (ART)[7] and 63.0% had a viral load test result less than 200 copies/ml the last time they were tested in 2019.

Figure 1. HIV Continuum of Care, Orange County, 2019

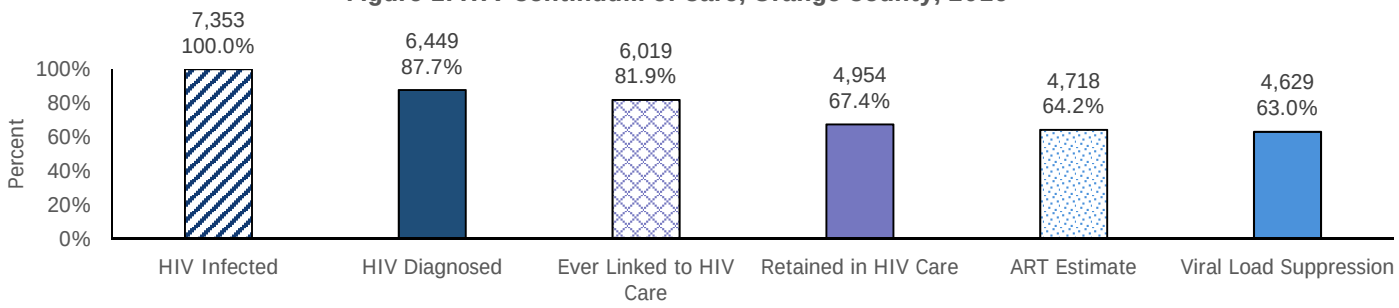
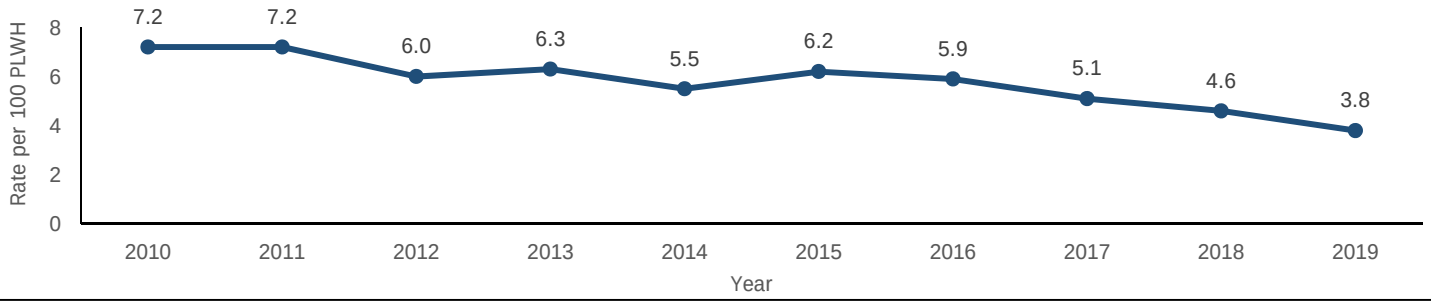


Figure 2 shows the rate of HIV transmission per every 100 persons living with HIV. Since 2010, the transmission rate has decreased 47.2%, from 7.2 to 3.8. A decrease in the transmission rate indicates that the amount of new HIV infections is not increasing despite the increase in the number of PLWH.

Figure 2. HIV Transmission Rate per 100 Persons Living with HIV, 2010-2019



[1] HIV surveillance is an ongoing process, and therefore, cases diagnosed in 2019 are considered preliminary due to reporting delays. The number of cases diagnosed in each year may change due to removal of cases that are found as duplicates in other jurisdictions and therefore numbers on previous fact sheets should not be compared to this fact sheet.

[2] Concurrently diagnosed are persons who had an AIDS defining condition (CD4 count below 200 cells/ml and/or a diagnosis of a disease that is an indicator condition for AIDS) within one month (31 days) of their HIV diagnosis.

[3] This includes all individuals reported to be living in Orange County regardless of where they were living when they were diagnosed with HIV .

[4] The total number of persons estimated to be living with HIV is based on the Centers for Disease Control and Prevention calculation methodology updated in 2016. The calculation is the number of persons known to be living with HIV (6,449) divided by 0.877. The difference between this calculation (7,353) and 6,449 is the additional number of persons estimated to be living with HIV but are unaware of their diagnosis (904).

