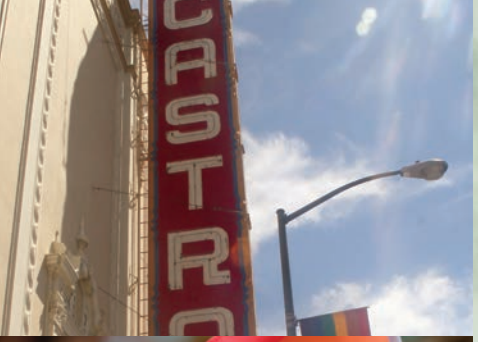
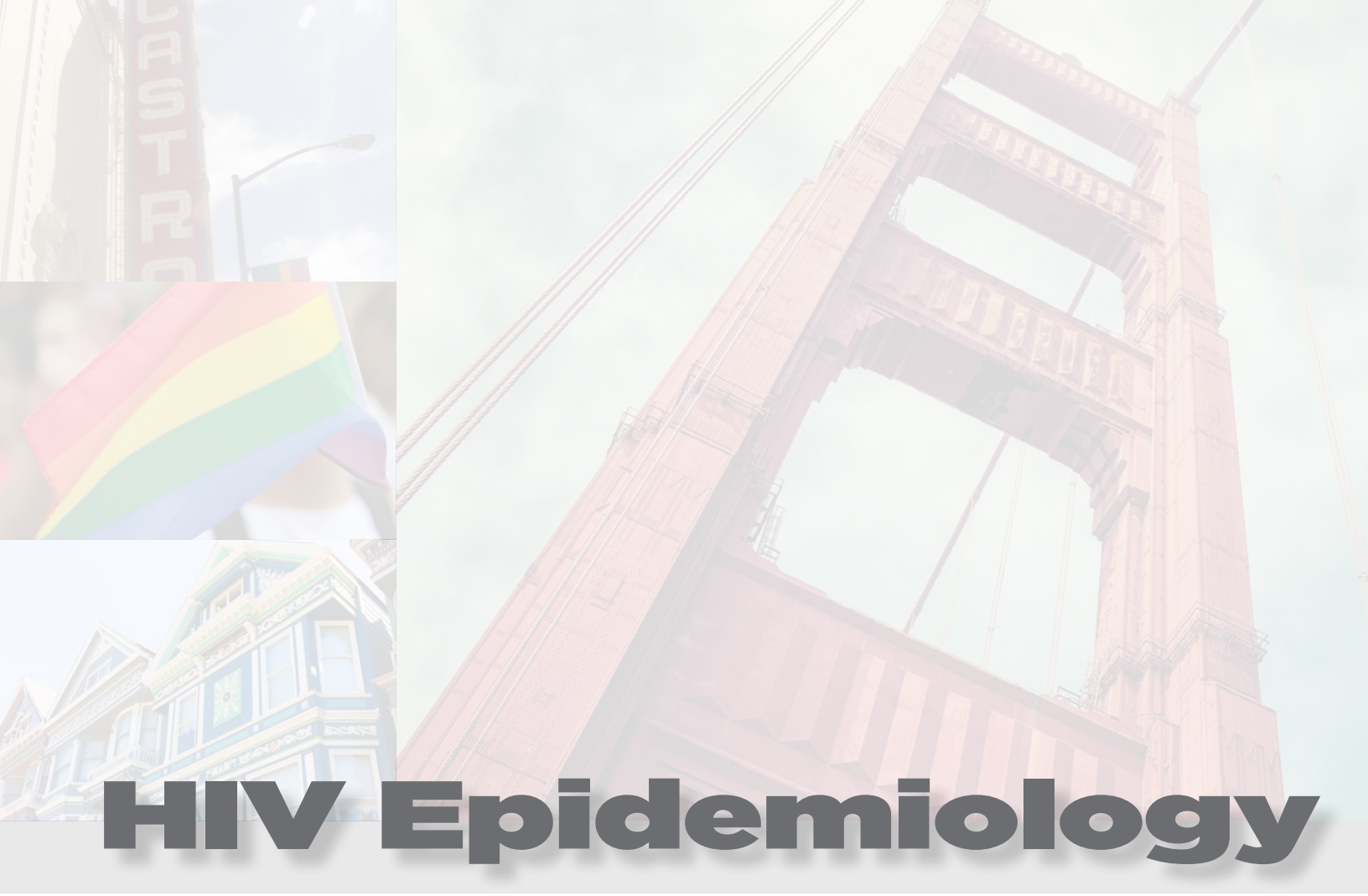


HIV Epidemiology

Annual Report

2020

San Francisco
Department of Public Health
Population Health Division



HIV Epidemiology

Annual Report

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Population Health Division

HIV Epidemiology Section

August 2021

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In addition, we acknowledge the important contribution of persons with HIV, HIV health care providers, community groups, researchers, and members of the community. Publication of this report was made possible because of their cooperation, dedication, and hard work.

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Abbreviations

ART	Antiretroviral therapy
CDC	Centers for Disease Control and Prevention
MMP	Medical Monitoring Project
MSM	Men who have sex with men
MSM-PWID	Men who have sex with men and who also inject drugs
NHBS	National HIV Behavioral Surveillance
OOJ	Out-of-jurisdiction
PLWH	Persons living with HIV
PrEP	Pre-exposure prophylaxis
PWID	Persons who inject drugs
SFDPH	San Francisco Department of Public Health
SRO	Single-room occupancy
STD	Sexually transmitted diseases
TWSM	Trans women who have sex with men
TWSM-PWID	Trans women who have sex with men and who also inject drugs

E Executive Summary

In recent years, encouraging declines in new HIV diagnoses in San Francisco have put us on track to meet the Getting to Zero goals for new diagnoses and deaths. We anticipated further success in 2020, but unfortunately the COVID-19 pandemic had a profound disruption on HIV-related health care and prevention. This report includes a special section documenting the impact of COVID-19 on HIV testing, including declines in HIV screening and viral load testing during 2020 (Section S, beginning page S-1).

Changes in HIV diagnoses and HIV testing

- New HIV diagnoses declined 22% from 168 diagnoses in 2019 to 131 diagnoses in 2020. This compares to a 18% decline from 2018 to 2019 (Figure 1.2).
- Compared to the average number of monthly HIV screening tests at medical sites in 2019, there was an 18% decline in the average number of monthly HIV tests in 2020 (Figure S.1). The largest decline in HIV screening occurred in April 2020 (52%). A similar pattern but a greater decline was seen at community testing sites (Figure S.2). The average number of monthly community HIV screenings in 2020 was 44% lower than the 2019 monthly average.
- Compared to average monthly HIV viral load tests among persons with HIV in 2019, there was a 20% decline in viral load testing in 2020, with the highest decline in April 2020 (52%) (Figure S.4). The numbers of viral load tests have increased since November 2020 but are still below 2019 testing levels.
- Of note, from March through December 2020, SFDPH conducted a HIV/STD home testing program. A total of 324 HIV home tests were ordered by 204 persons during this period. No positive test results were reported from these HIV home tests (Figure S.6).

Trends in HIV care outcomes

- Ninety-two percent of new diagnoses in 2020 were linked to care within one month of diagnosis compared to 95% in 2019 (Figure 3.1).
- Seventy-seven percent of persons newly diagnosed with HIV between January and June 2020 were virally suppressed within six months of diagnosis compared to 80% of persons newly diagnosed in 2019 (Figure 3.1).
- Among PLWH in 2020, the proportion with at least one laboratory test result (76%) and the proportion virally suppressed (70%) were lower than in 2019 (81% and 75%, respectively) (Table 3.1).
- PLWH who experienced homelessness were particularly affected; the proportion of PLWH experiencing homelessness with an HIV laboratory test result (33%) and who were virally suppressed (20%) was significantly lower than in the overall population (Table 3.3).

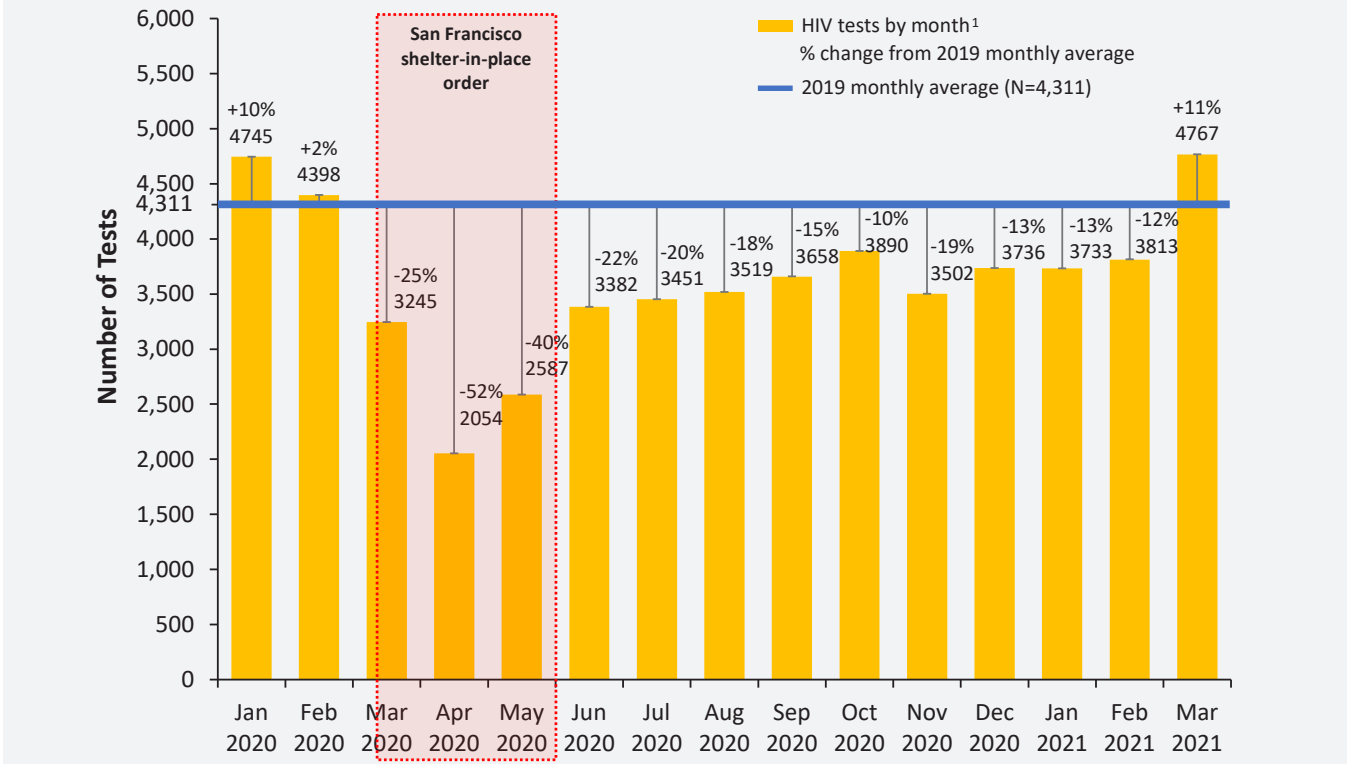
These data show that a high level of rapid linkage to care and viral suppression among persons newly diagnosed with HIV was maintained during the first year of the COVID-19 pandemic. Declines in HIV testing and the drop in new diagnoses suggest that some San Franciscans with HIV may have been missed. The declines in HIV care among PLWH, particularly among persons experiencing homelessness, is of concern. This population was disproportionally affected by COVID-19 and our data show that their HIV-related health care suffered as well. Efforts to increase access to HIV testing and treatment should continue, especially among the vulnerable populations. We will continue to monitor the impact of COVID-19 on delayed diagnosis and care outcomes in San Francisco using surveillance data in coming reports.

S HIV Testing During the COVID-19 Pandemic

HIV testing at medical settings

- HIV testing capacity in 2020 was greatly affected by the COVID-19 pandemic especially during the period of San Francisco's shelter-in-place order that was in effect from March 16, 2020 through May 2020.
- HIV laboratory screening in 2020 at select medical sites, including positive and negative antibody/antigen test results, was lower each month starting in March 2020 compared to the average number of HIV tests per month in 2019 at these testing sites.
- The medical HIV testing volume in 2020 was the lowest in April (N=2,054), a 52% reduction compared to the 2019 monthly average of 4,311 tests, and gradually increased through the end of 2020.
- Medical HIV testing has continued to increase in 2021 and exceeded the 2019 monthly average by 11% in March 2021.
- Overall, the average number of monthly HIV tests at medical sites in 2020 (N=3,514) was 18% lower than the 2019 monthly average.

Figure S.1 HIV screening tests at select medical facilities during January 2020 to March 2021 compared to 2019, San Francisco

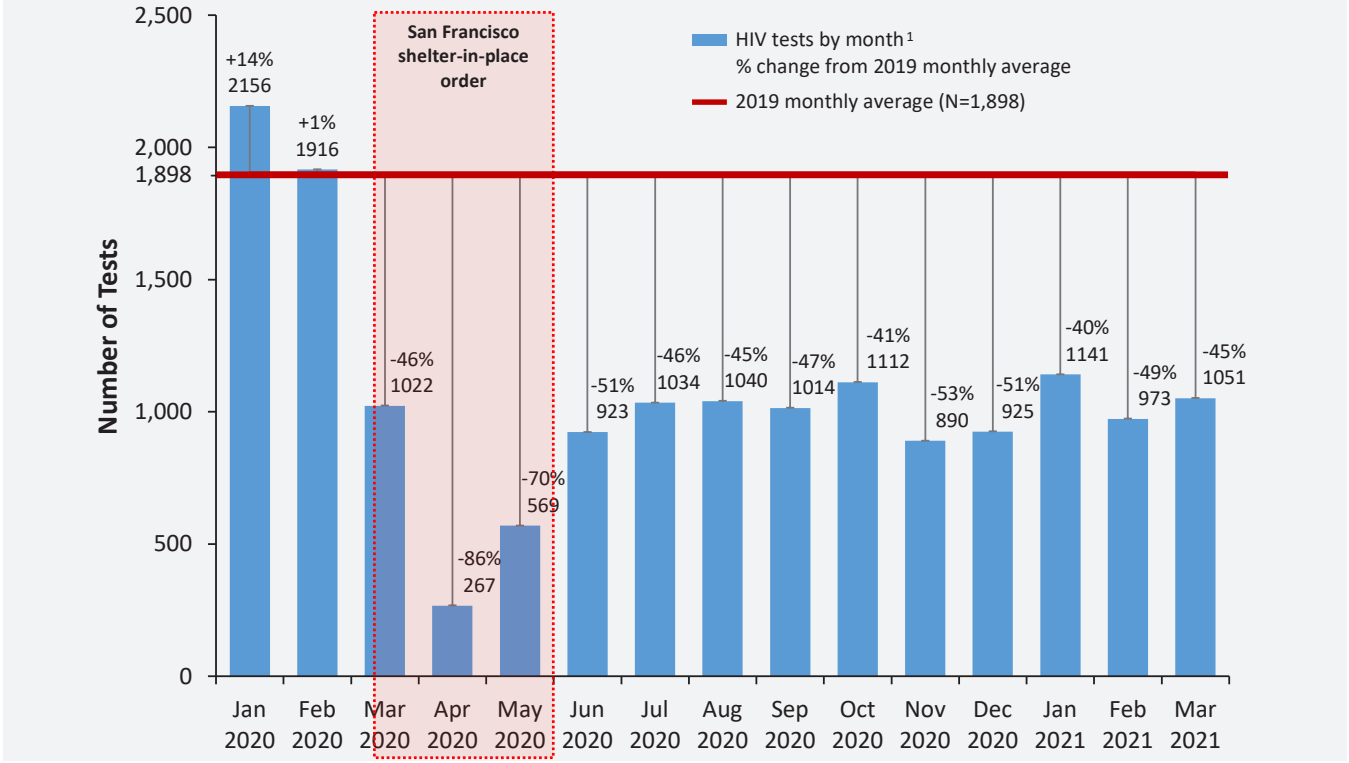


1 Includes reporting of positive and negative HIV-1/2 Antigen/Antibody (4th generation) test results from ZSFG, UCSF and CPMC laboratories as of April 2021. Data span to March 2021 for the purpose of tracking effects of the COVID-19 pandemic.

HIV testing at community settings

- HIV screening at several large San Francisco community sites (measured using qualitative HIV RNA tests performed at the SFDPH Public Health Laboratory, see Technical Notes "HIV Qualitative Pool Testing") displayed a similar pattern to medical HIV screening.
- Monthly testing numbers in community sites started to decrease in March 2020; in March 2020 there were 1,022 HIV tests, a 46% decline compared to the monthly average of 1,898 HIV tests per month in 2019.
- The greatest decrease occurred in April 2020 (N=267), an 86% reduction compared to the 2019 monthly average.
- The monthly numbers gradually increased in May through October in 2020 and remained stable through March 2021 but these numbers were lower than the 2019 testing level by 40-50%.
- Overall, the average number of monthly community HIV screenings in 2020 (N=1,072) was 44% lower than the 2019 monthly average.

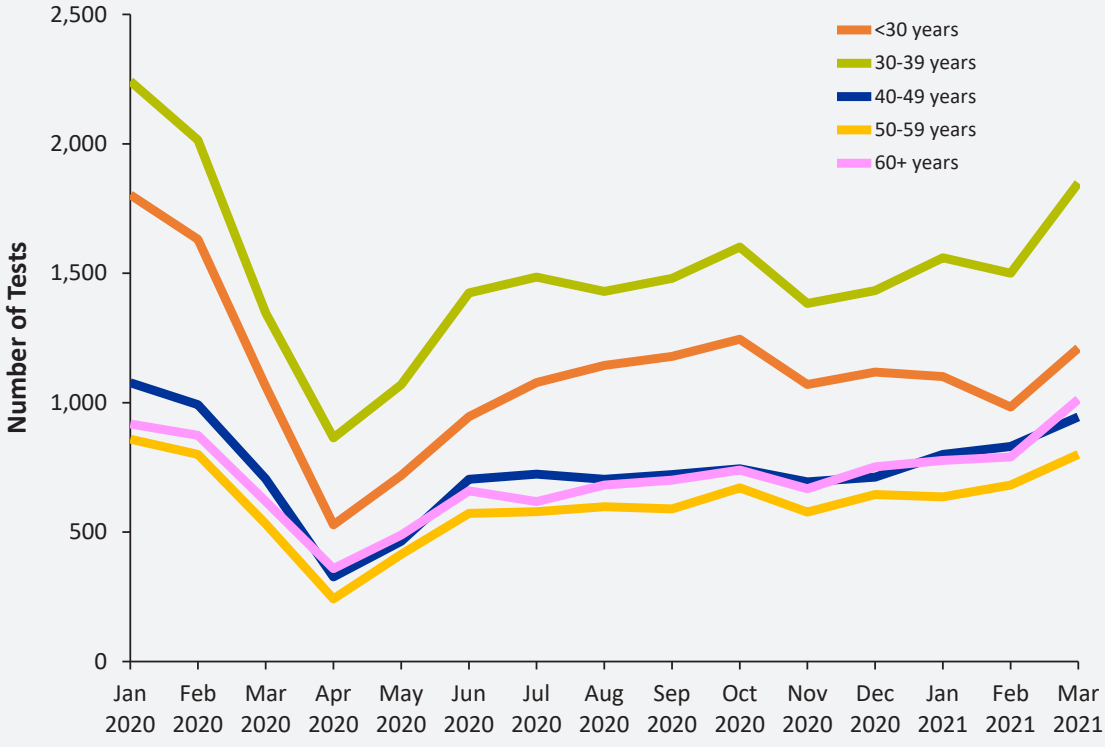
Figure S.2 HIV screening tests at community sites during January 2020 to March 2021 compared to 2019, San Francisco



1 Includes HIV qualitative pool testing data from SFDPH laboratory as of April 2021. See Technical Notes "HIV Qualitative Pool Testing." Data span to March 2021 for the purpose of tracking effects of the COVID-19 pandemic.

- The number of HIV tests declined in 2020 and reached the lowest point in April 2020 for all age groups. Testing increased during May, June, and July 2020, fluctuated between August and December 2020, and has continued to increase since February 2021.
- Throughout January 2020 to March 2021, the volume of HIV testing was highest among persons aged 30-39 years followed by those under 30 years old.
- By March 2021, the overall number of HIV tests for all age groups surpassed the average monthly tests in 2020; 5,818 tests in March 2021 compared to a monthly average of 4,586 in 2020 – a 27% increase.

Figure S.3 Laboratory-based HIV screening tests[1] by age group, January 2020 - March 2021, San Francisco

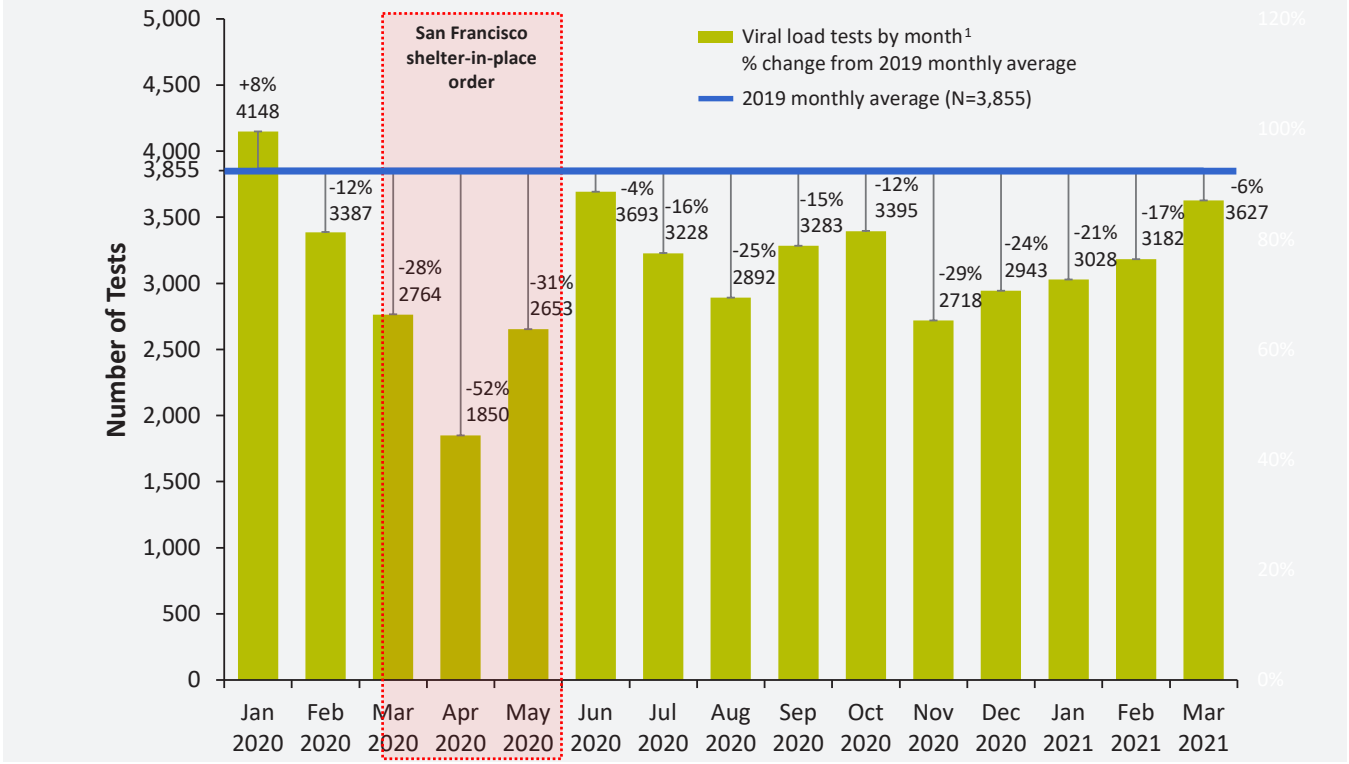


1 Includes reporting of positive and negative HIV-1/2 Antibody/Antigen (4th generation) test results from three hospital laboratories and pooled HIV RNA testing from the SFDPH laboratory as of April 2021. Excludes tests with unknown age. Data span to March 2021 for the purpose of tracking effects of the COVID-19 pandemic.

HIV viral load testing

- HIV viral load testing among persons living with HIV, an indicator of receipt of HIV care, also declined in 2020 compared to the monthly average of viral load tests in 2019; a similar trend as seen in HIV screening tests with the largest decline (52%) in April 2020.
- The number of viral load tests increased in June 2020 to nearly the 2019 average but declined again in the following two months and fluctuated through November 2020.
- Since November 2020, the number of viral load tests increased steadily and reached 3,627 tests in March 2021, 6% below the 2019 monthly average viral load tests.
- Overall, the average number of monthly HIV viral load tests in 2020 was 3,080, 20% lower than the 2019 monthly average of 3,855 tests.

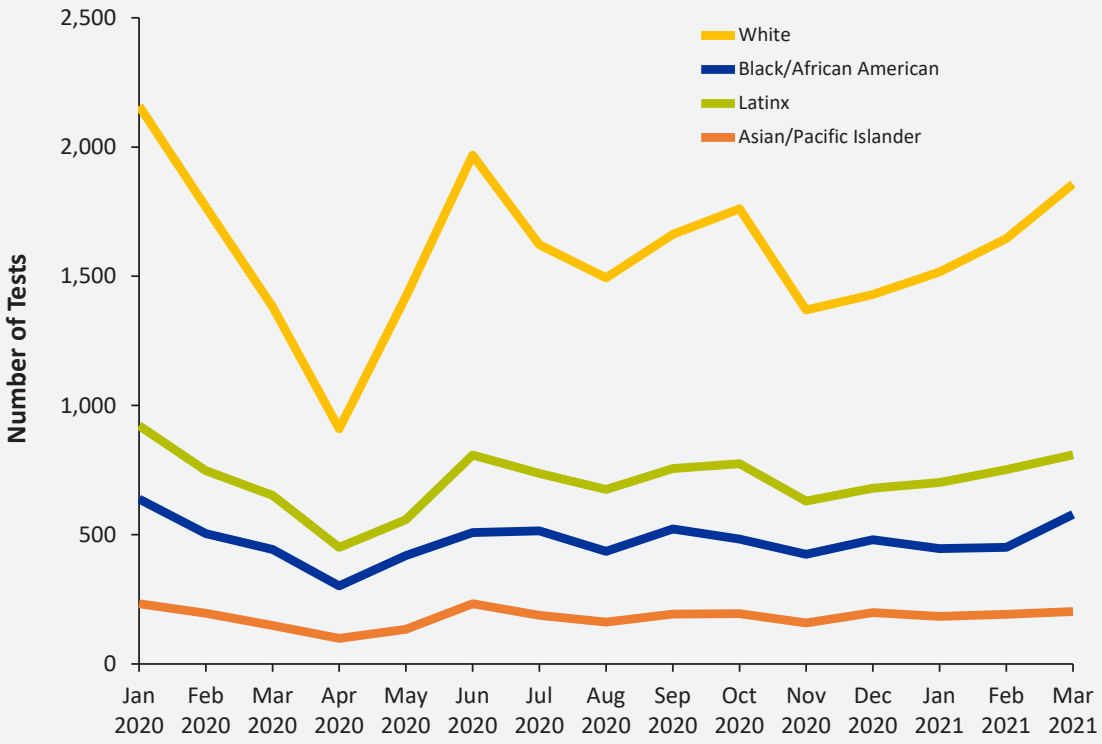
Figure S.4 HIV viral load tests among persons living with HIV during January 2020 to March 2021 compared to 2019, San Francisco



1 Includes viral load data reported as of April 2021 for San Francisco residents and OOJ residents who received care in San Francisco. Data span to March 2021 for the purpose of tracking effects of the COVID-19 pandemic.

- The number of HIV viral load tests among persons with HIV decreased in 2020 for all racial/ethnic groups with the largest decline in April 2020; the number of viral load tests gradually increased after the decline in April 2020 and fluctuated through the end of 2020.
- Between January and March 2021, the number of viral load tests increased 22% among Whites, 15% among Latinx, 30% among Black/African Americans, and 10% among Asians/Pacific Islanders.

Figure S.5 HIV viral load tests[1] among persons living with HIV by race/ethnicity, January 2020 - March 2021, San Francisco

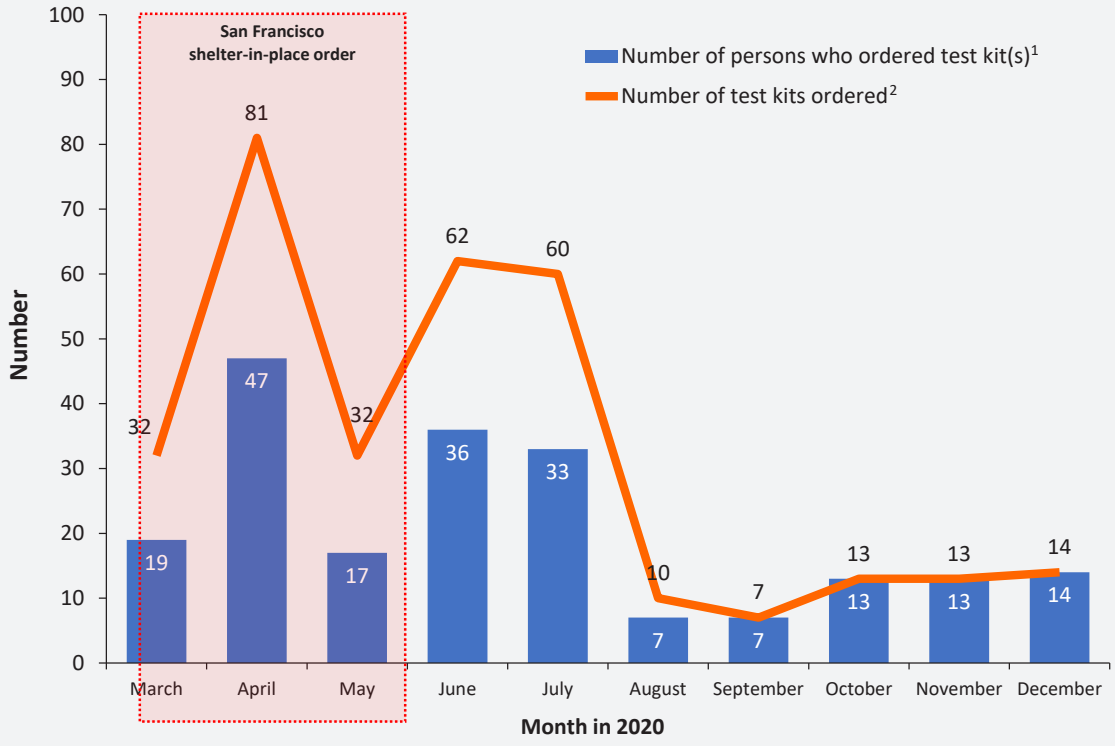


1 Includes viral load data reported as of April 2021 for San Francisco residents and OOJ residents who received care in San Francisco. Data span to March 2021 for the purpose of tracking effects of the COVID-19 pandemic.

San Francisco HIV/STD Home Testing Program

- The San Francisco HIV/STD Home Testing Program (see Technical Notes "San Francisco HIV/STD Home Testing Program") was in a pilot phase from March to December 2020. During this period, there were 324 HIV home tests ordered by 204 persons.
- Home test kit orders peaked in April 2020 during San Francisco's strictest COVID-19 shelter-in-place period (mid-March to May) which mandated residents to stay at home (except for essential businesses) and instructed health care systems to prioritize services to those who were the sickest.
- During the pilot phase, no positive results from the HIV home tests were reported.

Figure S.6 Number of HIV home test kits ordered and number of persons who ordered the kits by month, March-December 2020, San Francisco



1 There are 204 unique persons (de-duplicated by name and age) who ordered test kits during this time period.
2 During the beginning of the pilot period, the program allowed one person to order multiple test kits in the same month. Since August 2020, each person was limited to two test kits per calendar month.

- The majority of persons who ordered HIV home test kits in this pilot program were men (81%).
- Whites accounted for one-third of participants in this program, Asians/Pacific Islanders 18%, Latinx 17%, and Black/African Americans 5%.
- The pilot program aimed to reach younger MSM at high risk for HIV infection; participants were predominantly younger aged persons, with almost three-quarters under 40 years of age.
- Geographically, the top three San Francisco regions where persons who ordered HIV home test kits resided were the Castro (18%), Pacific Heights/Marina (12%), and the Sunset (10%).

Table S.1 Persons who ordered HIV home test kits by demographic characteristics and region, March - December 2020, San Francisco

		Number (%)			Number (%)
	Total[1]	204		Total[1]	204
Gender[2]	Men	165 (81)	Region[3]	Ballpark/Mission Bay	10 (5)
	Women	12 (6)		Bayview	6 (3)
	Other	9 (4)		Castro	36 (18)
	Unknown	18 (9)		Civic Center	17 (8)
Race/Ethnicity	White	65 (32)		Downtown	8 (4)
	Black/African American	10 (5)		Lake Merced	6 (3)
	Latinx	34 (17)		Mission	16 (8)
	Asian/Pacific Islander	36 (18)		Outer Mission/Ingleside	13 (6)
	Other/Unknown	59 (29)		Pacific Heights/Marina	25 (12)
Age in Years	13-24	40 (20)		Panhandle/Haight Ashbury	10 (5)
	25-29	50 (25)		Richmond/Presidio	11 (5)
	30-39	59 (29)		South of Market	16 (8)
	40-49	19 (9)		Sunset	21 (10)
	50-59	13 (6)		Twin Peaks	4 (2)
	60+	4 (2)		Visitacion Valley	3 (1)
	Unknown	19 (9)		West Portal	2 (1)

1 Persons who ordered HIV test kits in this time period are de-duplicated by name and age.
2 Other gender includes transgender, queer, non-binary.
3 Region is grouped by zip codes where the test kits were mailed. It is assumed that the individual lived in the zip code where the test kit was mailed.

1 Overview of HIV in San Francisco

15,811
San Francisco residents were diagnosed and living with HIV as of 12/31/2020

11% **of PLWH in California resided in San Francisco**

<2%
of PLWH in the United States resided in San Francisco

- Persons living with HIV (PLWH) in San Francisco were more likely to be men and White, and men who have sex with men (MSM) including MSM who also inject drugs (MSM-PWID), compared to cases reported in California and the United States.
- In 2020 the gender distributions of San Francisco and California cases were very similar.
- As with California new diagnoses, by racial/ethnic group, Latinx persons accounted for the largest proportion of 2020 diagnoses in San Francisco (37%).
- Compared to newly diagnosed persons nationally, San Francisco new diagnoses were more likely to be men and trans women, and White, Latinx or Asian/Pacific Islander (API).
- Compared to all San Francisco PLWH, San Francisco's newly diagnosed persons in 2020 had higher proportions of women, Black/African Americans, Latinx, APIs, trans women who have sex with men, persons who inject drugs (PWID), and heterosexuals.

Table 1.1 Characteristics of persons living with HIV and persons newly diagnosed with HIV in San Francisco, California and the United States

		Living HIV Cases			Newly Diagnosed HIV Cases		
		San Francisco[1] 2020 (N= 15,811)	California[2] 2019 (N= 137,785)	United States[3] 2019 (N= 1,061,482)	San Francisco[1] 2020 (N= 131)	California[2] 2019 (N= 4,396)	United States[3] 2019 (N= 36,801)
Gender	Men	92%	87%	75%	82%	85%	79%
	Women	6%	12%	23%	14%	12%	19%
	Trans Women	2%	1%	1%	4%	3%	2%
	Trans Men	<1%	<1%	<1%	1%	<1%	<1%
Race/Ethnicity	White	57%	37%	29%	28%	25%	25%
	Black/African American	12%	17%	40%	21%	18%	42%
	Latinx	21%	38%	25%	37%	48%	29%
	Asian/Pacific Islander	6%	4%	1%	11%	6%	2%
	Native American	<1%	<1%	<1%	2%	<1%	<1%
	Other/Unknown	3%	3%	5%	1%	3%	2%
Transmission Category[4]	MSM	73%	66%	56%	61%	60%	65%
	TWSM	2%	1%	--	4%	2%	--
	PWID	5%	6%	12%	10%	5%	7%
	MSM-PWID	13%	6%	5%	9%	4%	4%
	TWSM-PWID	1%	--	--	0%	--	--
	Heterosexual	4%	15%	26%	7%	18%	24%
	Other/Unidentified	2%	6%	2%	9%	11%	<1%

1 San Francisco data are reported through March 15, 2021 for cases diagnosed through December 31, 2020. San Francisco 2020 new diagnoses may be revised due to case reporting delay. Death reporting is incomplete for 2020; the number of San Francisco PLWH may be revised downward.

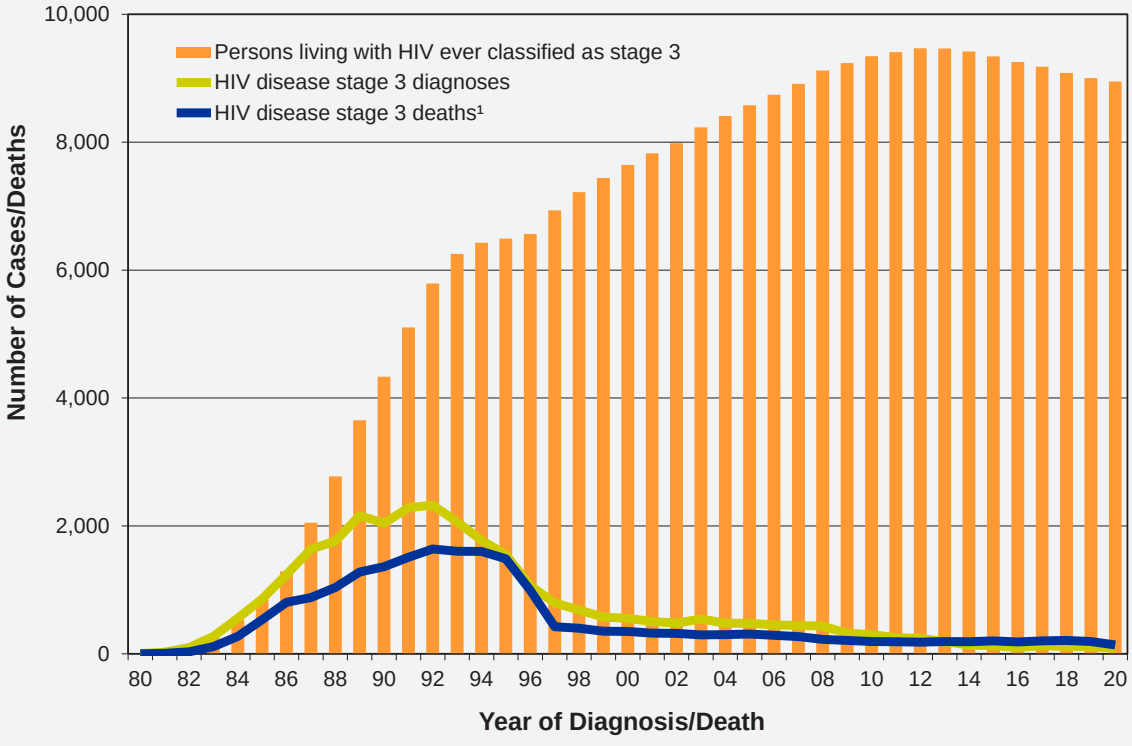
2 California data are reported through February 23, 2021 for cases diagnosed through December 31, 2019. California's new diagnosis case count does not include persons with unreported race and ethnicity.

3 U.S. data are reported through December 31, 2020 and reflect cases diagnosed through December 31, 2019. U.S. living cases available through December 31, 2019 due to delays in death reporting. U.S. data reflect unadjusted numbers for 50 states and 6 dependent areas and may be found in the Centers for Disease Control and Prevention, HIV Surveillance Report, 2019; vol. 32. http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2021. Accessed [May 28, 2021]. U.S. racial/ethnic group data for new diagnoses only reflect persons with racial/ethnic group information.

4 U.S. transmission category data for adults and adolescents have been statistically adjusted for missing values and not released separately for transgender persons.

- The number of San Francisco residents diagnosed with HIV stage 3 (AIDS) reached a peak in 1992 and declined beginning in 1993.
- Stage 3 diagnoses showed signs of leveling in 2018 and 2019, and the decline in 2020 to 85 annual diagnoses should be interpreted with caution due to effects of the COVID-19 pandemic.
- Beginning in 1995, the number of deaths among persons ever classified as stage 3 (blue line) has decreased dramatically due to antiretroviral therapies (ART).
- In 2013, the number of deaths among persons with stage 3 diagnosis exceeded the number of new stage 3 diagnoses.
- Persons living with stage 3 diagnosis peaked in 2012, plateaued in 2013, and declined through 2020.
- There were 8,950 San Francisco residents living with HIV ever classified as stage 3 by the end of 2020.

