



Orange County Health Care Agency

Disease Control and Epidemiology

HIV Disease Surveillance and Monitoring Program

2016 HIV DISEASE FACT SHEET



This document provides an overview of human immunodeficiency virus (HIV) disease cases in Orange County. The term HIV disease is used to describe the entire HIV spectrum, from initial HIV infection to advanced HIV disease (also known as AIDS). HIV disease surveillance is an ongoing process, and therefore cases diagnosed in 2016 are considered preliminary due to reporting delays. For a comprehensive review of HIV disease in Orange County, please refer to the most recent HIV/AIDS Surveillance Statistics Report available at <http://www.ochealthinfo.com/phs/about/dcepi/hiv/info/stats>.

Since reporting began in 1981, **12,682** persons have been reported as being infected with HIV disease while living in Orange County. Of these:

- 320 persons were newly diagnosed with HIV disease in 2016.
- 48 persons were concurrently¹ diagnosed with AIDS indicating that the individual was living with HIV disease but unaware of their status for a significant amount of time.

At the end of 2016, there were 6,762 persons living with HIV disease (PLWHD) in Orange County² who are aware of their HIV status. Additionally, there are an estimated 669 persons who are unaware of their HIV status. Therefore, the total estimated number of PLWHD in Orange County is **7,431**.³ The number unaware of their HIV status decreased in 2016 (from 801 in 2015) due to a change in the Centers for Disease (CDC) calculation methodology, which now estimates 91.0% of PLWHD knowing their status, as opposed to 88.7% in 2015.⁴

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 7,431 PLWHD (aware and unaware of HIV status), 4,470 (60.2%) have a suppressed viral load.

Figure 1 displays the HIV Continuum of Care. Of the total estimated to be infected (7,431), 91.0% have been diagnosed (6,762), 84.6% had ever linked to HIV care⁵, 68.1% were retained in HIV care⁶, while 4,692 (63.1%) PLWHD are estimated to be receiving anti-retroviral therapy (ART).⁷ Of the total estimated to be infected, 60.2% had a viral load test result less than 200 copies/ml the last time they were tested in 2016.

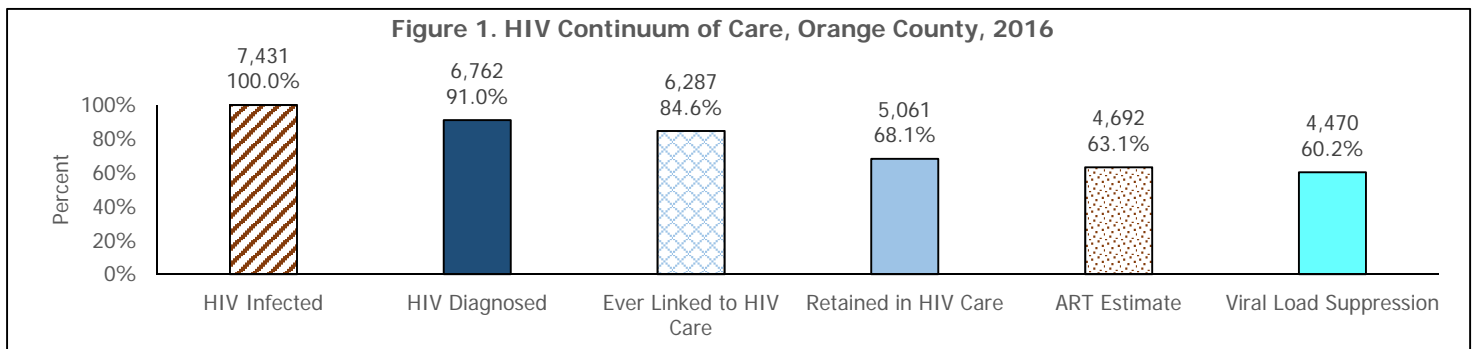
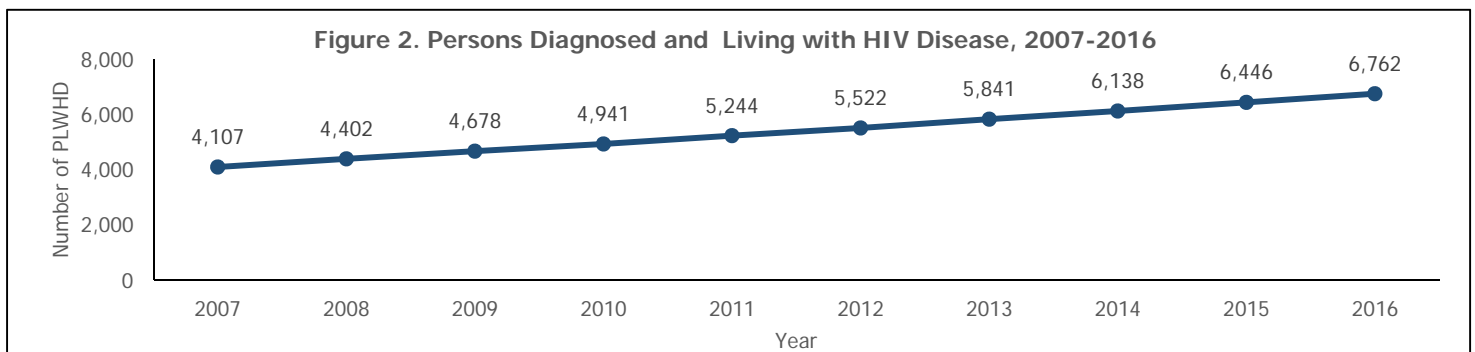