[5] Persons who had at least one viral load and/or CD4 count blood test after HIV diagnosis.

[6] Persons who had at least two viral load or CD4 results with at least three months in-between the first and last result. For persons diagnosed prior to 2019, the two results occurred in 2018 and/or 2019. For persons diagnosed in 2019, the results occurred between January 2019 and February, 18, 2020.

[7] As determined by having achieved viral suppression or a decrease in viral load between the last two tests during 2019.

Figure 3 shows the number of new HIV diagnoses each year for Orange County residents as a bar, and the number of those diagnoses that were concurrently diagnosed with AIDS as a line. Concurrent diagnoses in 2019 represents a 47.8% decrease from 2010. This decrease may be a result of multiple strategies for early identification of HIV and linkage to care.

Figure 3. Number of New HIV Diagnoses and Number of Those Diagnoses Concurrently Diagnosed with AIDS by Year of HIV Diagnosis, 2010-2019

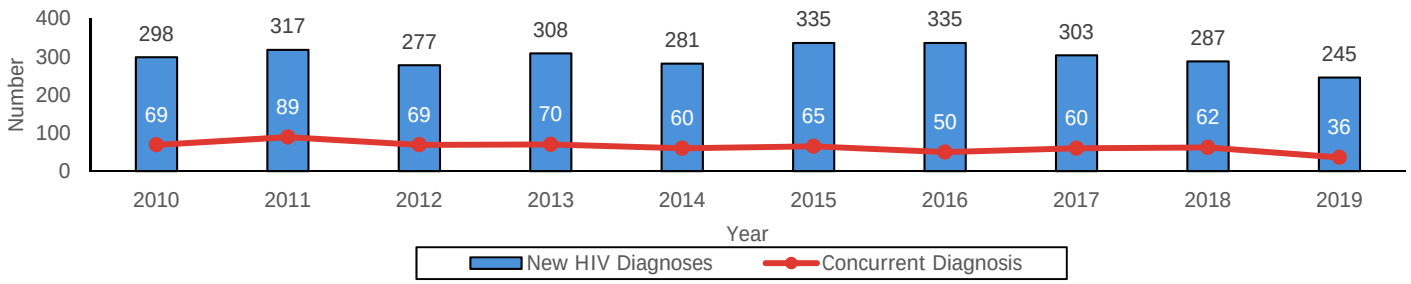
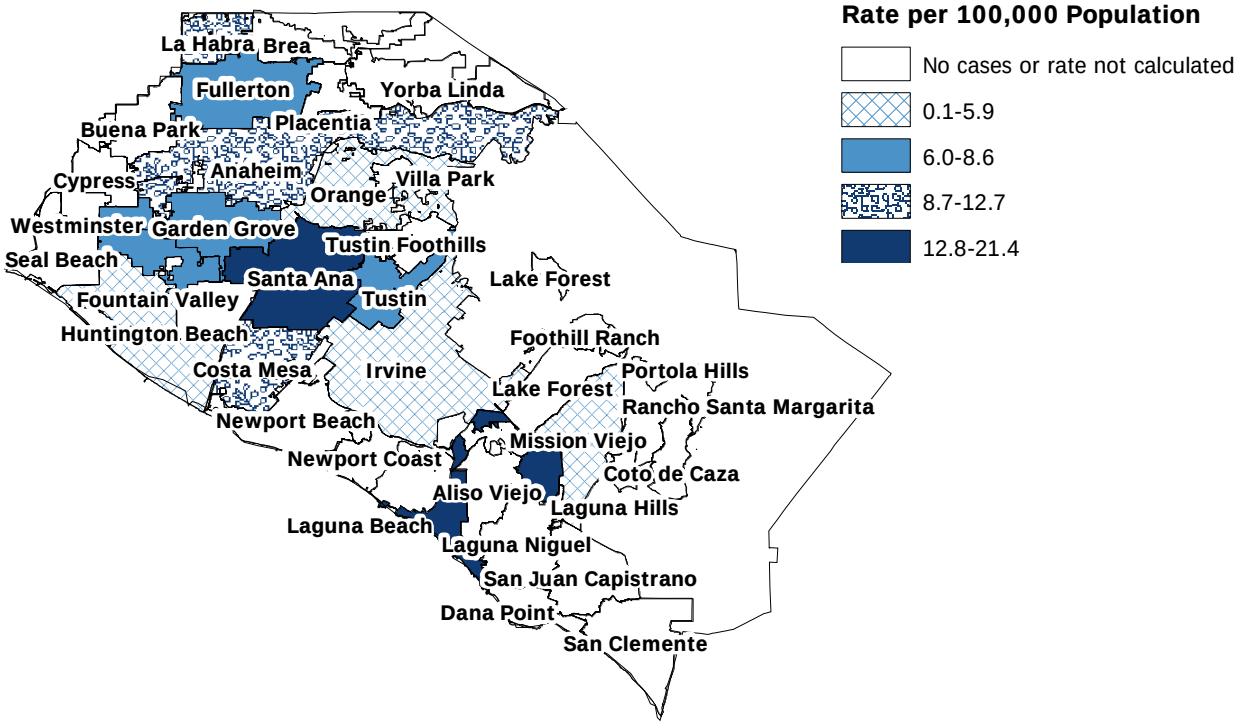