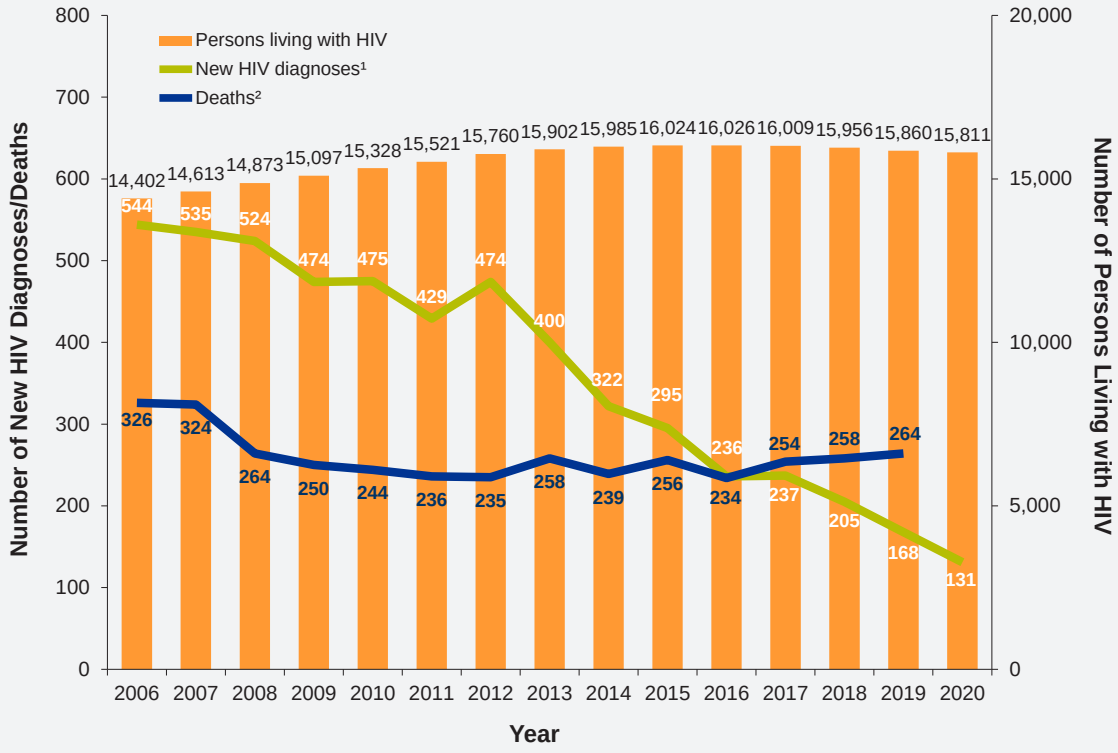
Figure 1.1 HIV disease stage 3 (AIDS) cases, deaths, and prevalence, 1980-2020, San Francisco



1 Death reporting for 2020 is not complete.

- The number of new HIV diagnoses declined from 544 in 2006 to 131 in 2020.
- New HIV diagnoses have steadily declined, however data for 2020 should be interpreted with caution due to the effects of the COVID-19 pandemic.
- The number of yearly deaths fluctuated, with small increases in the recent three years 2017 to 2019.
- Deaths among PLWH exceeded new diagnoses starting in 2017.
- The provisional number of PLWH at the end of 2020 is 15,811; this will be revised when death reporting for 2020 is complete.

Figure 1.2 HIV diagnoses, deaths, and prevalence, 2006-2020, San Francisco



1 See Technical Notes "Date of Initial HIV Diagnosis."
2 Death data for 2020 not complete and not displayed.

- The majority of persons newly diagnosed with HIV were MSM for years 2011 through 2020.
- The proportion of women newly diagnosed was 14% in 2020.
- In the past decade, Latinx persons experienced the largest proportional increase of new diagnoses, accounting for 37% of new diagnoses in 2020.
- The proportion of new diagnoses among Whites has declined to 28% of 2020 diagnoses.
- By age groups, 30-39 year-olds continued to account for the highest proportion of diagnoses each year (31% in 2020).
- The proportion of persons diagnosed at age of 50 years and older has increased (21% for both 2019 and 2020).
- No children (<13 years) were diagnosed with HIV during 2011 to 2020.

Table 1.2 Trends in persons newly diagnosed with HIV by demographic and risk characteristics, 2011-2020, San Francisco

		Year of Initial HIV Diagnosis[1]									
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Total Number	429	474	400	322	295	236	237	205	168	131
Gender	Men	87%	92%	92%	92%	88%	85%	86%	88%	83%	82%
	Women	10%	5%	5%	4%	10%	11%	11%	8%	8%	14%
	Trans Women	3%	3%	3%	4%	2%	4%	3%	3%	8%	4%
	Trans Men	0%	0%	0%	0%	0%	<1%	0%	<1%	1%	1%
Race/Ethnicity	White	52%	48%	45%	42%	40%	38%	35%	29%	35%	28%
	Black/African American	15%	11%	12%	10%	15%	14%	16%	20%	17%	21%
	Latinx	20%	24%	27%	30%	26%	29%	30%	39%	32%	37%
	Asian/Pacific Islander	9%	11%	12%	14%	12%	16%	13%	8%	11%	11%
	Native American	0%	1%	1%	0%	0%	0%	1%	1%	2%	2%
	Multi-race	4%	4%	4%	4%	5%	3%	5%	2%	2%	1%
	Unknown	<1%	<1%	<1%	0%	<1%	0%	0%	0%	0%	0%
Age at HIV Diagnosis (years)	13 - 17	0%	0%	<1%	<1%	1%	0%	1%	<1%	0%	0%
	18 - 24	10%	14%	15%	12%	13%	14%	11%	15%	10%	12%
	25 - 29	16%	16%	20%	18%	25%	22%	18%	19%	14%	16%
	30 - 39	28%	30%	28%	30%	30%	33%	34%	32%	39%	31%
	40 - 49	31%	28%	25%	23%	21%	16%	21%	20%	17%	19%
	50+	16%	12%	12%	16%	11%	15%	16%	13%	21%	21%
Transmission Category	MSM	69%	74%	75%	73%	74%	67%	60%	61%	63%	61%
	TWSM	2%	2%	3%	2%	2%	3%	1%	2%	5%	4%
	PWID	7%	4%	5%	8%	6%	9%	11%	13%	7%	10%
	MSM-PWID	13%	11%	12%	12%	8%	10%	13%	12%	9%	9%
	TWSM-PWID	1%	<1%	1%	1%	<1%	1%	1%	1%	3%	<1%
	Heterosexual	7%	6%	4%	3%	7%	7%	7%	5%	5%	7%
	Other/Unidentified	2%	2%	1%	1%	3%	3%	7%	5%	9%	9%

1 Data include persons diagnosed with HIV in any stage and reported as of March 15, 2021. Percentages may not add to 100 due to rounding. See Technical Notes "Date of Initial HIV Diagnosis."

- The number of PLWH declined during 2016 through 2020.
- Gender, racial/ethnic and risk distributions of PLWH remained mostly stable between 2016 and 2020; cases were predominately men, White, and MSM (including MSM-PWID).
- Persons living with HIV aged 40-49 years declined from 23% in 2016 to 17% in 2020.
- Persons living with HIV continued to shift into older age groups with the largest proportional increase observed among persons aged 60-69 years (21% to 26% from 2016 to 2020).

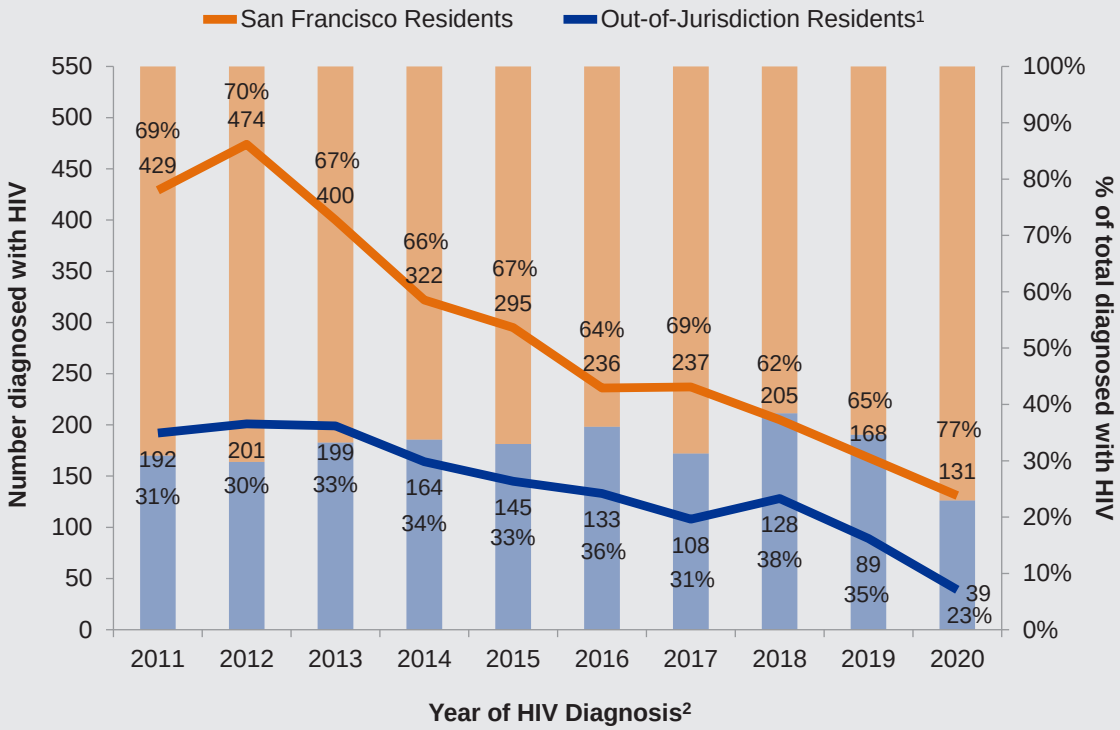
Table 1.3 Trends in persons living with HIV by demographic and risk characteristics, 2016-2020, San Francisco

		2016	2017	2018	2019	2020[2]
		Number (%)				
	Total[1]	16,026	16,009	15,956	15,860	15,811
Gender	Men	14,701 (92)	14,681 (92)	14,631 (92)	14,530 (92)	14,482 (92)
	Women	903 (6)	909 (6)	904 (6)	899 (6)	900 (6)
	Trans Women	416 (3)	413 (3)	415 (3)	423 (3)	420 (3)
	Trans Men	6 (<1)	6 (<1)	6 (<1)	8 (<1)	9 (<1)
Race/Ethnicity	White	9,371 (58)	9,289 (58)	9,214 (58)	9,126 (58)	9,061 (57)
	Black/African American	1,911 (12)	1,907 (12)	1,892 (12)	1,878 (12)	1,874 (12)
	Latinx	3,149 (20)	3,184 (20)	3,226 (20)	3,236 (20)	3,255 (21)
	Asian/Pacific Islander	964 (6)	991 (6)	993 (6)	999 (6)	1,009 (6)
	Native American	61 (<1)	63 (<1)	65 (<1)	68 (<1)	69 (<1)
	Multi-race	562 (4)	567 (4)	558 (3)	545 (3)	535 (3)
	Unknown	8 (<1)	8 (<1)	8 (<1)	8 (<1)	8 (<1)
Age in Years (at end of each year)	0 - 12	2 (<1)	0 (0)	0 (0)	0 (0)	0 (0)
	13 - 17	4 (<1)	6 (<1)	4 (<1)	3 (<1)	3 (<1)
	18 - 24	122 (1)	105 (1)	101 (1)	77 (<1)	69 (<1)
	25 - 29	451 (3)	416 (3)	361 (2)	305 (2)	268 (2)
	30 - 39	1,833 (11)	1,806 (11)	1,759 (11)	1,716 (11)	1,596 (10)
	40 - 49	3,652 (23)	3,376 (21)	3,135 (20)	2,877 (18)	2,668 (17)
	50 - 59	5,849 (36)	5,849 (37)	5,781 (36)	5,684 (36)	5,544 (35)
	60 - 69	3,303 (21)	3,499 (22)	3,716 (23)	3,945 (25)	4,161 (26)
	70+	810 (5)	952 (6)	1,099 (7)	1,253 (8)	1,502 (9)
Transmission Category	MSM	11,620 (73)	11,633 (73)	11,612 (73)	11,568 (73)	11,558 (73)
	TWSM	239 (1)	237 (1)	238 (1)	244 (2)	248 (2)
	PWID	901 (6)	887 (6)	881 (6)	861 (5)	851 (5)
	MSM-PWID	2,285 (14)	2,251 (14)	2,215 (14)	2,167 (14)	2,131 (13)
	TWSM-PWID	174 (1)	173 (1)	174 (1)	176 (1)	169 (1)
	Heterosexual	566 (4)	574 (4)	573 (4)	570 (4)	571 (4)
	Other/Unidentified	241 (2)	254 (2)	263 (2)	274 (2)	283 (2)

1 Persons living with HIV at the end of each year.
2 Provisional number will be revised when death reporting for 2020 is complete.

- Out-of-Jurisdiction (OOJ) residents (those who reside outside of San Francisco) are routinely diagnosed in San Francisco facilities and testing sites. The annual number of OOJ residents diagnosed was level from 2011 to 2013 and then declined thereafter (blue line).
- The yearly proportion of OOJ residents increased slightly from 2011 to 2019, with 35% of all new cases reported being OOJ residents in 2019 (blue bars).
- In 2020, new diagnoses among OOJ residents declined to 39 and made up 23% of all new cases reported that year. This sharp decline in absolute number and percentage reflects the impact of the COVID-19 pandemic and regional and statewide shelter in place orders in 2020.

Figure 1.3 San Francisco HIV cases and out-of-jurisdiction HIV cases diagnosed in San Francisco, 2011-2020



1 See Technical Notes "Out-of-Jurisdiction Cases."
2 See Technical Notes "Date of Initial HIV Diagnosis."

- As of December 31, 2020, 15,811 PLWH who were San Francisco residents at diagnosis were alive and 9,123 (58%) of these residents were still living in the city based on their most recent available address.
- The total number of PLWH with a known current San Francisco address is 12,242.
- OOJ residents at diagnosis made up 25% of PLWH with a known current San Francisco address.
- Demographic and risk distributions of San Francisco residents at diagnosis who were still living in San Francisco were very similar to all living San Francisco residents at diagnosis.
- A greater proportion of OOJ residents at diagnosis now living in San Francisco were under 50 years and MSM.

Table 1.4 Characteristics of persons living with HIV as of December 2020 by residence status, San Francisco

			PLWH who were SF residents based on most recent address[1] (N=12,242)	
		PLWH who were SF residents at diagnosis	SF residents at diagnosis	OOJ residents at diagnosis
		Number (%)		
	Total	**15,811**	**9,123**	**3,119**
Gender[2]	Men	14,482 (92)	8,190 (90)	2,905 (93)
	Women	900 (6)	620 (7)	113 (4)
	Trans Women	420 (3)	305 (3)	100 (3)
Race/Ethnicity	White	9,061 (57)	4,772 (52)	1,568 (50)
	Black/African American	1,874 (12)	1,158 (13)	466 (15)
	Latinx	3,255 (21)	2,155 (24)	732 (23)
	Asian/Pacific Islander	1,009 (6)	696 (8)	148 (5)
	Other/Unknown	612 (4)	342 (4)	205 (7)
Age in Years (as of 12/31/2020)	0 - 12	0 (0)	0 (0)	0 (0)
	13 - 17	3 (<1)	1 (<1)	0 (0)
	18 - 24	69 (<1)	48 (1)	32 (1)
	25 - 29	268 (2)	178 (2)	154 (5)
	30 - 39	1,596 (10)	1,002 (11)	726 (23)
	40 - 49	2,668 (17)	1,542 (17)	699 (22)
	50 - 59	5,544 (35)	3,083 (34)	945 (30)
	60 - 69	4,161 (26)	2,349 (26)	468 (15)
	70+	1,502 (9)	920 (10)	95 (3)
Transmission Category	MSM	11,558 (73)	6,411 (70)	2,369 (76)
	TWSM	248 (2)	177 (2)	66 (2)
	PWID	851 (5)	584 (6)	119 (4)
	MSM-PWID	2,131 (13)	1,236 (14)	348 (11)
	TWSM-PWID	169 (1)	126 (1)	34 (1)
	Heterosexual	571 (4)	393 (4)	93 (3)
	Other/Unidentified	283 (2)	196 (2)	90 (3)

1 See Technical Notes "Residence and Receipt of Care for PLWH."
2 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

- White MSM accounted for 49% of men living with HIV in San Francisco followed by Latino MSM who accounted for 16% of men living with HIV.
- Black/African American men had the highest proportion of PWID (12%) while multi-racial men had the highest proportion of MSM-PWID (22%).
- At the end of 2020, White men had an older age distribution compared to men of other racial/ethnic groups.
- Latino, API and Native American, and multi-racial men were younger than Whites and Black/African Americans.
- Black/African American women accounted for 37%, White women 27%, and Latinas 23% of women living with HIV in San Francisco.
- Injection drug use was the predominant transmission category for White, Black/African American, and multi-racial women while heterosexual sex was the predominant transmission category for Latina, API and Native American women combined.
- Among trans women living with HIV, 37% were Latinx, 30% were Black/African Americans, 18% were Whites, 10% were APIs and Native Americans combined, and 5% were multi-racial persons.

Table 1.5 Characteristics of persons living with HIV as of December 2020, San Francisco

			White	Black/African American	Latinx	Asian/Pacific Islander & Native American	Multi-Race	Total Number[1]
			Number (%)					
Men	Transmission Category	MSM	7,153 (82)	867 (61)	2,377 (82)	819 (85)	341 (71)	11,558
		PWID	167 (2)	175 (12)	69 (2)	21 (2)	18 (4)	450
		MSM-PWID	1,335 (15)	265 (19)	339 (12)	85 (9)	107 (22)	2,131
		Heterosexual	32 (<1)	66 (5)	52 (2)	20 (2)	7 (1)	177
		Other/Unidentified	52 (1)	39 (3)	49 (2)	17 (2)	4 (1)	166
	Age in Years (as of 12/31/2020)	0 - 12	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0
		13 - 17	0 (0)	0 (0)	0 (0)	0 (0)	1 (<1)	1
		18 - 24	9 (<1)	15 (1)	24 (1)	7 (1)	1 (<1)	56
		25 - 29	53 (1)	43 (3)	88 (3)	36 (4)	12 (3)	232
		30 - 39	528 (6)	157 (11)	486 (17)	177 (18)	52 (11)	1,400
		40 - 49	1,178 (13)	194 (14)	624 (22)	267 (28)	110 (23)	2,375
		50 - 59	3,197 (37)	450 (32)	1013 (35)	293 (30)	173 (36)	5,127
		60 - 69	2,687 (31)	431 (31)	514 (18)	137 (14)	98 (21)	3,870
		70+	1,087 (12)	122 (9)	137 (5)	45 (5)	30 (6)	1,421
		Men Total	**8,739**	**1,412**	**2,886**	**962**	**477**	**14,482**
Women	Transmission Category	PWID	141 (57)	161 (48)	60 (29)	13 (17)	21 (62)	396
		Heterosexual	79 (32)	138 (41)	117 (56)	53 (71)	7 (21)	394
		Other/Unidentified	26 (11)	34 (10)	33 (16)	9 (12)	6 (18)	110
	Age in Years (as of 12/31/2020)	0 - 12	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0
		13 - 17	0 (0)	1 (<1)	1 (<1)	0 (0)	0 (0)	2
		18 - 24	1 (<1)	4 (1)	1 (<1)	0 (0)	2 (6)	8
		25 - 29	3 (1)	7 (2)	13 (6)	2 (3)	2 (6)	27
		30 - 39	25 (10)	35 (11)	33 (16)	7 (9)	4 (12)	104
		40 - 49	44 (18)	50 (15)	43 (20)	20 (27)	10 (29)	168
		50 - 59	95 (39)	101 (30)	59 (28)	26 (35)	11 (32)	292
		60 - 69	59 (24)	108 (32)	42 (20)	16 (21)	4 (12)	230
		70+	19 (8)	27 (8)	18 (9)	4 (5)	1 (3)	69
		Women Total	**246**	**333**	**210**	**75**	**34**	**900**
		Trans Women Total	**75**	**127**	**154**	**41**	**23**	**420**

1 Includes persons whose racial/ethnic information is not available. Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

Persons diagnosed with HIV disease stage 0

- Of the 1,109 San Francisco residents diagnosed with HIV in 2016 to 2020, 301 (27%) were diagnosed at stage 0 (an indicator of recent HIV acquisition), 729 (66%) at stages 1-3, and 79 (7%) could not be staged due to not having a documented CD4 T-lymphocyte test ≤ 3 months after HIV diagnosis.
- The proportion of stage 0 diagnoses was highest among trans women, persons aged 13-24 years at time of diagnosis, and MSM (including MSM-PWID).

Table 1.6 Stage of HIV disease at diagnosis among persons newly diagnosed with HIV in 2016-2020, San Francisco

		New Diagnoses[1]	Stage at Diagnosis[2]		
			Stage 0	Stage 1-3	Unknown
		Number (%[3])			
	Total	**1,109**	**301 (27)**	**729 (66)**	**79 (7)**
Year of HIV Diagnosis	2016	265	77 (29)	164 (62)	24 (9)
	2017	243	61 (25)	159 (65)	23 (9)
	2018	241	74 (31)	148 (61)	19 (8)
	2019	207	48 (23)	150 (72)	9 (4)
	2020	153	41 (27)	108 (71)	4 (3)
Gender[4]	Men	953	265 (28)	620 (65)	68 (7)
	Women	110	16 (15)	85 (77)	9 (8)
	Trans Women	41	17 (41)	22 (54)	2 (5)
Race/Ethnicity	White	372	104 (28)	245 (66)	23 (6)
	Black/African American	178	46 (26)	110 (62)	22 (12)
	Latinx	368	105 (29)	246 (67)	17 (5)
	Asian/Pacific Islander	153	35 (23)	106 (69)	12 (8)
	Other/Unknown	38	11 (29)	22 (58)	5 (13)
Age at HIV Diagnosis (years)	13-24	124	54 (44)	64 (52)	6 (5)
	25-29	204	63 (31)	128 (63)	13 (6)
	30-39	380	107 (28)	238 (63)	35 (9)
	40-49	221	41 (19)	165 (75)	15 (7)
	50+	180	36 (20)	134 (74)	10 (6)
Transmission Category	MSM	720	210 (29)	464 (64)	46 (6)
	PWID	101	19 (19)	67 (66)	15 (15)
	MSM-PWID	110	33 (30)	71 (65)	6 (5)
	Heterosexual	72	10 (14)	57 (79)	5 (7)
	Other/Unidentified[5]	106	29 (27)	70 (66)	7 (7)

1 Includes persons diagnosed in the time period based on a confirmed laboratory HIV test regardless of whether the person had an earlier self-report of HIV positive date.
2 The surveillance case definition includes five HIV stages at diagnosis. See Technical Notes "Stage of Disease at HIV Diagnosis."
3 Row percent of new diagnoses.
4 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
5 Includes TWSM, TWSM-PWID and persons with no identified risk factor.

Persons diagnosed with late stage HIV disease

- Late HIV diagnosis is defined as having a stage 3 (AIDS) diagnosis within three months of HIV diagnosis.
- The proportion of persons newly diagnosed with late stage HIV fluctuated, from a low of 11% in 2016 to a high of 19% in 2017, and was 17% in 2020.
- In 2020, the proportion of new diagnoses that occurred late was highest among Whites, persons aged 50 years or older at time of diagnosis, and PWID (including MSM-PWID).

Table 1.7 Late diagnoses among persons newly diagnosed with HIV in 2016-2020 by demographic and risk characteristics, San Francisco

		Year of Diagnosis[1]				
		2016	2017	2018	2019	2020
		Number of new diagnoses (% who had a late diagnosis[2])				
	Total	**265 (11)**	**243 (19)**	**241 (16)**	**207 (15)**	**153 (17)**
Gender[3]	Men	227 (11)	211 (18)	213 (16)	174 (16)	128 (18)
	Women	28 (11)	27 (22)	20 (25)	17 (12)	18 (17)
	Trans Women	9 (11)	5 (20)	7 (0)	14 (21)	6 (0)
Race/Ethnicity	White	96 (10)	91 (18)	72 (14)	69 (13)	44 (25)
	Black/African American	38 (16)	37 (16)	44 (7)	30 (20)	29 (10)
	Latinx	73 (7)	68 (19)	93 (17)	74 (8)	60 (15)
	Asian/Pacific Islander	51 (12)	32 (25)	26 (27)	27 (33)	17 (18)
	Other/Unknown	7 (14)	15 (20)	6 (50)	7 (29)	3 (0)
Age at HIV Diagnosis (Years)	13-24	34 (3)	28 (7)	30 (7)	15 (13)	17 (12)
	25-29	59 (10)	44 (16)	44 (20)	33 (6)	24 (8)
	30-39	86 (10)	80 (11)	84 (10)	79 (15)	51 (18)
	40-49	45 (16)	52 (33)	51 (18)	41 (12)	32 (13)
	50+	41 (12)	39 (28)	32 (34)	39 (28)	29 (31)
Transmission Category	MSM	178 (11)	149 (17)	158 (17)	135 (13)	100 (17)
	PWID	22 (9)	26 (19)	26 (12)	14 (29)	13 (23)
	MSM-PWID	26 (4)	32 (16)	24 (8)	15 (0)	13 (23)
	Heterosexual	23 (17)	16 (31)	12 (33)	12 (33)	9 (0)
	Other/Unidentified[4]	16 (6)	20 (30)	21 (14)	31 (19)	18 (17)
Housing Status	Homeless	26 (15)	30 (27)	50 (14)	41 (17)	26 (15)
	Housed	229 (10)	201 (18)	185 (17)	159 (15)	117 (19)
	Unknown	10 (0)	12 (8)	6 (0)	7 (14)	10 (0)
Country of Birth	US/US Dep.	120 (7)	106 (15)	115 (10)	80 (15)	69 (17)
	Non-US	93 (12)	68 (32)	91 (23)	69 (16)	46 (20)
	Unknown	52 (17)	69 (12)	35 (17)	58 (16)	38 (13)

1 Date of HIV diagnosis is based on a confirmed laboratory HIV test and does not take into account self-report of HIV infection.
2 Percent of persons with new diagnoses in the year who developed AIDS within 3 months of HIV diagnosis.
3 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
4 Includes TWSM, TWSM-PWID and persons with no identified risk factor.

2 Trends in HIV Diagnoses

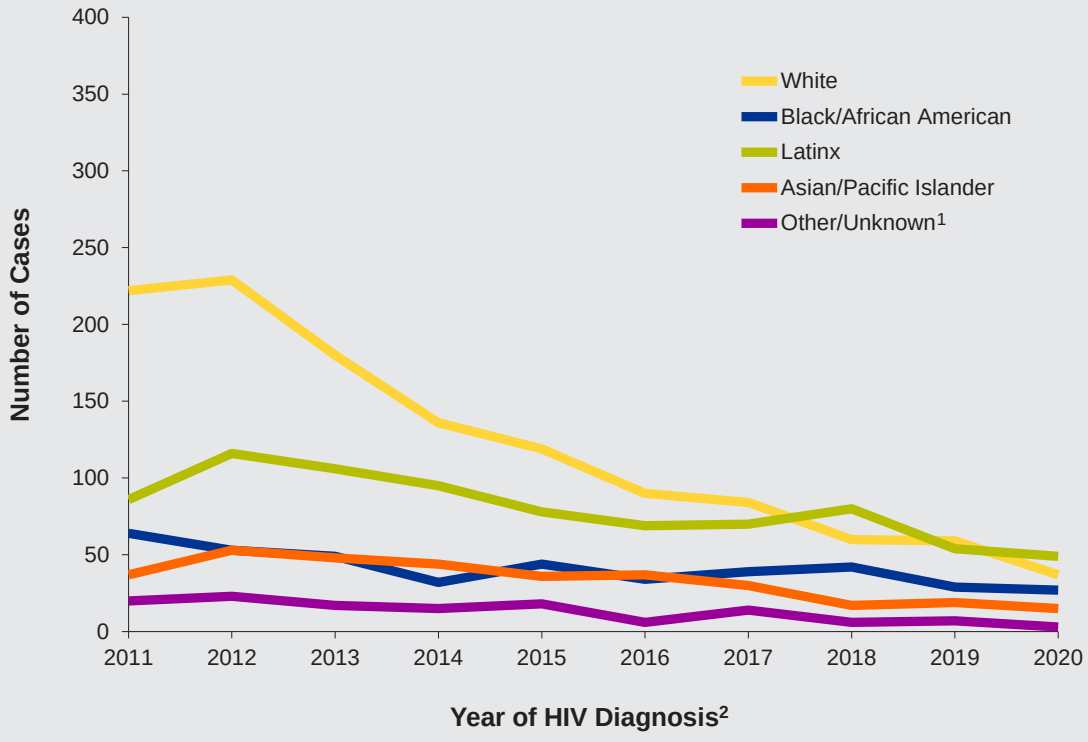
Race/ethnicity

Whites

ACCOUNTED FOR 42% OF NEWLY DIAGNOSED CASES FROM 2011-2020

- Diagnoses among Whites were stable from 2011 to 2012, declined from 2013 through 2018, and remained steady from 2018 to 2019.
- Overall, diagnoses among Latinx declined from 2013 to 2016, slightly increased between 2017 and 2018, and declined in 2019 to 2020.
- Diagnoses among Black/African Americans also declined since 2011 to 27 in 2020.
- From 2011 to 2020, diagnoses among Asians/Pacific Islanders (APIs) peaked in 2012 (53 cases) and declined slowly starting in 2013.
- Due to the impact of the COVID-19 pandemic, in 2020 all racial/ethnic groups experienced declines in the absolute number of new diagnoses, with Whites experiencing the largest decline from 2019 to 2020 (59 cases to 37 cases).

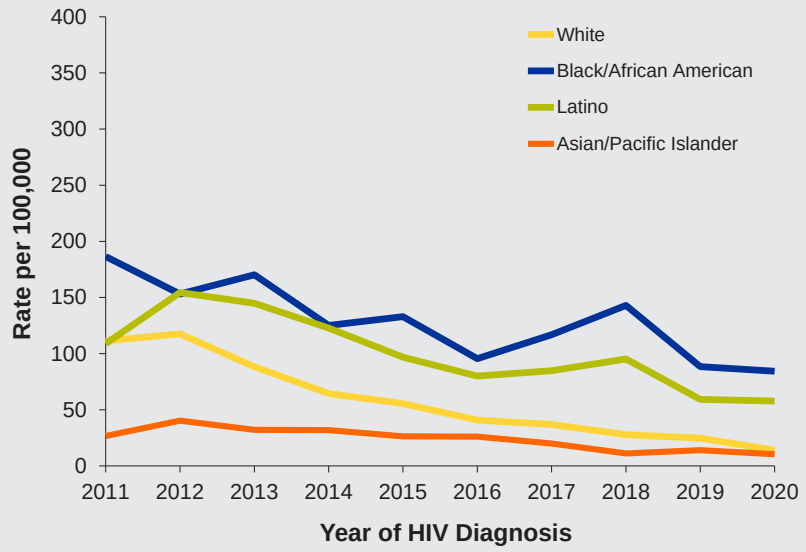
Figure 2.1 Number of persons newly diagnosed with HIV by race/ethnicity, 2011-2020, San Francisco



1 Cases in the "Other/Unknown" racial/ethnic category include 16% Native Americans, 81% multi-race, and 3% unknown.
2 See Technical Notes "Date of Initial HIV Diagnosis."

- Among men, annual population-specific rates of HIV diagnosis declined for most racial/ethnic groups from 2011 through 2019; the decline was most sustained for White men from 2013 to 2020.
- Diagnosis rates for both Black/African American and Latino men fluctuated in recent years and were stable in 2019 to 2020.
- From 2011 to 2020, API men had a peak diagnosis rate of 40 per 100,000 in 2012; the diagnosis rate declined slowly and was relatively stable from 2018 to 2020.
- Compared to men in other racial/ethnic groups, White men had the largest diagnosis rate decline from 2019 to 2020 (25 per 100,000 to 14 per 100,000, respectively).

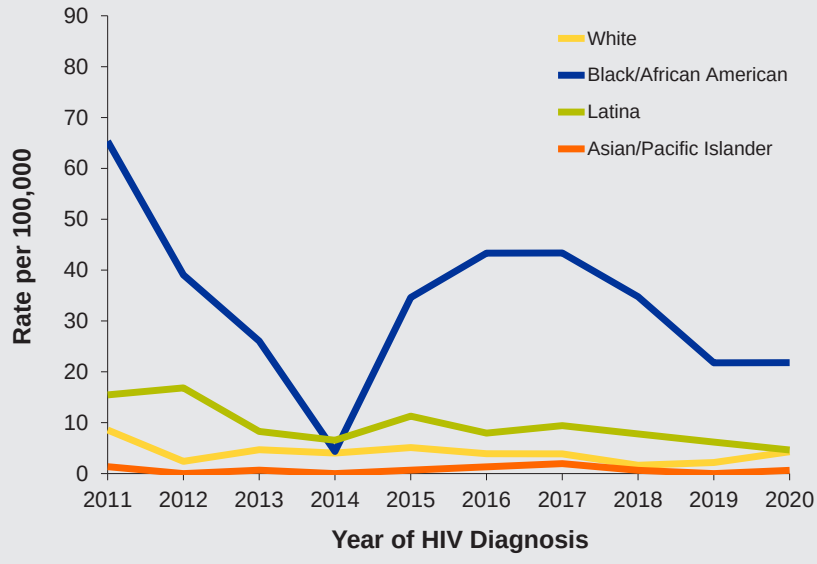
Figure 2.2 Annual rates[1] of men newly diagnosed with HIV per 100,000 population by race/ethnicity, 2011-2020, San Francisco



1 See Technical Notes "HIV Case Rates and HIV Mortality Rates." Includes persons with HIV by year of their initial HIV diagnosis. Excludes trans men and trans women diagnosed with HIV. Rates for Native American and multiracial cases are not calculated due to small numbers.

- From 2011 through 2020, the annual population-specific rates of HIV diagnosis were substantially lower for White, Black/African American, Latina, and API women compared to men of the same racial/ethnic group.
- Diagnosis rates among Black/African American women decreased from 65 per 100,000 in 2011 to 22 per 100,000 in 2019 and 2020.
- Diagnosis rates for Latinas decreased slowly from 2017 to 2020 (5 per 100,000).
- In 2020, the diagnosis rate for White women increased slightly to 4 per 100,000.
- Diagnosis rates for API women were very low in 2018 to 2020, ranging from 0 to <1 per 100,000.

Figure 2.3 Annual rates[1] of women newly diagnosed with HIV per 100,000 population by race/ethnicity, 2011-2020, San Francisco

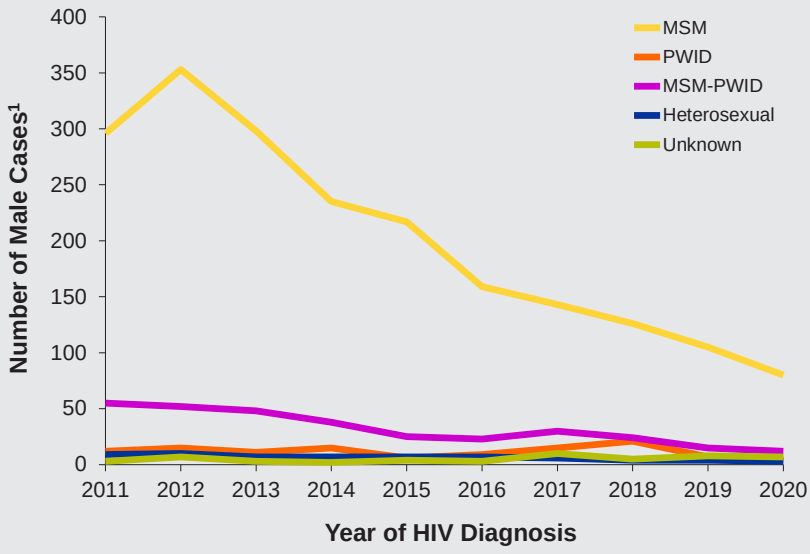


1 See Technical Notes "HIV Case Rates and HIV Mortality Rates." Includes persons with HIV by year of their initial HIV diagnosis. Excludes trans men and trans women diagnosed with HIV. Rates for Native American and multiracial cases are not calculated due to small numbers.

Transmission category

- The majority of men newly diagnosed with HIV during 2011 through 2020 were MSM (non-PWID).
- The number of MSM diagnoses was 353 in 2012 and declined each year after.
- The number of MSM-PWID diagnoses also declined gradually each year from 55 in 2011 to 12 in 2020.
- Diagnoses in male PWID from 2011 to 2020 was highest in 2018 (21 cases).

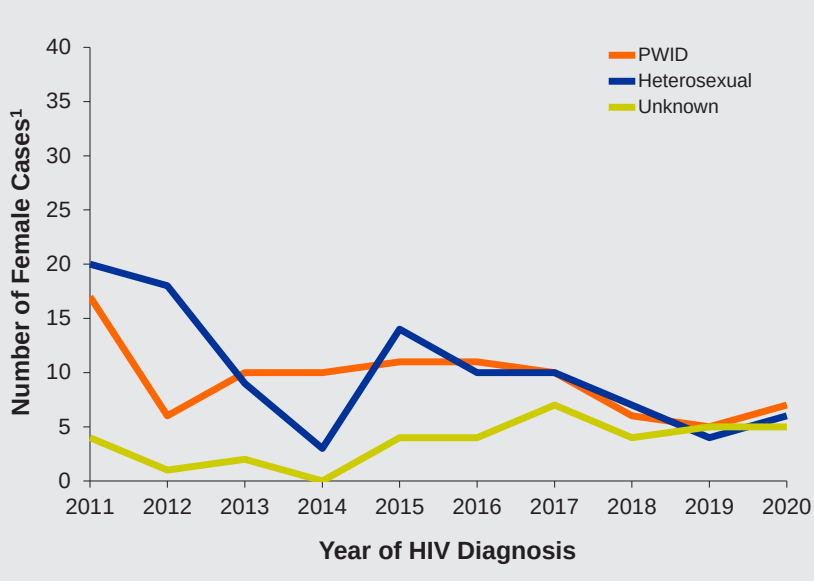
Figure 2.4 Number of men newly diagnosed with HIV by transmission category, 2011-2020, San Francisco



1 Excludes trans men and trans women diagnosed with HIV. Includes persons with HIV by year of their initial HIV diagnosis.

- The number of women newly diagnosed with HIV due to heterosexual contact was similar to that for female PWID.
- Unlike trends for males by transmission category (Figure 2.4), diagnoses of female heterosexuals and PWID both increased in 2020.

Figure 2.5 Number of women newly diagnosed with HIV by transmission category, 2011-2020, San Francisco



1 Excludes trans men and trans women diagnosed with HIV. Includes persons with HIV by year of their initial HIV diagnosis.

Age

- Diagnoses for men declined each year from 204 in 2017 to 107 in 2020, while diagnoses for women declined from 27 in 2017 to 14 in 2019 and then increased to 18 in 2020.
- During 2016 and 2020, a greater proportion of men were diagnosed under age 30 years compared to women in that age group.
- Among men, the 30-39 age group had the highest number of new diagnoses in this time period, followed by men 25-29 years of age.
- Among women, the 30-39 age group also had the highest number of new diagnoses in this time period, followed by women in the 50+ years age group.
- During this time period there were no new diagnoses among persons under 13 years of age.

Table 2.1 Number of persons newly diagnosed with HIV by gender[1] and age at diagnosis, 2016-2020, San Francisco

		Year of Initial HIV Diagnosis[2]				
		2016	2017	2018	2019	2020
		Number (%)				
Men (Age in years)	0 - 12	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	13 - 17	0 (0)	1 (<1)	1 (1)	0 (0)	0 (0)
	18 - 24	29 (14)	21 (10)	27 (15)	12 (9)	16 (15)
	25 - 29	45 (22)	40 (20)	39 (22)	22 (16)	18 (17)
	30 - 39	67 (33)	74 (36)	53 (29)	51 (37)	30 (28)
	40 - 49	33 (16)	38 (19)	38 (21)	24 (17)	20 (19)
	50+	27 (13)	30 (15)	22 (12)	30 (22)	23 (21)
	Men Total	**201**	**204**	**180**	**139**	**107**
Women (Age in years)	0 - 12	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	13 - 17	0 (0)	2 (7)	0 (0)	0 (0)	0 (0)
	18 - 24	2 (8)	3 (11)	2 (12)	2 (14)	0 (0)
	25 - 29	5 (20)	1 (4)	0 (0)	0 (0)	3 (17)
	30 - 39	6 (24)	5 (19)	7 (41)	7 (50)	6 (33)
	40 - 49	4 (16)	9 (33)	3 (18)	3 (21)	4 (22)
	50+	8 (32)	7 (26)	5 (29)	2 (14)	5 (28)
	Women Total	**25**	**27**	**17**	**14**	**18**

1 Data on trans women and trans men by age are not presented due to small numbers and potential small population.
2 See Technical Notes "Date of Initial HIV Diagnosis."

3 Spectrum of Engagement in HIV Prevention and Care

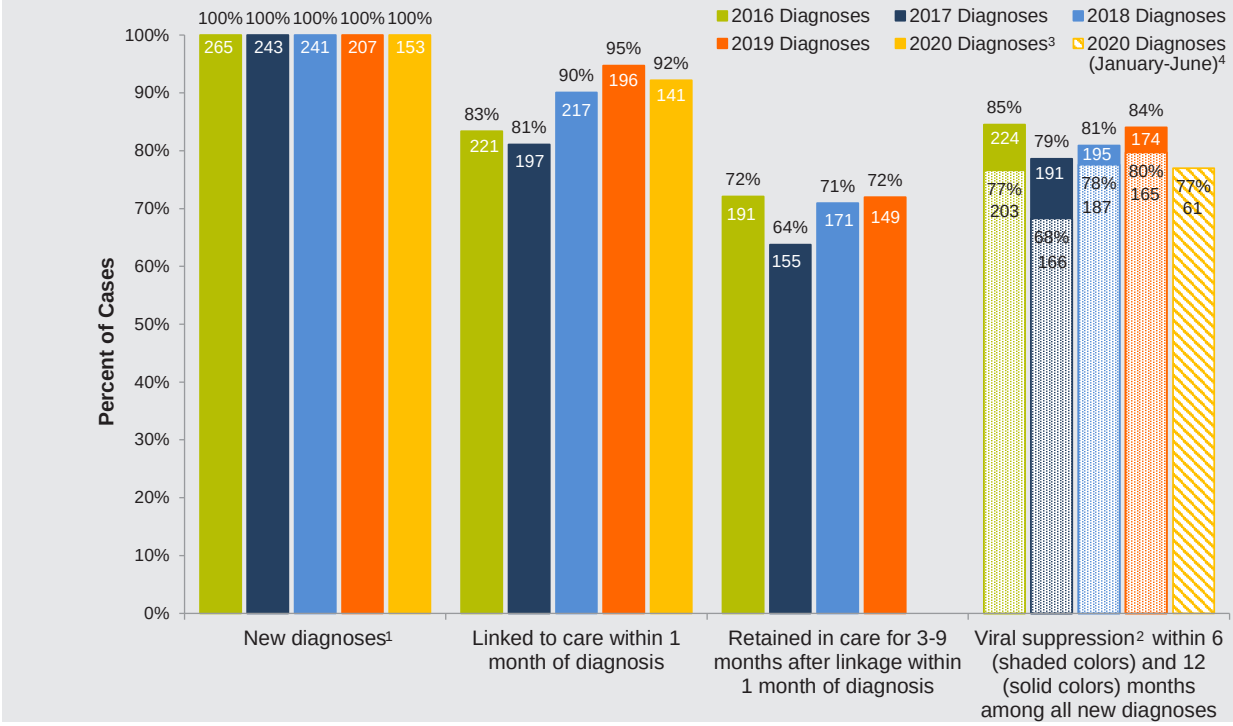
Continuum of HIV care among persons newly diagnosed with HIV

- From 2016 through 2020, the proportion of newly diagnosed persons who entered care within one month ranged from 81% to 95%.
- Not all persons who entered care continued to receive care; 64%-72% of persons diagnosed in 2016 to 2019 remained in care three to nine months after initial linkage to care.
- The proportion of newly diagnosed persons who achieved viral suppression within 6 months and 12 months showed an upward trend between 2017 and 2019; 80% of persons diagnosed in 2019 were virally suppressed within six months and 84% were virally suppressed within 12 months.
- Between January and June 2020, 77% of persons diagnosed were virally suppressed within six months.

