

This document provides an overview of human immunodeficiency virus (HIV) cases (including AIDS) in Orange County<sup>1</sup>. Since reporting began in 1981, Orange County has received **14,106** reports of newly diagnosed HIV infections. Specifically in 2021, Orange County had the following reported:

- 274 persons were newly diagnosed with HIV.
- 54 persons were concurrently<sup>2</sup> 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 2021, there were 6,772 persons living with HIV (PLWH) in Orange County<sup>3</sup> who are aware of their HIV status and an additional estimated 950 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 **7,722**.<sup>4</sup>

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 6,772 PLWH (aware of HIV status), 4,768 (70.4%) are known to have a suppressed viral load.

Figure 1 displays the HIV Continuum of Care. Of the total diagnosed (6,772)<sup>5</sup>, 76.0% received HIV care<sup>6</sup>, 74.5% were retained in HIV care<sup>7</sup>, while 70.4% had a viral load test result less than 200 copies/ml the last time they were tested in 2021. Of the 274 individuals newly diagnosed in 2021, 218 or 79.6% were linked to care (as indicated by receiving HIV medication, or having a viral load or CD4 test) in 30 days.

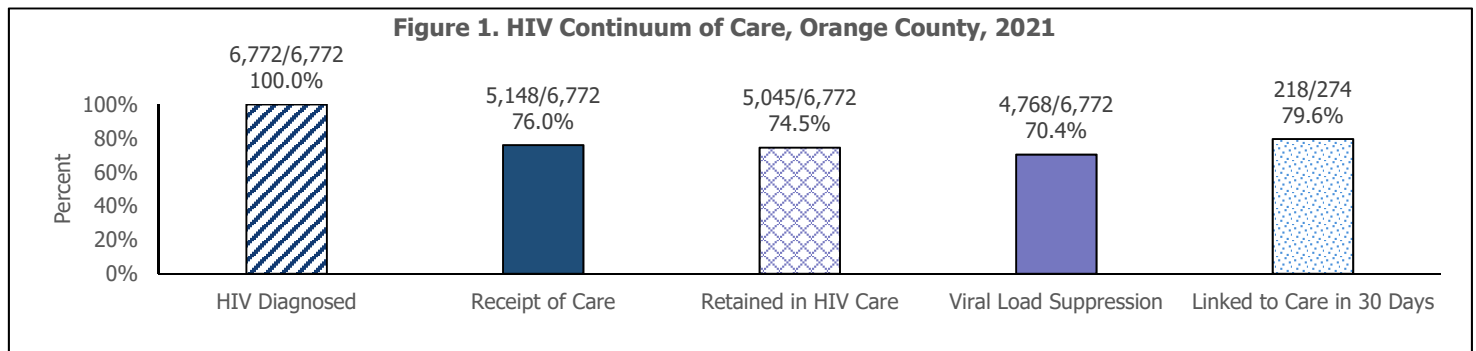
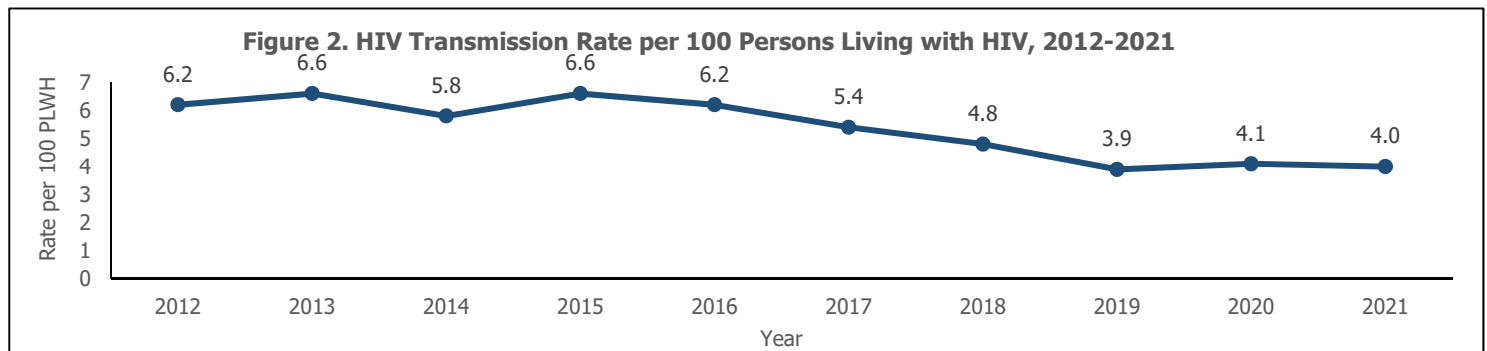