Figure 4 displays the rate of persons newly diagnosed with HIV per 100,000 population by city of residence at the time of that diagnosis. Of cities with five or more cases, Laguna Beach (5 cases) and Santa Ana (54 cases) have the highest rates at 21.4 and 16.0, respectively; whereas, Irvine has the lowest rate at 5.0. Rates are not calculated for cities where population estimates are unavailable or there were fewer than five cases.

Figure 4. Rate per 100,000 Population of New HIV Diagnoses by City of Residence at Time of Diagnosis, Orange County 2019



The following figures (5-7) display the three year rolling average rate of cases diagnosed in Orange County from 2010-2012 through 2017-2019. The rate shows the disproportionate impact of HIV on a particular group/population. Using a three year average rate works to stabilize the data by removing variability caused by a small number of cases that tend to fluctuate from year to year. The rolling average allows for comparison between time periods from year to year, rather than comparing one three year time period to the next (i.e. 2016-2018 versus 2017-2019).

Figure 5. Rolling Three Year Average Rate per 100,000 Population of HIV Cases by Year of Diagnosis and Gender, Orange County, 2010-2019

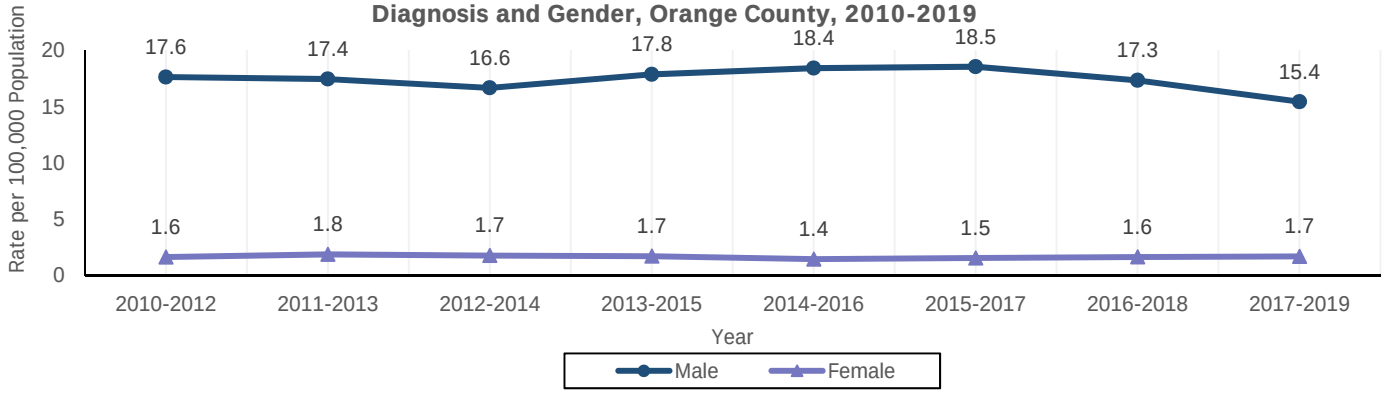
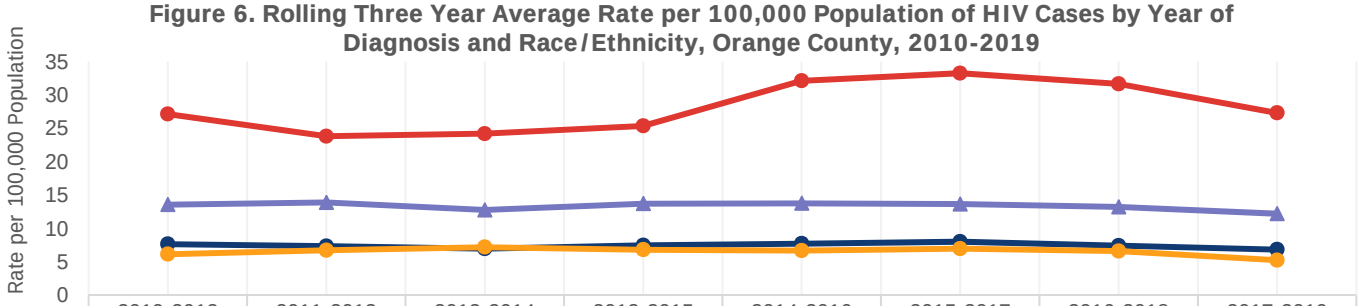