92%
OF PERSONS NEWLY DIAGNOSED IN 2020 ENTERED CARE WITHIN ONE MONTH

77%
OF PERSONS NEWLY DIAGNOSED BETWEEN JANUARY AND JUNE 2020 ACHIEVED VIRAL SUPPRESSION WITHIN SIX MONTHS

Figure 3.1 Continuum of HIV care among persons newly diagnosed with HIV, 2016-2020, San Francisco

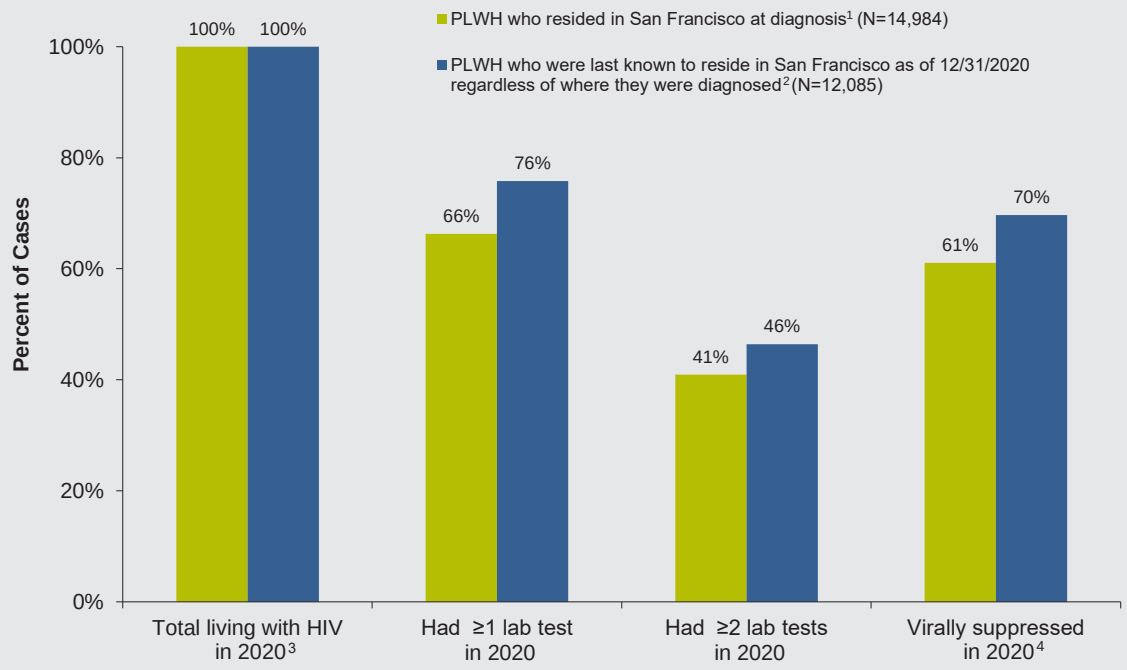


1 Number of new diagnoses shown each year is based on evidence of a confirmed HIV test and does not take into account self-report of HIV infection.
2 Defined as the latest viral load test within 6 and 12 months of HIV diagnosis <200 copies/mL. See Technical Notes "HIV Care Outcomes and Definitions."
3 Retention in care and viral suppression data are not available yet for the entire year of 2020.
4 Persons who were diagnosed between January and June 2020 and virally suppressed within 6 months of HIV diagnosis.

Continuum of HIV care among persons living with HIV

- Using data through the end of 2020, there were 14,984 persons living with HIV (PLWH) who were diagnosed through December 31, 2019, and who resided in San Francisco at time of diagnosis. Of these, 66% had at least one CD4, viral load or genotype test (received care), 41% had two or more laboratory tests at least three months apart (retained in care), and 61% were virally suppressed in 2020.
- Of the 12,085 PLWH who resided in San Francisco based on their most recent address (8,646 San Francisco residents at diagnosis and still in San Francisco, 3,439 out-of-jurisdiction (OOJ) residents at diagnosis who moved to San Francisco after diagnosis), 76% received care, 46% were retained in care, and 70% were virally suppressed in 2020.

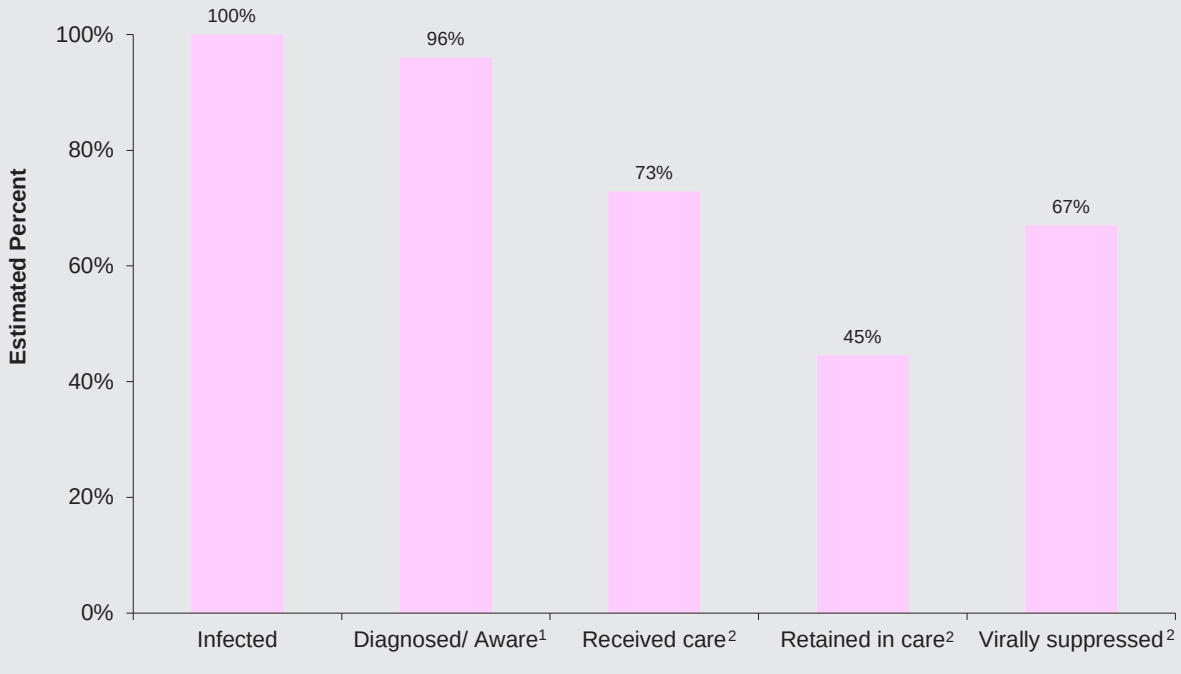
Figure 3.2 Continuum of HIV care among persons living with HIV, 2020, San Francisco



1 Excludes persons who were non-San Francisco residents at time of HIV diagnosis but San Francisco residents at HIV stage 3 (AIDS) diagnosis.
2 See Technical Notes "Residence and Receipt of Care for PLWH."
3 Includes persons living with HIV at the end of 2020 (≥ 13 years old) and diagnosed by the end of 2019.
4 Defined as the latest viral load in 2020 <200 copies/mL.

- Among all PLWH (included those diagnosed and the estimated number of undiagnosed), it is estimated that 96% were aware of their HIV diagnosis, 73% received care, 45% were retained in care, and 67% were virally suppressed in 2020.

Figure 3.3 Continuum of HIV care among persons living with diagnosed or undiagnosed HIV infection, 2020, San Francisco



1 The estimated percent aware of HIV diagnosis for San Francisco was based on 2019 and derived from the CD4 depletion model. See Technical Notes "CD4-based Model."

2 The estimated percent received care, retained in care, and virally suppressed among all PLWH (diagnosed and undiagnosed) was derived by applying the 96% diagnosed/aware to the 76% who had ≥1 lab tests, 46% who had ≥2 lab tests, and 70% who were virally suppressed among persons living with diagnosed HIV who were last known to reside in San Francisco as shown in Figure 3.2, respectively.

Trends in HIV care and prevention indicators

- The proportion of late stage HIV diagnosis, defined as a person who developed HIV disease stage 3 (AIDS) within three months of initial HIV diagnosis, fluctuated from 11% in 2016 to 17% in 2020.
- The proportion of linkage to care within one month of diagnosis remained high in recent years (90%-95%) and decreased slightly from 95% in 2019 to 92% in 2020, possible due to the effect of COVID-19 on receipt of health care.
- The median time from HIV diagnosis to viral suppression decreased from 65 days in 2016 to 40 days in 2019.
- All care indicators from diagnosis to viral suppression improved over time including time from HIV diagnosis to first care (from 3 days in 2016 to 1 day in 2019), time from receipt of care to antiretroviral therapy (ART) initiation (from 6 days in 2016 to 0 day in 2019), and time from ART initiation to viral suppression (from 46 days in 2016 to 40 days in 2019).
- Among PLWH who resided in San Francisco based on their last known address at the end of each year, the proportion of those who received care (81-82%), as well as the proportion of those who were virally suppressed (74%-75%), was relatively stable from 2016 to 2019 and decreased in 2020 (76% received care, 70% were virally suppressed).

Table 3.1 Care and prevention indicators among persons newly diagnosed with HIV and living with HIV, 2016-2020, San Francisco

		Year				
		2016	2017	2018	2019	2020
Indicators	**New HIV diagnoses[1]**	**N=265**	**N=243**	**N=241**	**N=207**	**N=153**
	Proportion developed HIV stage 3 (AIDS) within 3 months of diagnosis	11%	19%	16%	15%	17%
	Proportion linked to care within 1 month of diagnosis	83%	81%	90%	95%	92%
	Proportion virally suppressed[2] within 12 months of diagnosis	85%	79%	81%	84%	NA
	Median time (days) from HIV diagnosis to first viral suppression	65	65	46	40	NA
	Median time (days) from HIV diagnosis to first care	3	3	1	1	NA
	Median time (days) from first care to ART initiation[3]	6	2	1	0	NA
	Median time (days) from ART initiation to first viral suppresssion[3]	46	50	38	40	NA
	Living HIV cases[4] (≥13 years old)	**N=13,054**	**N=12,778**	**N=12,440**	**N=12,303**	**N=12,085**
	Proportion of cases who had ≥1 CD4/viral load test	82%	81%	81%	81%	76%
	Proportion received ≥2 tests among those with ≥1 test	76%	74%	72%	72%	61%
	Proportion virally suppressed[2] among living cases	74%	74%	74%	75%	70%
	Proportion virally suppressed among those with ≥1 viral load test	92%	92%	93%	93%	94%

1 Includes persons diagnosed each year based on a confirmed HIV test and does not take into account self-report of HIV infection.
2 Defined as the latest viral load test within 12 months of HIV diagnosis <200 copies/mL. For living cases viral suppression is measured using the latest test in the year.
3 Calculation is limited to persons diagnosed with HIV who were known to have started ART. See Technical Notes "Estimate of ART Use."
4 Includes PLWH who were alive and resided in San Francisco as of the end of each year and diagnosed as of the previous year. See Technical Notes "Residence and Receipt of Care for PLWH."

Care indicators among persons with HIV by demographic and risk characteristics

- There were noticeable differences in care outcomes among persons diagnosed with HIV in 2019 by demographic and risk characteristics.
- The proportions of all three care indicators, linkage to care, retention in care, and viral suppression, were lower among women, Whites, persons aged 25-29 years, and persons who inject drugs (PWID).
- Black/African Americans had a lower proportion of linkage to care and viral suppression. Trans women, persons aged 30-39 years, MSM-PWID, and persons experiencing homelessness at diagnosis had a lower proportion of viral suppression.

Table 3.2 Care indicators[1] among persons newly diagnosed with HIV in 2019 by demographic and risk characteristics, San Francisco

		Number of diagnoses[2]	% Linked to care within 1 month of diagnosis[3]	% Retained in care 3-9 months after linkage[3]	% Virally suppressed within 12 months of diagnosis[3]
	Total	**207**	**95%**	**72%**	**84%**
Gender[4]	Men	174	95%	73%	86%
	Women	17	88%	59%	71%
	Trans Women	14	93%	71%	71%
Race/Ethnicity	White	69	94%	67%	80%
	Black/African American	30	90%	73%	73%
	Latinx	74	100%	78%	95%
	Asian/Pacific Islander	27	89%	70%	85%
	Other/Unknown	7	86%	57%	57%
Age at Diagnosis (Years)	13-24	15	100%	93%	93%
	25-29	33	94%	61%	79%
	30-39	79	96%	71%	82%
	40-49	41	93%	73%	83%
	50+	39	92%	74%	90%
Transmission Category	MSM	135	95%	76%	90%
	PWID	14	93%	57%	50%
	MSM-PWID	15	100%	53%	67%
	Heterosexual	12	92%	58%	92%
	Other/Unidentified[5]	31	94%	77%	77%
Housing Status at Diagnosis	Homeless	41	95%	85%	68%
	Housed	159	95%	70%	88%
	Unknown	7	86%	29%	86%
Country of Birth	US	80	98%	78%	83%
	Non-US	69	96%	68%	93%
	Unknown	58	90%	69%	76%

1 See Technical Notes "HIV Care Outcomes and Definitions."
2 Includes persons diagnosed in 2019 based on a confirmed HIV test and does not take into account self-report of HIV infection.
3 Percent of total diagnoses.
4 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
5 Includes TWSM, TWSM-PWID and persons with no identified risk factor.

- Among PLWH who were San Francisco residents as of the end of 2020, 70% were virally suppressed; among those who received care in 2020, 92% were virally suppressed.
- The proportion who were virally suppressed was lower among women, trans women, Black/African Americans, persons younger than 50 years, PWID (including MSM-PWID and TWSM-PWID), and persons experiencing homelessness.

Table 3.3 Care indicators among persons living with HIV in 2020 who were known to reside in San Francisco as of the end of 2020, by demographic and risk characteristics

		Number of living cases[1]	% with >= 1 laboratory test in 2020[2]	% with >= 2 laboratory tests in 2020[2]	% Virally suppressed (most recent viral load test in 2020 <200 copies/mL)	
					among all living cases	among those with >= 1 laboratory test in 2020
	Total	**12,085**	**76%**	**46%**	**70%**	**92%**
Gender[3]	Men	10,962	76%	46%	70%	92%
	Women	716	77%	46%	67%	87%
	Trans Women	399	81%	57%	70%	86%
Race/Ethnicity	White	6,292	76%	45%	71%	93%
	Black/African American	1,597	77%	50%	66%	86%
	Latinx	2,824	74%	48%	68%	91%
	Asian/Pacific Islander	828	76%	43%	73%	95%
	Other/Unknown	544	76%	47%	70%	92%
Age in Years (as of 12/31/2020)	13-24	63	83%	59%	71%	87%
	25-29	308	75%	44%	64%	85%
	30-39	1,674	73%	43%	63%	87%
	40-49	2,207	72%	40%	64%	89%
	50-59	4,007	75%	46%	69%	92%
	60-69	2,811	80%	52%	76%	95%
	70+	1,015	79%	54%	77%	97%
Transmission Category	MSM	8,677	76%	46%	72%	94%
	TWSM	237	85%	58%	76%	89%
	PWID	691	74%	46%	62%	84%
	MSM-PWID	1,572	77%	48%	66%	86%
	TWSM-PWID	160	75%	55%	60%	80%
	Heterosexual	477	76%	47%	68%	90%
	Other/Unidentified	271	59%	35%	54%	90%
Housing Status, Most Recent	Homeless	293	33%	20%	20%	61%
	Non-Homeless[4]	11,792	77%	47%	71%	92%
Country of Birth	US	8,455	78%	47%	71%	92%
	Non-US	2,322	69%	43%	65%	94%
	Unknown	1,308	75%	45%	68%	91%

1 Includes San Francisco residents living with HIV as of the end of 2020 (≥13 years old) and diagnosed by the end of 2019. See Technical Notes "Residence and Receipt of Care for PLWH."
2 Percent of total living cases.
3 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
4 Includes persons whose most recent residence in San Francisco was unknown.

- From January 1, 2019 through December 31, 2019, 141 PLWH were referred, accepted, and completed Linkage Integration Navigation Comprehensive Services (LINCS; see Technical Notes "Linkage Integration Navigation Comprehensive Services").
- Eighty-two percent of those who completed LINCS had a viral load, CD4, or genotyping test within three months of LINCS initiation.
- Fifty-seven percent of persons who completed LINCS had additional testing in the three to nine months after linkage, indicating retention in care.
- Seventy percent of persons who completed LINCS showed evidence of viral suppression from their most recent viral load test in the 12- month period after they began the LINCS program.
- Among persons who completed LINCS, men, Latinx, persons aged 40-49 years, MSM, and housed persons had the highest proportions of viral suppression.

Table 3.4 Care indicators among persons who accepted and completed LINCS services in 2019 by demographic and risk characteristics, San Francisco

		Number of accepted and completed LINCS	% Linked to care within 3 months of LINCS initiation[1]	% Retained in care 3-9 months after linkage[1]	% Virally suppressed at most recent test in 12 months after LINCS initiation[1]
	Total	**141**	**82%**	**57%**	**70%**
Gender[2]	Men	115	82%	57%	72%
	Women	16	88%	69%	63%
	Trans Women	10	70%	40%	60%
Race/Ethnicity	White	47	85%	62%	72%
	Black/African American	36	83%	64%	67%
	Latinx	40	75%	48%	80%
	Asian/Pacific Islander	4	100%	100%	75%
	Other/Unknown	14	79%	43%	43%
Age in Years (as of 12/31/2019)	13-24	9	78%	56%	78%
	25-29	14	79%	43%	71%
	30-39	41	73%	46%	63%
	40-49	31	90%	68%	81%
	50+	46	85%	65%	67%
Transmission Category	MSM	62	74%	53%	76%
	PWID	24	96%	67%	75%
	MSM-PWID	33	85%	61%	61%
	Heterosexual	6	83%	67%	50%
	Other/Unidentified[3]	16	81%	50%	69%
Housing Status[4]	Homeless	79	86%	65%	62%
	Housed	62	76%	48%	81%

1 Percent of persons who accepted and completed LINCS.
2 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
3 Includes TWSM, TWSM-PWID and persons with no identified risk factor.
4 Housing status is based on the most recent residence at time of LINCS initiation in 2019.

HIV prevention and care indicators in San Francisco, California and the United States

- Awareness of ones HIV status in San Francisco is high (96%) compared to all Californians (88%) and the U.S. population (87%) using national data sources.
- Pre-exposure prophylaxis (PrEP) coverage is very high (85%) in San Francisco compared to California (27%) and the U.S. (23%).
- The proportion of late HIV diagnosis in 2019 was lower in San Francisco than in California and the U.S.
- The proportions of PLWH who received care and were virally suppressed in 2019 were higher in San Francisco than in California and the U.S.
- The death rate per 1,000 persons with HIV in 2019 in San Francisco (16.1) was higher than in California (13.0) and the U.S. (14.7).

Table 3.5 Comparison of HIV prevention and care indicators for San Francisco, California, and the United States, 2019

		San Francisco 2019	California[1] 2019	United States[1] 2019
Indicators	**Awareness of HIV status[2]**			
	Estimated % persons living with HIV who know their serostatus	96%	88%	87%
	Pre-exposure prophylaxis coverage[3]			
	Estimated % persons with PrEP indications who have been prescribed PrEP	85%[1]	27%	23%
	Late HIV diagnosis			
	% persons diagnosed with AIDS within 3 months of HIV diagnosis	15%	19%	20%
	HIV care access and outcome			
	% newly diagnosed persons linked to care within 1 month of HIV diagnosis	95%	83%	81%
	% newly diagnosed persons virally suppressed within 6 months of HIV diagnosis	80%	68%	68%
	% PLWH who are in care (≥1 laboratory tests)	81%	77%	76%
	% PLWH who are virally suppressed	75%	68%	66%
	HIV mortality			
	Death rate per 1,000 persons with HIV (all stages) diagnosis	16.1	13.0	14.7
	Death rate per 1,000 persons with HIV stage 3 (AIDS) diagnosis	20.1	19.2	21.9

1 CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2019. HIV Surveillance Supplemental Report 2021;26(No. 2). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2021.

2 CDC. Estimated HIV incidence and prevalence in the United States, 2015–2019. HIV Surveillance Supplemental Report 2021;26(No. 1). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2021.

3 PrEP coverage, reported as a percentage, is defined as the number of persons aged ≥16 years classified as having been prescribed PrEP during the specified year divided by the estimated number of persons aged ≥16 years who had indications for PrEP during the specified year.

Use of antiretroviral therapy

- Persons with a medical record indicating that they were prescribed ART were assumed to have received and used it (see Technical Notes "Estimate of ART Use"). Overall, 91%-99% of PLWH received ART. ART use was lower among persons experiencing homelessness.
- Among 207 persons newly diagnosed with HIV in 2019, 91% received ART. ART use was lower among women, Black/African Americans, persons aged 30-39 years at time of diagnosis, PWID, persons experiencing homelessness, and those with no insurance at diagnosis.

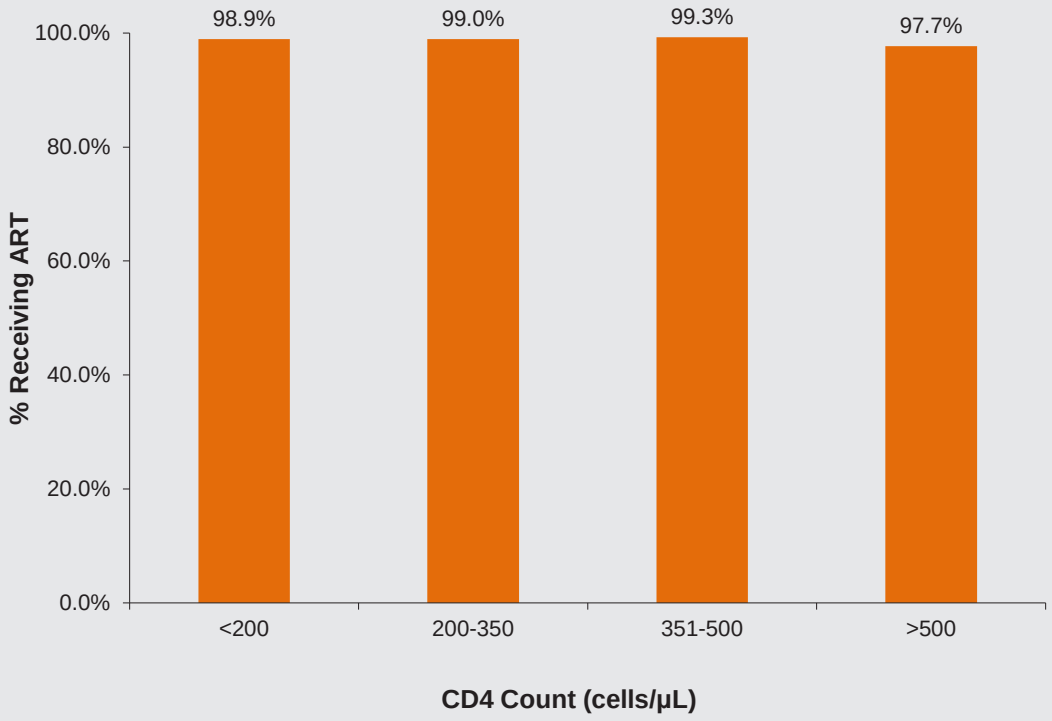
Table 3.6 Estimate of ART use among persons living with HIV as of December 2020 and diagnosed in 2019 by demographic and risk characteristics, San Francisco

		Persons living with HIV[1], December 2020 Percent receiving ART, ever		Persons newly diagnosed with HIV[1], 2019 Percent receiving ART
		Lower level estimate (N=15,129)	Upper level estimate (N=4,012)	(N=207)
	Overall	**91%**	**99%**	**91%**
Gender[2]	Men	91%	99%	91%
	Women	92%	97%	88%
	Trans Women	91%	98%	93%
Race/Ethnicity	White	92%	99%	88%
	Black/African American	89%	97%	83%
	Latinx	92%	99%	97%
	Asian/Pacific Islander	90%	98%	89%
	Other/Unknown	89%	98%	86%
Age[3]	13 - 24	94%	91%	100%
	25 - 29	92%	96%	91%
	30 - 39	88%	97%	86%
	40 - 49	87%	98%	98%
	50 +	93%	99%	90%
Transmission Category	MSM	92%	99%	93%
	PWID	87%	96%	71%
	MSM-PWID	92%	98%	93%
	Heterosexual	95%	99%	100%
	Other/Unidentified[4]	84%	96%	87%
Housing Status[5]	Homeless	61%	86%	85%
	Non-Homeless	92%	99%	92%
Insurance at Diagnosis	Private	95%	100%	100%
	Public	93%	97%	91%
	None	88%	98%	82%

1 Excludes persons who did not reside in San Francisco at time of HIV diagnosis but resided in San Francisco at time of HIV stage 3 (AIDS) diagnosis.
2 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
3 Age as of December 31, 2020 for PLWH. Age at HIV diagnosis for persons newly diagnosed with HIV.
4 Includes TWSM, TWSM-PWID and persons with no identified risk factor.
5 Housing status is based on the most recent residence for PLWH and the residence at HIV diagnosis for persons newly diagnosed with HIV. Non-homeless PLWH include persons whose most recent residence was unknown or in other jurisdiction. Non-homeless persons newly diagnosed with HIV include persons whose residence at HIV diagnosis was unknown.

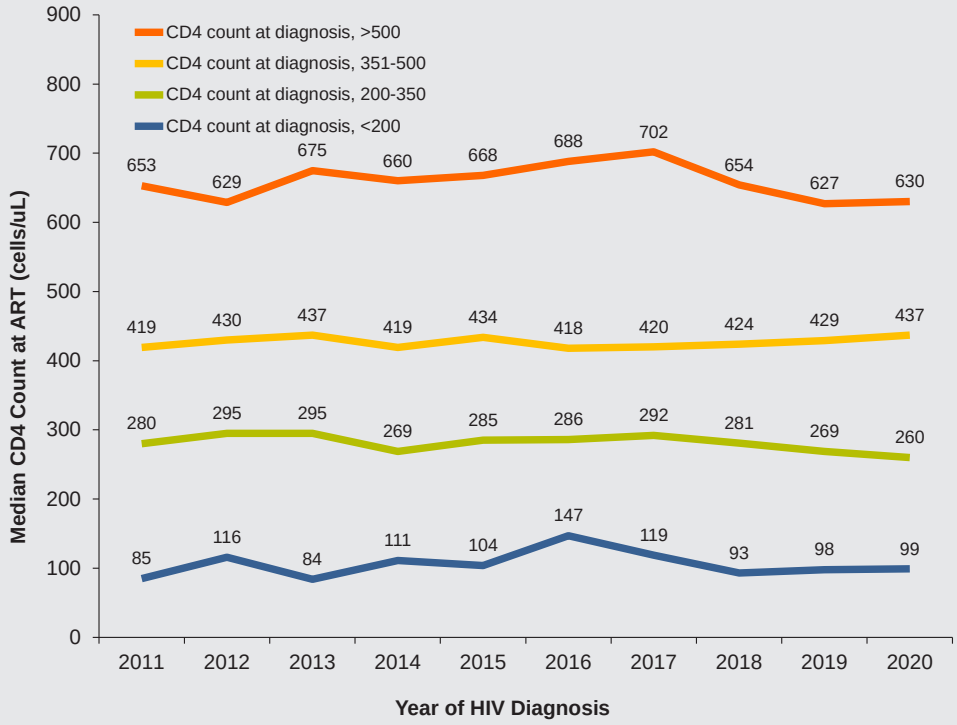
- The proportion of PLWH who received ART was slightly lower among persons with a nadir CD4 count above 500: 98.9% among those with a nadir CD4 count below 200 cells/μL, 99.0% among those with a nadir CD4 count between 200-350 cells/μL, 99.3% among those with a nadir CD4 count between 351-500 cells/μL, and 97.7% among those with a nadir CD4 count above 500 cells/μL.

Figure 3.4 Estimate of ART use among persons living with HIV and with chart review, by nadir CD4 level, December 2020, San Francisco



- Among persons newly diagnosed with HIV between 2011 and 2020 whose CD4 count at diagnosis was >500 cells/μL, the median CD4 count at ART initiation increased from 653 cells/μL in 2011 to 702 cells/μL in 2017 and then decreased to 630 cells/μL in 2020.
- Among persons whose CD4 count at diagnosis was between 200 and 500 cells/μL, the median CD4 count at ART initiation remained relatively stable over time.
- The median CD4 count at ART initiation among persons whose CD4 count at diagnosis was <200 cells/μL fluctuated between 84 and 147 cells/μL during 2011 and 2020.

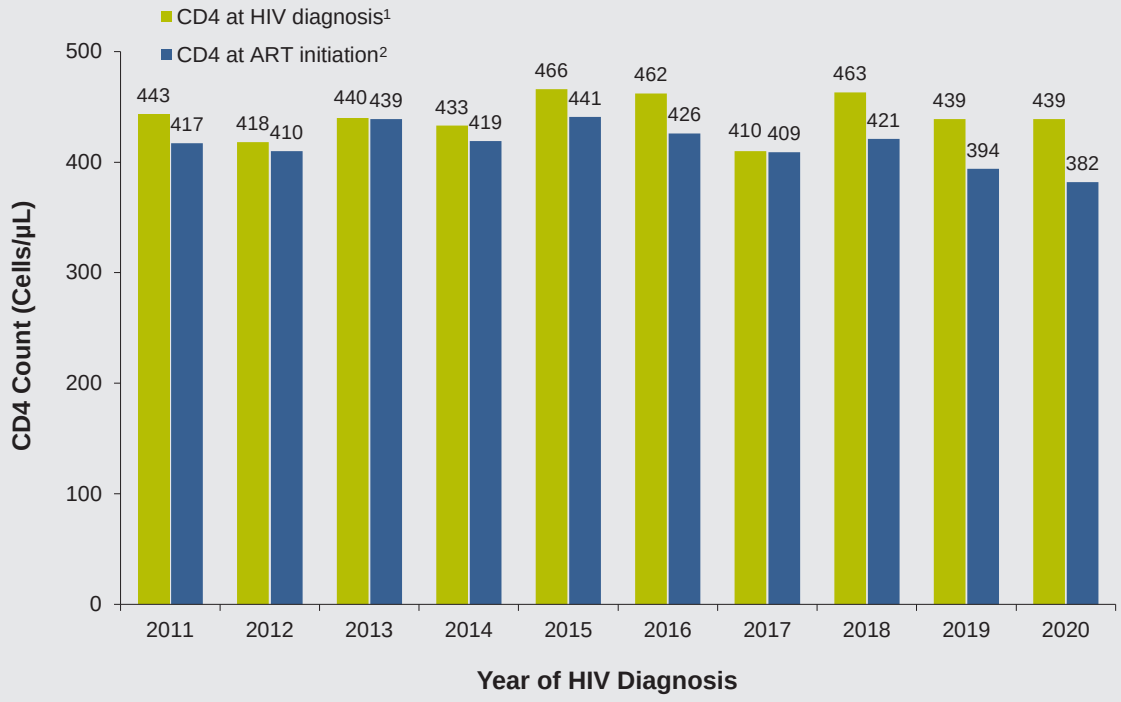
Figure 3.5 Trends in median CD4 count at time of ART initiation[1] by CD4 count at time of diagnosis, 2011-2020, San Francisco



1 Median CD4 count at ART initiation was calculated among persons who started ART and whose CD4 count at HIV diagnosis and CD4 count at ART initiation were available (N=2,221). ART data collection for those diagnosed in 2020 may be incomplete.

- Among persons newly diagnosed with HIV between 2011 and 2020, the median CD4 count at HIV diagnosis fluctuated between 410 cells/μL and 466 cells/μL.
- Among those newly diagnosed who started ART, the median CD4 count at ART initiation fluctuated between 2011 and 2018 and then decreased from 421 cells/μL in 2018 to 382 cells/ μL in 2020.
- The decrease in CD4 count at ART initiation in recent years, especially in 2020, may be attributed in part to late diagnoses or delay in care due to COVID-19 pandemic.

Figure 3.6 Trends in median CD4 count at time of diagnosis and at time of ART initiation among persons newly diagnosed with HIV, 2011-2020, San Francisco



1 Median CD4 count at HIV diagnosis was calculated among persons whose CD4 count at HIV diagnosis was available (N=2,705).

2 Median CD4 count at ART initiation was calculated among persons who started ART and whose CD4 count at HIV diagnosis and CD4 count at ART initiation were available (N=2,221). ART data collection for those diagnosed in 2020 may be incomplete.

- Overall, 44% of persons diagnosed with HIV between 2015 and 2019 who were in care started ART within seven days of diagnosis (rapid ART initiation), 27% started ART 8-30 days after diagnosis, 23% started ART more than 30 days after diagnosis, and 7% were not known to have started ART.
- The proportion of rapid ART initiation increased from 26% in 2015 to 63% in 2019.
- A lower proportion of rapid ART initiation was observed among women (38%), trans women (41%), Whites (37%), Black/African Americans (40%), PWID and MSM-PWID (36%), persons aged 25-49 years (42%), and persons experiencing homelessness (42%).

Table 3.7 Time from HIV diagnosis to ART initiation among persons diagnosed with HIV in 2015-2019 by demographic and risk characteristics, San Francisco

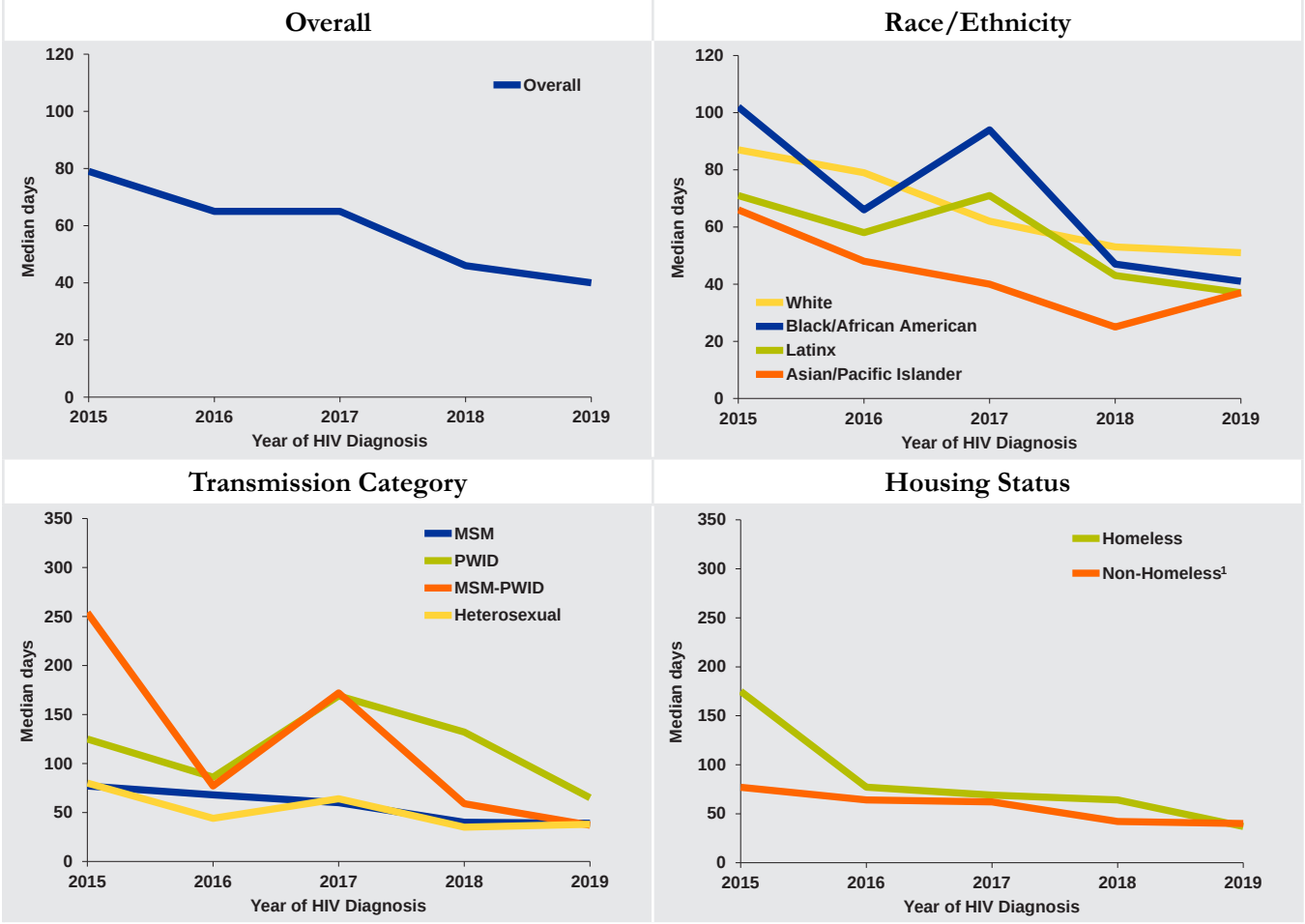
		Number of diagnoses[1]	% Started ART within 7 days of diagnosis	% Started ART 8-30 days after diagnosis	% Started ART > 30 days after diagnosis	% Not known to have started ART
	Total	**1,088**	**44%**	**27%**	**23%**	**7%**
Year of Diagnosis	2015	270	26%	31%	37%	6%
	2016	225	36%	30%	30%	4%
	2017	215	46%	27%	20%	7%
	2018	201	59%	26%	10%	5%
	2019	177	63%	18%	8%	11%
Gender	Men	938	45%	27%	22%	7%
	Women	107	38%	25%	31%	6%
	Trans Women	39	41%	31%	23%	5%
Race/Ethnicity	White	400	37%	31%	24%	8%
	Black/African American	177	40%	24%	28%	8%
	Latinx	329	54%	25%	17%	4%
	Asian/Pacific Islander	131	44%	27%	24%	5%
	Other/Unknown	51	47%	20%	25%	8%
Age at Diagnosis	13-24	141	54%	27%	15%	4%
	25-29	209	42%	29%	24%	6%
	30-39	363	42%	27%	24%	7%
	40-49	212	42%	27%	25%	6%
	50+	163	45%	25%	22%	9%
Transmission Category	MSM	713	46%	27%	20%	6%
	PWID	100	36%	18%	34%	12%
	MSM-PWID	114	36%	29%	29%	6%
	Heterosexual	75	44%	35%	19%	3%
	Other/Unidentified[2]	86	44%	28%	21%	7%
Housing Status at Diagnosis	Homeless	153	42%	22%	26%	10%
	Housed	898	45%	27%	22%	6%
	Unknown	37	27%	46%	19%	8%
Country of Birth	US	540	44%	26%	23%	7%
	Non-US	304	47%	30%	19%	4%
	Unknown	244	41%	26%	26%	8%
Insurance at Diagnosis	Private	389	44%	26%	23%	6%
	Public	360	45%	32%	20%	4%
	None	237	49%	22%	22%	8%
	Unknown	102	30%	25%	30%	14%

1 Excludes persons who were not in care (N=28) or persons who reported taking ART prior to diagnosis (N=136).
2 Includes TWSM, TWSM-PWID and persons with no identified risk factor.

Trends in time from HIV diagnosis to viral suppression

- Among persons diagnosed with HIV who were virally suppressed, the median time from diagnosis to viral suppression has improved over time but differed by socio-demographic characteristics.
- By race/ethnicity, time from diagnosis to viral suppression decreased steadily between 2015 and 2019 among Whites; Black/African Americans had the highest median time in 2015 (102 days) and it has decreased by more than half in 2019 (41 days) to a level similar to that for Latinx (37 days) and Asians/Pacific Islanders (37 days).
- By transmission category, MSM and heterosexuals had a similar median time from diagnosis to viral suppression which was lower than that for PWID and MSM-PWID over the five-year period.
- By housing status, time to viral suppression among persons experiencing homelessness was high in 2015 but decreased significantly in 2016 and remained relatively stable through 2019.