Figure 2 shows the number of diagnosed PLWHD at the end of each year between 2007 and 2016. These are the most current numbers as of the creation of this report, and therefore will vary from numbers reported in previous Fact Sheets.



¹ Concurrently diagnosed are persons who had an AIDS defining condition (CD4 count below 200 cells/ μ L and/or a diagnosis of a disease that is an indicator condition for AIDS) within one month (31 days) of their HIV diagnosis.

² This includes all individuals reported to be living in Orange County regardless of where they were living when they were diagnosed with HIV disease.

³ The total number of persons estimated to be living with HIV disease is based on the Centers for Disease Control and Prevention calculation methodology updated in 2015. The calculation is the number of persons known to be living with HIV disease (6,762) divided by 0.91. The difference between this calculation (7,431) and 6,762 is the additional number of persons estimated to be living with HIV disease but are unaware of their diagnosis (669).

⁴ Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, Vol. 64, No. 24, June 26, 2015.

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 CD4 or viral load results with at least three months in-between the first and last result. For persons diagnosed prior to 2016, the two results occurred in 2015 and/or 2016. For persons diagnosed in 2016, the results occurred between January 2016 and April, 14, 2017.

⁷ As determined by having achieved viral suppression or a decrease in viral load between the last two tests during 2016.

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Figure 3 shows the rate of HIV disease transmission per every 100 persons living with HIV disease. Since 2007, the transmission rate has decreased 46.6%, from 8.8 to 4.7. A decrease in the transmission rate indicates that the amount of new HIV infections is not increasing despite the increase in the number of PLWHD.

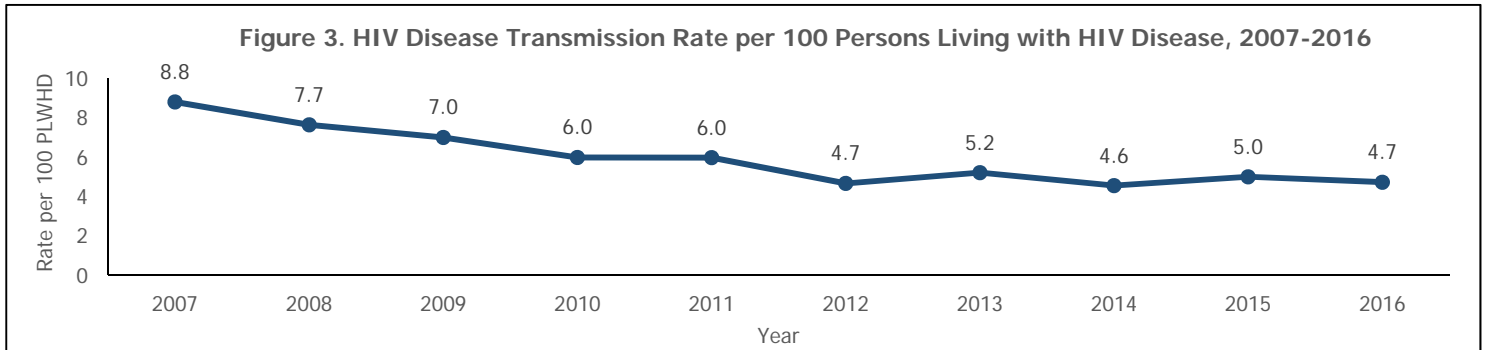


Figure 4 shows the number of new HIV disease diagnoses each year for Orange County residents as a bar, and the number of those diagnoses that were concurrently diagnosed with AIDS as a line. Concurrent diagnoses in 2016 represents a 27.3% decrease from 2015. This decrease may be a result of multiple strategies for early identification of HIV disease and linkage to care.