Figure 6 displays the rolling three year average rate of HIV cases per 100,000 population by race/ethnicity. As shown, Blacks continue to have the highest case rate, followed by Hispanics, Whites, and Asians. Pacific Islanders, American Indian/Alaskan Natives, and Multiple Race categories are excluded due to their small numbers. Blacks and Hispanics are disproportionately impacted by HIV compared to other racial/ethnic groups (meaning unequal rate compared to total population).

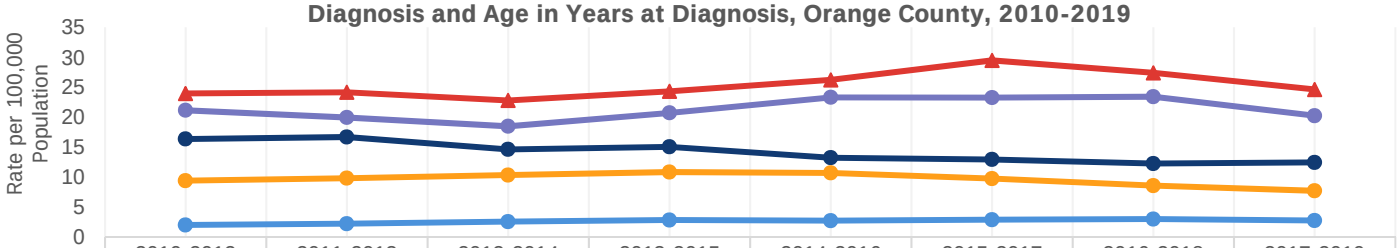
Figure 6. Rolling Three Year Average Rate per 100,000 Population of HIV Cases by Year of Diagnosis and Race/Ethnicity, Orange County, 2010-2019



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
Black	27.1	23.8	24.2	25.3	32.1	33.2	31.6	27.3
Hispanic	13.6	13.9	12.8	13.7	13.7	13.6	13.2	12.2
White	7.6	7.3	6.9	7.5	7.7	8.0	7.4	6.8
Asian	6.1	6.7	7.2	6.8	6.7	6.9	6.6	5.2

Figure 7 displays the rolling three year average rate of HIV cases per 100,000 population by age at diagnosis.

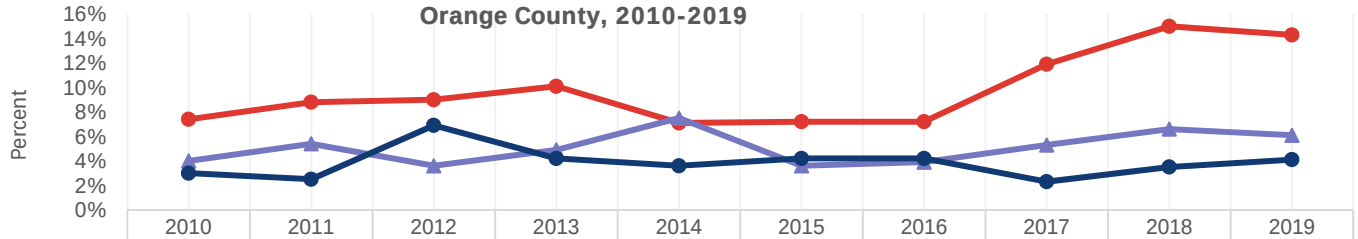
Figure 7. Rolling Three Year Average Rate per 100,000 Population of HIV Cases by Year of Diagnosis and Age in Years at Diagnosis, Orange County, 2010-2019