Figure 3.7 Trends in median time from HIV diagnosis to viral suppression by race/ethnicity, transmission category, and housing status, 2015-2019, San Francisco

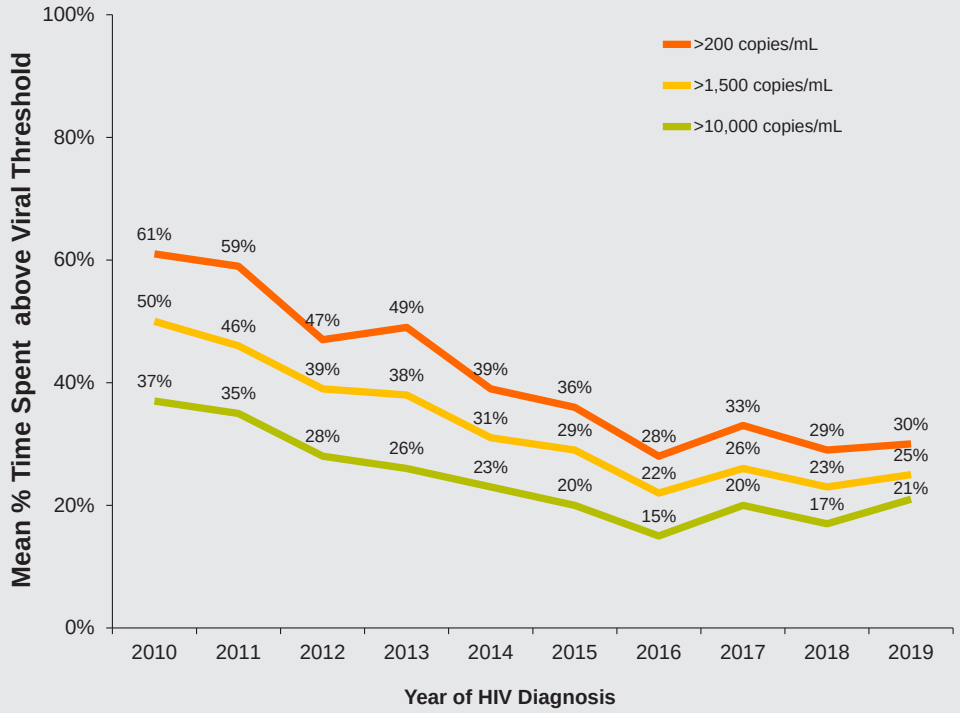


1 Includes persons whose addresses at diagnosis were unknown.

Trends in time spent viremic after HIV diagnosis

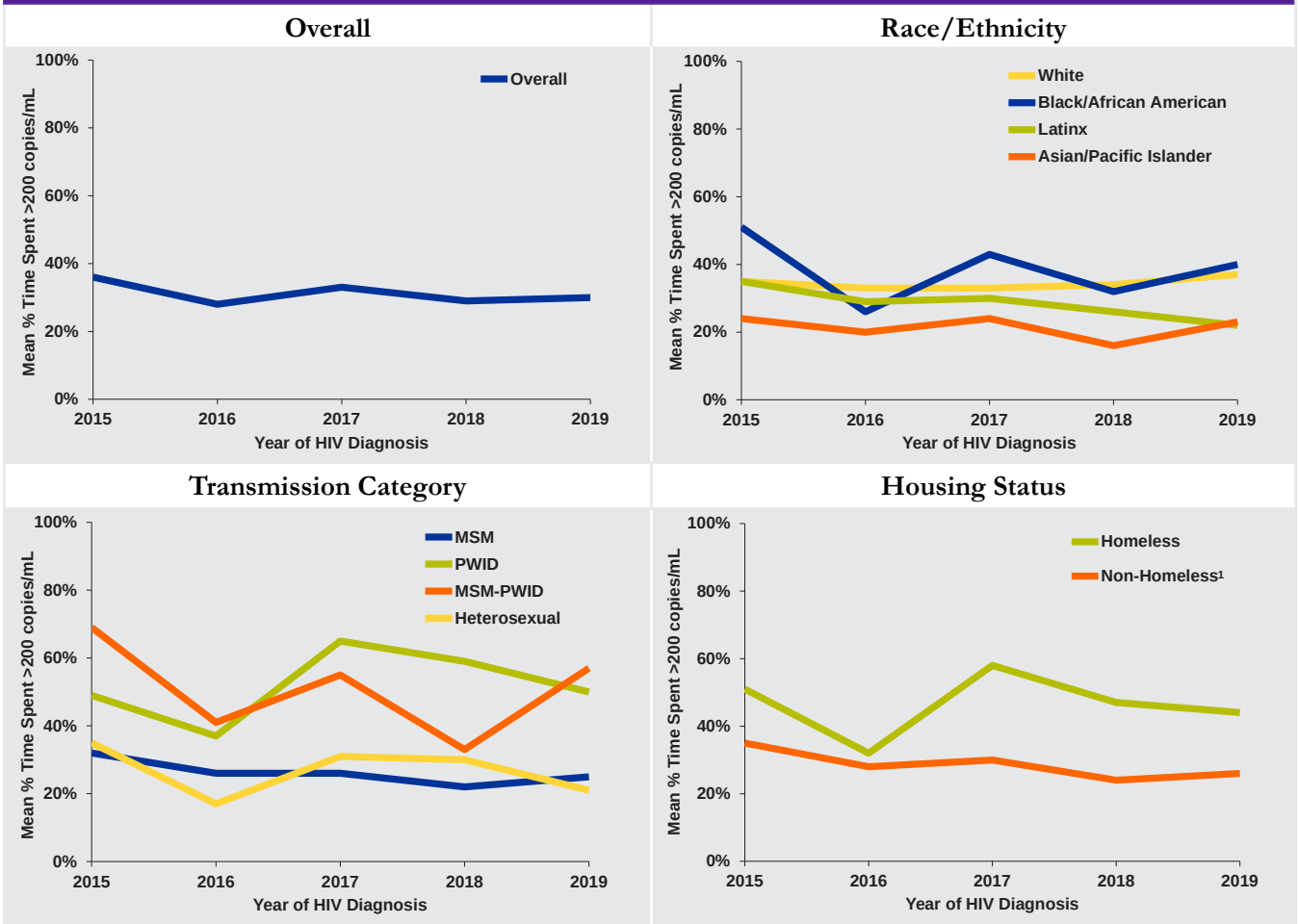
- We used a measure called cumulative viral load to quantify the mean percent time spent above three viral thresholds (>200 copies/mL, >1500 copies/mL, and 10,000 copies/mL) during the 12 months after HIV diagnosis (see Technical Notes "Cumulative Viral Load").
- The mean percent time spent >200 copies/mL during the 12 months after HIV diagnosis has decreased from 61% in 2010 to 30% in 2019.
- The mean percent time spent >1500 copies/mL decreased from 50% in 2010 to 25% in 2019 and the mean percent time spent >10,000 copies/mL also decreased from 37% in 2010 to 21% in 2019.
- The time spent viremic for all three thresholds steadily declined from 2010 to 2016, with a more stable or slightly increasing time spent viremic from 2016 to 2019.
- Decrease in viremic levels over time suggests an overall trend towards early diagnosis and linkage to treatment among persons newly diagnosed with HIV that may also contribute to reduced HIV transmission and lower HIV incidence.
- The slight increase in viremic levels in recent years may reflect challenges in HIV care retention and management in certain vulnerable populations with higher cumulative viral loads.

Figure 3.8 Trends in mean percent time spent above three viral thresholds during the 12 months after HIV diagnosis, 2010-2019, San Francisco



- The mean percent time spent >200 copies/mL during the 12 months after HIV diagnosis decreased slightly from 36% in 2015 to 30% in 2019.
- By race/ethnicity, mean percent time spent >200 copies/mL decreased slightly from 2015 to 2019 for Latinx persons; Black/African Americans had the highest percent time >200 copies/mL in 2015 at 51% but it decreased to 40% in 2019; the time spent >200 copies/mL increased slightly for Whites from 35% in 2015 to 37% in 2019.
- By transmission category, MSM and heterosexuals had a similar mean percent time spent >200 copies/mL which was lower than that for PWID and MSM-PWID over the five-year period.
- By housing status, time spent >200 copies/mL among persons experiencing homelessness was higher than those non-homeless for each year in 2015-2019. In 2019, time spent >200 copies/mL was 44% for persons experiencing homelessness compared to 26% for non-homeless.

Figure 3.9 Trends in mean percent time spent >200 copies/mL during the 12 months after HIV diagnosis by race/ethnicity, transmission category, and housing status, 2015-2019, San Francisco

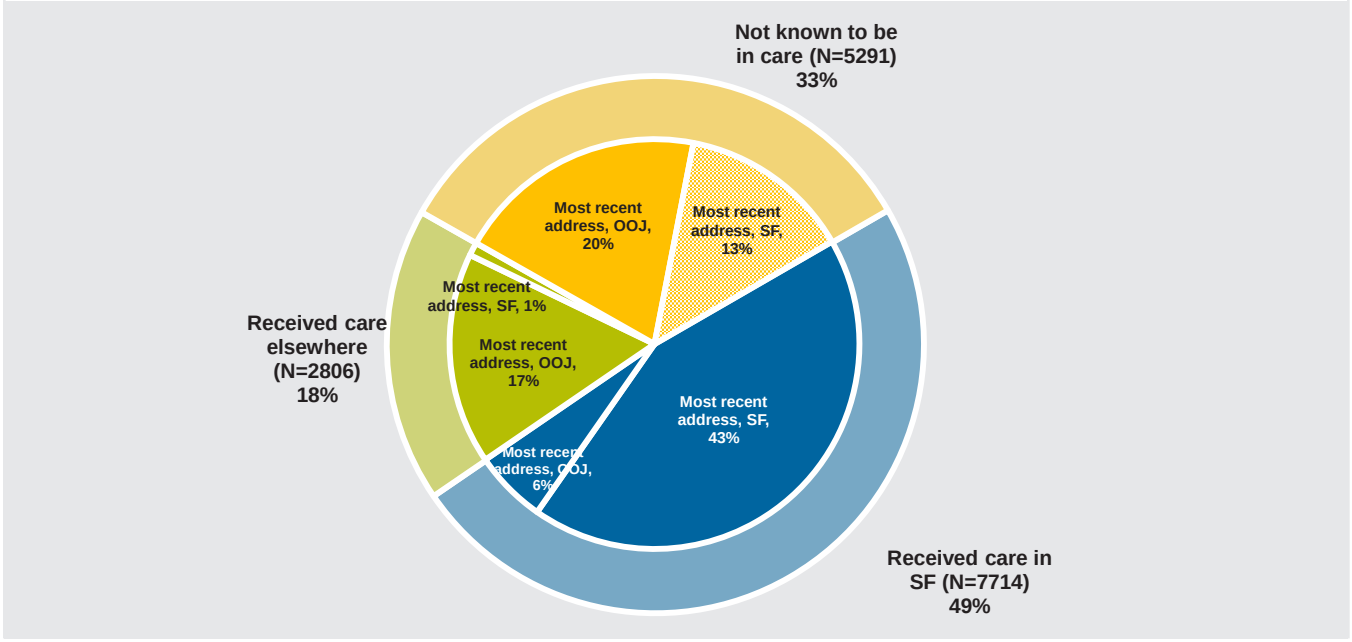


1 Includes persons whose addresses at diagnosis were unknown.

Receipt of HIV care among persons living with HIV by residence status

- Among 15,811 PLWH in 2020 who resided in San Francisco at time of diagnosis, 67% were known to receive HIV care in 2020 (49% received care in San Francisco, 18% received care outside of San Francisco) and 33% did not receive HIV care.
- Of the 33% not known to be in care, 13% had a current San Francisco address and represent a high priority population to be reengaged back into care.

Figure 3.10 Persons living with HIV in 2020 who resided in San Francisco at diagnosis by care and most recent residence status

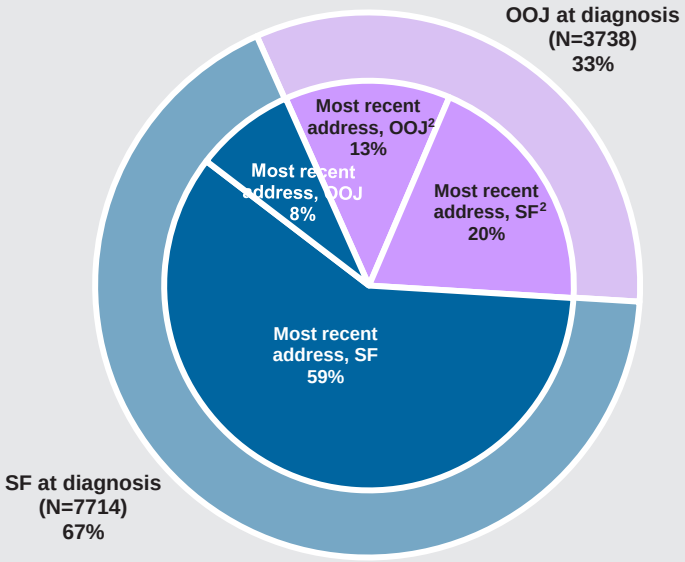


1 Includes persons who resided in San Francisco at diagnosis and were alive as of December 2020. See Technical Notes "Residence and Receipt of Care for PLWH."

- Of the 11,452 PLWH who received care in San Francisco in 2020, 33% were originally diagnosed elsewhere and 21% currently reside outside of San Francisco.

Figure 3.11 Persons living with HIV who received care in San Francisco in 2020 by residence at diagnosis and most recent residence status

N=11,452[1]



1 Includes persons who received HIV care in San Francisco in 2020 regardless of where they were initially diagnosed with HIV. Receipt of care in San Francisco is defined as having at least one CD4, viral load, or genotype test ordered by San Francisco HIV providers. See Technical Notes "Residence and Receipt of Care for PLWH."

2 Most recent address for OOJ residents at diagnosis is less complete because the update on their address information is not conducted regularly or consistently.

- The majority of PLWH who received care in 2020 in San Francisco were male, White, over 50 years old, and men who have sex with men.
- The distribution of characteristics among those currently known to live in San Francisco and those known to live in another jurisdiction was similar.

Table 3.8 Characteristics of persons living with HIV who received care in San Francisco in 2020 by most recent residence status

		Persons receiving HIV care in San Francisco[1]		
		Total cases receiving care in 2020	Most recent residence in San Francisco[2]	Most recent residence outside San Francisco[2]
		Number (%)		
	Total	**11,452 (100)**	**9,045 (100)**	**2,407 (100)**
Gender[3]	Men	10,382 (91)	8,149 (90)	2,233 (93)
	Women	697 (6)	562 (6)	135 (6)
	Trans Women	362 (3)	325 (4)	37 (2)
Race/Ethnicity	White	6,024 (53)	4,707 (52)	1,317 (55)
	Black/African American	1,562 (14)	1,230 (14)	332 (14)
	Latinx	2,563 (22)	2,077 (23)	486 (20)
	Asian/Pacific Islander	799 (7)	625 (7)	174 (7)
	Other/Unknown	504 (4)	406 (4)	98 (4)
Age in Years (as of 12/31/2020)	0-12	1 (<1)	0 (0)	1 (<1)
	13-17	4 (<1)	1 (<1)	3 (<1)
	17-24	95 (1)	64 (1)	31 (1)
	25-29	333 (3)	240 (3)	93 (4)
	30-39	1,579 (14)	1,231 (14)	348 (14)
	40-49	1,960 (17)	1,560 (17)	400 (17)
	50-59	3,715 (32)	2,960 (33)	755 (31)
	60-69	2,781 (24)	2,200 (24)	581 (24)
	70+	984 (9)	789 (9)	195 (8)
Transmission Category	MSM	8,379 (73)	6,482 (72)	1,897 (79)
	TWSM	234 (2)	203 (2)	31 (1)
	PWID	595 (5)	516 (6)	79 (3)
	MSM-PWID	1,377 (12)	1,196 (13)	181 (8)
	TWSM-PWID	125 (1)	120 (1)	5 (<1)
	Heterosexual	470 (4)	363 (4)	107 (4)
	Other/Unidentified	272 (2)	165 (2)	107 (4)

1 Includes persons living with HIV at end of 2020 who received care in San Francisco in 2020 regardless of where they were initially diagnosed with HIV. Receipt of care in San Francisco is defined as having at least one CD4, viral load, or genotype test ordered by San Francisco HIV providers. See Technical Notes "Residence and Receipt of Care for PLWH."

2 Based on most recent available address.

3 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

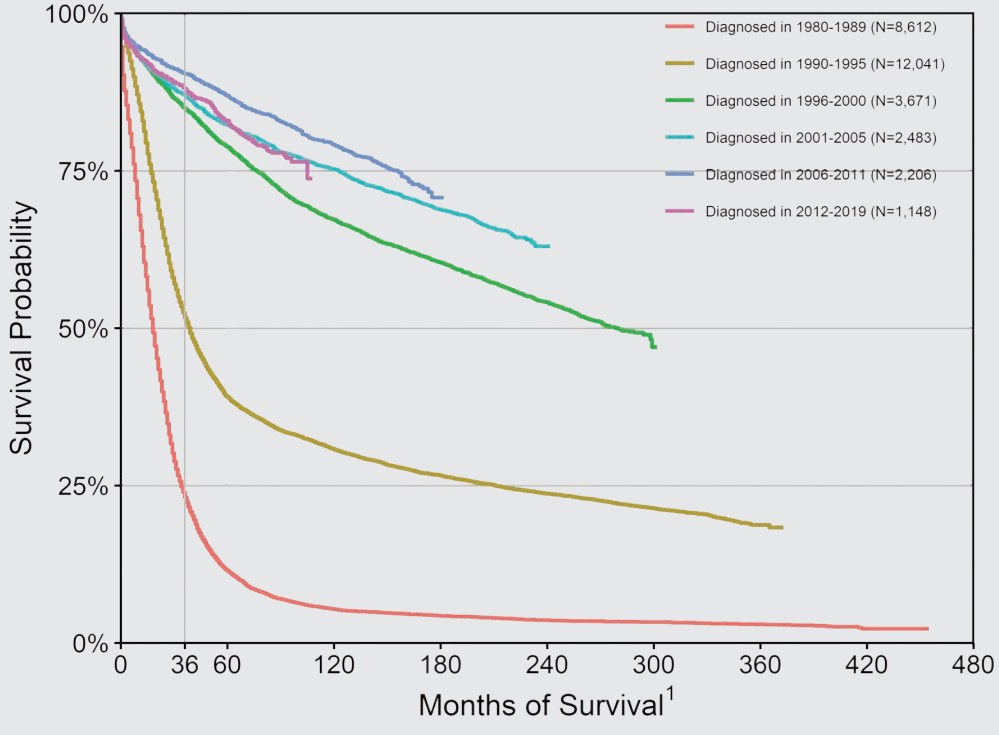
4 Survival among Persons with HIV Disease Stage 3 (AIDS)

- HIV disease stage 3 (AIDS) survival time was poor for persons diagnosed in the first ten years of the epidemic (1980-1989) with median survival time of 18 months (1.5 years) after stage 3 diagnosis.
- The median survival time increased to 39 months (3.25 years) for persons diagnosed from 1990 to 1995 and 280 months (23.33 years) for persons diagnosed between 1996 and 2000.
- The median stage 3 survival time has not been reached for persons diagnosed in 2001-2005, 2006-2011, and 2012-2019.
- The survival probability at 36 months (three years) increased from 23% among persons diagnosed in 1980-1989 to 52% among persons diagnosed in 1990-1995, 85% among persons diagnosed in 1996-2000, and smaller increases in the last three time periods (87%, 90%, 88%).

23%
OF PERSONS DIAGNOSED WITH HIV STAGE 3 IN 1980-1989 SURVIVED FOR THREE YEARS

88%
OF PERSONS DIAGNOSED WITH HIV STAGE 3 IN 2012-2019 SURVIVED FOR THREE YEARS

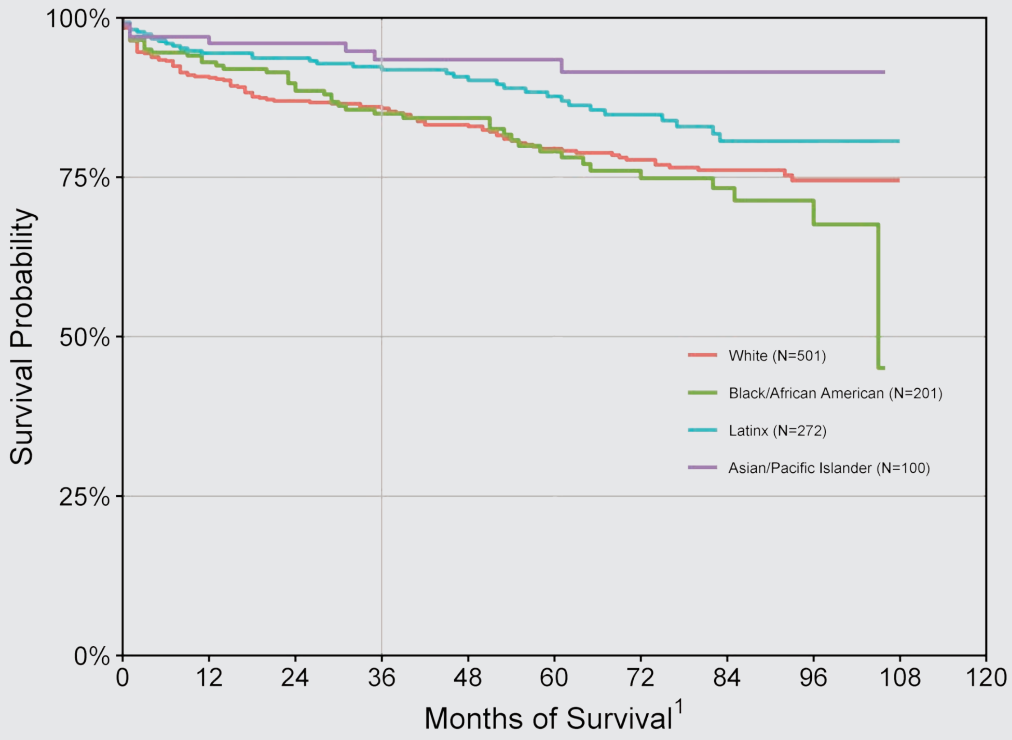
Figure 4.1 Kaplan-Meier survival curves for persons diagnosed with HIV disease stage 3 (AIDS) in six time periods, San Francisco



1 See Technical Notes "HIV Disease Stage 3 (AIDS) Survival."

- Among persons diagnosed with HIV stage 3 in the years 2012-2019, survival probability at 36 months (three years) was lower among Black/African Americans and Whites compared to Latinx and Asians/Pacific Islanders.
- Survival probability was similar among Black/African Americans and Whites at 36 months.
- The median stage 3 survival time was 103 months among Black/African Americans. The median survival time was not reached for Whites, Latinx, and Asians/Pacific Islanders.

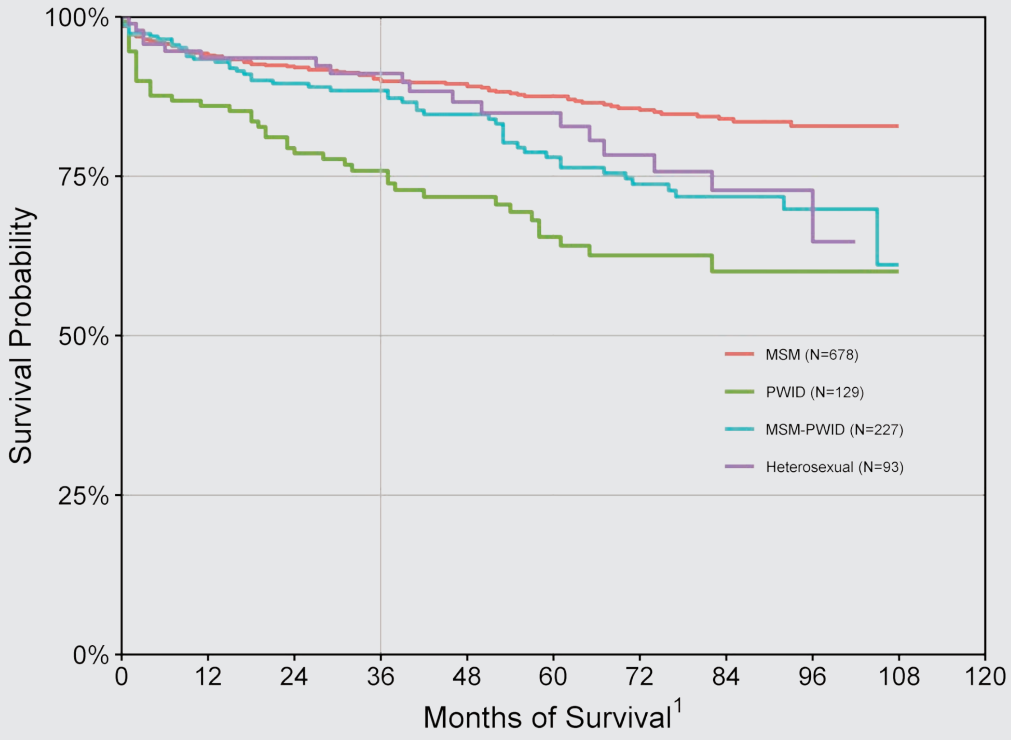
Figure 4.2 Kaplan-Meier survival curves for persons diagnosed with HIV disease stage 3 (AIDS) between 2012 and 2019 by race/ethnicity, San Francisco



1 See Technical Notes "HIV Disease Stage 3 (AIDS) Survival."

- Among persons diagnosed with HIV stage 3 in the years 2012-2019, the three-year survival probability (36 months) was similar for MSM, MSM-PWID, and persons who acquired HIV through heterosexual contact (90%, 88%, and 91%, respectively).
- The transmission category group with the lowest three-year survival probability was PWID.

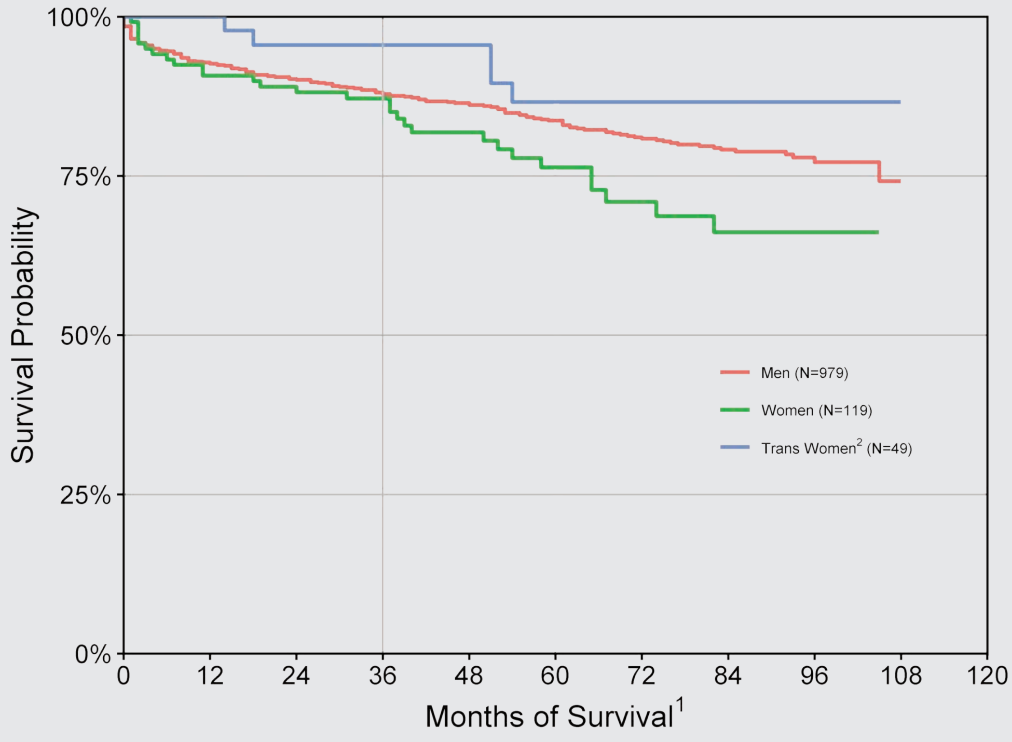
Figure 4.3 Kaplan-Meier survival curves for persons diagnosed with HIV disease stage 3 (AIDS) between 2012 and 2019 by transmission category, San Francisco



1 See Technical Notes "HIV Disease Stage 3 (AIDS) Survival."

- From 2012 through 2019, three-year survival probabilities (36 months) were similar for men and women with HIV stage 3 diagnosis while trans women had a survival probability of 96% at 36 months.

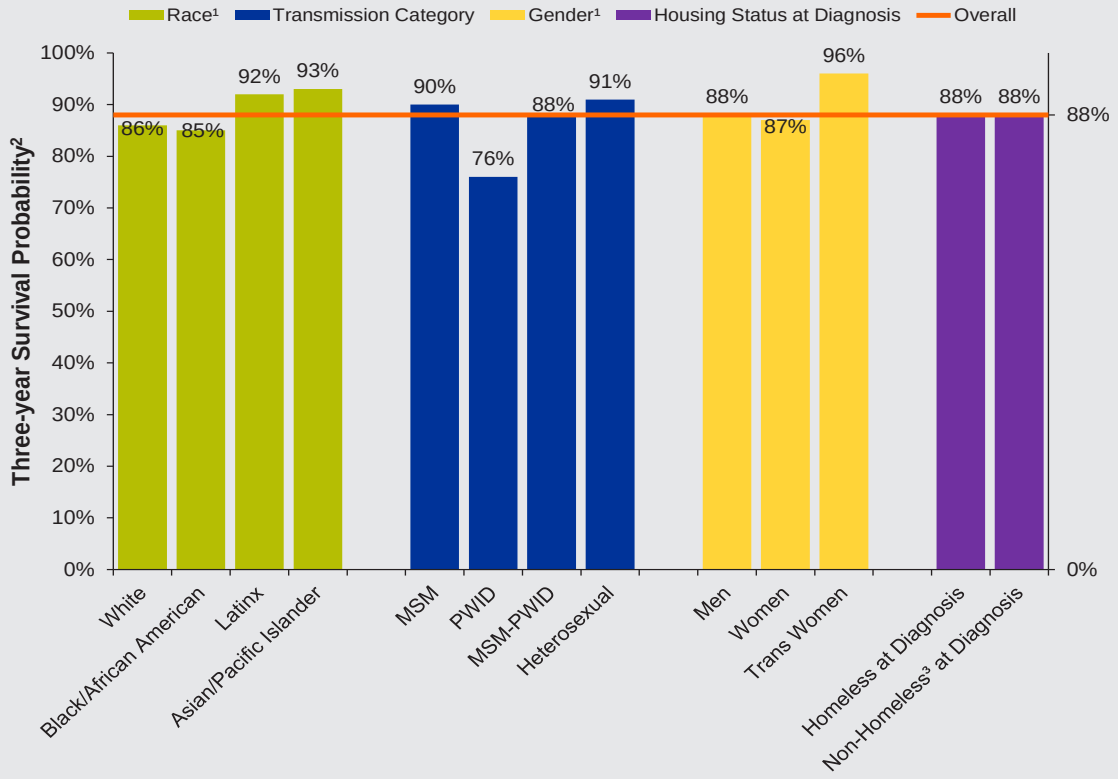
Figure 4.4 Kaplan-Meier survival curves for persons diagnosed with HIV disease stage 3 (AIDS) between 2012 and 2019 by gender, San Francisco



1 See Technical Notes "HIV Disease Stage 3 (AIDS) Survival."
2 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

- The overall three-year survival probability (Kaplan-Meier method) after HIV stage 3 for persons diagnosed during 2012 to 2019 was 88%.
- Among transmission categories, PWID had the lowest three-year survival probability (76%).

Figure 4.5 Three-year survival probabilities for persons diagnosed with HIV disease stage 3 (AIDS) during 2012 to 2019 by race/ethnicity, transmission category, gender, and homeless status at diagnosis, San Francisco



1 Native American, multiracial, trans men data are not released separately due to small numbers.
2 Calculated from Kaplan-Meier method.
3 Includes persons whose addresses at diagnosis were unknown.

5 Trends in HIV Mortality

- As of December 31, 2019, the cumulative number of deaths among persons diagnosed with HIV in San Francisco was 22,042.
- In 2019, 91% of decedents were male.
- During 2015 to 2019, the proportion of decedents who were Latinx increased from 12% in 2015 to 17% in 2019; the proportion of Asian/Pacific Islander and Native American combined deaths also increased accounting for 5% of 2019 deaths.
- The proportion of deaths among persons age 70 years and older increased to 21% of deaths in 2019.
- The proportion of deaths among persons with HIV stage 0, 1, 2, or unknown increased to almost one-quarter of deaths in 2019.

72%

OF DEATHS IN 2019 WERE DUE TO NON-HIV-RELATED CAUSES

Table 5.1 Deaths occurring in 2015-2019 among persons diagnosed with HIV, by demographic and risk characteristics, San Francisco

		Year of Death					Cumulative Totals as of 12/31/2019
		2015	2016	2017	2018	2019	
		Number (%)					
Gender[1]	Men	228 (89)	196 (84)	224 (88)	230 (89)	240 (91)	20,806
	Women	27 (11)	27 (12)	21 (8)	22 (9)	19 (7)	939
	Trans Women	1 (<1)	11 (5)	9 (4)	5 (2)	5 (2)	297
Race/Ethnicity	White	146 (57)	141 (60)	166 (65)	134 (52)	147 (56)	15,900
	Black/African American	48 (19)	50 (21)	43 (17)	57 (22)	43 (16)	2,869
	Latinx	31 (12)	30 (13)	35 (14)	38 (15)	44 (17)	2,359
	Asian/Pacific Islander/ Native American	8 (3)	4 (2)	3 (1)	15 (6)	14 (5)	579
	Multi-Race	23 (9)	9 (4)	7 (3)	13 (5)	16 (6)	335
Transmission Category	MSM	139 (54)	121 (52)	130 (51)	147 (57)	149 (56)	15,784
	PWID	43 (17)	34 (15)	39 (15)	32 (12)	32 (12)	1,873
	MSM-PWID	62 (24)	57 (24)	64 (25)	60 (23)	63 (24)	3,483
	Heterosexual	6 (2)	9 (4)	8 (3)	12 (5)	11 (4)	275
	Other/Unidentified[2]	6 (2)	13 (6)	13 (5)	6 (2)	9 (3)	627
Age at Death (years)	0 - 29	7 (3)	1 (<1)	4 (2)	4 (2)	3 (1)	1,123
	30 - 39	15 (6)	11 (5)	12 (5)	8 (3)	13 (5)	7,383
	40 - 49	37 (14)	39 (17)	39 (15)	29 (11)	28 (11)	7,758
	50 - 59	100 (39)	76 (32)	84 (33)	79 (31)	82 (31)	3,718
	60 - 69	66 (26)	77 (33)	66 (26)	92 (36)	82 (31)	1,523
	70+	31 (12)	30 (13)	49 (19)	45 (18)	56 (21)	537
HIV Disease Stage	Stage 0, 1, 2, or unknown	42 (16)	38 (16)	40 (16)	36 (14)	64 (24)	722
	Stage 3 (AIDS)	214 (84)	196 (84)	214 (84)	221 (86)	200 (76)	21,320
Cause of Death[3]	HIV-related	102 (40)	76 (32)	83 (33)	74 (29)	70 (27)	--
	Non-HIV-related	149 (58)	154 (66)	161 (63)	171 (67)	189 (72)	--
	Unknown	5 (2)	4 (2)	10 (4)	12 (5)	5 (2)	--
Total		**256 (100)**	**234 (100)**	**254 (100)**	**257 (100)**	**264 (100)**	**22,042**

1 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
2 Includes TWSM, TWSM-PWID and persons with no identified risk factor.
3 Underlying cause of death obtained from the NDI is available through 2019. See Technical Notes "Death Ascertainment."

- The case-fatality rate due to underlying HIV-related causes among persons with HIV disease stage 3 (AIDS) declined from a high of 9.47 per 1,000 cases in 2011 to a low of 5.95 per 1,000 cases in 2019.
- Non-HIV-related causes for death among persons with HIV stage 3 fluctuated between 2010 and 2014, and increased gradually to the highest annual rate of 14.65 per 1,000 cases in 2018, before plateauing in 2019.
- When deaths in all stages of HIV disease were evaluated, case-fatality rates for HIV-related causes declined from 6.68 per 1,000 cases in 2010 to 4.34 per 1,000 cases in 2019.
- Case-fatality rates for non-HIV causes among decedents of all HIV stages increased gradually from 2014 to a high of 11.72 deaths per 1,000 cases in 2019.
- All-cause case-fatality rates remained relatively stable between 2010 and 2019 among all persons living with HIV (PLWH) and among persons with HIV stage 3.

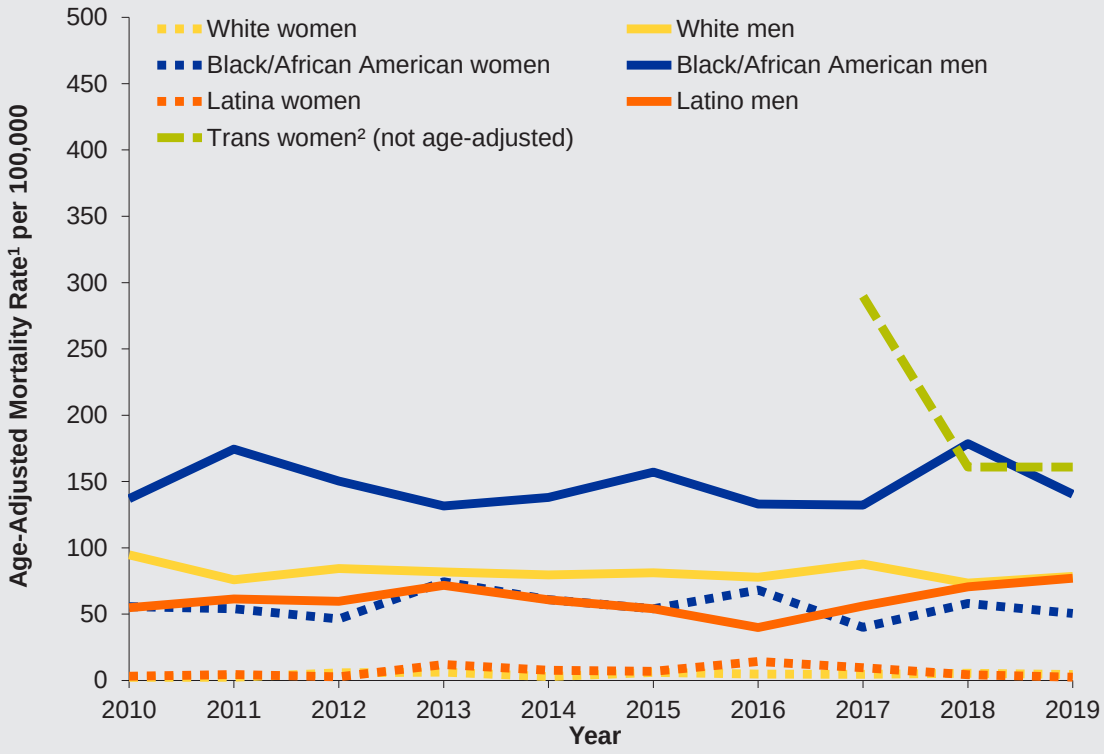
Table 5.2 Case-fatality rates per 1,000 due to HIV-related and non-HIV-related causes among persons diagnosed with HIV, 2010-2019, San Francisco

		Persons with HIV (all stages)			Persons with HIV Stage 3 (AIDS)		
		HIV-related cause of death	Non-HIV-related cause of death	All-cause mortality	HIV-related cause of death	Non-HIV-related cause of death	All-cause mortality
		Case-fatality rate[1] per 1,000 PLWH			Case-fatality rate[1] per 1,000 persons with HIV Stage 3		
Year	2010	6.68	8.61	15.28	9.26	10.87	20.13
	2011	6.41	7.87	14.28	9.47	9.77	19.25
	2012	5.19	9.32	14.50	7.63	11.39	19.02
	2013	6.19	9.28	15.47	8.59	10.77	19.36
	2014	6.41	8.14	14.55	9.21	10.20	19.42
	2015	6.27	9.15	15.42	9.36	11.65	21.00
	2016	4.67	9.47	14.15	7.13	12.15	19.28
	2017	5.10	9.90	15.00	7.47	13.22	20.69
	2018	4.56	10.61	15.17	7.12	14.65	21.77
	2019	4.34	11.72	16.06	5.95	14.16	20.11

1 Case-fatality rates are calculated as the number of persons living with HIV (all disease stages), or HIV stage 3 (AIDS), who died each year divided by the number of total HIV cases, or HIV stage 3 (AIDS) cases, alive during that year. See Technical Notes for "Death Ascertainment."

- The age-adjusted HIV mortality rates among Black/African American men remained higher than White and Latino men during 2010-2019, totalling 140 per 100,000 in 2019. This was nearly double the rates observed among White men (78 per 100,000) and Latino men (77 per 100,000).
- During 2010-2019, HIV mortality rates for women were generally lower than the rates among men. However, mortality rates among Black/African American women were comparable to those among White men and Latino men.
- In 2019, Black/African American women had a mortality rate of 50 deaths per 100,000 which was 10 times higher than the rates among White women and 25 times higher than Latina women.
- Mortality rates for trans women were not age-adjusted and were calculated using an estimated trans women population size from 2017. Crude rates are presented instead, showing 290 deaths per 100,000 in 2017 and a decline to 161 per 100,000 in 2018 and 2019. These rates were typically higher than the age-adjusted rates observed among other demographic categories.

Figure 5.1 Age-adjusted mortality rates among persons aged 18 and older with HIV per 100,000 by gender and race/ethnicity, 2010-2019, San Francisco



1 Age-adjusted mortality rates are calculated for persons 18 years and older. For each race/ethnicity and gender, the number of HIV cases who died each year was divided by projected San Francisco population estimates across fourteen age groups (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+) to generate crude rates applied to the standard population, defined using the California population estimates from the Department of Finance. See Technical Notes for "HIV Case Rates and HIV Mortality Rates."

2 Mortality rates for trans women are not age-adjusted. Due to small numbers, trans women are not stratified by race/ethnicity and mortality rates for trans men are not calculated. San Francisco trans women population estimate from Raymond HF, Wilson EC, McFarland W. Transwoman Population Size. Am J Public Health. 2017 Sep;107(9):e12. doi: 10.2105/AJPH.2017.303964. PMID: 28787216; PMCID: PMC5551612."