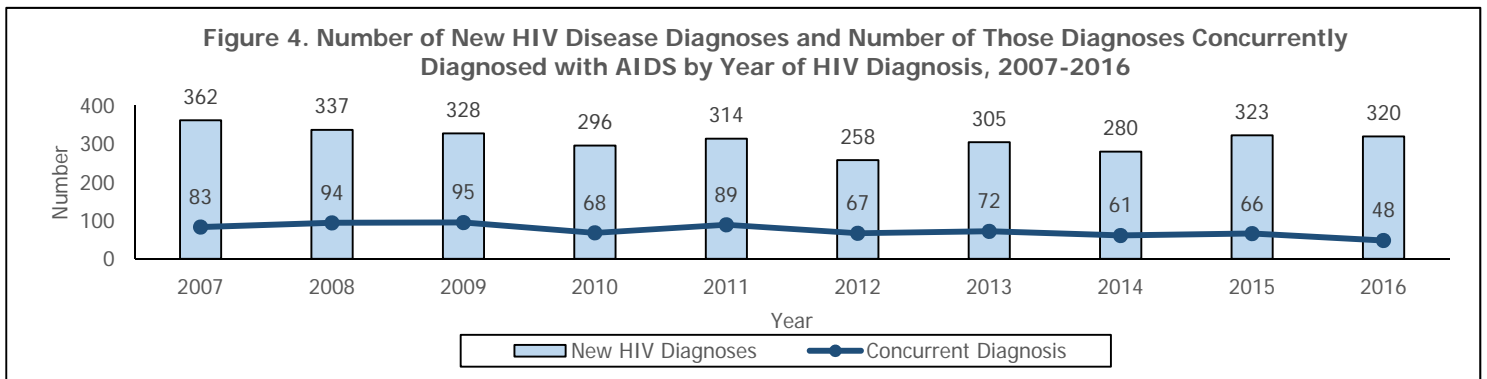
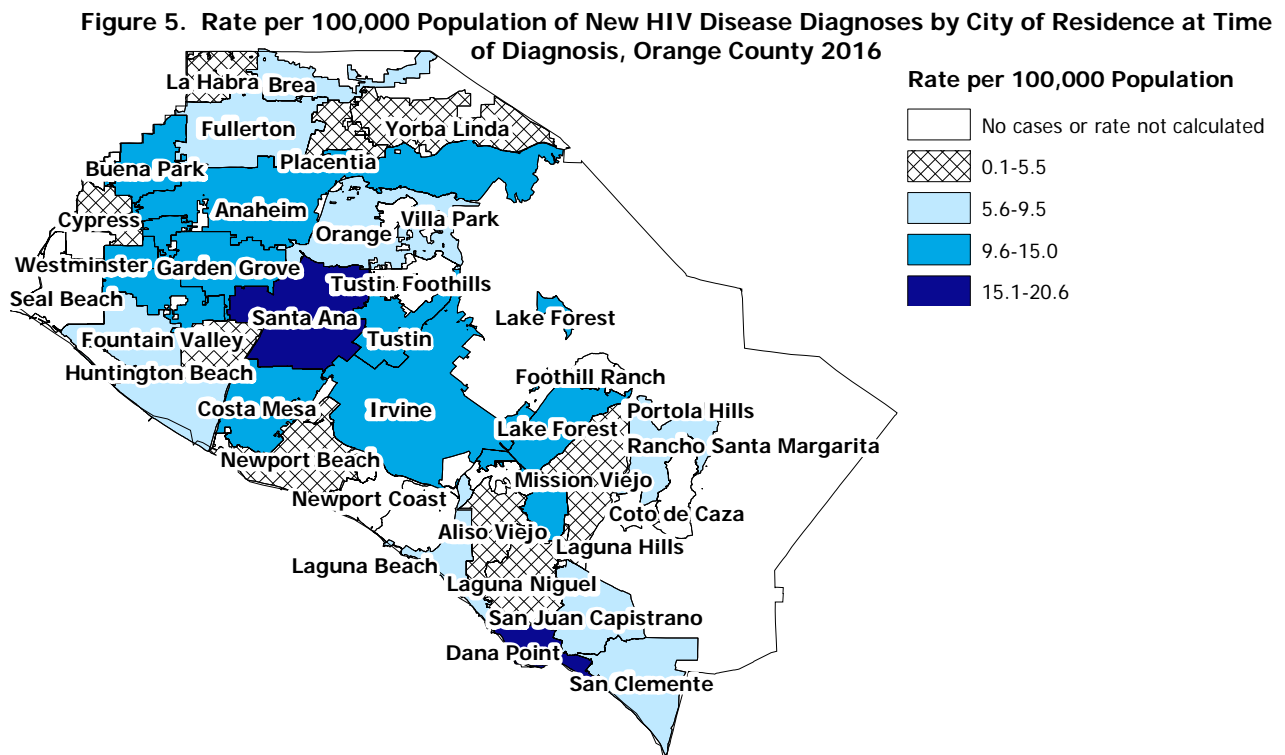