Figure 2 shows the rate of HIV transmission per every 100 persons living with HIV. Since 2012, the transmission rate has decreased 35.5%, from 6.2 to 4.0. A decrease in the transmission rate indicates that the amount of new HIV infections is not increasing despite the increase in the number of PLWH.



<sup>1</sup> HIV surveillance is an ongoing process, and therefore, cases diagnosed in 2021 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.

<sup>2</sup> 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.

<sup>3</sup> This includes all individuals reported to be living in Orange County regardless of where they were living when they were diagnosed with HIV.

<sup>4</sup> 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 (6,772) divided by 0.877. The difference between this calculation (7,722) and 6,772 is the additional number of persons estimated to be living with HIV but are unaware of their diagnosis (950).

<sup>5</sup> The total number of individuals diagnosed presented in the HIV Fact Sheet differs from the Continuum of HIV Care document as the total diagnosed on the HIV Fact Sheet includes all persons diagnosed with HIV (all ages). The Continuum of HIV Care only includes individuals diagnosed age 13 years and older in accordance with current CDC guidance.

<sup>6</sup> Persons who had at least one viral load and/or CD4 count blood test during 2021.

<sup>7</sup> 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 2021, the two results occurred in 2020 and/or 2021. For persons diagnosed in 2021, the results occurred between January 1, 2021 and March 7, 2022.

## 2021 HIV FACT SHEET

Figure 3 shows the number of new HIV diagnoses each year among Orange County residents as a bar and the number of those diagnoses that were concurrently diagnosed with AIDS as a line. Concurrent diagnoses in 2021 represents a 21.7% decrease from 2012. This decrease may be a result of multiple strategies for early identification of HIV and linkage to care.