- HIV as the underlying cause of death declined from 47.7% in 2008-2011 to 30.9% of deaths in 2016-2019.
- Non-AIDS cancers continued to account for the second most frequent underlying cause of death in persons with HIV; lung cancer was the most frequently occurring non-AIDS cancer.
- Accidents accounted for 11.9% of deaths in the first two time periods, increasing to 13.8% in 2016-2019.
- The percentage of deaths due to drug overdoses increased from 9.7% in 2008-2011 to 12.1% in 2016-2019.
- Among the top four groups of underlying causes of death, heart disease accounted for the same percentage of deaths (8.8%) in the first two time periods, and increased to 12.7% in 2016-2019 deaths.

Table 5.3 Underlying causes of death among persons diagnosed with HIV, 2008-2019, San Francisco

		Year of Death		
		2008-2011 N=965	2012-2015 N=969	2016-2019 N=979
		Number (%)		
Underlying Cause of Death[1]	HIV	460 (47.7)	389 (40.1)	303 (30.9)
	Non-AIDS cancer	117 (12.1)	133 (13.7)	168 (17.2)
	Lung cancer	36 (3.7)	37 (3.8)	29 (3.0)
	Liver cancer	18 (1.9)	18 (1.9)	16 (1.6)
	Anal cancer	6 (0.6)	9 (0.9)	15 (1.5)
	Pancreatic cancer	3 (0.3)	7 (0.7)	11 (1.1)
	Rectal cancer	3 (0.3)	1 (0.1)	8 (0.8)
	Colon cancer	8 (0.8)	5 (0.5)	5 (0.5)
	Hodgkins lymphoma	1 (0.1)	2 (0.2)	1 (0.1)
	Leukemia	2 (0.2)	5 (0.5)	1 (0.1)
	Accidents	115 (11.9)	115 (11.9)	135 (13.8)
	Drug overdose	94 (9.7)	99 (10.2)	118 (12.1)
	Heart disease	85 (8.8)	85 (8.8)	124 (12.7)
	Coronary heart disease	38 (3.9)	43 (4.4)	68 (6.9)
	Cardiomyopathy	2 (0.2)	6 (0.6)	7 (0.7)
	Suicide	37 (3.8)	34 (3.5)	37 (3.8)
	Chronic obstructive pulmonary disease	17 (1.8)	22 (2.3)	27 (2.8)
	Liver disease	25 (2.6)	23 (2.4)	20 (2.0)
	Alcoholic liver disease	11 (1.1)	8 (0.8)	15 (1.5)
	Liver cirrhosis	13 (1.3)	12 (1.2)	4 (0.4)
	Cerebrovascular disease	10 (1.0)	11 (1.1)	20 (2.0)
	Pneumonitis	3 (0.3)	3 (0.3)	8 (0.8)
	Diabetes	5 (0.5)	12 (1.2)	7 (0.7)
	Viral hepatitis	9 (0.9)	7 (0.7)	7 (0.7)
	Mental disorders due to substance use	14 (1.5)	11 (1.1)	7 (0.7)
	Assault	5 (0.5)	15 (1.5)	6 (0.6)
	Renal disease	5 (0.5)	7 (0.7)	6 (0.6)
	Septicemia	3 (0.3)	3 (0.3)	6 (0.6)
	Diseases of arteries	3 (0.3)	2 (0.2)	4 (0.4)
	Hyperlipidemia	4 (0.4)	2 (0.2)	2 (0.2)

1 See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

- The most frequent, yet declining, underlying cause of death for men, women and trans women was HIV.
- The proportions of deaths due to non-AIDS cancers among males and females increased from the first to the last time period.
- In all three time periods, men had a higher proportion of deaths due to heart disease and suicide than women.
- In all three time periods, women and trans women had higher proportions of deaths due to accidents than men.

Table 5.4 Underlying causes of death among persons diagnosed with HIV by gender, 2008-2019, San Francisco

		Year of Death								
		2008-2011			2012-2015			2016-2019		
		Men	Women	Trans Women	Men	Women	Trans Women	Men	Women	Trans Women
		Number (%)								
	Total	840	89	36	845	94	30	864	85	29
Underlying Cause of Death[1]	HIV	393 (46.8)	47 (52.8)	20 (55.6)	341 (40.4)	36 (38.3)	12 (40.0)	264 (30.6)	28 (32.9)	11 (37.9)
	Non-AIDS cancer	112 (13.3)	2 (2.2)	- -	118 (14.0)	13 (13.8)	- -	156 (18.1)	11 (12.9)	- -
	Heart disease	79 (9.4)	5 (5.6)	- -	78 (9.2)	4 (4.3)	- -	117 (13.5)	5 (5.9)	- -
	Accidents (including drug overdose)	93 (11.1)	16 (18.0)	6 (16.7)	92 (10.9)	17 (18.1)	6 (20.0)	105 (12.2)	20 (23.5)	9 (31.0)
	Suicide	37 (4.4)	0 (0.0)	0 (0.0)	33 (3.9)	0 (0.0)	- -	37 (4.3)	0 (0.0)	0 (0.0)
	Chronic obstructive pulmonary disease	11 (1.3)	6 (6.7)	0 (0.0)	18 (2.1)	3 (3.2)	- -	23 (2.7)	4 (4.7)	0 (0.0)
	Cerebrovascular disease	8 (1.0)	2 (2.2)	0 (0.0)	10 (1.2)	1 (1.1)	0 (0.0)	20 (2.3)	0 (0.0)	0 (0.0)
	Liver disease	23 (2.7)	1 (1.1)	- -	19 (2.2)	4 (4.3)	0 (0.0)	18 (2.1)	0 (0.0)	- -
	Assault	4 (0.5)	1 (1.1)	0 (0.0)	11 (1.3)	2 (2.1)	- -	6 (0.7)	0 (0.0)	0 (0.0)
	Diabetes	5 (0.6)	0 (0.0)	0 (0.0)	11 (1.3)	1 (1.1)	0 (0.0)	6 (0.7)	1 (1.2)	0 (0.0)
	Viral hepatitis	6 (0.7)	3 (3.4)	0 (0.0)	7 (0.8)	0 (0.0)	0 (0.0)	6 (0.7)	1 (1.2)	0 (0.0)
	Mental disorders due to substance use	9 (1.1)	3 (3.4)	- -	11 (1.3)	0 (0.0)	0 (0.0)	6 (0.7)	1 (1.2)	0 (0.0)

1 See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.
-- Data are not displayed due to small number of deaths among trans women and population size.

- Latinx decedents had the highest proportions of deaths attributed to HIV as the underlying cause (more than 50%) in the first two time periods, compared to Black/African Americans and Whites.
- The disparity in proportion of deaths attributed to HIV among the three racial/ethnic groups decreased in 2016-2019 when 32.1% of Latinx deaths, 33.3% of Black/African American deaths, and 29.3% of White deaths were due to HIV.
- The proportion of deaths due to non-AIDS cancers increased across all time periods for the three racial/ethnic groups.
- Accidents (including drug overdose) remained a prominent underlying cause of death among all three racial/ethnic groups; accidents were more frequent than heart disease among Latinx and Black/African American deaths in 2016-2019.

Table 5.5 Underlying causes of death among persons diagnosed with HIV by race/ethnicity, 2008-2019, San Francisco

		Year of Death								
		2008-2011			2012-2015			2016-2019		
		Latinx	Black/African American	White	Latinx	Black/African American	White	Latinx	Black/African American	White
		Number (%)								
	Total	111	206	577	132	192	565	137	189	576
Underlying Cause of Death[1]	HIV	68 (61.3)	97 (47.1)	257 (44.5)	67 (50.8)	69 (35.9)	222 (39.3)	44 (32.1)	63 (33.3)	169 (29.3)
	Non-AIDS cancer	9 (8.1)	23 (11.2)	80 (13.9)	13 (9.8)	28 (14.6)	85 (15.0)	22 (16.1)	36 (19.0)	96 (16.7)
	Heart disease	8 (7.2)	17 (8.3)	55 (9.5)	8 (6.1)	12 (6.3)	58 (10.3)	12 (8.8)	22 (11.6)	81 (14.1)
	Accidents (including drug overdose)	6 (5.4)	26 (12.6)	73 (12.7)	13 (9.8)	29 (15.1)	61 (10.8)	14 (10.2)	29 (15.3)	80 (13.9)
	Suicide	5 (4.5)	0 (0.0)	30 (5.2)	4 (3.0)	3 (1.6)	23 (4.1)	4 (2.9)	2 (1.1)	27 (4.7)
	Chronic obstructive pulmonary disease	0 (0.0)	8 (3.9)	9 (1.6)	3 (2.3)	5 (2.6)	14 (2.5)	3 (2.2)	5 (2.6)	18 (3.1)
	Cerebrovascular disease	3 (2.7)	2 (1.0)	3 (0.5)	0 (0.0)	3 (1.6)	8 (1.4)	4 (2.9)	3 (1.6)	12 (2.1)
	Liver disease	3 (2.7)	5 (2.4)	16 (2.8)	3 (2.3)	4 (2.1)	12 (2.1)	7 (5.1)	3 (1.6)	9 (1.6)
	Mental disorders due to substance use	1 (0.9)	2 (1.0)	9 (1.6)	3 (2.3)	3 (1.6)	4 (0.7)	0 (0.0)	1 (0.5)	6 (1.0)
	Diabetes	0 (0.0)	3 (1.5)	2 (0.3)	3 (2.3)	4 (2.1)	4 (0.7)	1 (0.7)	1 (0.5)	5 (0.9)

1 See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table. Asian, Pacific Islander, Native American, and multiracial decedents were not displayed due to small cell sizes.

- The proportion of deaths where HIV was the underlying cause of death declined across the three time periods to 31.2% for MSM, 29.9% for PWID, and 27.3% for MSM-PWID in the 2016-2019 time period.
- From 2012-2015 to 2016-2019, deaths due to drug overdoses increased dramatically for PWID accounting for more than a quarter of deaths in the recent time period.
- The proportion of deaths due to non-AIDS cancers increased for MSM and PWID across all time periods.
- The proportion of deaths due to heart disease increased for MSM-PWID across all time periods.

Table 5.6 Underlying causes of death among persons diagnosed with HIV by transmission categories, 2008-2019, San Francisco

		Year of Death								
		2008-2011			2012-2015			2016-2019		
		MSM	PWID	MSM-PWID	MSM	PWID	MSM-PWID	MSM	PWID	MSM-PWID
		Number (%)								
	Total	502	141	231	537	169	197	526	134	242
Underlying Cause of Death[1]	HIV	224 (44.6)	65 (46.1)	117 (50.6)	224 (41.7)	62 (36.7)	70 (35.5)	164 (31.2)	40 (29.9)	66 (27.3)
	Non-AIDS cancer	78 (15.5)	9 (6.4)	23 (10.0)	91 (16.9)	20 (11.8)	17 (8.6)	108 (20.5)	17 (12.7)	35 (14.5)
	Heart disease	53 (10.6)	12 (8.5)	16 (6.9)	53 (9.9)	12 (7.1)	16 (8.1)	71 (13.5)	13 (9.7)	32 (13.2)
	Accidents	47 (9.4)	23 (16.3)	35 (15.2)	38 (7.1)	26 (15.4)	43 (21.8)	39 (7.4)	36 (26.9)	46 (19.0)
	Drug overdose	35 (7.0)	21 (14.9)	32 (13.9)	28 (5.2)	24 (14.2)	41 (20.8)	32 (6.1)	34 (25.4)	40 (16.5)
	Suicide	29 (5.8)	1 (0.7)	7 (3.0)	21 (3.9)	1 (0.6)	11 (5.6)	26 (4.9)	0 (0.0)	11 (4.5)
	Chronic obstructive pulmonary disease	6 (1.2)	7 (5.0)	3 (1.3)	13 (2.4)	5 (3.0)	2 (1.0)	16 (3.0)	5 (3.7)	4 (1.7)
	Liver disease	16 (3.2)	2 (1.4)	5 (2.2)	12 (2.2)	6 (3.6)	5 (2.5)	14 (2.7)	1 (0.7)	3 (1.2)
	Cerebrovascular disease	7 (1.4)	1 (0.7)	0 (0.0)	7 (1.3)	3 (1.8)	0 (0.0)	11 (2.1)	0 (0.0)	8 (3.3)
	Assault	2 (0.4)	2 (1.4)	1 (0.4)	8 (1.5)	3 (1.8)	2 (1.0)	5 (1.0)	1 (0.7)	0 (0.0)

1 See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

- When considering multiple causes of death, which include both underlying and contributory causes, the proportion of deaths due to HIV declined from 68.5% in the period 2008-2011 to 52.8% during 2016-2019.
- Heart disease was the second most common cause of death when both underlying and contributory causes were considered.
- Non-AIDS cancers were the third most frequent cause of death; lung (3.9%), liver (1.9%), and anal cancers (1.9%) were the most common in 2016-2019.

Table 5.7 Multiple causes of death among persons diagnosed with HIV, 2008-2019, San Francisco

		Year of Death		
		2008-2011 N=965	2012-2015 N=969	2016-2019 N=975
		Number (%)		
Multiple Causes of Death[1]	HIV	661 (68.5)	600 (61.9)	517 (52.8)
	Heart disease	265 (27.5)	279 (28.8)	312 (31.9)
	Coronary heart disease	80 (8.3)	87 (9.0)	114 (11.6)
	Cardiomyopathy	21 (2.2)	26 (2.7)	27 (2.8)
	Non-AIDS cancer	168 (17.4)	169 (17.4)	226 (23.1)
	Lung cancer	42 (4.4)	41 (4.2)	38 (3.9)
	Liver cancer	27 (2.8)	19 (2.0)	19 (1.9)
	Anal cancer	11 (1.1)	10 (1.0)	19 (1.9)
	Colon cancer	8 (0.8)	5 (0.5)	11 (1.1)
	Pancreatic cancer	3 (0.3)	10 (1.0)	11 (1.1)
	Rectal cancer	5 (0.5)	3 (0.3)	10 (1.0)
	Leukemia	5 (0.5)	8 (0.8)	5 (0.5)
	Hodgkin lymphoma	7 (0.7)	4 (0.4)	4 (0.4)
	Accidents	126 (13.1)	120 (12.4)	148 (15.1)
	Drug overdose	103 (10.7)	99 (10.2)	125 (12.8)
	Renal disease	101 (10.5)	101 (10.4)	125 (12.8)
	Mental disorders due to substance use	94 (9.7)	90 (9.3)	108 (11.0)
	Septicemia	98 (10.2)	93 (9.6)	96 (9.8)
	Liver disease	134 (13.9)	109 (11.2)	92 (9.4)
	Liver cirrhosis	64 (6.6)	71 (7.3)	49 (5.0)
	Alcoholic liver disease	12 (1.2)	9 (0.9)	18 (1.8)
	Chronic obstructive pulmonary disease	60 (6.2)	72 (7.4)	77 (7.9)
	Viral hepatitis	122 (12.6)	125 (12.9)	72 (7.4)
	Diabetes	46 (4.8)	50 (5.2)	53 (5.4)
	Cerebrovascular disease	35 (3.6)	44 (4.5)	48 (4.9)
	Suicide	37 (3.8)	34 (3.5)	37 (3.8)
	Pneumonitis	10 (1.0)	20 (2.1)	21 (2.1)
	Diseases of arteries	10 (1.0)	12 (1.2)	19 (1.9)
	Hyperlipidemia	7 (0.7)	13 (1.3)	12 (1.2)
	Assault	5 (0.5)	15 (1.5)	6 (0.6)

1 Includes underlying and contributory causes of death. Individuals may have more than one cause of death. See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

- Among men, women and trans women, HIV was the most frequent underlying or contributory cause of death in all time periods.
- The differences in HIV as a cause of death among genders were most pronounced in the 2016-2019 time period, with women and trans women having higher proportions of death due to HIV (58.8% and 58.6%, respectively) compared to men (52.1%).
- Heart disease was the second most frequent underlying or contributory cause of death in men and women across all time periods; for trans women, heart disease and accidents were tied for second most frequent cause of death among decedents in 2016-2019.
- In the most recent time period, HIV, drug overdose, renal disease, mental disorders due to substance use, septicemia, chronic obstructive pulmonary disease, viral hepatitis, and diabetes accounted for a higher proportion of deaths in women than in men.

Table 5.8 Multiple causes of death among persons diagnosed with HIV by gender, 2008-2019, San Francisco

		Year of Death								
		2008-2011			2012-2015			2016-2019		
		Men	Women	Trans Women	Men	Women	Trans Women	Men	Women	Trans Women
		Number (%)								
	Total	840	89	36	845	94	30	864	85	29
Multiple Causes of Death[1]	HIV	570 (67.9)	64 (71.9)	27 (75.0)	522 (61.8)	60 (63.8)	18 (60.0)	450 (52.1)	50 (58.8)	17 (58.6)
	Heart disease	227 (27.0)	29 (32.6)	9 (25.0)	244 (28.9)	24 (25.5)	11 (36.7)	281 (32.5)	22 (25.9)	9 (31.0)
	Non-AIDS cancer	161 (19.2)	3 (3.4)	- -	148 (17.5)	17 (18.1)	- -	209 (24.2)	16 (18.8)	- -
	Accidents	102 (12.1)	17 (19.1)	7 (19.4)	97 (11.5)	17 (18.1)	6 (20.0)	117 (13.5)	21 (24.7)	9 (31.0)
	Drug overdose	84 (10.0)	14 (15.7)	5 (13.9)	78 (9.2)	17 (18.1)	- -	96 (11.1)	20 (23.5)	8 (27.6)
	Renal disease	87 (10.4)	10 (11.2)	- -	82 (9.7)	16 (17.0)	- -	107 (12.4)	12 (14.1)	6 (20.7)
	Mental disorders due to substance	74 (8.8)	15 (16.9)	5 (13.9)	81 (9.6)	8 (8.5)	- -	91 (10.5)	13 (15.3)	- -
	Liver disease	112 (13.3)	16 (18.0)	6 (16.7)	96 (11.4)	12 (12.8)	- -	83 (9.6)	3 (3.5)	6 (20.7)
	Septicemia	81 (9.6)	11 (12.4)	6 (16.7)	81 (9.6)	9 (9.6)	- -	83 (9.6)	12 (14.1)	- -
	Chronic obstructive pulmonary disease	45 (5.4)	13 (14.6)	- -	57 (6.7)	13 (13.8)	- -	66 (7.6)	10 (11.8)	- -
	Viral hepatitis	101 (12.0)	15 (16.9)	6 (16.7)	105 (12.4)	18 (19.1)	- -	59 (6.8)	7 (8.2)	6 (20.7)
	Cerebrovascular disease	26 (3.1)	9 (10.1)	0 (0.0)	40 (4.7)	4 (4.3)	0 (0.0)	46 (5.3)	2 (2.4)	0 (0.0)
	Diabetes	41 (4.9)	4 (4.5)	- -	44 (5.2)	3 (3.2)	- -	46 (5.3)	5 (5.9)	- -

1 Includes underlying and contributory causes of death. Individuals may have more than one cause of death. See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

-- Data are not displayed due to small number of deaths among trans women and population size.

- When multiple causes of death were compared for Latinx, Black/African American, and White decedents, HIV contributed to more than half of deaths in each racial/ethnic group for all three time periods.
- The decline of deaths due to HIV causes was greatest among Latinx decedents; HIV contributed to 78.4% of deaths in the first time period and declined to 51.1% by the last time period.
- For decedents in 2016-2019, HIV contributed to similar proportions of deaths among Latinx and Whites (51.1%, 52.1%).
- In the first two time periods, liver disease and septicemia contributed to greater proportions of deaths among Latinx than Black/African Americans and Whites.
- Accidents (including drug overdose) accounted for higher proportions of Black/African American deaths, compared to Latinx and Whites in all three time periods.

Table 5.9 Multiple causes of death among persons diagnosed with HIV by race/ethnicity, 2008-2019, San Francisco

		Year of Death								
		2008-2011			2012-2015			2016-2019		
		Latinx	Black/African American	White	Latinx	Black/African American	White	Latinx	Black/African American	White
		Number (%)								
	Total	111	206	577	132	192	565	137	189	576
Multiple Causes of Death[1]	HIV	87 (78.4)	148 (71.8)	380 (65.9)	93 (70.5)	119 (62.0)	341 (60.4)	70 (51.1)	108 (57.1)	300 (52.1)
	Heart disease	24 (21.6)	72 (35.0)	151 (26.2)	34 (25.8)	55 (28.6)	166 (29.4)	33 (24.1)	71 (37.6)	186 (32.3)
	Non-AIDS cancer	14 (12.6)	32 (15.5)	111 (19.2)	15 (11.4)	38 (19.8)	104 (18.4)	30 (21.9)	46 (24.3)	134 (23.3)
	Accidents	6 (5.4)	29 (14.1)	80 (13.9)	15 (11.4)	31 (16.1)	62 (11.0)	18 (13.1)	30 (15.9)	88 (15.3)
	Drug overdose	6 (5.4)	25 (12.1)	63 (10.9)	10 (7.6)	27 (14.1)	50 (8.8)	12 (8.8)	29 (15.3)	74 (12.8)
	Mental disorders due to substance use	6 (5.4)	31 (15.0)	53 (9.2)	13 (9.8)	12 (6.3)	56 (9.9)	14 (10.2)	18 (9.5)	64 (11.1)
	Renal disease	12 (10.8)	35 (17.0)	48 (8.3)	12 (9.1)	35 (18.2)	44 (7.8)	16 (11.7)	44 (23.3)	58 (10.1)
	Septicemia	20 (18.0)	19 (9.2)	46 (8.0)	21 (15.9)	21 (10.9)	43 (7.6)	14 (10.2)	17 (9.0)	58 (10.1)
	Liver disease	23 (20.7)	26 (12.6)	79 (13.7)	21 (15.9)	20 (10.4)	59 (10.4)	19 (13.9)	15 (7.9)	49 (8.5)
	Chronic obstructive pulmonary disease	0 (0.0)	24 (11.7)	34 (5.9)	4 (3.0)	22 (11.5)	43 (7.6)	9 (6.6)	16 (8.5)	46 (8.0)
	Diabetes	6 (5.4)	17 (8.3)	19 (3.3)	5 (3.8)	15 (7.8)	26 (4.6)	6 (4.4)	13 (6.9)	33 (5.7)
	Viral hepatitis	11 (9.9)	31 (15.0)	73 (12.7)	19 (14.4)	35 (18.2)	58 (10.3)	16 (11.7)	17 (9.0)	31 (5.4)

1 Includes underlying and contributory causes of death. Individuals may have more than one cause of death. See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

- When multiple causes of death were considered for MSM, PWID, or MSM-PWID, heart disease was observed as the second most frequent underlying or contributory cause of death, behind HIV.
- Compared to MSM, PWID and MSM-PWID had higher proportions of deaths where liver disease, mental disorders due to substance use, accidents (including drug overdoses), and chronic obstructive pulmonary disease were a cause.

Table 5.10 Multiple causes of death among persons diagnosed with HIV by transmission categories, 2008-2019, San Francisco

		Year of Death								
		2008-2011			2012-2015			2016-2019		
		MSM	PWID	MSM-PWID	MSM	PWID	MSM-PWID	MSM	PWID	MSM-PWID
		Number (%)								
	Total	502	141	231	537	169	197	526	134	242
Multiple Causes of Death[1]	HIV	333 (66.3)	96 (68.1)	163 (70.6)	342 (63.7)	106 (62.7)	107 (54.3)	284 (54.0)	70 (52.2)	109 (45.0)
	Heart disease	137 (27.3)	39 (27.7)	61 (26.4)	163 (30.4)	40 (23.7)	50 (25.4)	162 (30.8)	40 (29.9)	81 (33.5)
	Non-AIDS cancer	110 (21.9)	14 (9.9)	33 (14.3)	109 (20.3)	27 (16.0)	22 (11.2)	144 (27.4)	26 (19.4)	47 (19.4)
	Renal disease	46 (9.2)	24 (17.0)	22 (9.5)	50 (9.3)	26 (15.4)	14 (7.1)	70 (13.3)	19 (14.2)	19 (7.9)
	Septicemia	46 (9.2)	16 (11.3)	24 (10.4)	45 (8.4)	22 (13.0)	16 (8.1)	51 (9.7)	14 (10.4)	24 (9.9)
	Accidents	50 (10.0)	26 (18.4)	39 (16.9)	39 (7.3)	27 (16.0)	45 (22.8)	47 (8.9)	37 (27.6)	50 (20.7)
	Drug overdose	38 (7.6)	23 (16.3)	35 (15.2)	28 (5.2)	24 (14.2)	41 (20.8)	34 (6.5)	35 (26.1)	44 (18.2)
	Mental disorders due to substance use	31 (6.2)	23 (16.3)	31 (13.4)	48 (8.9)	14 (8.3)	27 (13.7)	46 (8.7)	22 (16.4)	32 (13.2)
	Liver disease	49 (9.8)	29 (20.6)	47 (20.3)	46 (8.6)	26 (15.4)	32 (16.2)	42 (8.0)	14 (10.4)	28 (11.6)
	Chronic obstructive pulmonary disease	19 (3.8)	20 (14.2)	15 (6.5)	31 (5.8)	22 (13.0)	14 (7.1)	35 (6.7)	19 (14.2)	19 (7.9)
	Diabetes	27 (5.4)	6 (4.3)	8 (3.5)	33 (6.1)	7 (4.1)	5 (2.5)	31 (5.9)	11 (8.2)	7 (2.9)
	Cerebrovascular disease	18 (3.6)	6 (4.3)	4 (1.7)	27 (5.0)	10 (5.9)	5 (2.5)	26 (4.9)	8 (6.0)	12 (5.0)
	Suicide	29 (5.8)	1 (0.7)	7 (3.0)	21 (3.9)	1 (0.6)	11 (5.6)	26 (4.9)	0 (0.0)	11 (4.5)

1 Includes underlying and contributory causes of death. Individuals may have more than one cause of death. See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

- Among 2,913 persons who died during 2008 to 2019, those who were ever homeless from time of HIV diagnosis to death accounted for 21% of decedents.
- Among decedents who were ever homeless, a higher proportion of deaths were due to AIDS opportunistic illnesses, liver disease, viral hepatitis, accidents (including drug overdoses), mental disorders due to substance abuse, renal disease, chronic obstructive pulmonary disease, and assault.

Table 5.11 Multiple causes of death among persons diagnosed with HIV by housing status, 2008-2019, San Francisco

		Housing status from HIV diagnosis to death	
		Ever homeless	Consistently housed
		Number (%)	
	Total	**620**	**2,293**
Multiple Causes of Death[1]	HIV	355 (57.3)	1,423 (62.1)
	AIDS opportunistic illness	154 (24.8)	524 (22.9)
	AIDS cancer	33 (5.3)	140 (6.1)
	Heart disease	148 (23.9)	708 (30.9)
	Non-AIDS cancer	62 (10.0)	501 (21.9)
	Liver disease	81 (13.1)	254 (11.1)
	Viral hepatitis	89 (14.4)	230 (10.0)
	Accidents	136 (21.9)	258 (11.3)
	Drug overdose	119 (19.2)	208 (9.1)
	Renal disease	83 (13.4)	244 (10.6)
	Septicemia	63 (10.2)	224 (9.8)
	Mental disorders due to substance abuse	91 (14.7)	201 (8.8)
	Chronic obstructive pulmonary disease	54 (8.7)	155 (6.8)
	Diabetes	14 (2.3)	135 (5.9)
	Suicide	14 (2.2)	94 (4.1)
	Cerebrovascular disease	23 (3.7)	104 (4.5)
	Pneumonitis	10 (1.6)	41 (1.8)
	Diseases of arteries	6 (1.0)	35 (1.5)
	Hyperlipidemia	2 (<1.0)	30 (1.3)
	Assault	15 (2.4)	11 (<1.0)

1 Includes underlying and contributory causes of death. Individuals may have more than one cause of death. See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

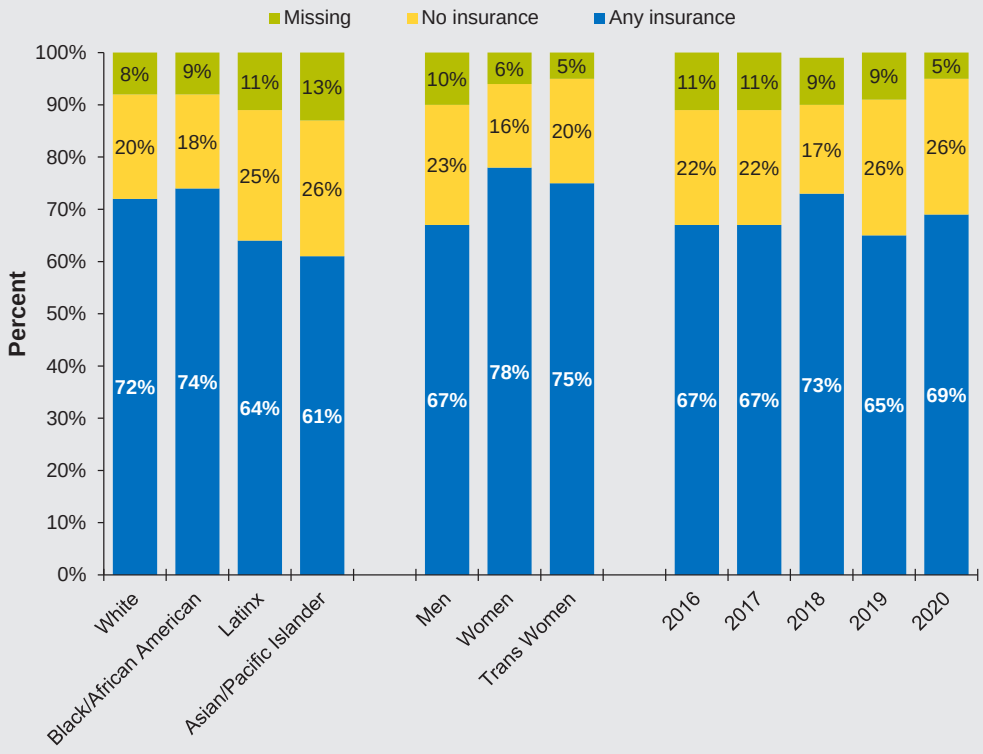
6 Health Insurance Status at Time of HIV Diagnosis

69%

OF PERSONS NEWLY DIAGNOSED IN 2020 HAD HEALTH INSURANCE

- Among persons diagnosed with HIV in 2016 to 2020, 72% of Whites, 74% of Black/African Americans, 64% of Latinx, and 61% of Asians/Pacific Islanders (APIs) had health insurance at time of diagnosis.
- Twenty-five percent of Latinx and 26% of APIs diagnosed in 2016 to 2020 had no insurance at diagnosis.
- APIs had the highest proportion missing health insurance status information (13%).
- By gender, men had the highest proportion with no insurance at diagnosis.
- More than two-thirds of persons diagnosed each year had health insurance; almost three-quarters of persons diagnosed in 2018 had health insurance.
- The proportion of persons with no health insurance at diagnosis each year from 2016 to 2020 ranged from 17% to 26%.

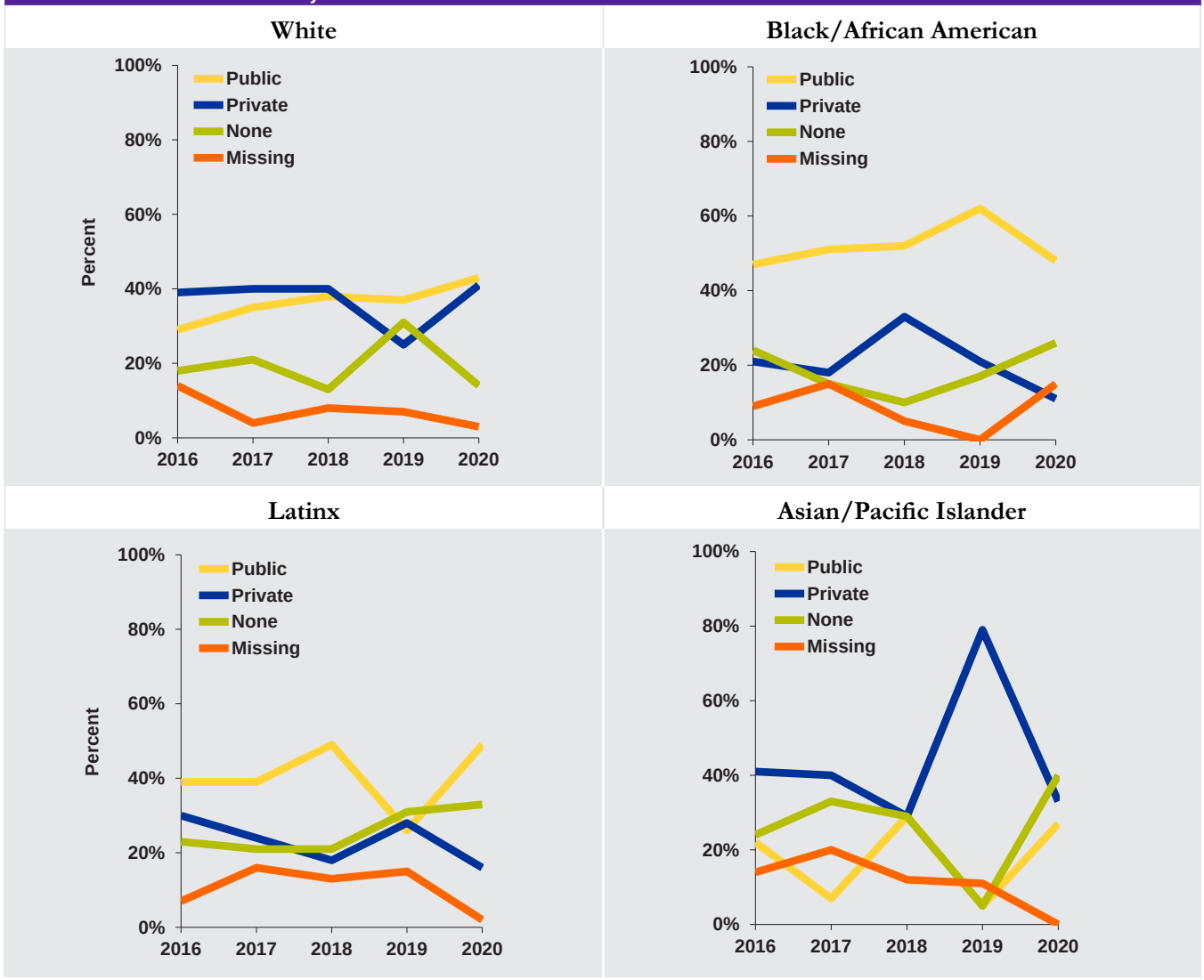
Figure 6.1 Health insurance status at time of HIV diagnosis by race/ethnicity, gender[1], and year of diagnosis, 2016-2020, San Francisco



1 Data on trans men are not presented due to small numbers and potential small population size. See Technical Notes "Gender Status."

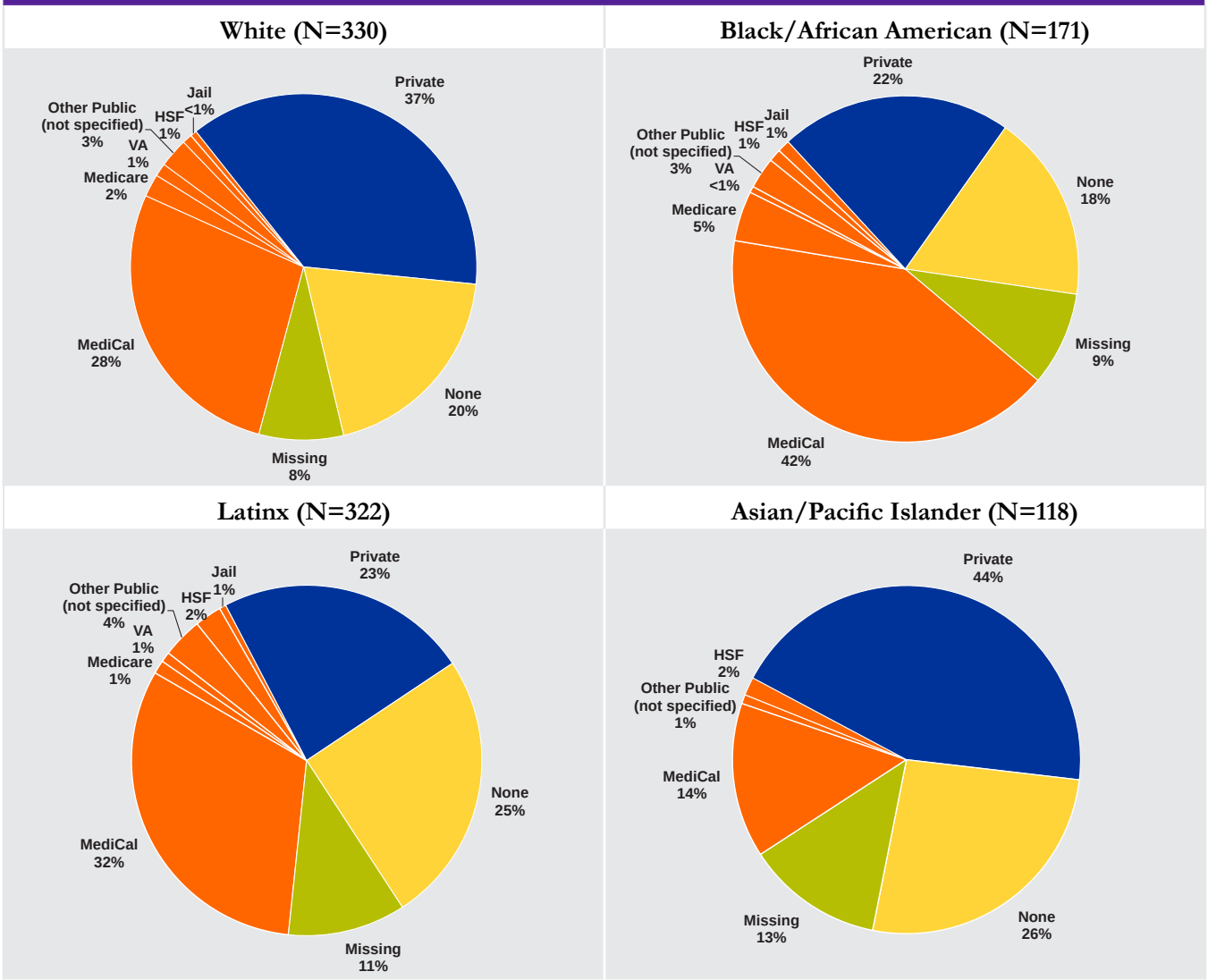
- Among Whites, the proportion with public insurance increased during 2016 to 2020 from 29% to 43%.
- Between 47% and 62% of Black/African Americans diagnosed each year were publicly insured.
- While there were increases in the proportion of Latinx publicly insured, in the same time period, the proportion of Latinx who were privately insured declined. The proportion of Latinx with no health insurance also increased in 2019 and 2020 to 31% and 33%, respectively.
- Although private insurance was the most common form of insurance for APIs in this time period, the proportion of APIs with no health insurance each diagnosis year was generally higher than Whites, Black/African Americans, and Latinx.

Figure 6.2 Trends in health insurance status at time of HIV diagnosis by race/ethnicity, 2016-2020, San Francisco



- During the period of 2016 to 2020, 72% of Whites, 74% of Black/African Americans, 64% of Latinx, and 61% of APIs were insured at the time of HIV diagnosis.
- Black/African Americans had the highest proportion (52%) with publicly funded insurance types compared to other racial/ethnic groups.
- APIs had the highest proportion (44%) with privately funded insurance compared to other racial/ethnic groups.
- APIs had the highest proportion uninsured (26%), followed by Latinx (25%).

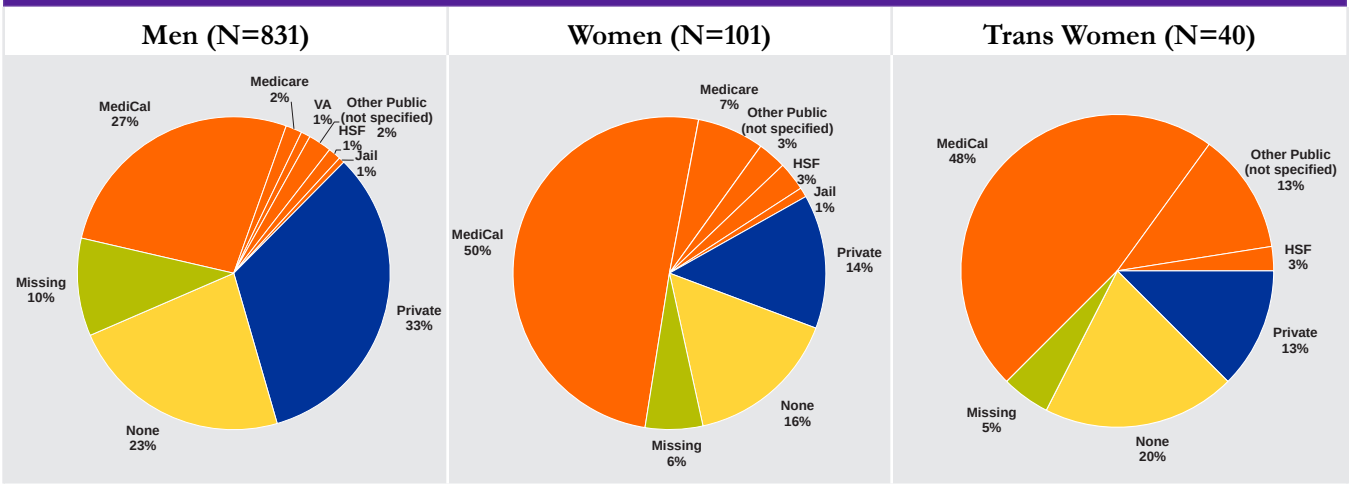
Figure 6.3 Health insurance status at time of HIV diagnosis by race/ethnicity, 2016-2020, San Francisco



HSF: Healthy San Francisco.