Figure 5 displays the rate per 100,000 population of persons newly diagnosed with HIV by city of residence at the time of that diagnosis. Santa Ana has the highest rate at 20.6, Yorba Linda the lowest at 1.5. Rates are not calculated for cities where population estimates are unavailable.



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The following figures (6-8) display the three year rolling average rate of cases diagnosed in Orange County from 2007-2009 through 2014-2016. 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. 2011-2013 versus 2014-2016).

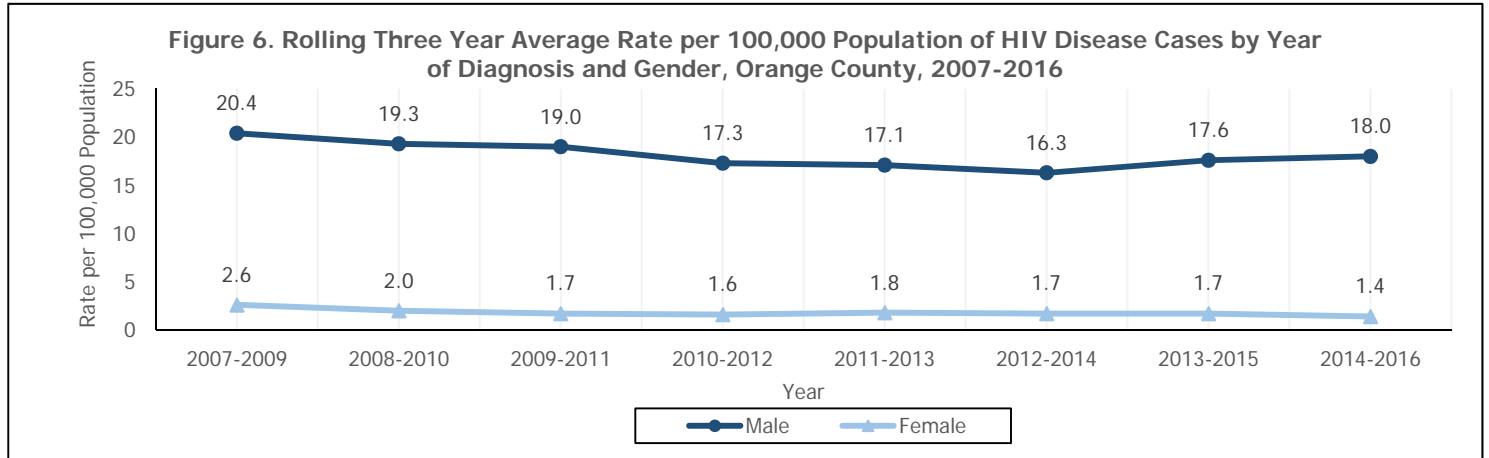


Figure 7 displays the rolling three year average rate of HIV disease cases per 100,000 population by race/ethnicity. As shown, Blacks continue to have the highest case rate, followed by Hispanics, Whites, and Asian/Pacific Islanders (APIs). Blacks and Hispanics are disproportionately impacted by HIV disease compared to other racial/ethnic groups.