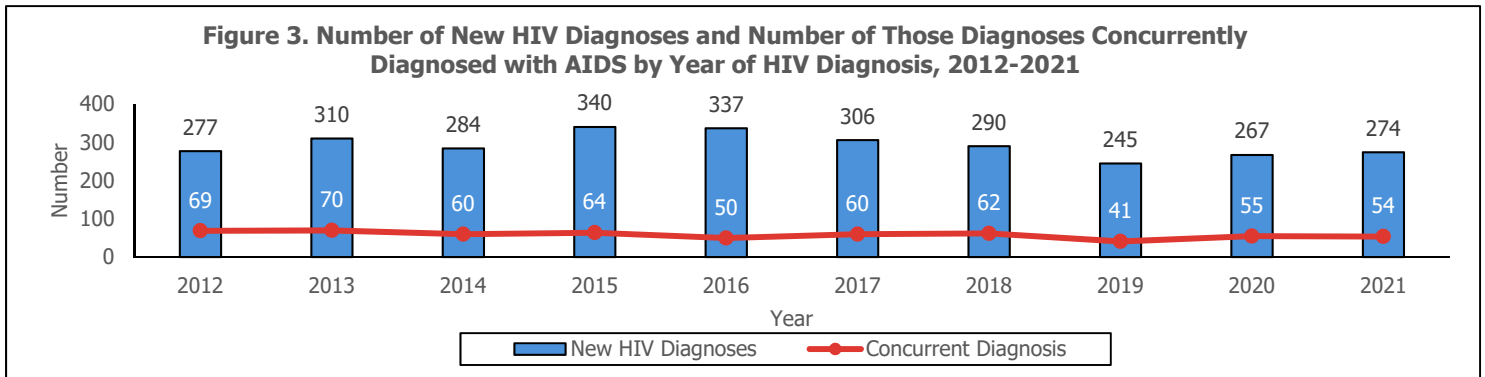
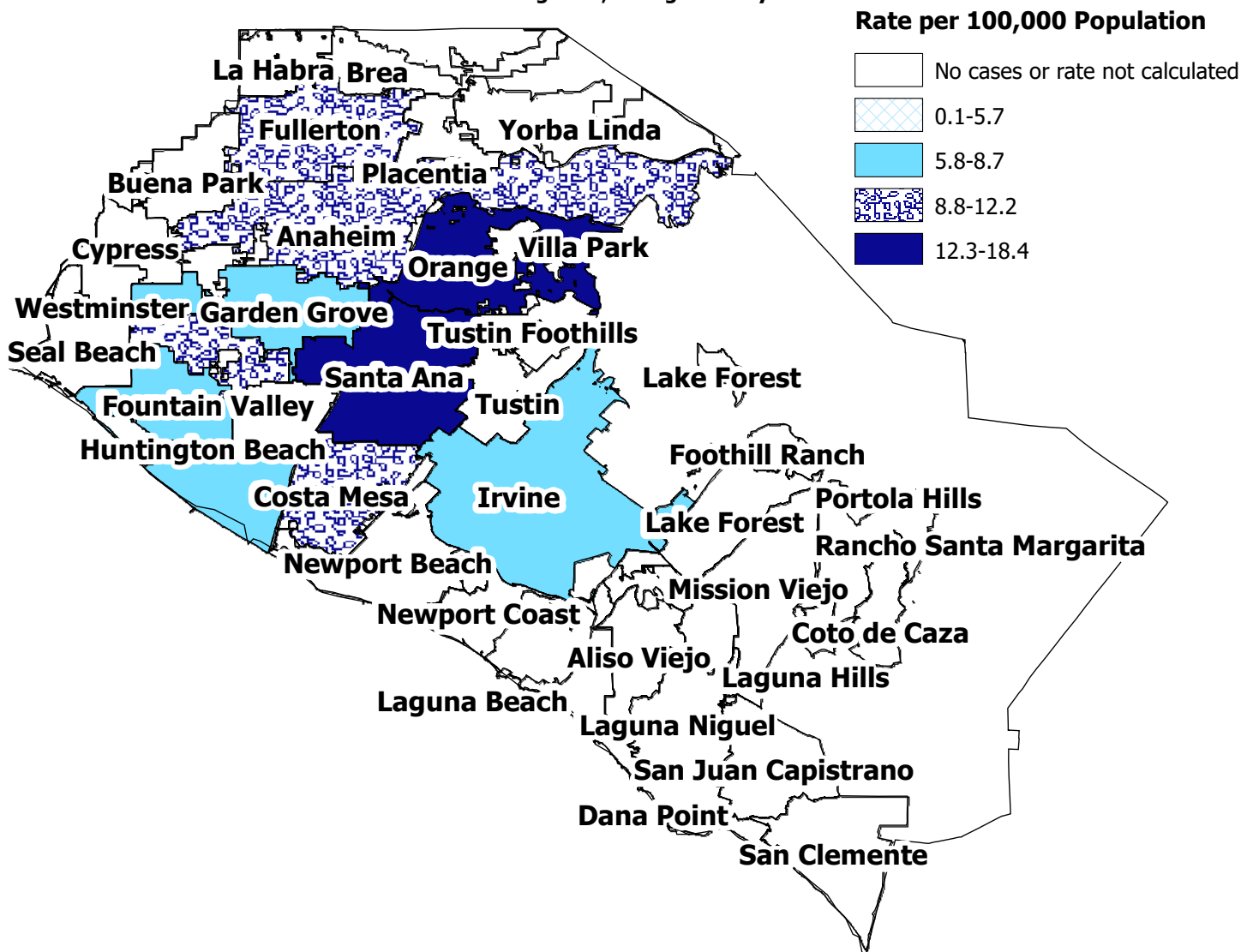


Figure 4 displays the rate of persons newly diagnosed with HIV per 100,000 population by city of residence at the time of diagnosis. Of cities with ten or more cases, Santa Ana (61 cases) and Orange (17 cases) have the highest rates at 18.4 and 12.4, respectively; whereas, Irvine has the lowest rate at 8.5. Rates are not calculated for cities where population estimates are unavailable or there were fewer than ten cases.