- For persons diagnosed with HIV in 2016 to 2020, women and trans women had higher proportions with public insurance (including MediCal, Medicare, Healthy San Francisco, Veteran Administration, county jail, and other unspecified public insurance) when compared to men.
- Fifty percent of women and 48% of trans women reported using MediCal, state-sponsored insurance for persons meeting financial criteria, compared to 27% of men.
- Healthy San Francisco, the county-sponsored health care access program for residents, was used by 1% of men, 3% of women, and 3% of trans women.
- Twenty-three percent of men, 16% of women, and 20% of trans women had no health insurance coverage at time of diagnosis.

Figure 6.4 Health insurance status at time of HIV diagnosis by gender[1], 2016-2020, San Francisco



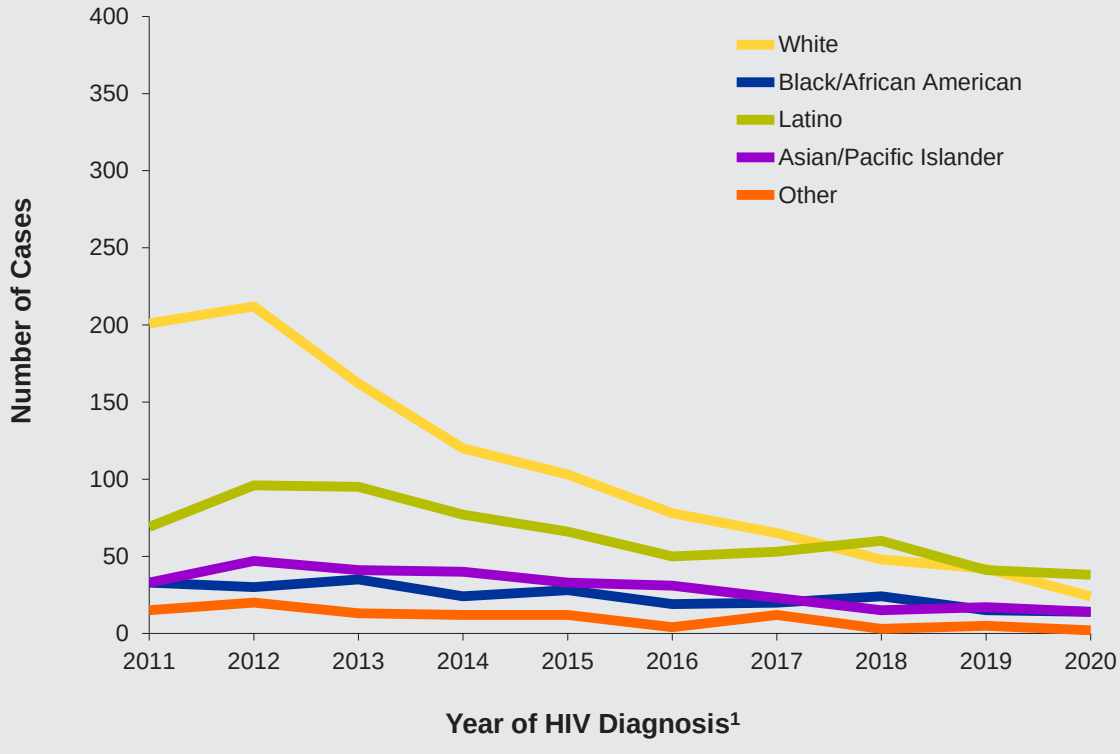
1 Data on trans men are not presented due to small numbers and potential small population size. See Technical Notes "Gender Status."
HSF: Healthy San Francisco.

7 HIV among Men who Have Sex with Men

Whites
ACCOUNTED FOR THE LARGEST NUMBER OF NEWLY DIAGNOSED MSM, 2011-2020

- During 2011-2020, Whites accounted for 45% of newly diagnosed MSM, followed by Latinos (28%), Asians/Pacific Islanders (APIs, 13%), and Black/African Americans (10%).
- The number of White MSM newly diagnosed with HIV consistently declined from 2013 to 2020.
- The number of Black/African Americans and APIs newly diagnosed with HIV was similar in 2019 and 2020.
- From 2019 to 2020, diagnoses among MSM in all racial/ethnic groups declined, with the largest decline in Whites (from 42 diagnoses in 2019 to 24 diagnoses in 2020).
- Among MSM newly diagnosed in 2020, Latinos accounted for the highest proportion at 41% followed by 26% Whites, 15% Black/African Americans, and 15% APIs.

Figure 7.1 Number of MSM newly diagnosed with HIV by race/ethnicity, 2011-2020, San Francisco

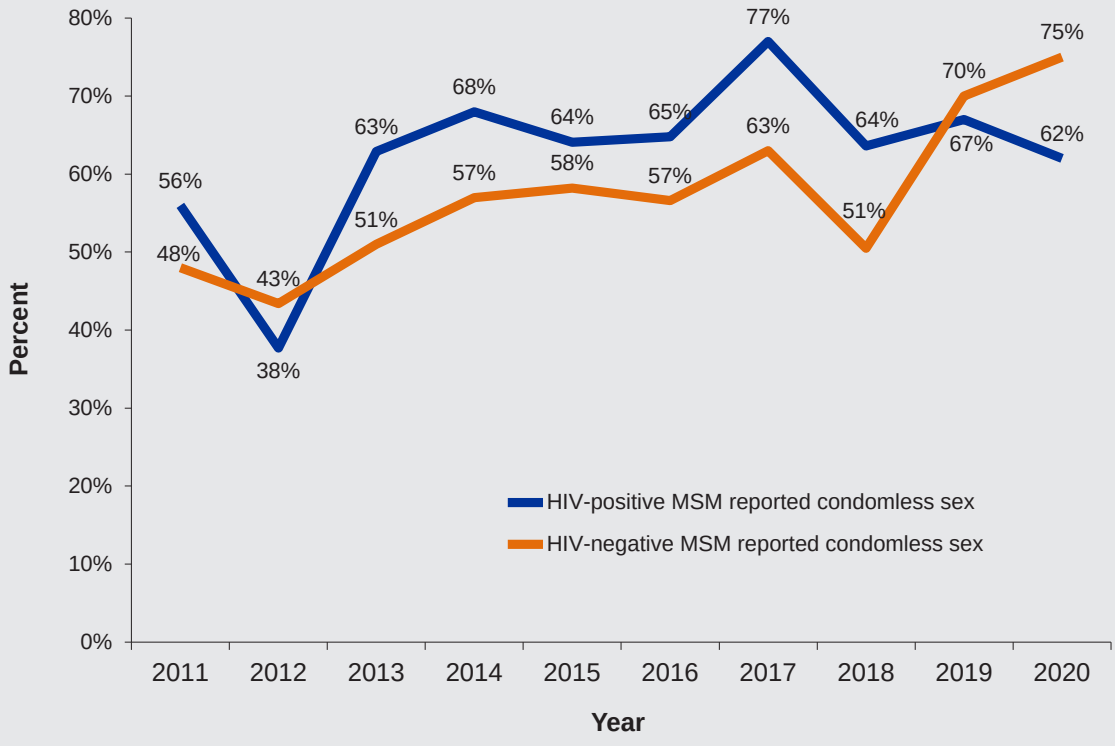


1 Includes MSM and MSM-PWID with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

HIV sexual behavior data

- Data from the STOP AIDS Project found that the percent of HIV-negative MSM who reported any condomless anal intercourse increased from 43% in 2012 to 75% in 2020.
- The proportion of HIV-positive MSM reporting any condomless anal intercourse generally remained above 60%, with a high of 77% in 2017.
- These data provide an overall estimate of condomless sex in a small sample of MSM and do not consider other factors related to HIV prevention such as use of pre-exposure prophylaxis (PrEP), viral suppression or serosorting (having sex with only those who have the same HIV status). For example, the level of condomless sex may be lower among HIV-negative MSM who are not on PrEP in recent years.

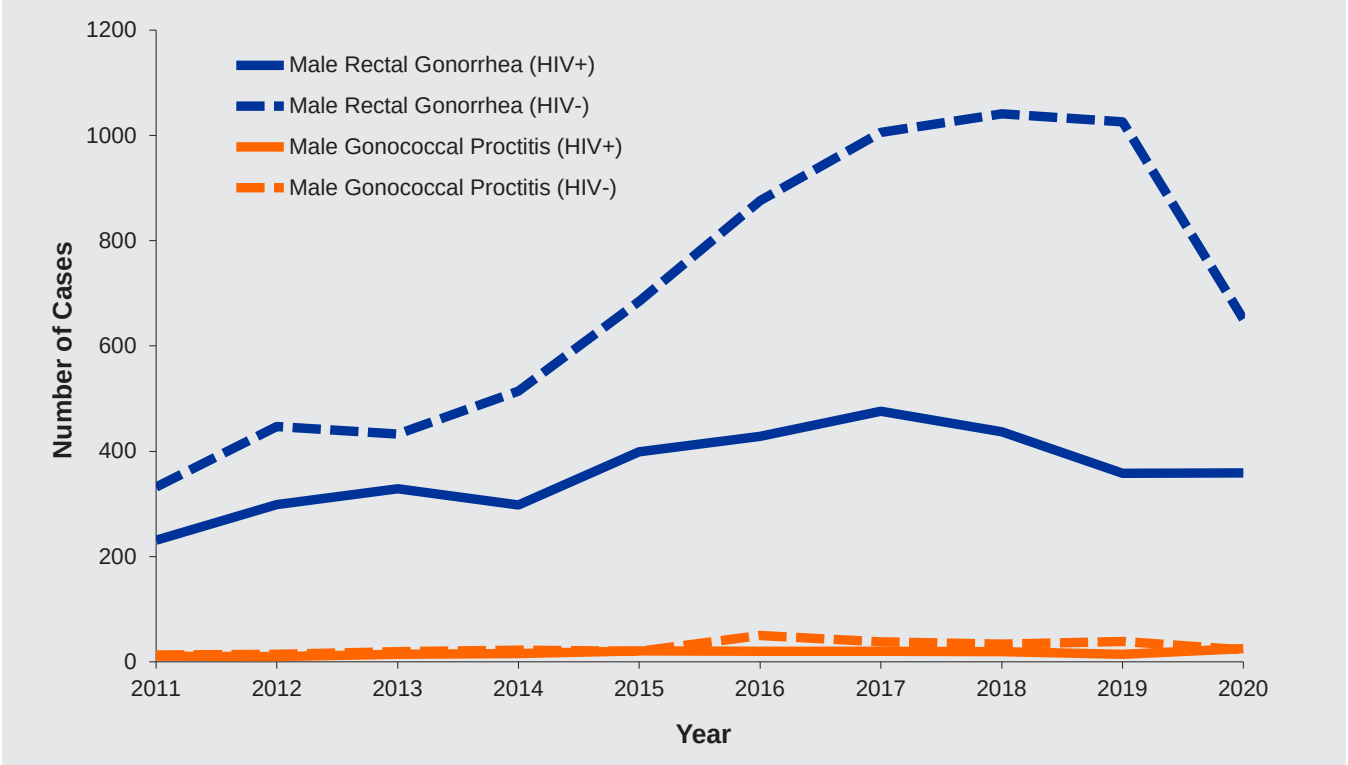
Figure 7.2 Percent of MSM reporting condomless anal intercourse in the last six months by self-reported HIV status, the STOP AIDS Project, 2011-2020, San Francisco



Sexually transmitted diseases among MSM

- The number of reported rectal gonorrhea cases among HIV-positive MSM peaked at 476 cases in 2017, declined to 358 cases in 2019, and remained stable at 359 cases in 2020.
- The number of reported rectal gonorrhea cases among HIV-negative MSM has increased steadily since 2011, reached a peak in 2018 with 1,041 cases, and declined markedly from 1,026 cases in 2019 to 651 cases in 2020.
- The number of reported rectal gonorrhea cases has been higher among HIV-negative MSM than among HIV-positive MSM from 2011 through 2020.
- The number of male gonococcal proctitis cases was notably lower, likely due to differences in how the data were reported, and has been relatively stable.

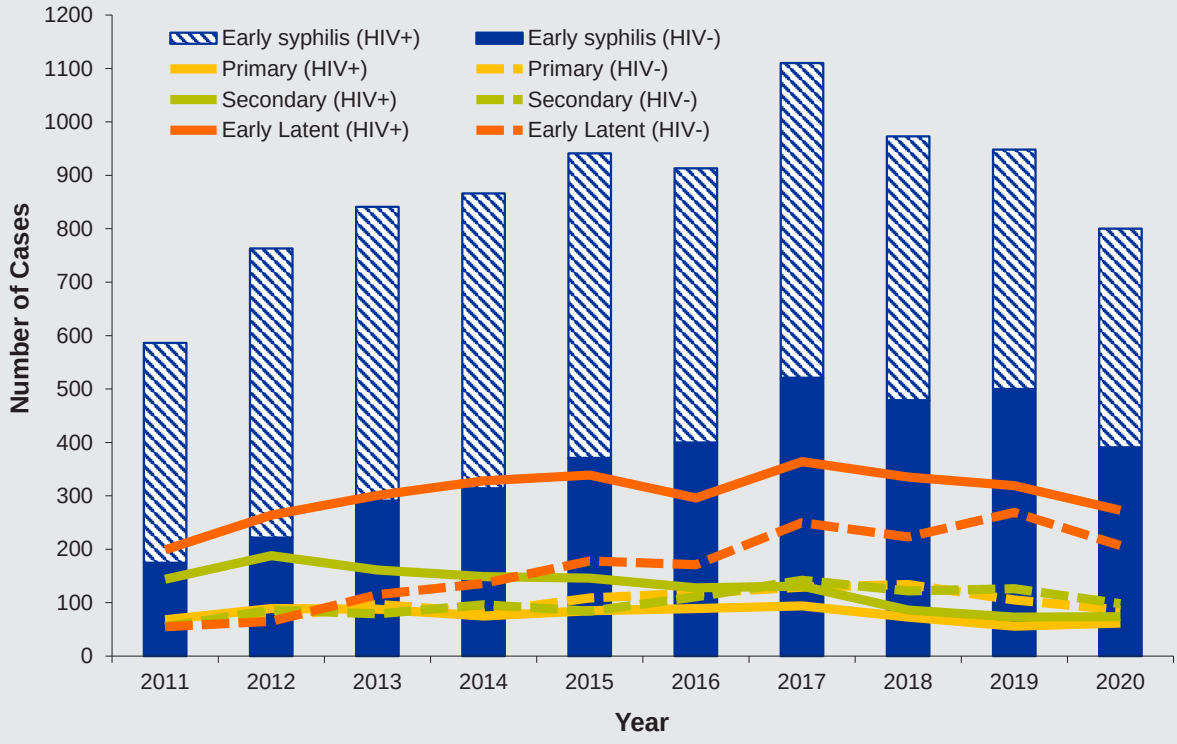
Figure 7.3 Male rectal gonorrhea and male gonococcal proctitis among MSM by HIV serostatus[1], 2011-2020, San Francisco



1 Data on male rectal gonorrhea and gonococcal proctitis originate from San Francisco Department of Public Health STD case registry.

- The number of early syphilis cases, including primary, secondary, and early latent, increased from 2011 to 2017 and declined in recent years irrespective of HIV serostatus.
- HIV-positive MSM accounted for a greater proportion of early syphilis cases during 2011 through 2020, with an exception in 2019 at 47%. However, the proportion of HIV-positive MSM among early syphilis cases has declined over the years from 70% in 2011 to 51% in 2020.

Figure 7.4 Early syphilis among MSM by HIV serostatus[1], 2011-2020, San Francisco

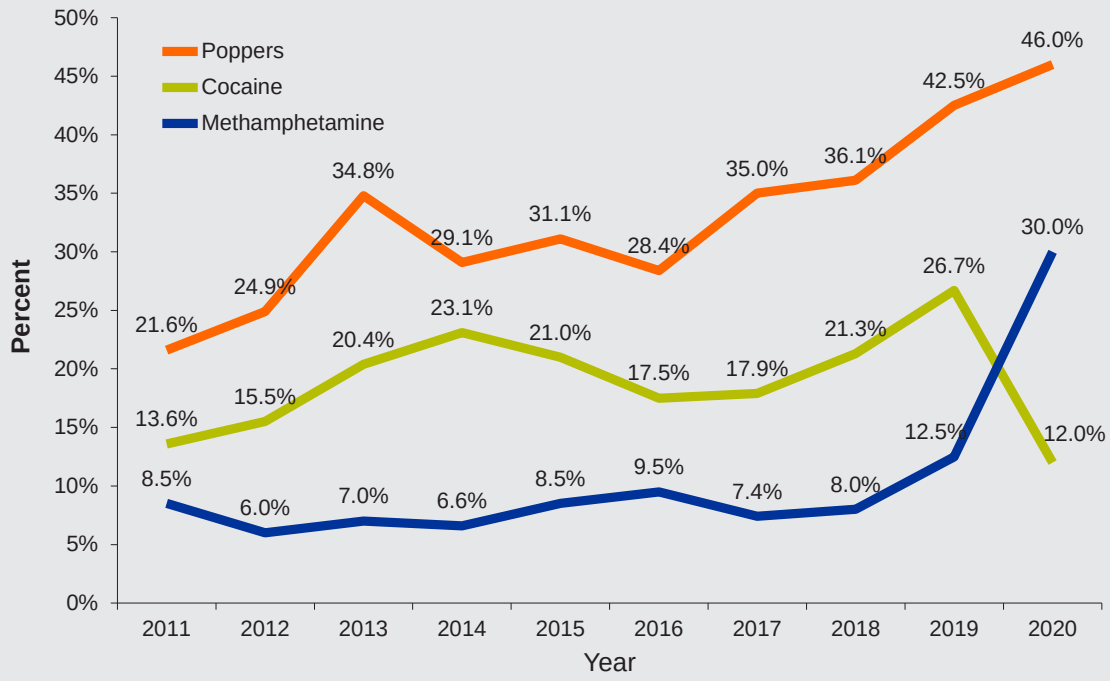


1 Data on early syphilis originate from San Francisco Department of Public Health STD case registry.

Substance use

- Data from the STOP AIDS Project showed both increases and decreases in cocaine use from 2011 to 2020.
- Popper use increased from a low of 21.6% in 2011 to a high of 46.0% in 2020.
- Methamphetamine use was relatively stable from 2011 to 2018 then increased in 2019 and 2020.

Figure 7.5 Substance use among MSM, the STOP AIDS Project, 2011-2020, San Francisco

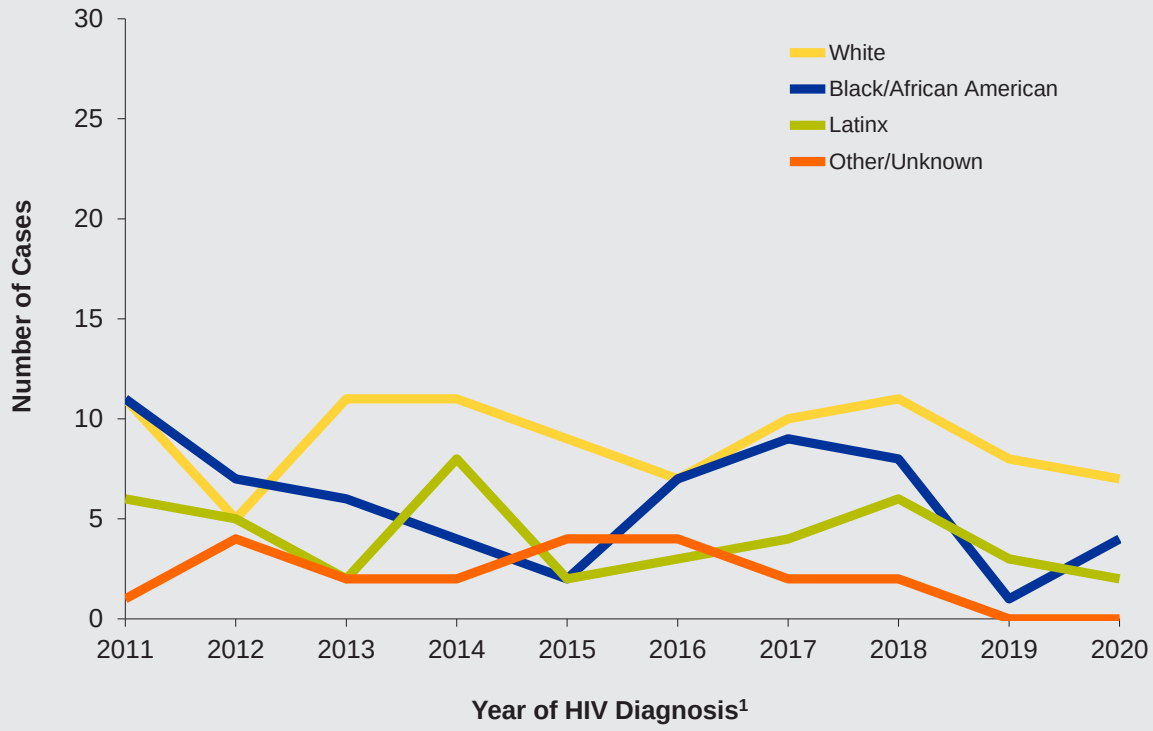


8 HIV among Persons who Inject Drugs

Whites
ACCOUNTED FOR 43% OF PWID NEWLY DIAGNOSED WITH HIV FROM 2011-2020

- From 2011 to 2020, Whites accounted for 43% of PWID newly diagnosed with HIV, Black/African Americans 28%, and Latinx 19%.
- From 2016 to 2018, there was an increase in the total annual number of PWID diagnosed with HIV and the total number declined and was stable in 2019 to 2020 (13 diagnoses).
- In 2019 and 2020, all PWID diagnosed were among three racial/ethnic groups: White, Black/African American or Latinx.

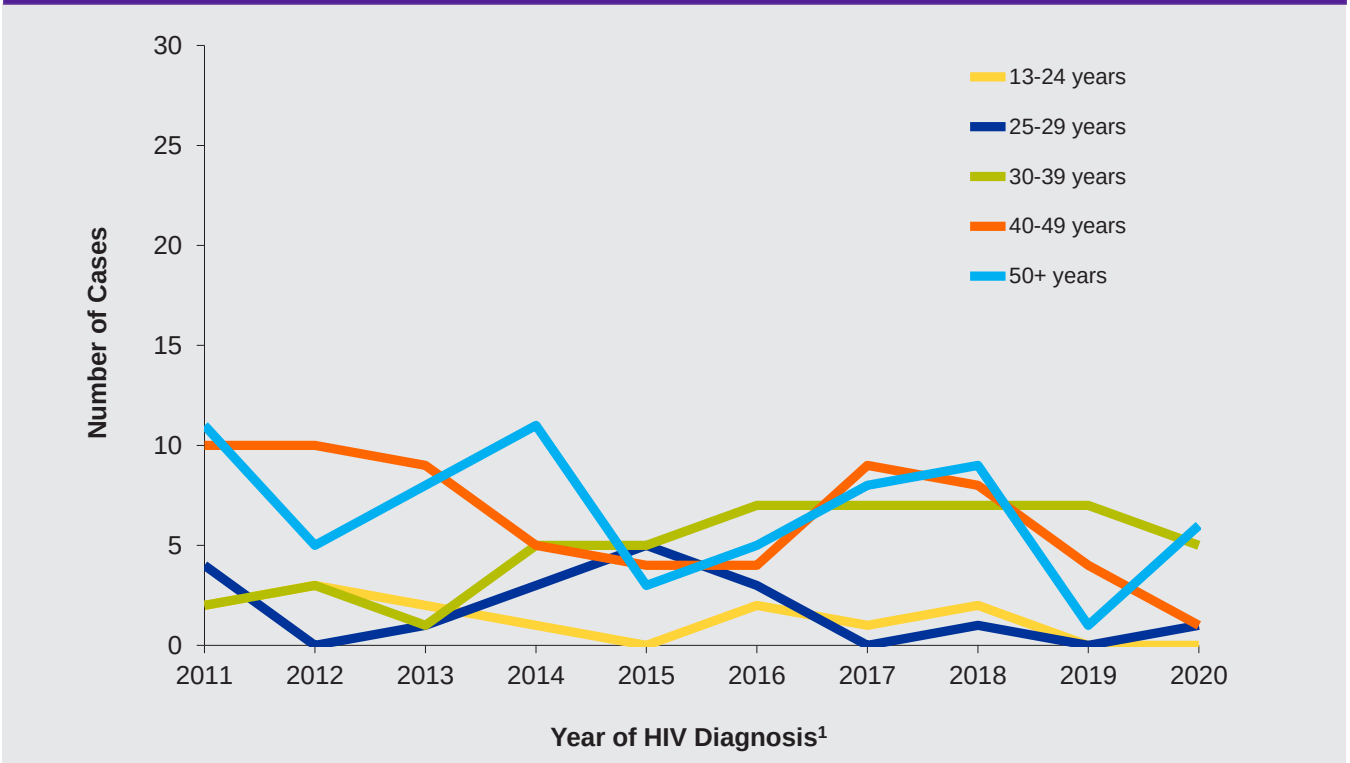
Figure 8.1 Number of PWID newly diagnosed with HIV by race/ethnicity, 2011-2020, San Francisco



1 Includes PWID (who are not MSM-PWID or TWSM-PWID) with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

- Persons who were aged 40-49 years made up 30% of all PWID diagnosed in 2011 to 2020, and 32% were aged 50 years and older.
- The numbers of annual HIV diagnoses among PWID under age of 25 years remained low; there were no diagnoses in this age group in 2019 and 2020.

Figure 8.2 Number of PWID newly diagnosed with HIV by age group at HIV diagnosis, 2011-2020, San Francisco

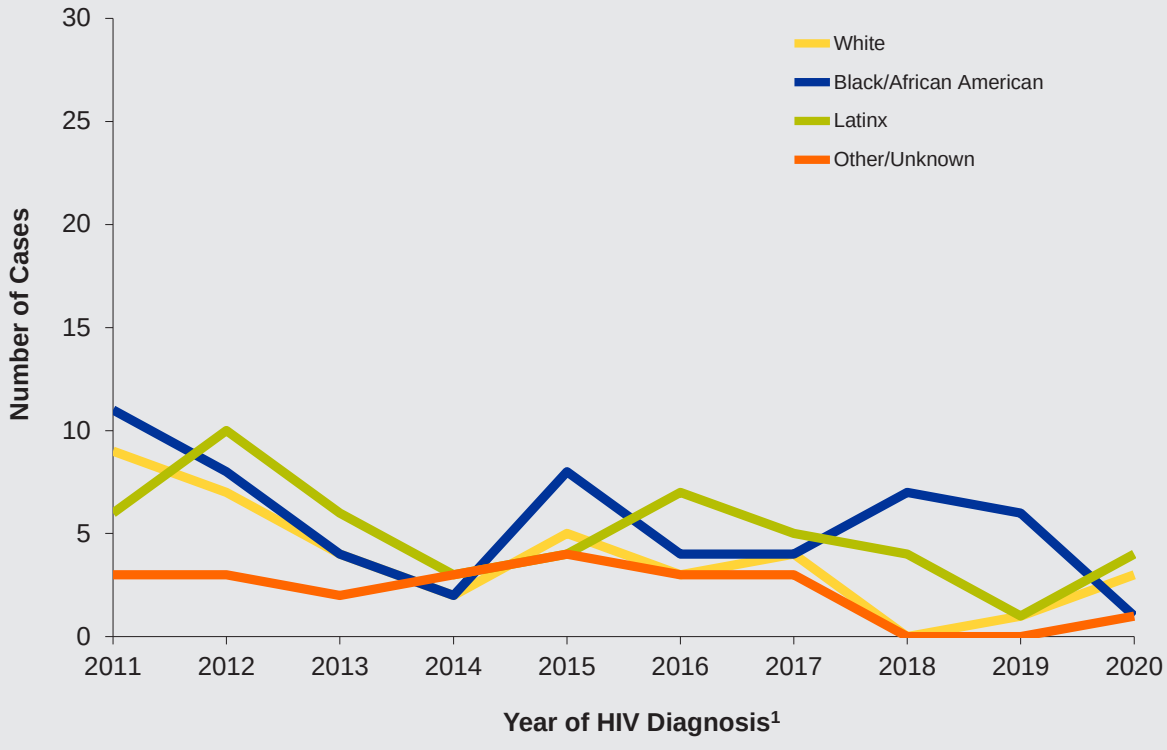


1 Includes PWID (who are not MSM-PWID or TWSM-PWID) with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

9 HIV among Heterosexuals

- Among persons who acquired HIV through heterosexual contact in 2011 to 2020, Black/African Americans accounted for 33%, Latinx accounted for 30%, and Whites 23%.
- Whites and Latinx that acquired HIV through heterosexual contact declined to very low annual numbers (one each in 2019) yet increased slightly in 2020.
- In 2018 and 2019 there were no Asians/Pacific Islanders (APIs), Native Americans, or multi-racial persons who acquired HIV through heterosexual contact.
- In 2020 there was one diagnosis among Black/African Americans through heterosexual contact (a decline from 2018 and 2019) and one diagnosis amongst APIs, Native Americans, and multi-racial persons.

Figure 9.1 Number of heterosexuals newly diagnosed with HIV by race/ethnicity, 2011-2020, San Francisco

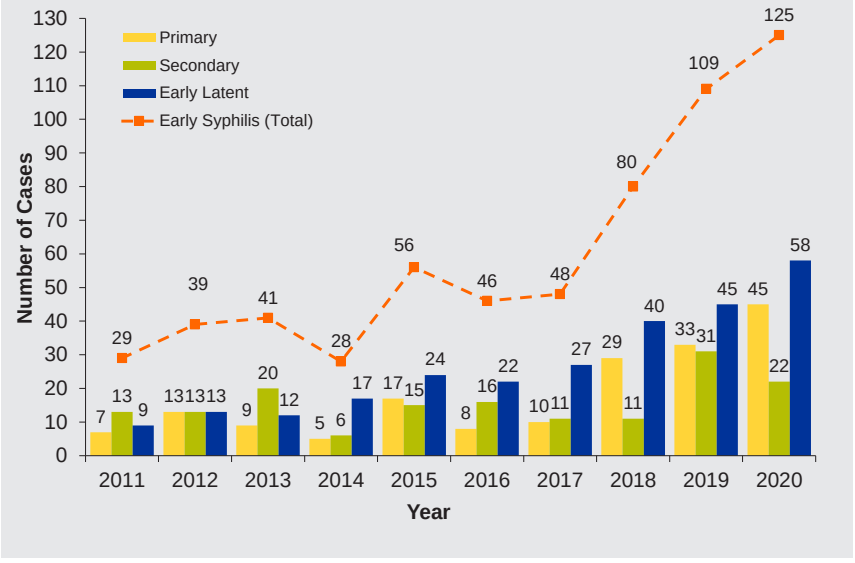


1 Includes persons with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

Sexually transmitted diseases among heterosexuals

- Overall, the number of early syphilis cases among heterosexual men, regardless of HIV status, has increased over the past 10 years and reached a high of 125 cases in 2020.

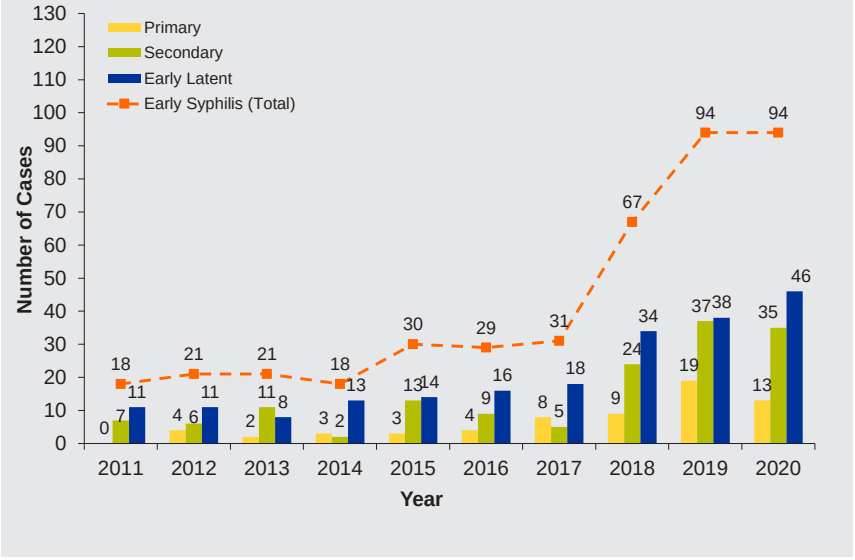
Figure 9.2 Early syphilis among heterosexual men[1], 2011-2020, San Francisco



1 Data on early syphilis originate from San Francisco Department of Public Health STD case registry.

- Among women, regardless of HIV status, the number of early syphilis cases has also increased over time, and reached a peak of 94 cases in 2019 and 2020.
- The number of early syphilis cases among women was lower relative to men.
- For most years and among women, there was a higher number of early latent syphilis compared to primary and secondary syphilis cases.

Figure 9.3 Early syphilis among women[1], 2011-2020, San Francisco

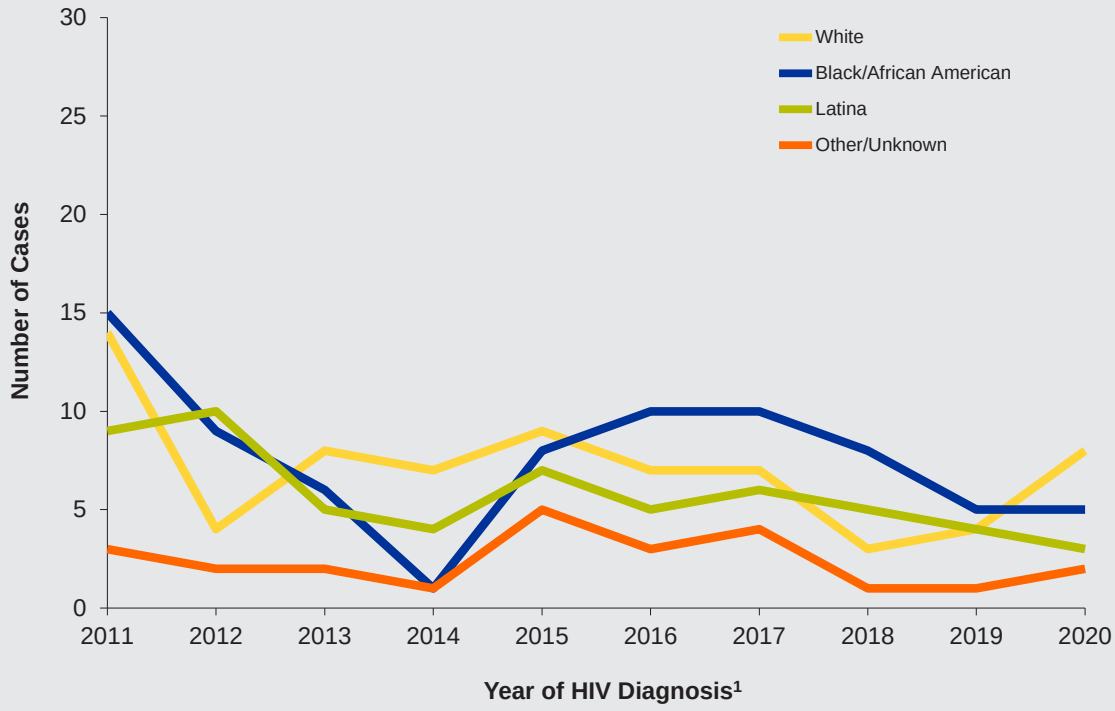


1 Data on early syphilis originate from San Francisco Department of Public Health STD case registry.

10 HIV among Women

- Among women newly diagnosed with HIV during 2011 through 2020, Whites accounted for 31% of diagnoses, Black/African Americans accounted for 33%, and Latinas accounted for 25%.
- In 2020, the total number of women diagnosed with HIV increased to 18 from 14 in 2019; the number of White women diagnosed increased to eight, Latinas continued a slight decline to three diagnoses, and diagnoses among Black/African American women were stable compared to the previous year at five.

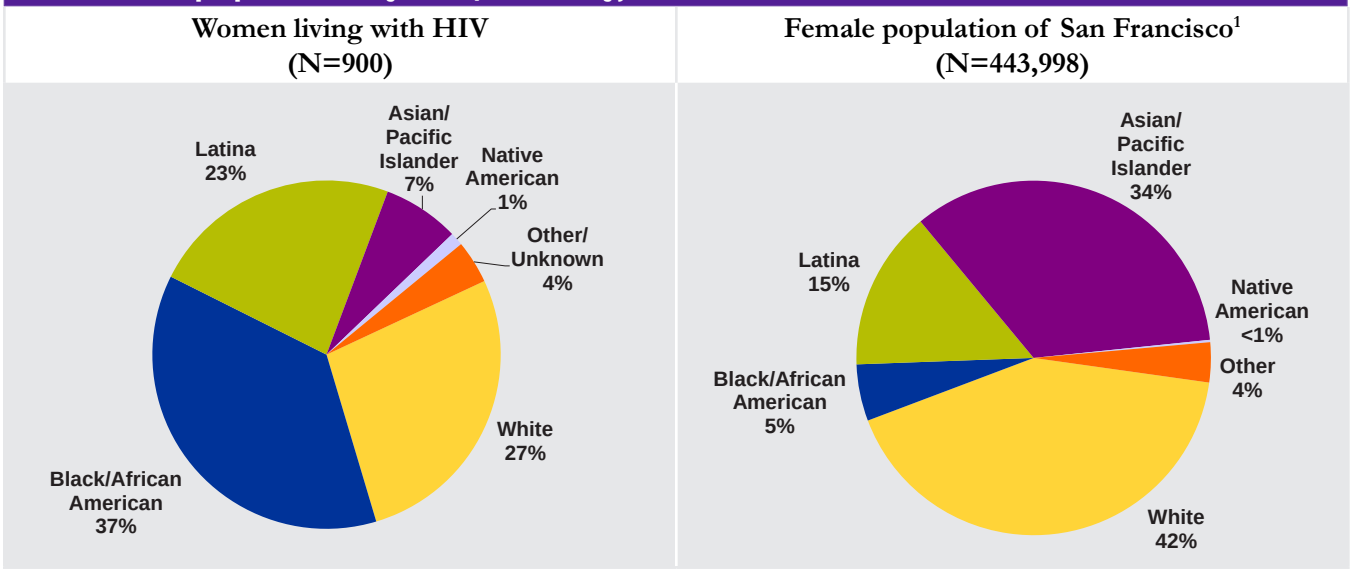
Figure 10.1 Number of women newly diagnosed with HIV by race/ethnicity, 2011-2020, San Francisco



1 Includes women with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

- Although Black/African American women represented 5% of the total female population in San Francisco (pie chart on the right), as of December 31, 2020 they accounted for 37% of women living with HIV in San Francisco (pie chart on the left).

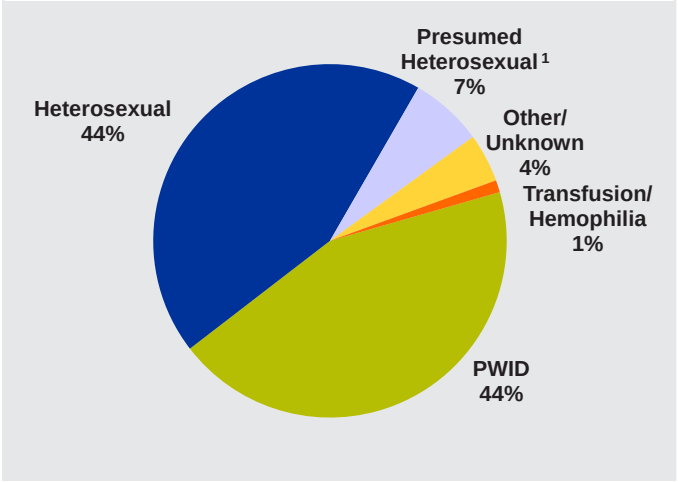
Figure 10.2 Women living with HIV diagnosed through December 2020 and female population by race/ethnicity, San Francisco



1 California Department of Finance estimate San Francisco female population 2020.

- Among women diagnosed and living with HIV in San Francisco through the end of 2020, 44% acquired HIV through injecting drugs and 50% through heterosexual contact.

Figure 10.3 Women living with HIV diagnosed through December 2020 by transmission category, San Francisco



1 See Technical Notes "Female Presumed Heterosexual Contact."

11 HIV among Children, Adolescents and Young Adults

Latinx

ACCOUNTED FOR 41% OF YOUNG ADULTS LIVING WITH HIV AS OF 12/31/2020

- Adolescents (current age 13-17 years) or young adults (current age 18-24 years) living with HIV in San Francisco make up fewer than 1% of persons living with HIV in the city.
- As of December 31, 2020 there were fewer than five adolescents and 69 young adults living with HIV.
- Among young adults living with HIV, 74% were MSM and 10% were PWID (MSM and non-MSM).
- Forty-one percent of young adults living with HIV were Latinx, 16% were White, 29% were Black/African American, and 9% were Asian/Pacific Islander.

Table 11.1 Characteristics of young adults living with HIV, December 2020, San Francisco

		18 - 24 Years Old
		Number (%)
	Total	69 (100)
Transmission Category	MSM	51 (74)
	PWID	1 (1)
	MSM-PWID	6 (9)
	Heterosexual	5 (7)
	Perinatal	3 (4)
	Other/Unidentified[1]	3 (4)
Gender[2]	Men	56 (81)
	Women	8 (12)
	Trans Women	5 (7)
Race/Ethnicity	White	11 (16)
	Black/African American	20 (29)
	Latinx	28 (41)
	Asian/Pacific Islander	6 (9)
	Multi-race	4 (6)

1 Includes TWSM, TWSM-PWID, and persons with no identified risk factor.

2 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

- For the years 2016-2020 and compared to the U.S., San Francisco had lower proportions of adolescents and young adults diagnosed with HIV.
- Diagnoses among persons aged 20-24 years ranged from 8% to 13% of total diagnoses from 2016 to 2020.