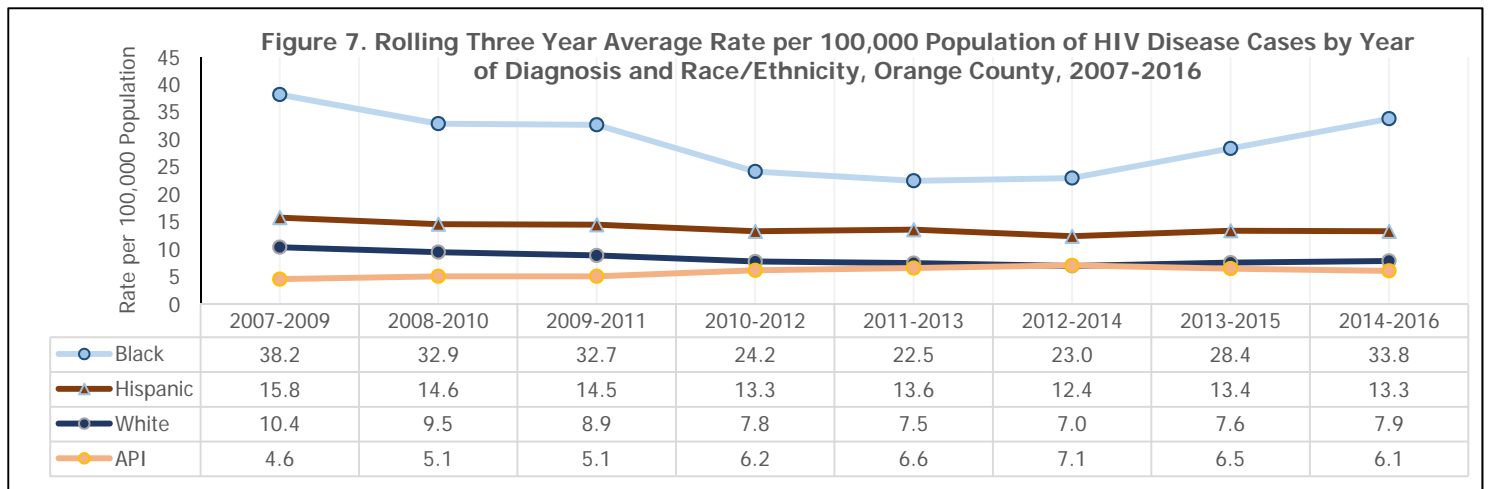
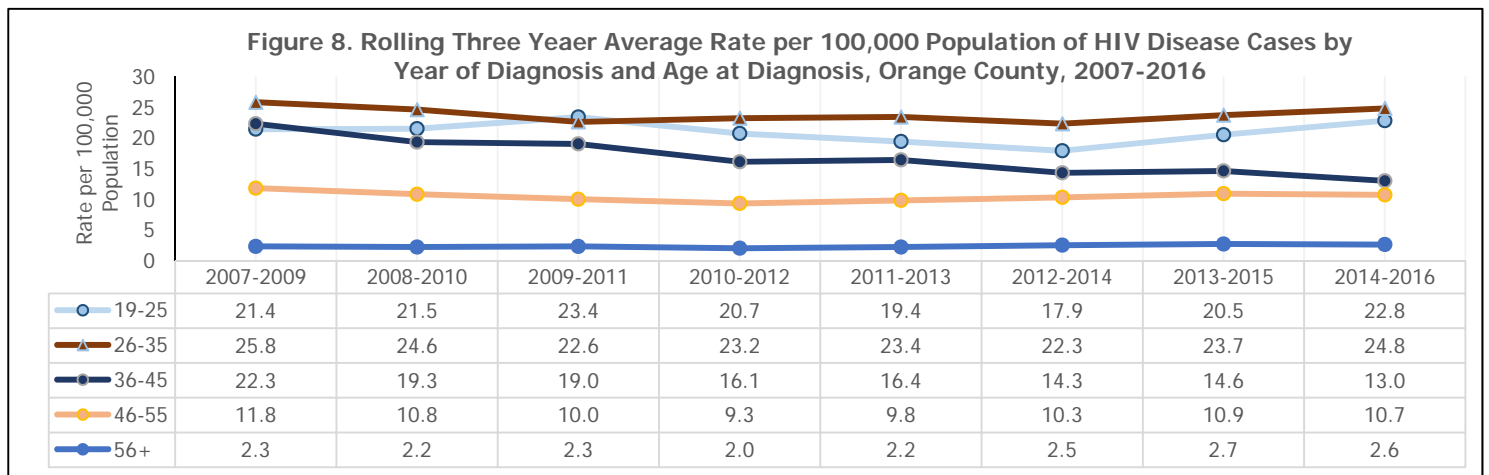


Figure 8 displays the rolling three year average rate of HIV disease cases per 100,000 population by age at diagnosis.