**Figure 4. Rate per 100,000 Population of New HIV Diagnoses by City of Residence at Time of Diagnosis, Orange County 2021**



## 2021 HIV FACT SHEET

The following figures (5-7) display the three year rolling average rate of cases diagnosed in Orange County from 2012-2014 through 2019-2021. 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. 2018-2020 versus 2019-2021). Figure 5 displays the average rate of HIV cases by gender. While case rates have decreased, males continue to be disproportionately impacted by HIV compared to females (meaning unequal rate compared to total population).

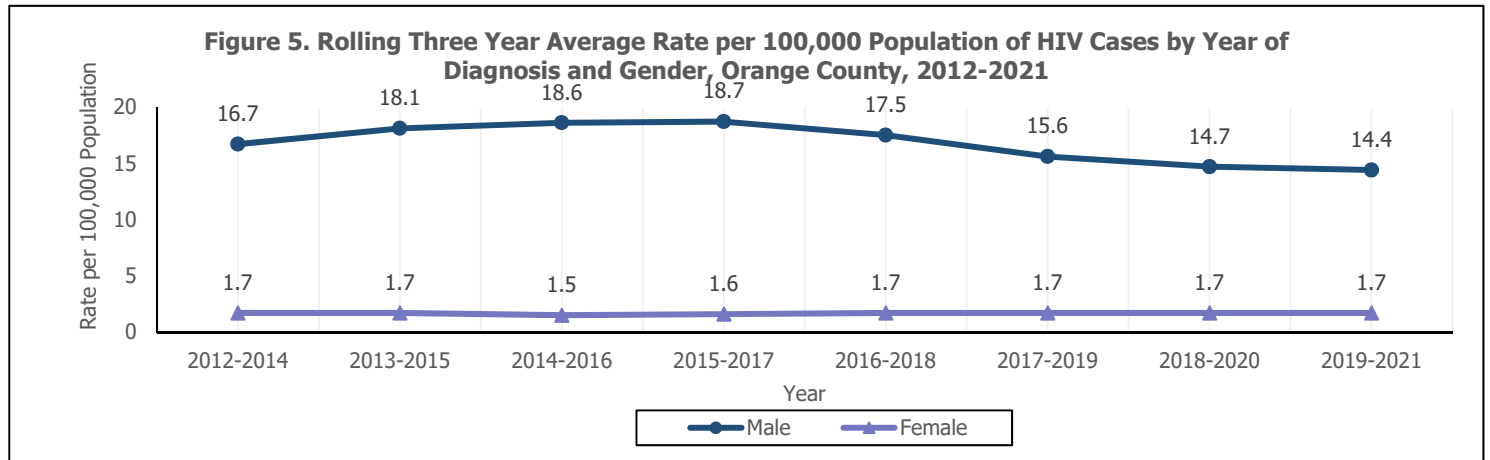


Figure 6 displays the rolling three year average rate of HIV cases per 100,000 population by race/ethnicity. As shown, Blacks continue to have the highest case rate, followed by Hispanics, Whites, and Asians. Pacific Islanders, American Indian/Alaskan Natives, and Multiple Race categories are excluded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