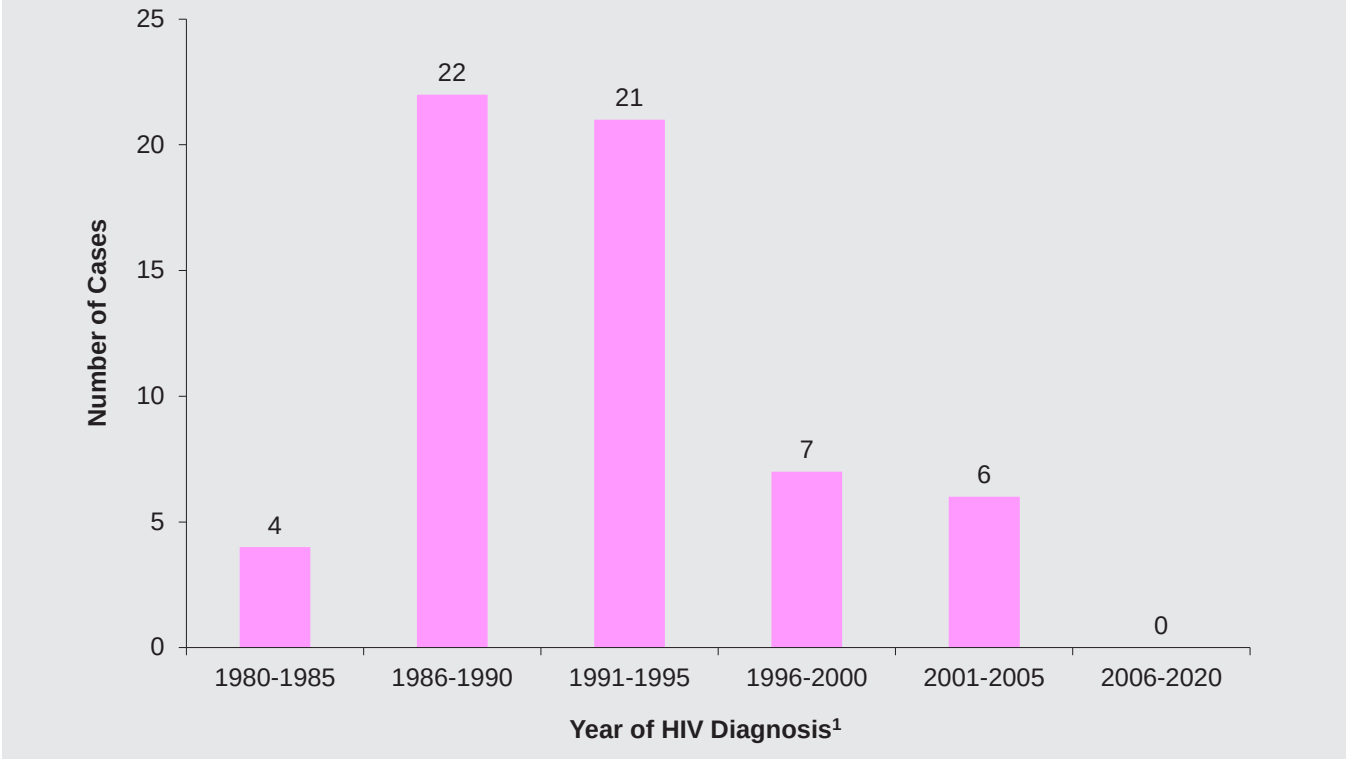
Table 11.2 Number of adolescents and young adults newly diagnosed with HIV, 2016-2020, San Francisco and the United States

		Year of HIV Diagnosis				
		2016	2017	2018	2019	2020
		Number (%)				
San Francisco	All ages	236	237	205	168	131
	Age 13-19 years at HIV diagnosis	4 (2)	8 (3)	5 (2)	3 (2)	0 (0)
	Age 20-24 years at HIV diagnosis	29 (12)	20 (8)	27 (13)	13 (8)	16 (12)
U.S.[1]	All ages	40,108	38,858	37,920	36,801	N/A
	Age 13-19 years at HIV diagnosis	1,748 (4)	1,816 (5)	1,751 (5)	1,667 (5)	N/A
	Age 20-24 years at HIV diagnosis	6,991 (17)	6,543 (17)	6,158 (16)	5,981 (16)	N/A

1 U.S. data are based on reported diagnoses from the 50 states and 6 dependent areas with confidential HIV reporting in CDC, HIV Surveillance Report, 2019 (volume 32).

- As of December 31, 2020, there was a cumulative total of 60 pediatric HIV cases (children less than 13 years old) who resided in San Francisco at time of diagnosis.
- The number of pediatric HIV cases peaked between 1986 and 1995, and has declined over time, with zero pediatric HIV cases diagnosed among residents of San Francisco since 2005.
- Of the 60 reported pediatric HIV cases, 27 (45%) had died as of December 2020 and 33 (55%) have survived beyond childhood (current age ≥13 years).

Figure 11.1 Number of children diagnosed with HIV by time period of HIV diagnosis, 1980-2020, San Francisco



1 See Technical Notes "Date of Initial HIV Diagnosis."

12 HIV among Persons Aged 50 Years and Older

- As of December 31, 2020, 71% (N=11,207) of persons living with HIV were aged 50 years and older.
- In this age group, 29% were aged 65 years and older (N=3,282), and thus eligible for Medicare benefits.
- Among those aged 50 years and older, 64% were White and 16% were Latinx compared to 41% and 31%, respectively, among those under age 50.

71%
OF PLWH WERE AGED 50 YEARS AND OLDER AS OF 12/31/2020

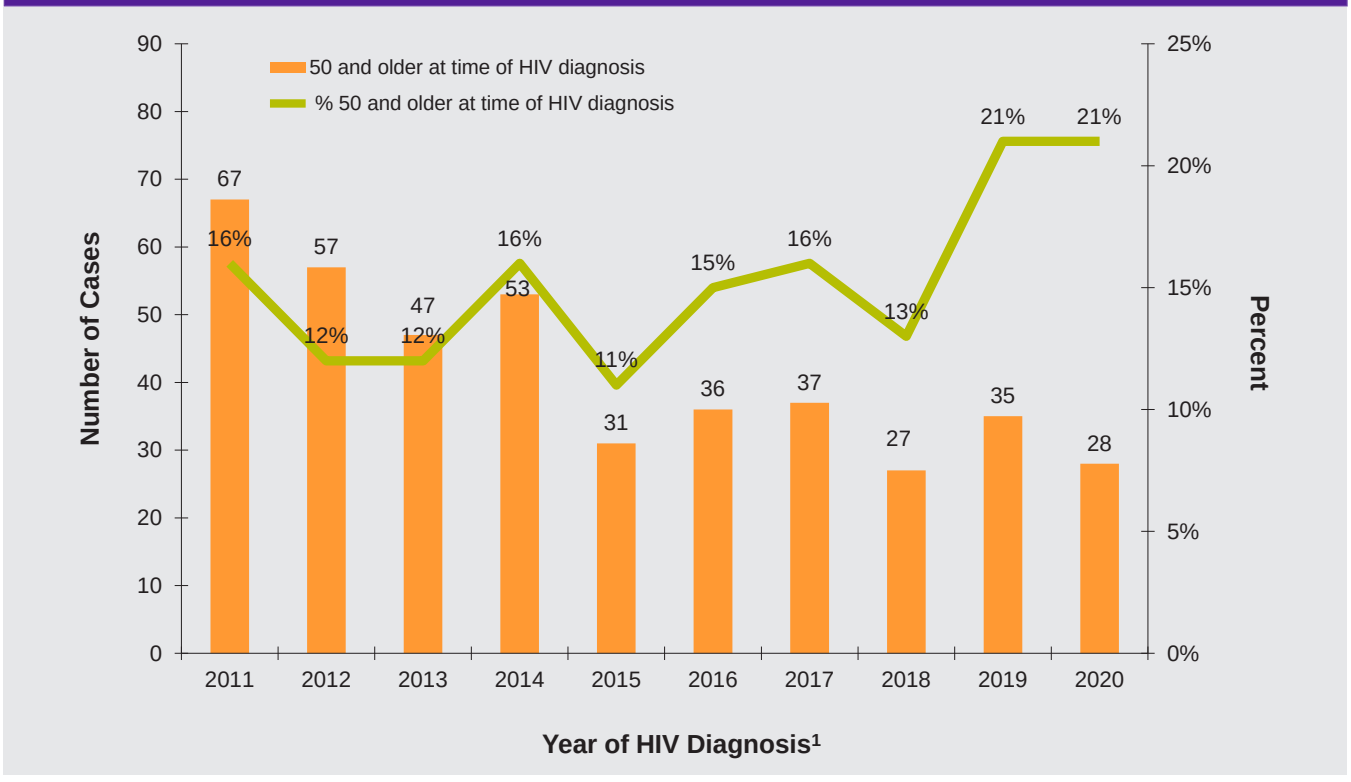
Table 12.1 Characteristics of persons living with HIV by age group, December 2020, San Francisco

		As of 12/31/2020		
		Age < 50 years	Age ≥ 50 years	Age ≥ 65 years
		Number (%)		
	Total	**4,604**	**11,207**	**3,282**
Gender[1]	Men	4,064 (88)	10,418 (93)	3,098 (94)
	Women	309 (7)	591 (5)	154 (5)
	Trans Women	224 (5)	196 (2)	28 (1)
Race/Ethnicity	White	1,872 (41)	7,189 (64)	2,324 (71)
	Black/African American	574 (12)	1,300 (12)	399 (12)
	Latinx	1,411 (31)	1,844 (16)	369 (11)
	Asian/Pacific Islander	510 (11)	499 (4)	105 (3)
	Native American	29 (1)	40 (<1)	5 (<1)
	Other/Unknown	208 (5)	335 (3)	80 (2)
Transmission Category	MSM	3,190 (69)	8,368 (75)	2,594 (79)
	TWSM	157 (3)	91 (1)	17 (1)
	PWID	195 (4)	656 (6)	198 (6)
	MSM-PWID	640 (14)	1,491 (13)	325 (10)
	TWSM-PWID	67 (1)	102 (1)	11 (<1)
	Heterosexual	222 (5)	349 (3)	94 (3)
	Other/Unidentified	133 (3)	150 (1)	43 (1)
Age in Years	50-54		2,404 (21)	
	55-59		3,140 (28)	
	60-64		2,381 (21)	
	65+		3,282 (29)	3,282 (100)

1 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

- While the overall number of new diagnoses began to decrease in 2012, the number of persons aged 50 years and older at time of diagnosis has fluctuated and accounted for as many as 21% in 2019-2020 and as few as 11% of new diagnoses in 2015.

Figure 12.1 Number and percent of persons newly diagnosed with HIV at age 50 years and older, 2011-2020, San Francisco



1 Includes persons with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

- Between 2011 and 2020, a higher proportion of women, Whites, Black/African Americans, PWID, and heterosexuals were diagnosed at the age of 50 years and older compared to those who were younger at time of diagnosis.
- These same trends were observed when comparing those diagnosed at the age of 65 years and older compared to those who were younger than 50 years old at time of diagnosis.
- Of those diagnosed at the age of 50 and older, 45% were 50-54 years old, 27% were 55-59 years old, 18% were 60-64 years old, and 10% were 65 years or older.

Table 12.2 Characteristics of persons newly diagnosed with HIV in 2011-2020 by age at diagnosis, San Francisco

		Age < 50 years at diagnosis	Age ≥ 50 years at diagnosis	Age ≥ 65 years at diagnosis
		Number (%)		
	Total	**2,479**	**418**	**43**
Gender[1]	Men	2,221 (90)	345 (83)	35 (81)
	Women	162 (7)	68 (16)	8 (19)
	Trans Women	91 (4)	5 (1)	0 (0)
Race/Ethnicity	White	985 (40)	231 (55)	24 (56)
	Black/African American	334 (13)	79 (19)	9 (21)
	Latinx	744 (30)	59 (14)	6 (14)
	Asian/Pacific Islander	305 (12)	31 (7)	3 (7)
	Other/Unknown	111 (4)	18 (4)	1 (2)
Transmission Category	MSM	1,765 (71)	247 (59)	26 (60)
	PWID	144 (6)	67 (16)	6 (14)
	MSM-PWID	289 (12)	33 (8)	2 (5)
	Heterosexual	121 (5)	44 (11)	6 (14)
	Other/Unidentified[2]	160 (6)	27 (6)	3 (7)
Age in Years	50-54		188 (45)	
	55-59		111 (27)	
	60-64		76 (18)	
	65+		43 (10)	43 (100)

1 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
2 Includes TWSM, TWSM-PWID and persons with no identified risk factor.

13 HIV among Trans Women

3%
OF ALL NEW HIV DIAGNOSES FROM 2011-2020 WERE AMONG TRANS WOMEN

- From 2011 through 2020, there were 96 trans women newly diagnosed with HIV in San Francisco.
- Compared to persons diagnosed with HIV in this time period who were not trans women, trans women were more likely to be Black/African American, Latinx, PWID, and younger.
- Twenty-five percent of newly diagnosed trans women were 13-24 years old compared with 13% of other newly diagnosed persons; 40% of diagnosed trans women were 30-39 years old compared with 30% of other persons diagnosed.

Table 13.1 Characteristics of trans women newly diagnosed with HIV in 2011-2020, San Francisco

		New HIV Diagnoses, 2011-2020	
		Trans Women[1]	Others
		Number (%)	
	Total	96	2,801
Race/Ethnicity	White	14 (15)	1,202 (43)
	Black/African American	25 (26)	388 (14)
	Latinx	41 (43)	762 (27)
	Asian/Pacific Islander	10 (10)	326 (12)
	Other/Unknown	6 (6)	123 (4)
People who Inject Drugs	Yes	28 (29)	533 (19)
	No	68 (71)	2,268 (81)
Age at Diagnosis (Years)	13 - 24	24 (25)	356 (13)
	25 - 29	12 (13)	522 (19)
	30 - 39	38 (40)	846 (30)
	40 - 49	17 (18)	664 (24)
	50+	5 (5)	413 (15)

1 See Technical Notes "Gender Status."

- Among the 420 trans women living with HIV in San Francisco as of December 31, 2020, Latinx and Black/African Americans accounted for the largest proportions, 37% and 30%, respectively.
- Forty-one percent of trans women living with HIV were PWID.
- Similar to trans women newly diagnosed with HIV in 2011-2020, there was a higher proportion of persons of color, PWID, and younger ages among trans women living with HIV compared to other PLWH in San Francisco.
- Fifty-three percent of trans women living with HIV were under 50 years of age at the end of 2020, compared with 28% of other PLWH.

Table 13.2 Characteristics of trans women living with HIV, December 2020, San Francisco

		PLWH, December 2020	
		Trans Women[1]	Others
		Number (%)	
	Total	420	15,391
Race/Ethnicity	White	75 (18)	8,986 (58)
	Black/African American	127 (30)	1,747 (11)
	Latinx	154 (37)	3,101 (20)
	Asian/Pacific Islander	39 (9)	970 (6)
	Other/Unknown	25 (6)	587 (4)
People who Inject Drugs	Yes	171 (41)	2,980 (19)
	No	249 (59)	12,411 (81)
Age in Years (at end of 2020)	13 - 24	5 (1)	67 (<1)
	25 - 29	9 (2)	259 (2)
	30 - 39	87 (21)	1,509 (10)
	40 - 49	123 (29)	2,545 (17)
	50+	196 (47)	11,011 (72)

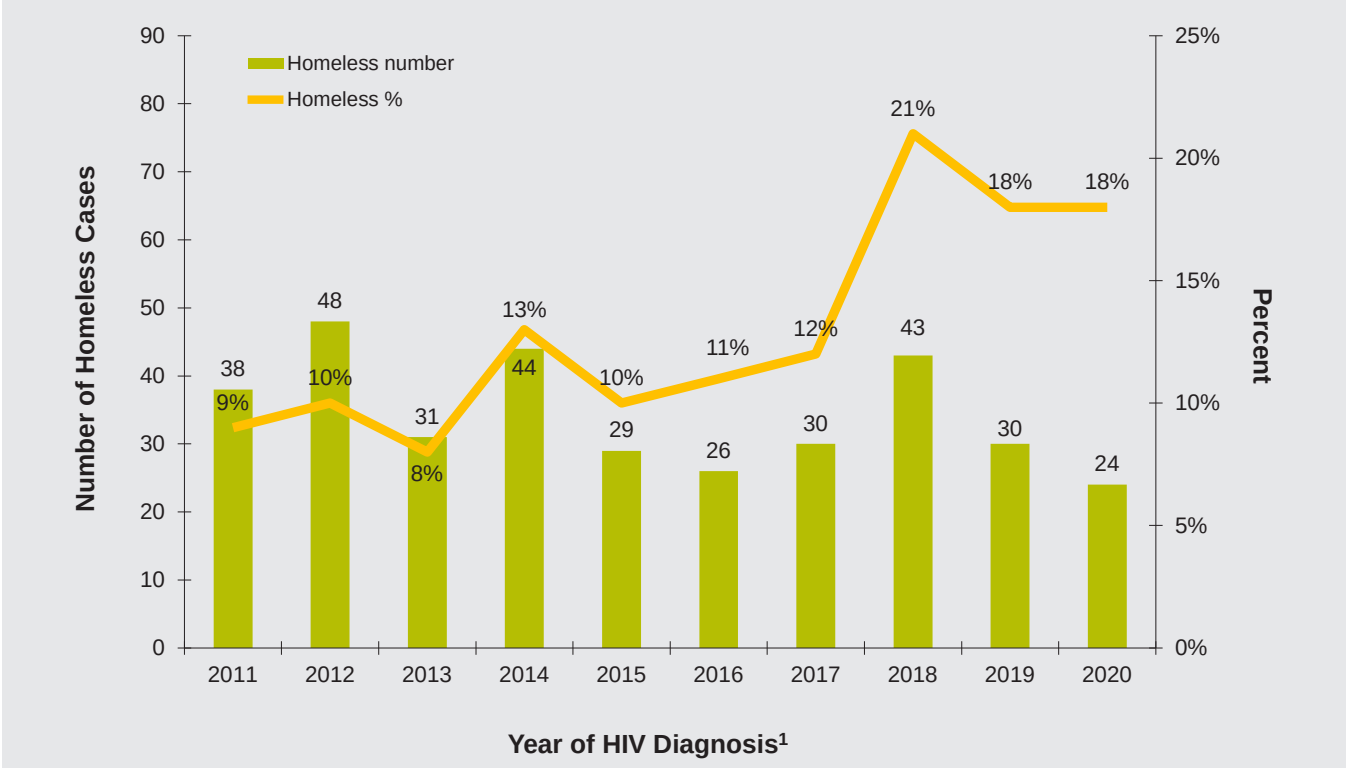
1 See Technical Notes "Gender Status."

14 Housing Status among Persons Living with HIV

- Among homeless persons newly diagnosed with HIV (see Technical Notes "Housing Status") the absolute number of annual diagnoses fluctuated from a high of 48 in 2012 to a low of 24 in 2020.
- In recent years the proportion of new diagnoses among persons experiencing homelessness showed an overall increasing trend to 21% in 2018, and leveled at 18% in both 2019 and 2020.

18%
OF NEW DIAGNOSES IN 2019 AND 2020 WERE AMONG THE HOMELESS

Figure 14.1 Number and percent of homeless persons newly diagnosed with HIV by year of diagnosis, 2011-2020, San Francisco



1 Includes persons with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

- Compared to persons who were not homeless and diagnosed with HIV in 2011 to 2020, persons who experienced homelessness at time of HIV diagnosis were more likely to be women or trans women, Black/African Americans, trans women who have sex with men (TWSM), and persons who inject drugs (PWID, including MSM-PWID and TWSM-PWID).
- PWID, including MSM-PWID and TWSM-PWID, comprised 54% of homeless diagnoses during 2011 to 2020.
- Age distributions at HIV diagnosis were similar between homeless and non-homeless persons.

Table 14.1 Characteristics of persons newly diagnosed with HIV in 2011-2020 who were homeless compared to persons who were not homeless, San Francisco

		New HIV Diagnoses, 2011-2020	
		Homeless	Non-Homeless
		Number (%)	
	Total	343	2,554
Gender[1]	Men	266 (78)	2,300 (90)
	Women	53 (15)	177 (7)
	Trans Women	24 (7)	72 (3)
Race/Ethnicity	White	140 (41)	1,076 (42)
	Black/African American	90 (26)	323 (13)
	Latinx	86 (25)	717 (28)
	Asian/Pacific Islander	8 (2)	328 (13)
	Other/Unknown	19 (6)	110 (4)
Transmission Category	MSM	104 (30)	1,908 (75)
	TWSM	18 (5)	50 (2)
	PWID	96 (28)	115 (5)
	MSM-PWID	82 (24)	240 (9)
	TWSM-PWID	6 (2)	22 (1)
	Heterosexual	24 (7)	141 (6)
	Other/Unidentified	13 (4)	78 (3)
Age at Diagnosis (Years)	13 - 24	47 (14)	333 (13)
	25 - 29	57 (17)	477 (19)
	30 - 39	111 (32)	773 (30)
	40 - 49	80 (23)	601 (24)
	50+	48 (14)	370 (14)

1 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

- A total of 8,519 persons living with HIV (PLWH) had residential housing status or address information in 2020; 8% of them were homeless or lived in a single-room occupancy (SRO) facility.
- Among persons who were homeless or lived in an SRO facility during 2020, there were higher proportions of women, trans women, Black/African Americans, Latinx, PWID (including MSM-PWID and TWSM-PWID), and persons in younger age groups (30-39 years, 40-49 years), compared to PLWH who were not homeless and did not live in an SRO facility.
- Black/African Americans and Latinx persons together made up 50% of persons who were homeless or lived in an SRO compared with 31% of persons who were not homeless/non-SRO in 2020.
- PWID accounted for 48% of persons who were homeless or lived in an SRO compared with 18% among persons who were not homeless/non-SRO.

Table 14.2 Characteristics of persons living with HIV who were homeless or lived in an SRO facility during 2020 compared to persons who were not homeless and did not live in an SRO facility, San Francisco

		PLWH as of 12/31/2020[1]	
		Ever homeless or SRO in 2020	Non-homeless/non-SRO in 2020
		Number (%)	
	Total	**664**	**7,855**
Gender	Men	509 (77)	7,252 (92)
	Women	91 (14)	418 (5)
	Trans Women	64 (9)	180 (2)
	Trans Men	0 (0)	5 (<1)
Race/Ethnicity	White	257 (39)	4,649 (59)
	Black/African American	166 (25)	888 (11)
	Latinx	169 (25)	1,533 (20)
	Asian/Pacific Islander	27 (4)	512 (7)
	Other	45 (7)	273 (3)
Transmission category	MSM	255 (38)	5,912 (75)
	TWSM	35 (5)	120 (2)
	PWID	129 (19)	350 (4)
	MSM-PWID	165 (25)	1,019 (13)
	TWSM-PWID	28 (4)	59 (1)
	Heterosexual	45 (7)	283 (4)
	Other/Unidentified	7 (1)	112 (1)
Age in years (as of 12/31/2020)	13-24	4 (<1)	50 (1)
	25-29	21 (3)	150 (2)
	30-39	105 (16)	810 (10)
	40-49	147 (22)	1,288 (16)
	50-59	213 (32)	2,764 (35)
	60-69	130 (20)	2,113 (27)
	70+	44 (7)	680 (9)

1 PLWH as of 12/31/2020 diagnosed in San Francisco at any HIV stage with residential housing status or address information in 2020.

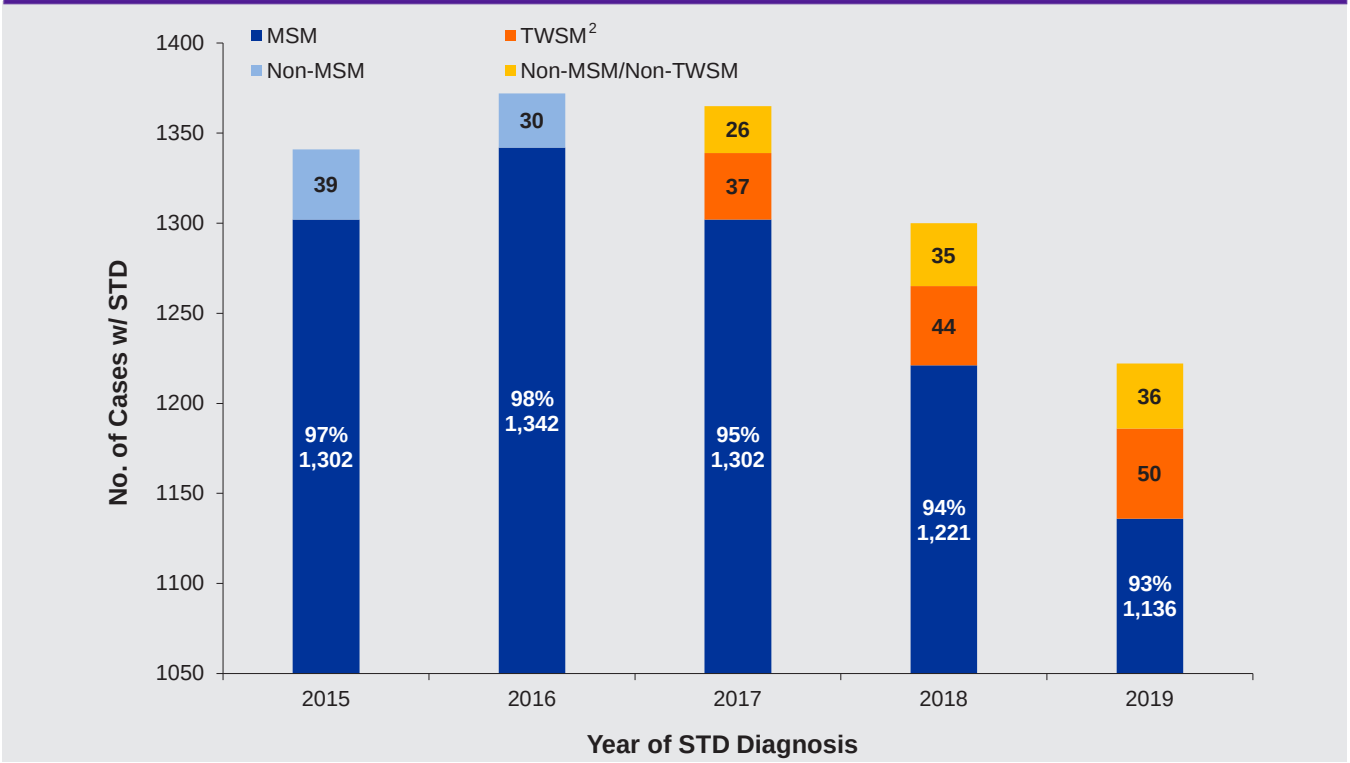
15 Persons Diagnosed with HIV and Sexually Transmitted Diseases

>92%

OF STD DIAGNOSES AMONG PLWH WERE AMONG MSM FROM 2015-2019

- The number of sexually transmitted disease (STD) diagnoses among persons living with HIV (PLWH) rose from 1,341 in 2015 to 1,372 in 2016, then declined for three consecutive years to 1,222 in 2019. The majority of cases (>92%) were among men who have sex with men (MSM).
- Since TWSM have been reported as a separate category in 2017, the proportion of STD diagnoses who were TWSM have increased from 2.7% in 2017 to 4.1% in 2019.
- Overall, the temporal trend in STD diagnoses coincided with the trend shown for early syphilis (Figure 7.4 on page 58) and for male gonorrhea (Figure 7.3 on page 57) among MSM diagnosed with HIV.

Figure 15.1 Number of STD diagnoses[1] among persons living with HIV by year of STD diagnosis, 2015-2019, San Francisco



1 See Technical Notes "HIV and STD Diagnosis."

2 TWSM were included in MSM transmission category from 2015 to 2016 and are shown separately beginning in 2017.

- The majority of PLWH diagnosed with an STD from 2015 through 2019 were men, White, and aged 40-59 years at time of STD diagnosis.
- There were increases in the proportions of Latinx and declines in the proportions of Whites who were diagnosed with an STD.
- The proportion of PLWH diagnosed with an STD at age 50 or older increased from 29% in 2015 to 40% in 2019, while the proportion of those aged 13-29 and 40-49 declined during the same time period.

Table 15.1 Demographic characteristics of persons living with HIV who were diagnosed with an STD[1], 2015-2019, San Francisco

		Year of STD diagnosis				
		2015	2016	2017	2018	2019
		Number (%)				
Gender[2]	Men	1,286 (96)	1,312 (96)	1,311 (96)	1,232 (95)	1,154 (94)
	Women	19 (1)	14 (1)	16 (1)	23 (2)	18 (1)
	Trans Women	36 (3)	46 (3)	37 (3)	44 (3)	50 (4)
Race/Ethnicity	White	738 (55)	728 (53)	715 (52)	647 (50)	591 (48)
	African American	118 (9)	119 (9)	114 (8)	125 (10)	101 (8)
	Latinx	331 (25)	366 (27)	366 (27)	345 (27)	369 (30)
	Asian/Pacific Islander	94 (7)	107 (8)	112 (8)	119 (9)	109 (9)
	Other/Unknown	60 (4)	52 (4)	58 (4)	64 (5)	52 (4)
Age at STD Diagnosis (years)	13 - 29	157 (12)	166 (12)	135 (10)	121 (9)	90 (7)
	30 - 39	300 (22)	312 (23)	326 (24)	306 (24)	305 (25)
	40 - 49	486 (36)	440 (32)	433 (32)	359 (28)	335 (27)
	50 - 59	326 (24)	361 (26)	356 (26)	373 (29)	359 (29)
	60 +	72 (5)	93 (7)	115 (8)	141 (11)	133 (11)
Total		1,341	1,372	1,365	1,300	1,222

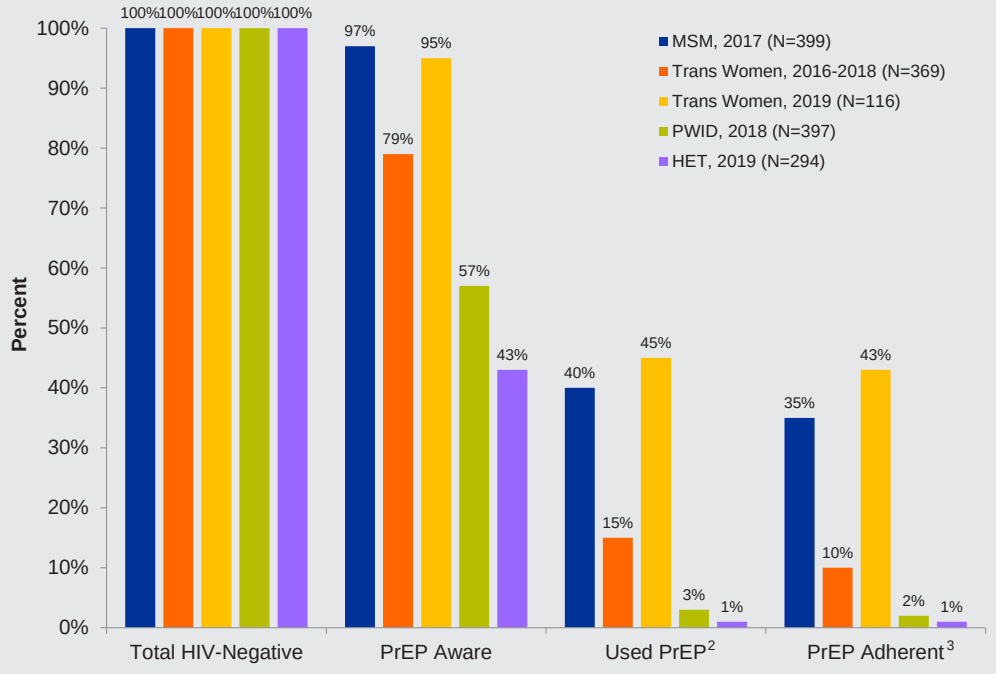
1 See Technical Notes "HIV and STD Diagnosis."

2 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

16 Pre-Exposure Prophylaxis

- Key pre-exposure prophylaxis (PrEP) continuum indicators were measured in community-based surveys; men who have sex with men (MSM) from National HIV Behavioral Surveillance (NHBS), 2017 (N=399); trans women from the Trans*National Study, 2016-2018 (N=369); trans women from NHBS, 2019 (N=116); and persons who inject drugs (PWID) from NHBS, 2018 (N=397); and heterosexuals who were at high risk for HIV infection (HET) from NHBS, 2019 (N=294).
- Among trans women, awareness, use and adherence to PrEP were highest in 2019, although PrEP use was defined as use in the last 12 months in 2019 and in the last six months in 2016-2018. PrEP awareness, use and adherence were markedly lower among PWID and HET compared to other populations.

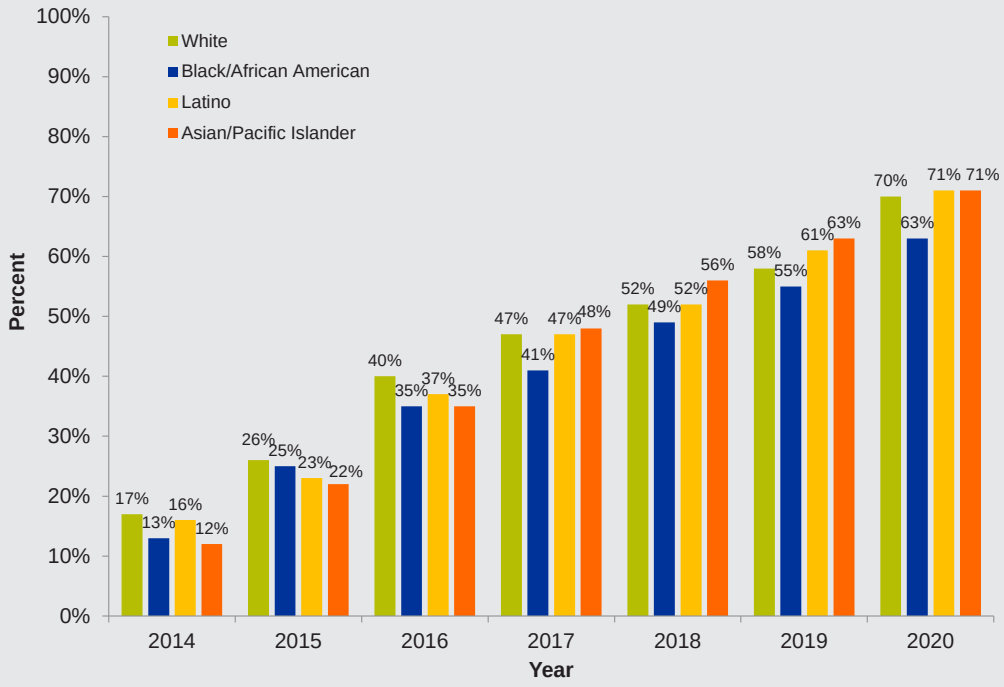
Figure 16.1 PrEP cascade[1] among MSM, trans women, persons who inject drugs, and high-risk heterosexuals, 2016-2019, San Francisco



1 For each step of the PrEP continuum, the denominator was the whole sample.
2 PrEP use was defined as use in the last six months for MSM in 2017 and trans women in 2016-2018; and use in the last 12 months for trans women in 2019, PWID in 2018 and heterosexuals in 2019.
3 Adherence to PrEP was defined as taking all or nearly all daily pills.

- Among San Francisco City Clinic (SFCC) patients seen in 2014-2020, PrEP use among HIV-negative MSM increased over time among all races, where 70% of all MSM were on PrEP in 2020.
- However, in recent years (2017-2020), Black/African American MSM had lower proportions of PrEP use compared to MSM of all other races, with 63% of Black/African American MSM on PrEP in 2020 compared to 70-71% for White, Latino and Asian/Pacific Islander MSM.
- The increase in the proportion of MSM at SFCC who are currently on PrEP in 2020 may partially be explained by selection bias. Due to the COVID-19 pandemic, the capacity to see patients at SFCC was limited and PrEP patients were prioritized for appointments.

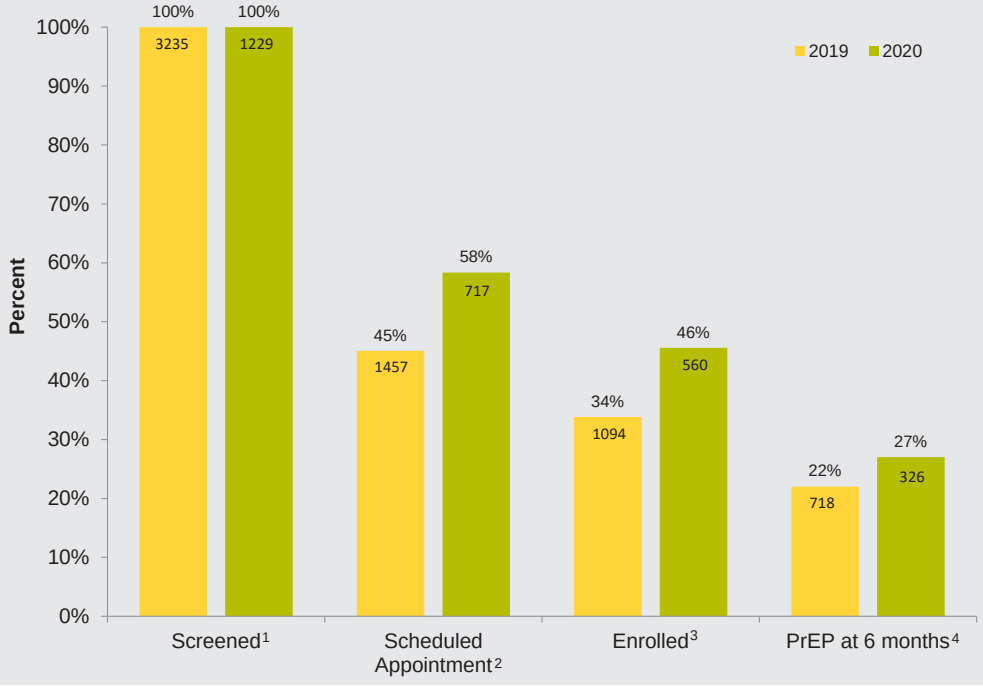
Figure 16.2 Proportion of MSM currently on PrEP[1] by race/ethnicity, San Francisco City Clinic patients, 2014-2020



1 On PrEP at visit: (1) Answer 'yes' to are you currently on PrEP (2) Enrolled in PrEP as of visit.

- In 2019 there were 3,235 clients screened for PrEP at the San Francisco AIDS Foundation (SFAF) and in 2020 there were 1,229 clients screened.
- Although the number of clients screened was lower in 2020 compared to 2019, the proportion of those screened who scheduled an appointment for PrEP was greater in 2020 (58%) compared to 2019 (45%).
- The proportion of those enrolling in PrEP services among all persons screened was higher in 2020 (46%) compared to 34% in 2019.
- In 2019, of those screened for PrEP, 718 (22%) were still in the SFAF PrEP program six months after enrollment. 376 persons who enrolled on PrEP were not on PrEP at six months in 2019. The most common reasons for not being on PrEP at six months were: risk change (25%), moved out of San Francisco (15%) and provider change (14%), and 20% had unknown reasons or were lost-to-follow-up.
- In 2020, 326 (27% of those screened) were still enrolled in the PrEP program at the SFAF six months after enrollment. 234 persons who enrolled on PrEP were not on PrEP at six months in 2020. The most common reasons for not being on PrEP at six months were: too soon for six month follow-up (32%), risk change (14%), moved out of San Francisco (13%), and 13% had unknown reasons or were lost-to-follow-up.

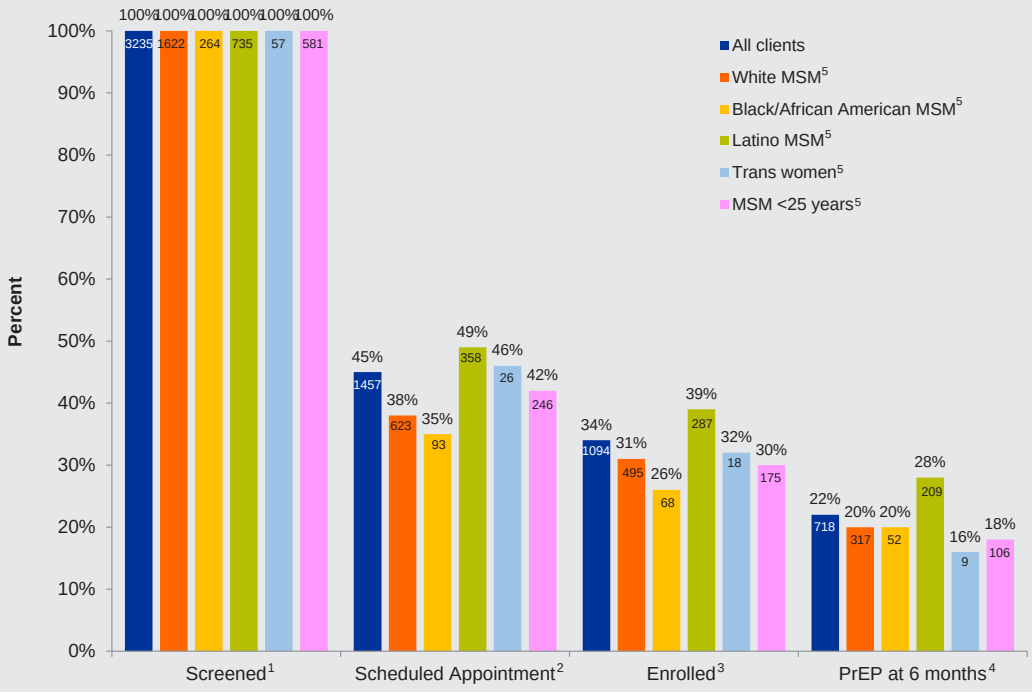
Figure 16.3 PrEP screening, appointments, PrEP enrollment and PrEP at six months among clients being served by the San Francisco AIDS Foundation, 2019-2020



1 PrEP screening was defined as all persons who were seen for sexual health care at the SFAF were HIV-negative and did not report current PrEP use on screening date.
2 Scheduled appointment for PrEP was defined as scheduling an appointment for PrEP enrollment.
3 Enrolled in PrEP was defined as attending a PrEP enrollment visit and having a PrEP prescription.
4 PrEP at six months was defined as still being enrolled in the SFAF PrEP program at six month follow-up.