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019
19-25	21.1	19.9	18.5	20.7	23.3	23.3	23.4	20.2
26-35	24.0	24.2	22.8	24.3	26.2	29.5	27.4	24.6
36-45	16.4	16.7	14.6	15.1	13.2	12.9	12.3	12.4
46-55	9.4	9.8	10.3	10.8	10.7	9.7	8.6	7.7
56+	2.0	2.2	2.6	2.8	2.7	2.9	3.0	2.7

Figure 8 displays the percent[8] of total HIV cases by mode of exposure each year for 2010-2019. The percent of cases due to heterosexual contact, injection drug use (IDU), men who have sex with men (MSM) who are also IDU have increased while the percent of cases for MSM has decreased since 2010. The line for MSM is not displayed in order to highlight the differences and changes in the other modes of transmission.

Figure 8. Percent of HIV Cases by Year of Diagnosis and Mode of Exposure, Orange County, 2010-2019



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MSM	84.6%	80.8%	77.3%	75.6%	77.9%	80.9%	80.3%	71.0%	68.6%	71.8%
Heterosexual	7.4%	8.8%	9.0%	10.1%	7.1%	7.2%	7.2%	11.9%	15.0%	14.3%
IDU	4.0%	5.4%	3.6%	4.9%	7.5%	3.6%	3.9%	5.3%	6.6%	6.1%
MSM/IDU	3.0%	2.5%	6.9%	4.2%	3.6%	4.2%	4.2%	2.3%	3.5%	4.1%

Table 1: Number of HIV Cases Diagnosed, Percent of Total Cases Diagnosed, and Percent Change in the Number of Cases Diagnosed, 2010 versus 2019

	2010		2019		Percent Change in the Number of Cases
	Number	Percent	Number	Percent	
Total Number of HIV Cases	**298**	**100.0%**	**245**	**100.0%**	
Gender					
Male	268	89.9%	215	87.8%	-19.8%
Female	42	14.1%	25	10.2%	-40.5%
Transgender Male-to-Female	*	*	*	*	*
Race/Ethnicity					
Black	15	5.0%	15	6.1%	0.0%
Hispanic	137	46.0%	132	53.9%	-3.6%
White	102	34.2%	77	31.4%	-24.5%
Asian	31	10.4%	18	7.3%	-41.9%
Pacific Islander	*	*	*	*	*
Other/More than One Race	10	3.4%	*	*	*
Age at Diagnosis					
0-18 Years	*	*	*	*	*
19-25 Years	68	22.8%	57	23.3%	-16.2%
26-35 Years	97	32.6%	84	34.3%	-13.4%
36-45 Years	70	23.5%	49	20.0%	-30.0%
46-55 Years	41	13.8%	35	14.3%	-14.6%
56 Years and Older	16	5.4%	18	7.3%	12.5%
Reported Mode of HIV Exposure					
Men Having Sex With Men (MSM)	252	84.6%	176	71.8%	-30.2%
Heterosexual Contact	22	7.4%	35	14.3%	59.1%
Injection Drug Use (IDU)	12	4.0%	15	6.1%	25.0%
MSM/IDU	*	*	10	4.1%	*
Other/Unknown	*	*	*	*	*

*Fewer than ten cases.

Note: Other race/ethnicity includes Native American/Alaskan Native. Other Mode of Exposure includes recipients of transfusions or transplants, persons who received treatment for hemophilia, and all pediatric modes of transmission.

Data source for HIV data: HIV Case Registry, Data as of January 31, 2020.
Data source for population data: State of California, Department of Finance, Population Projections by Race/Ethnicity, Detailed Age, and Gender.

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[8] Rates cannot be calculated for mode of exposure due to the lack of a population estimate for each of the risk factors.