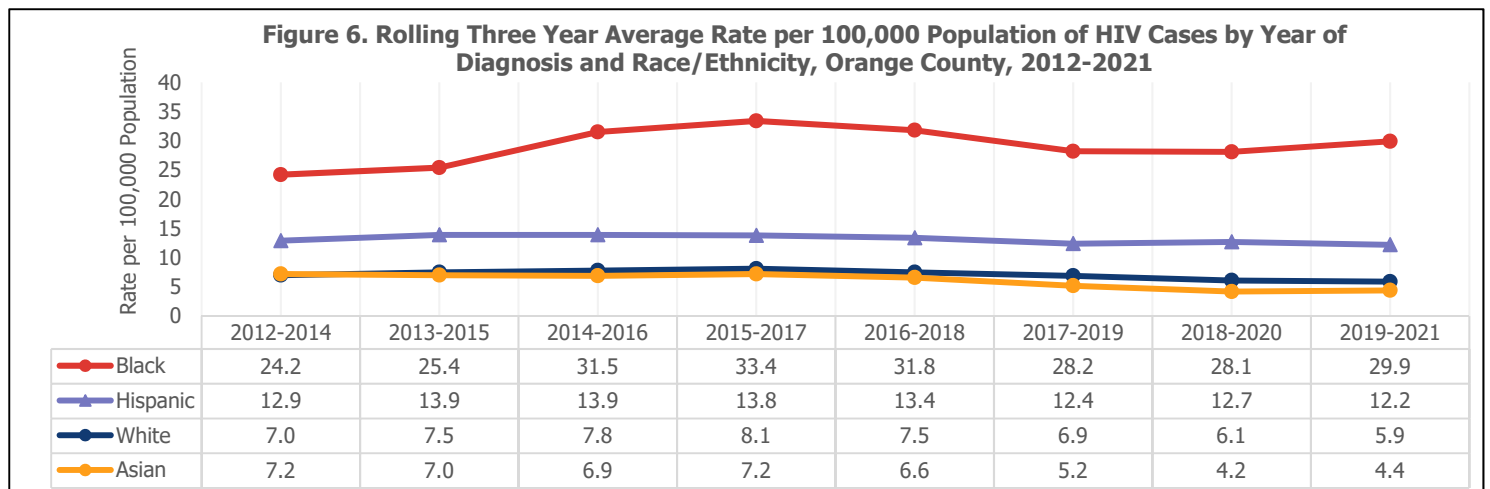
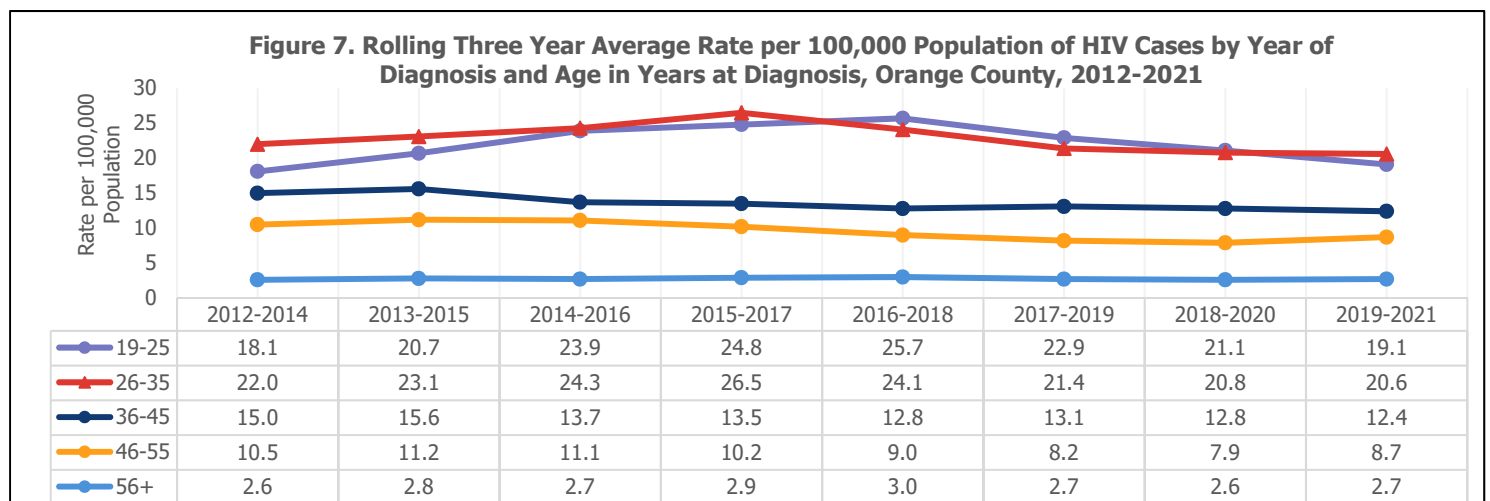
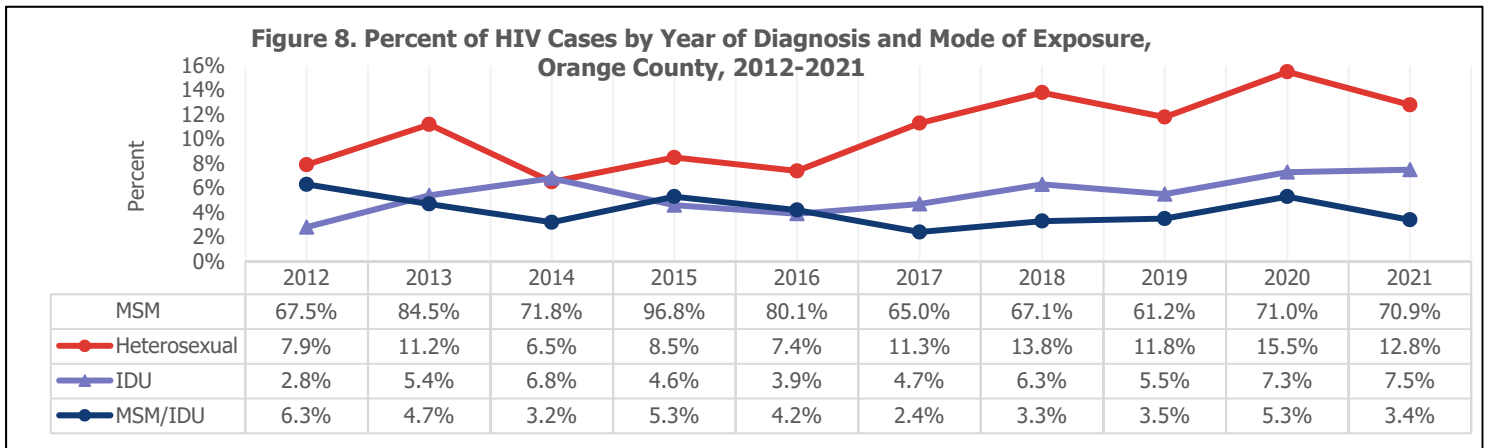