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Figure 9 displays the percent⁸ of total HIV disease cases by mode of exposure each year for 2007-2016. The percent of cases has decreased for all categories except men who have sex with men (MSM), whose case representation has increased since 2007. The line for MSM is not displayed in order to highlight the differences and changes in the other modes of transmission.

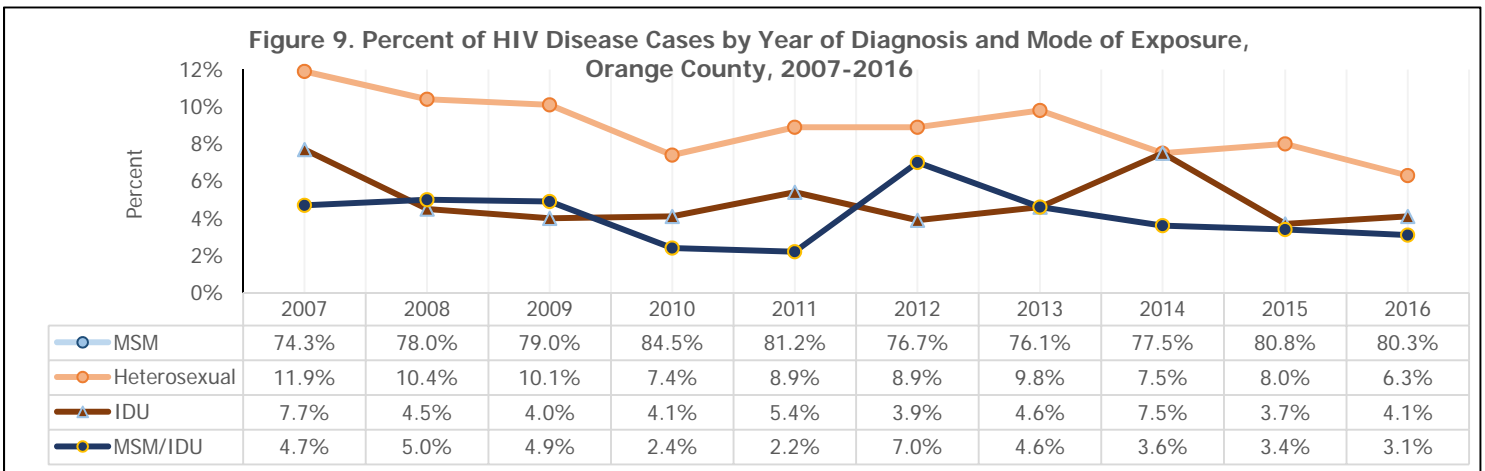


Table 1: Number of Cases Diagnosed, Percent of Total Cases Diagnosed, and Percent Change in the Number of Cases Diagnosed, 2007 versus 2016


	2007		2016		Percent Change in the Number of Cases
	Number	Percent	Number	Percent	
Total Number of Cases	362	100.0%	320	100.0%	
Gender					
Male	312	86.2%	294	91.9%	-5.8%
Female	48	13.3%	21	6.6%	-56.3%
Transgender Male-to-Female	2	0.6%	5	1.6%	150.0%
Race/Ethnicity					
Black	21	5.8%	20	6.3%	-4.8%
Hispanic	165	45.6%	156	48.8%	-5.5%
White	150	41.4%	106	33.1%	-29.3%
Asian/Pacific Islander (API)	23	6.4%	35	10.9%	52.2%
Other/More than One Race/Unknown	3	0.8%	3	0.9%	0.0%
Age at Diagnosis					
0-18 Years	4	1.1%	11	3.4%	175.0%
19-25 Years	67	18.5%	87	27.2%	29.9%
26-35 Years	109	30.1%	107	33.4%	-1.8%
36-45 Years	117	32.3%	49	15.3%	-58.1%
46-55 Years	49	13.5%	45	14.1%	-8.2%
56 Years and Older	16	4.4%	21	6.6%	31.3%
Reported Mode of HIV/AIDS Exposure					
Men Having Sex With Men (MSM)	269	74.3%	257	80.3%	-4.5%
Heterosexual Contact	28	7.7%	13	4.1%	-53.6%
Injection Drug Use (IDU)	17	4.7%	10	3.1%	-41.2%
MSM/IDU	43	11.9%	20	6.3%	-53.5%
Other/Unknown	5	1.4%	20	6.3%	300.0%

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.

Note: The number of cases diagnosed in each year is provisional and may change due to reporting delays or 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.

Data source for HIV disease data: HIV Case Registry, Data as of January 31, 2017.

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.