Figure 7 displays the rolling three year average rate of HIV cases per 100,000 population by age at diagnosis. Since 2012, rates have decreased across all age groups, except for the 19-25 and 56+ age groups where there was a slight increase.



## 2021 HIV FACT SHEET

Figure 8 displays the percent<sup>8</sup> of total HIV cases by mode of exposure each year for 2012-2021. The percent of cases for men who have sex with men (MSM), heterosexual contact, and MSM who are also injection drug users (IDU) decreased while the percent of cases for IDU increased. 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 HIV Cases Diagnosed, Percent of Total Cases Diagnosed, and Percent Change in the Number of Cases Diagnosed, 2012 versus 2021**

	2012		2021		Percent Change in the Number of Cases
	Number	Percent	Number	Percent	
<b>Total Number of HIV Cases</b>	<b>277</b>	<b>100.0%</b>	<b>274</b>	<b>100.0%</b>	
<b>Gender</b>					
Male	244	88.1%	242	88.3%	-0.8%
Female	24	8.7%	27	9.9%	12.5%
Transgender Male-to-Female	*	*	*	*	*
<b>Race/Ethnicity</b>					
Black	91	32.9%	79	28.8%	-13.2%
Hispanic	11	4.0%	14	5.1%	27.3%
White	128	46.2%	143	52.2%	11.7%
Asian	41	14.8%	33	12.0%	-19.5%
Pacific Islander	*	*	*	*	*
Other/More than One Race	*	*	*	*	*
<b>Age at Diagnosis</b>					
0-18 Years	10	3.6%	*	*	*
19-25 Years	51	18.4%	57	20.8%	11.8%
26-35 Years	101	36.5%	89	32.5%	-11.9%
36-45 Years	61	22.0%	51	18.6%	-16.4%
46-55 Years	43	15.5%	42	15.3%	-2.3%
56 Years and Older	11	4.0%	29	10.6%	163.6%
<b>Reported Mode of HIV Exposure</b>					
Men Having Sex With Men (MSM)	214	77.3%	188	68.6%	-12.1%
Heterosexual Contact	25	9.0%	34	12.4%	36.0%
Injection Drug Use (IDU)	*	*	20	7.3%	*
MSM/IDU	20	7.2%	*	*	*
Other/Unknown	*	*	23	8.4%	*

\*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, 2022.

Data source for population data: State of California, Department of Finance, Population Projections by Race/Ethnicity, Detailed Age, and Gender.

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<sup>8</sup> Rates cannot be calculated for mode of exposure due to the lack of a population estimate for each of the risk factors.