- Of the 3,235 clients screened for PrEP in 2019, Latino MSM were most likely to schedule an appointment (49%), and Black/African American MSM (35%) were least likely to schedule an appointment.
- PrEP enrollment was highest among Latino MSM (39%) and lowest among Black/African American MSM (26%).
- PrEP at six months was highest for Latino MSM (28%) and lowest for trans women (16%).

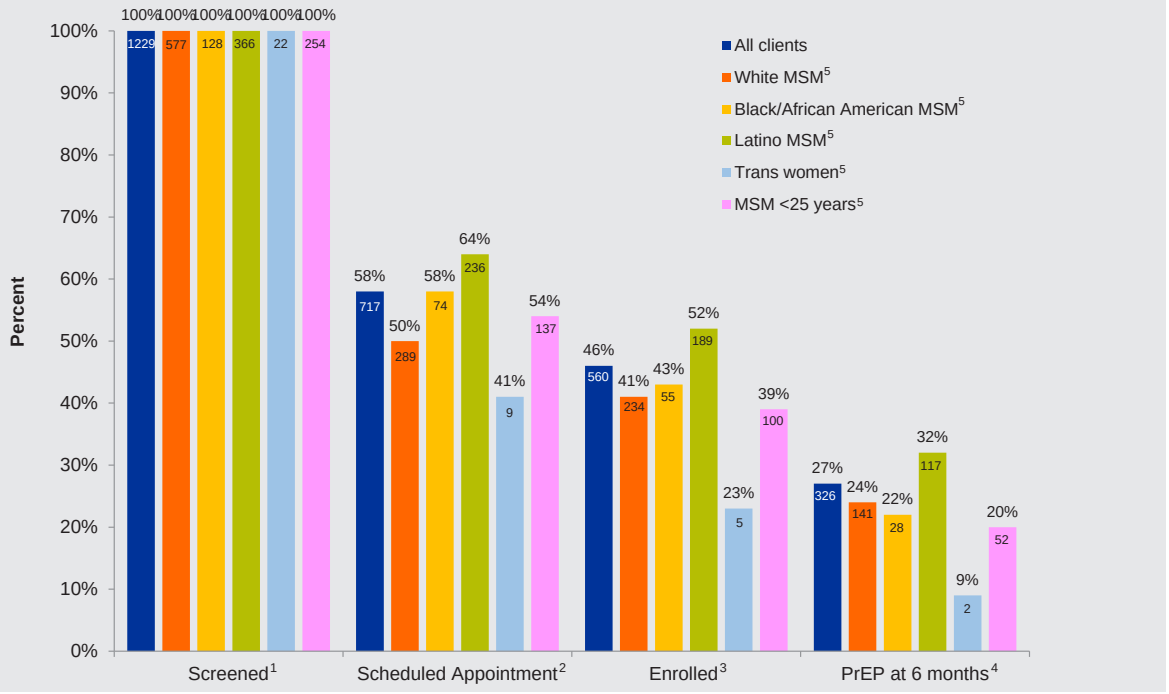
Figure 16.4 PrEP screening, appointments, PrEP enrollment and PrEP at six months by priority populations among clients being served by the San Francisco AIDS Foundation, 2019



1 PrEP screening was defined as all persons who were seen for sexual health care at the SFAF were HIV-negative and did not report current PrEP use on screening date.
2 Scheduled appointment for PrEP was defined as scheduling an appointment for PrEP enrollment.
3 Enrolled in PrEP was defined as attending a PrEP enrollment visit and having a PrEP prescription.
4 PrEP at six months was defined as still being enrolled in the SFAF PrEP program at six month follow-up.
5 These groups are priority populations and not mutually exclusive.

- Of the 1,229 clients screened for PrEP in 2020, Latino MSM were most likely to schedule an appointment (64%) followed by Black/African American MSM (58%). Trans women (41%) were less likely to schedule an appointment.
- PrEP enrollment was highest among Latino MSM (52%) and Black/African American MSM (43%) and lowest among trans women (23%) and MSM under 25 years of age (39%).
- PrEP at six months was highest for Latino MSM (32%) and lowest for trans women (9%).

Figure 16.5 PrEP screening, appointments, PrEP enrollment and PrEP at six months by priority populations among clients being served by the San Francisco AIDS Foundation, 2020

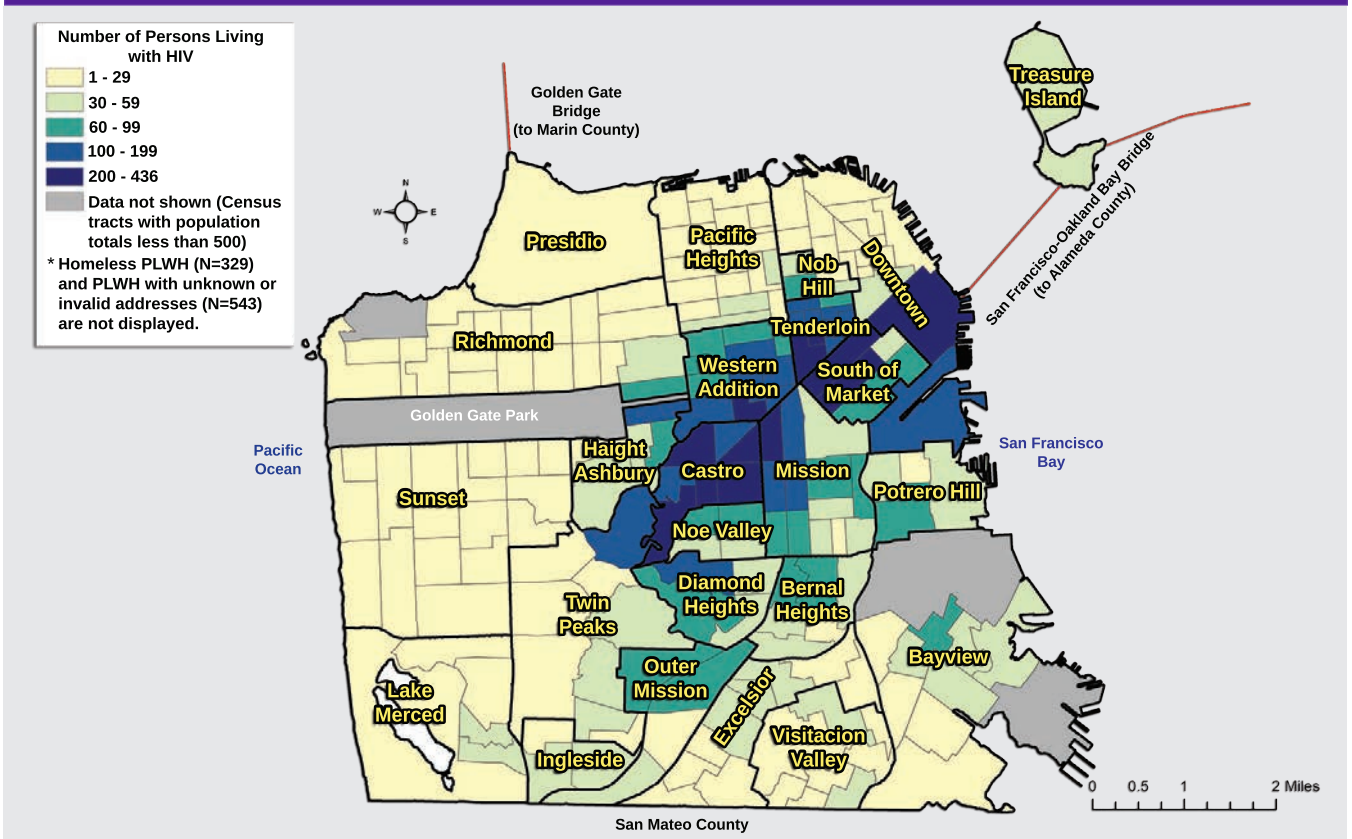


1 PrEP screening was defined as all persons who were seen for sexual health care at the SFAF were HIV-negative and did not report current PrEP use on screening date.
2 Scheduled appointment for PrEP was defined as scheduling an appointment for PrEP enrollment.
3 Enrolled in PrEP was defined as attending a PrEP enrollment visit and having a PrEP prescription.
4 PrEP at six months was defined as still being enrolled in the SFAF PrEP program at six month follow-up.
5 These groups are priority populations and not mutually exclusive.

17 Geographic Distribution of Persons with HIV

- There were 12,242 current San Francisco residents living with HIV as of December 31, 2020, regardless of their residence at HIV diagnosis. By neighborhood, the Castro had the highest number of persons living with HIV (PLWH) (N=1,786) followed by the Tenderloin (N=1,489) and the Western Addition (N=1,249).
- Among PLWH currently residing in San Francisco, 3,119 (25%) were diagnosed in another jurisdiction. Forty-two percent of PLWH who resided in San Francisco at time of diagnosis have since moved out of the city (Table 1.4 on page 7).
- The Castro, Tenderloin, and South of Market neighborhoods had census tracts with the highest numbers of PLWH (shown in the darker shades of blue). The South of Market census tract along Market Street had the largest number of PLWH (N=436) followed by four census tracts in the Castro. The Tenderloin census tracts are smaller in geographic area but have similarly high numbers of PLWH, a reminder of the high density of PLWH by geographic area in this neighborhood.

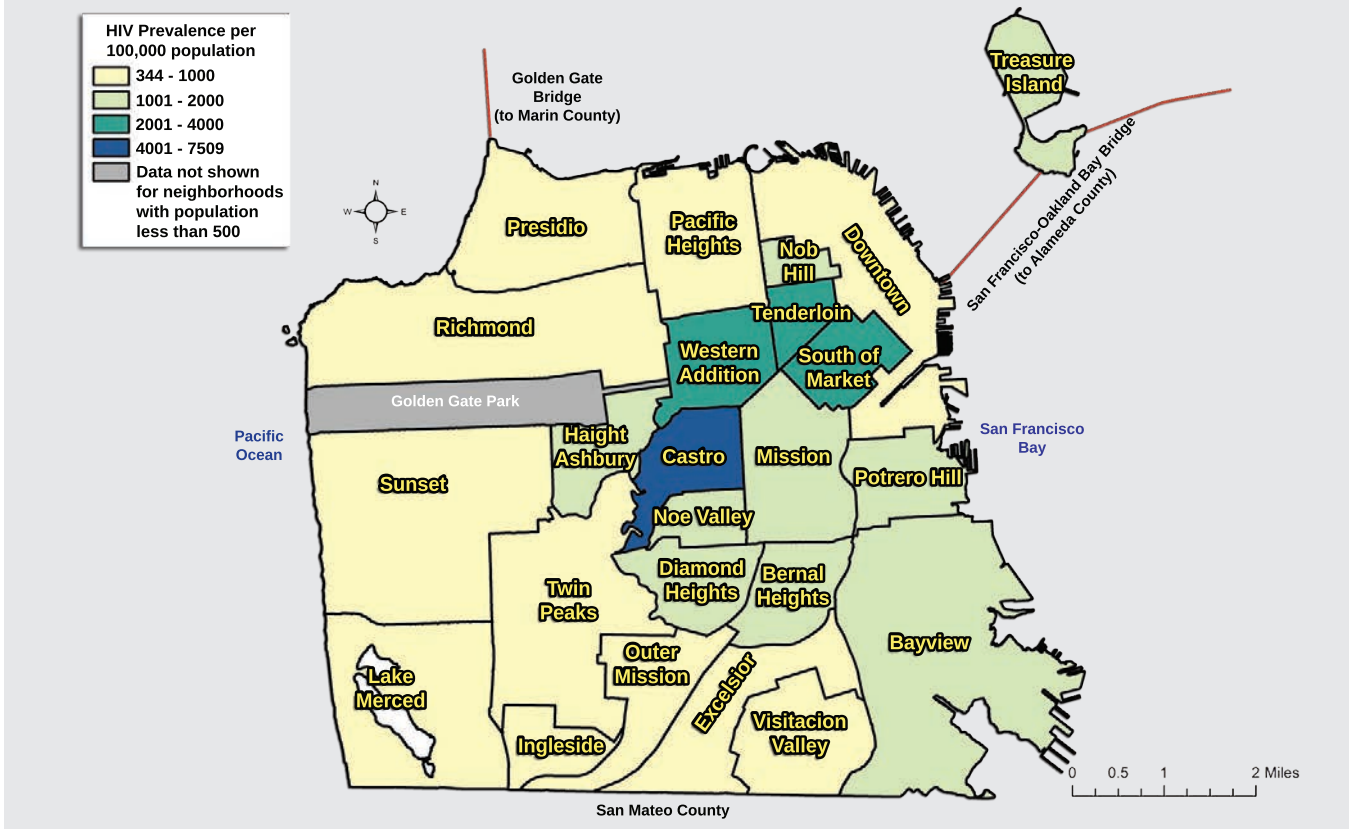
Map 17.1 Geographic distribution[1] of persons living with HIV who resided in San Francisco as of December 2020



1 The current address for PLWH was geocoded and displayed at census tract and neighborhood level on the map. The most current address is taken from the dataset dated on March 15, 2021 and may reflect addresses after December 31, 2020. Last known addresses are obtained through chart review, laboratory reports, and communications with other jurisdictions.

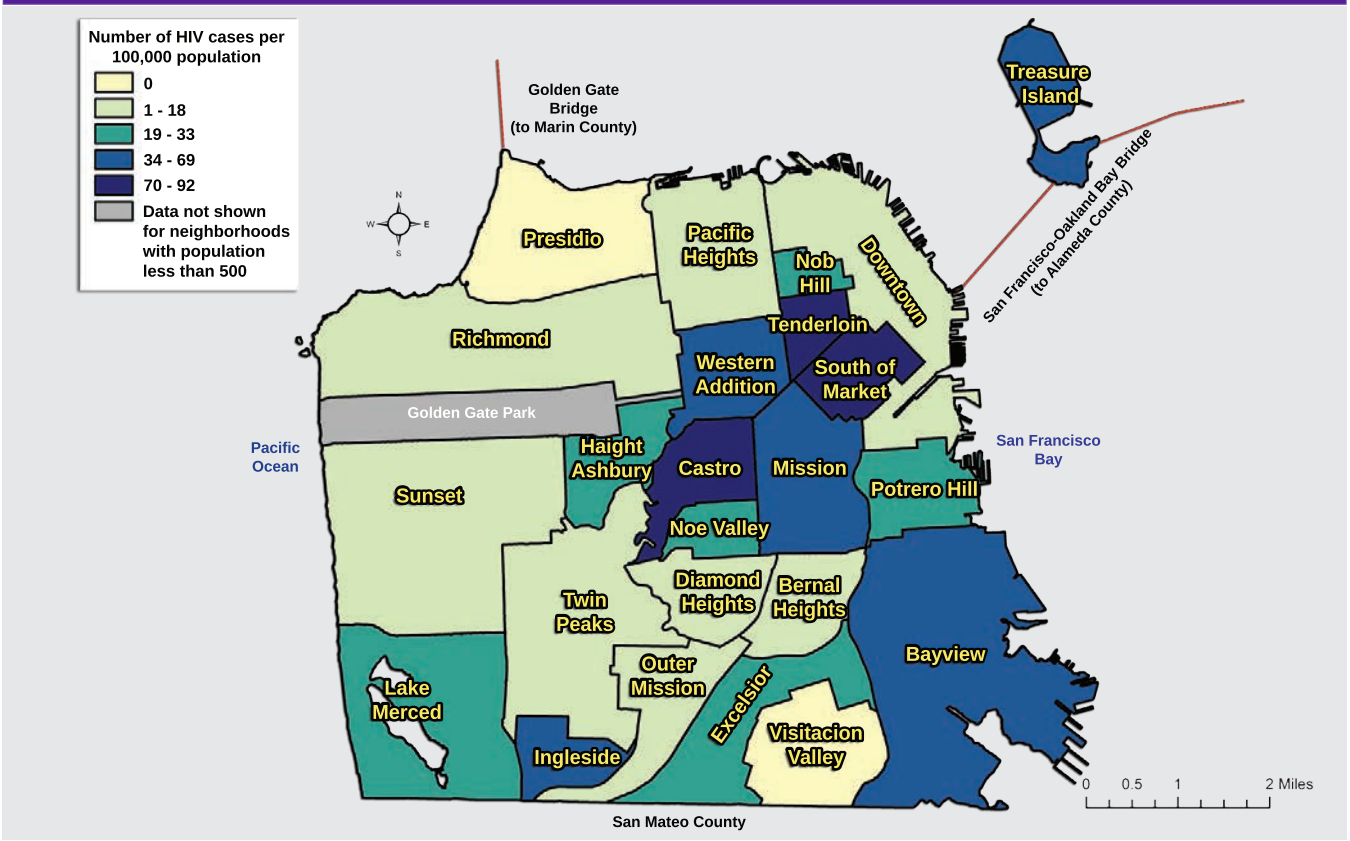
- The Castro had the highest HIV prevalence (7,509 PLWH per 100,000), followed by South of Market (3,881 per 100,000), the Tenderloin (3,795 per 100,000), and the Western Addition (3,085 per 100,000).

Map 17.2 HIV prevalence per 100,000 population by neighborhood, 2020, San Francisco



- The Castro had the highest cumulative rate of new diagnoses[1] in 2019-2020 (92 per 100,000), closely followed by the Tenderloin (89 per 100,000) and South of Market (86 per 100,000).
- No new cases were diagnosed in the Presidio or Visitacion Valley in 2019 and 2020.

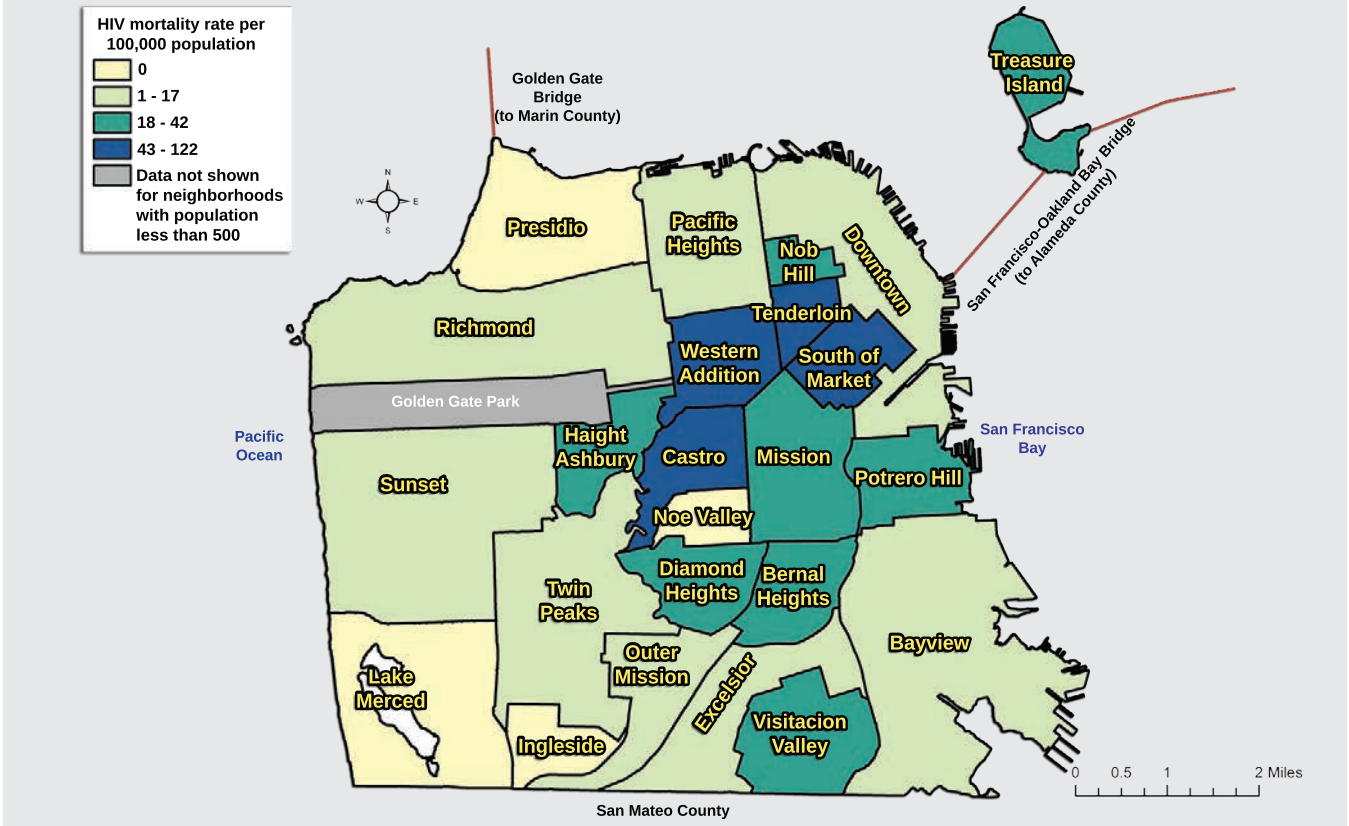
Map 17.3 Rates of HIV diagnosis per 100,000 population per two years for persons newly diagnosed in 2019-2020 by neighborhood, San Francisco



1 Two-year diagnosis rate numerators represent two years of diagnosed cases.

- Among persons with HIV, the Tenderloin had the highest mortality rate in 2020 (102 deaths per 100,000) followed by the Western Addition (69 per 100,000) and the Castro (63 per 100,000).
- Ingleside, Lake Merced, Noe Valley, and the Presidio had no deaths reported in 2020.
- Although the Castro had the highest HIV prevalence rate (Map 17.2 on page 84), which was nearly twice as high as the Tenderloin's HIV prevalence rate, the Tenderloin's HIV mortality rate (102 per 100,000 population) was 1.6 times as high as the Castro's HIV mortality rate (63 per 100,000 population).

Map 17.4 Mortality rates among persons with HIV per 100,000 population by neighborhood[1], 2020, San Francisco



1 The usual residence reported on the death certificate is used for this map.

18 Social Determinants of Health

- Social determinants of health (SDH), including poverty level, educational attainment, median household income, and Gini index (See Technical Notes "Social Determinants of Health") were assessed among persons diagnosed with HIV in 2018 and 2019 to identify health differences between populations or geographic areas that may help inform prevention and intervention.
- Overall, the highest annual HIV diagnosis rates in San Francisco in 2018 and 2019 were in census tracts with the highest percentage below federal poverty level (≥19%), highest percentage with less than high school diploma (≥18%), and lowest median household income level (<$72,000) and higher Gini index (≥50).
- These patterns hold for men diagnosed in 2018 and 2019 and women and trans women diagnosed in 2018.

Table 18.1 New HIV diagnosis rates among persons aged 18 years and older by selected social determinants of health[1] and gender, 2018-2019, San Francisco

		2018			2019		
		Men	Women/ Trans Women[2]	Total	Men	Women/ Trans Women[2]	Total
		Number of new diagnoses[3] (Rate per 100,000)					
	Total	164 (42.7)	21 (5.7)	185 (24.7)	140 (36.2)	22 (5.9)	162 (21.4)
Below Federal Poverty Level (%)	<7%	46 (35.1)	3 (2.3)	49 (18.9)	40 (28.0)	3 (2.2)	43 (15.4)
	7.00% - 10.99%	39 (31.4)	3 (2.4)	42 (17.3)	37 (28.9)	10 (7.9)	47 (18.5)
	11.00% - 18.99%	42 (52.7)	8 (10.0)	50 (31.3)	31 (46.0)	6 (9.1)	37 (27.7)
	≥19%	37 (75.4)	7 (14.3)	44 (48.0)	32 (66.5)	3 (7.2)	35 (38.9)
Less Than High School Diploma (%)	<6%	60 (43.4)	3 (2.3)	63 (23.4)	48 (34.4)	6 (4.6)	54 (20.0)
	6.00% - 10.99%	38 (40.7)	4 (4.6)	42 (23.3)	35 (34.8)	5 (5.3)	40 (20.5)
	11.00% - 17.99%	33 (38.6)	6 (7.2)	39 (23.0)	25 (35.3)	3 (4.3)	28 (20.0)
	≥18%	33 (49.3)	8 (11.9)	41 (30.6)	32 (42.3)	8 (10.5)	40 (26.4)
Median Household Income ($)	<$72,000	47 (69.0)	11 (17.4)	58 (44.1)	35 (59.9)	6 (11.3)	41 (36.7)
	$72,000 - $98,999	30 (35.9)	5 (5.9)	35 (20.8)	30 (40.3)	5 (6.7)	35 (23.6)
	$99,000 - $128,999	33 (30.1)	4 (3.8)	37 (17.1)	23 (25.0)	3 (3.2)	26 (14.1)
	≥$129,000	54 (44.0)	1 (0.9)	55 (23.2)	52 (32.2)	8 (5.3)	60 (19.2)
Gini Index[4] (Scale 1-100)	<43	37 (42.0)	5 (5.7)	42 (23.8)	18 (22.5)	4 (5.2)	22 (14.1)
	43.00 - 45.99	32 (32.2)	3 (3.2)	35 (18.1)	33 (31.8)	4 (4.0)	37 (18.1)
	46.00 - 49.99	45 (46.9)	4 (4.3)	49 (26.0)	47 (43.0)	8 (7.7)	55 (25.8)
	≥50	50 (49.8)	9 (9.5)	59 (30.2)	42 (45.1)	6 (6.6)	48 (26.1)

1 See Technical Notes "Social Determinants of Health."
2 Population denominators for women/trans women were females.
3 Number of new diagnoses shown each year is based on evidence of a confirmed HIV test and does not take into account patient self-report of HIV infection.
4 A higher Gini index score represents a higher level of income inequality in a census tract.

- Among Whites, the highest annual HIV diagnosis rates for both 2018 and 2019 occurred in census tracts with ≥19% below federal poverty level, ≥18% less than high school diploma, and median household income level <$72,000.
- Among Black/African Americans and Latinx, the patterns of HIV diagnosis rates differed by SDH and year of diagnosis.
- Diagnosis rates were mostly similar at every educational attainment level for Black/African Americans for both years, while Whites had the highest diagnosis rates in census tracts with ≥18% less than high school diploma.
- Diagnosis rates were higher with increased poverty level for Latinx but not with lower education or household income level.
- Higher diagnosis rates in the highest Gini index level were not observed across all three racial/ethnic groups.

Table 18.2 New HIV diagnosis rates among persons aged 18 years and older by selected social determinants of health[1] and race/ethnicity, 2018-2019, San Francisco

		Year of Diagnosis					
		2018			2019		
		Black/ African American	Latinx	White	Black/ African American	Latinx	White
		Number of new diagnoses[2] (Rate per 100,000)					
	Total	33 (54.9)	64 (38.0)	57 (11.9)	20 (33.0)	60 (35.4)	50 (10.4)
Below Federal Poverty Level (%)	<7%	3 (23.6)	16 (34.8)	23 (10.7)	3 (24.4)	14 (27.8)	16 (7.2)
	7.00% - 10.99%	8 (69.3)	15 (27.3)	11 (7.6)	5 (35.4)	19 (32.3)	14 (9.0)
	11.00% - 18.99 %	13 (74.5)	22 (51.8)	9 (10.3)	6 (37.9)	14 (42.2)	12 (16.9)
	≥19%	9 (48.8)	11 (43.9)	14 (40.7)	6 (32.9)	13 (48.2)	8 (23.4)
Less Than High School Diploma (%)	<6%	8 (51.1)	22 (54.1)	24 (9.7)	5 (35.2)	17 (41.7)	22 (8.9)
	6.00% - 10.99%	6 (56.8)	14 (43.9)	14 (11.8)	4 (36.0)	9 (26.4)	15 (11.7)
	11.00% - 17.99%	10 (56.4)	13 (26.8)	7 (8.3)	4 (28.1)	15 (36.6)	6 (8.3)
	≥18%	9 (55.6)	15 (31.6)	12 (40.2)	7 (33.3)	19 (35.5)	7 (20.8)
Median Household Income ($)	<$72,000	13 (54.2)	16 (41.9)	17 (35.6)	8 (37.6)	14 (44.1)	9 (22.2)
	$72,000 - $98,999	11 (78.4)	13 (28.6)	8 (11.6)	5 (30.6)	14 (30.9)	10 (19.1)
	$99,000 - $128,999	6 (58.3)	18 (37.9)	7 (4.9)	1 (11.6)	13 (37.2)	9 (8.0)
	≥$129,000	3 (25.3)	17 (45.5)	25 (11.2)	6 (41.9)	19 (33.2)	22 (8.0)
Gini Index[3] (Scale 1-100)	<43	11 (89.1)	9 (21.0)	14 (15.5)	1 (13.2)	10 (27.1)	8 (8.0)
	43.00 - 45.99	3 (31.5)	14 (33.7)	12 (8.7)	4 (33.2)	14 (32.0)	13 (9.8)
	46.00 - 49.99	4 (32.8)	21 (48.9)	16 (12.0)	9 (55.4)	20 (41.1)	14 (10.2)
	≥50	15 (57.6)	20 (48.5)	15 (12.5)	6 (24.3)	16 (39.9)	15 (13.4)

1 See Technical Notes "Social Determinants of Health."
2 Number of new diagnoses shown each year is based on evidence of a confirmed HIV test and does not take into account patient self-report of HIV infection.
3 A higher Gini index score represents a higher level of income inequality in a census tract.

- By age group at diagnosis and poverty level, age groups 25-34 years and 35-44 years had the highest diagnosis rates during 2018 and 2019 in census tracts with ≥19% below federal poverty level.
- For 2019 diagnoses by median household income, all age groups under 55 years had the highest diagnosis rates in census tracts with household income level <$72,000; the pattern was different for 2018 diagnoses.
- There are no clear patterns of higher diagnosis rates in census tracts with higher Gini index.

Table 18.3 New HIV diagnosis rates among persons aged 18 years and older by selected social determinants of health[1] and age group at diagnosis, 2018-2019, San Francisco

		Year of Diagnosis									
		2018					2019				
		Age at Diagnosis					Age at Diagnosis				
		18-24	25-34	35-44	45-54	55+	18-24	25-34	35-44	45-54	55+
		Number of new diagnoses[2] (Rate per 100,000)									
	Total	23 (36.2)	71 (35.0)	41 (29.9)	37 (31.9)	13 (5.6)	14 (22.5)	66 (32.1)	34 (24.6)	26 (22.5)	22 (9.3)
Below Federal Poverty Level (%)	<7%	3 (16.2)	16 (22.4)	15 (30.2)	12 (29.8)	3 (3.8)	1 (5.0)	16 (20.7)	9 (16.9)	8 (18.3)	9 (10.5)
	7.00% - 10.99%	6 (33.3)	15 (22.7)	9 (20.2)	10 (25.7)	2 (2.7)	4 (22.1)	20 (28.1)	10 (21.5)	6 (15.5)	7 (8.7)
	11.00% - 18.99%	9 (68.4)	24 (55.1)	6 (21.1)	8 (34.7)	3 (5.9)	5 (45.3)	16 (46.0)	5 (21.1)	9 (44.8)	2 (4.5)
	≥19%	5 (37.2)	16 (73.7)	11 (74.4)	7 (51.3)	5 (17.8)	4 (30.7)	14 (63.1)	10 (68.0)	3 (23.3)	4 (14.8)
Less Than High School Diploma (%)	<6%	9 (39.5)	22 (26.0)	14 (26.6)	15 (38.8)	3 (4.2)	2 (8.5)	21 (25.3)	12 (23.4)	8 (20.0)	11 (15.1)
	6.00% - 10.99%	3 (19.9)	15 (31.2)	10 (30.2)	11 (39.8)	3 (5.3)	2 (12.7)	20 (35.6)	9 (24.9)	5 (17.8)	4 (6.8)
	11.00% - 17.99%	5 (36.2)	19 (43.4)	8 (26.3)	5 (19.0)	2 (3.6)	5 (46.7)	10 (28.0)	6 (22.8)	3 (13.8)	4 (8.7)
	≥18%	6 (50.3)	15 (56.5)	9 (42.7)	6 (25.7)	5 (9.8)	5 (41.3)	15 (49.2)	7 (28.7)	10 (39.2)	3 (5.1)
Median Household Income ($)	<$72,000	3 (18.0)	28 (91.4)	16 (77.3)	5 (26.1)	6 (13.5)	5 (37.4)	18 (66.5)	7 (39.9)	7 (43.6)	4 (10.6)
	$72,000 - $98,999	8 (50.5)	9 (22.4)	5 (17.6)	12 (44.2)	1 (1.8)	4 (26.9)	14 (42.0)	9 (36.1)	5 (20.8)	3 (5.8)
	$99,000 - $128,999	5 (28.6)	16 (26.4)	7 (17.7)	7 (21.2)	2 (3.0)	4 (27.5)	8 (16.1)	3 (9.4)	7 (25.7)	4 (6.5)
	≥$129,000	7 (51.3)	18 (25.1)	13 (26.7)	13 (35.4)	4 (6.0)	1 (5.2)	26 (27.3)	15 (23.6)	7 (14.6)	11 (12.7)
Gini Index[3] (Scale 1-100)	<43	10 (57.9)	16 (33.3)	4 (12.8)	11 (41.5)	1 (1.9)	1 (7.3)	10 (23.0)	6 (21.3)	3 (12.4)	2 (4.3)
	43.00 - 45.99	6 (43.9)	10 (20.3)	8 (22.3)	8 (25.1)	3 (4.8)	0 (0.0)	16 (28.7)	7 (17.7)	6 (18.9)	8 (12.7)
	46.00 - 49.99	3 (17.4)	21 (39.1)	9 (25.5)	12 (42.9)	4 (7.4)	7 (41.3)	20 (34.5)	12 (31.2)	7 (21.0)	9 (13.6)
	≥50	4 (26.0)	24 (46.1)	20 (57.7)	6 (20.2)	5 (7.9)	6 (35.8)	20 (41.5)	9 (28.1)	10 (38.4)	3 (4.9)

1 See Technical Notes "Social Determinants of Health."
2 Number of new diagnoses shown each year is based on evidence of a confirmed HIV test and does not take into account patient self-report of HIV infection.
3 A higher Gini index score represents a higher level of income inequality in a census tract.

Technical Notes
(in alphabetic order by topic)

CD4-based Model

As HIV disease progresses, the CD4 cell count can be used to estimate the time since infection at the date of CD4 test. The CD4-based model uses HIV surveillance data and the first CD4 value after diagnosis to estimate HIV incidence (diagnosed and undiagnosed persons newly acquired HIV), HIV prevalence (diagnosed and undiagnosed persons living with HIV), and percentage of undiagnosed infections.

The CD4 data for persons who had no evidence of antiretroviral therapy (ART) use and no viral load result <200 copies/mL prior to their first CD4 test result are included in this model. The date of HIV acquisition is estimated for each person with a CD4 test by using a CD4 depletion model[1]. To account for persons without a CD4 test result, persons with CD4 test results are assigned a weight based on the year of HIV diagnosis, sex, race/ethnicity, transmission category, age at diagnosis, disease classification, and vital status at the end of the analytic year. Then, based on the estimated time from HIV infection to diagnosis, the diagnosis delay distribution can be estimated by using standard survival analysis for right truncated data and used to estimate annual HIV incidence (new infections), which includes persons with diagnosed and undiagnosed infection.

HIV prevalence, which represents counts of persons with diagnosed or undiagnosed HIV infection who were alive at the end of a given year, is estimated by subtracting reported cumulative deaths from cumulative infections. The number of persons with undiagnosed HIV infection is estimated by subtracting the number of persons living with diagnosed infection from total prevalence. The percentage of diagnosed (or undiagnosed) infections is determined by dividing the number of persons living with diagnosed (or undiagnosed) infections by the total prevalence for each year.

The CD4 model relies on a series of assumptions: (1) the CD4 depletion model is accurate; (2) persons received no ART treatment before the first CD4 test; (3) all data adjustments (e.g., multiple imputation for missing values of transmission category, weighting to account for cases without a CD4 test) are unbiased; and (4) a person's infection, diagnosis, and death occur in a "closed" population (no migration) or balanced population (approximately the same number of infected persons moved into or out of the area under consideration).

Cumulative Viral Load

Persons were included if they were diagnosed with HIV during 2010-2019, were a San Francisco resident at HIV diagnosis, alive 12 months after HIV diagnosis and had ≥2 viral load tests within 12 months after diagnosis. Consecutive viral load pairs were used to calculate time spent >200 copies/mL, >1500 copies/mL and >10000 copies/mL for the 12 months after HIV diagnosis, where the one-year follow-up period was divided into time segments using consecutive viral load pairs. If both viral load values were above/below the viral threshold within each segment, it was assumed all days in the segment were also above/below the threshold. The difference

1 Song R, Hall HI, Green TA, Szwarcwald CL, Pantazis N. Using CD4 Data to Estimate HIV Incidence, Prevalence, and Percent of Undiagnosed Infections in the United States. J Acquir Immune DeficSyndr. 2017 Jan 1; 74(1):3-9.

between the two viral load values and the time in days of the segment were used to calculate a rate of viral load change over time in instances where a segment contained one value above the viral threshold and one value below the threshold. This rate was used to calculate how many days in the segment were spent above the viral threshold. The time spent above the threshold for each segment was summed across all observed segments to yield a single measurement for each individual. The percentage of time spent above each viral threshold was calculated by dividing the number of days spent above by the total time observed. If an individual did not have a viral load measure on the date of HIV diagnosis, the first viral load after HIV diagnosis was used as the beginning of the observation period, and the last viral load test in the 12-month follow-up was used as the end of the observation period.

Date of Initial HIV Diagnosis

The date of HIV diagnosis for newly diagnosed persons is determined based on the earliest date of any of the following: positive HIV antibody test, positive HIV antigen/antibody combination test, detectable viral load test, or physician-documented diagnosis in absence of sufficient laboratory evidence. The date of initial HIV diagnosis for assessing trends in new HIV diagnoses in this report takes into account patient self-report of a positive HIV test as noted in the medical record that was prior to the confirmed HIV diagnosis made by laboratory or clinical evidence. However, CD4 or undetectable viral load tests prior to the confirmed HIV diagnosis are not used to determine date of initial HIV diagnosis. Data for the most recent year should be interpreted with caution as the number of cases diagnosed may be underestimated due to reporting delays.

Death Ascertainment

Death information among persons reported with HIV was obtained through the following mechanisms: (1) monthly matches with local vital statistics registry, (2) Social Security Death Master File (3) National Death Index (NDI), (4) medical record review, (5) notification from other health department, and (6) matches with other disease registry databases. Matches to the NDI occurred twice per calendar year, once through the NDI Early Release Program (https://www.cdc.gov/nchs/ndi/ndi_early_release.htm), and once through the NDI final file.

Cause of death information on death certificates was summarized and coded using the International Classification of Diseases, 10th revision (ICD-10) for deaths that occurred since 1999. A single cause of death was identified from all reported conditions that began the chain of events that resulted in death; this is known as the underlying cause of death[2]. All conditions (including the underlying cause of death) listed on the death certificate are known as the multiple causes of death (http://www.cdc.gov/nchs/icd/icd10.htm). We obtained the ICD codes from annual matches to the NDI from 1999 to 2019. Decedents through 2019 have been matched to the NDI early release file; cause of death information in this report is available for deaths through 2019. NDI information for 2020 decedents was not available at the time of this report's preparation.

2 National Center for Health Statistics. National death index user's guide; Appendix B. Hyattsville, MD: National Center for Health Statistics, 2013.

Deaths classified as B20-B24 and all AIDS-related opportunistic infections and cancers listed on the death certificate were included in the HIV-related classification. Deaths classified as R99 (ill-defined and unknown cause of mortality) were included in the non-HIV-related classification. Cause of death information in the NDI Early Release file may later be reclassified in the NDI final file.

Cause of death information for races such as Asian, Pacific Islander, Native American, and multiracial decedents was not displayed due to small numbers.

Case fatality rates in persons diagnosed with HIV were calculated using the single, underlying cause of death for each person.

Estimate of ART Use

Information on ART use was obtained from medical chart reviews or reported by health care providers. The use of surveillance data to estimate use of ART most likely resulted in an underestimate of ART use. The underestimate occurred because use of ART was collected at the time a person with HIV infection was reported (which was often close to the time that they were diagnosed), a time when some people have not yet begun treatment. The San Francisco Department of Public Health (SFDPH) collected follow-up information from selected health care facilities. For persons who received care at these sites, treatment data were likely to be more complete because it allowed us to capture the use of ART after diagnosis and the date the case report was completed. Follow-up information was not available for persons who have moved away from San Francisco or who received ongoing care outside of the city. Surveillance data provided information that indicated when a person was prescribed ART but did not provide information on adherence. Persons whose medical records indicated that they were prescribed ART were assumed to have received and used it.

The lower level estimate of ART use (Table 3.6 on page 23) was calculated among all cases living with HIV. The upper level estimate (Table 3.6 on page 23, Figure 3.4 on page 24) was calculated among cases who had follow-up information within the last two years, whose chart review was completed between January 2019 and March 2021, and who were not known to have moved out of San Francisco.

Female Presumed Heterosexual Contact

In 2010, the CDC HIV Incidence and Case Surveillance Branch implemented a definition for female presumed heterosexual contact to reclassify the transmission category for adult female cases who would otherwise be reported with no identified risk. The definition for female presumed heterosexual contact was first proposed by the Council of State and Territorial Epidemiologists[3]. Like other transmission categories, the definition uses patient history variables collected on the HIV adult case report form. The female presumed heterosexual contact definition includes the following components: (1) the patient's sex at birth is female, (2) the patient

3 Council of State and Territorial Epidemiologists Position statements 2007: Heterosexual HIV transmission classification. Available from https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/07-id-09.pdf.

had sex with male(s), (3) the patient had no indication of injection drug use, and (4) there is no other known information that would suggest a likely alternative source of HIV infection.

Gender Status

As part of routine HIV case surveillance, sex at birth is collected. Persons who are classified as female at birth and have no other gender identity noted are classified as women. Persons who are classified as male at birth and have no other gender identity noted are classified as men. In September 1996, SFDPH began collecting transgender status when this information is contained in the medical record. Transgender individuals are listed as either trans women or trans men and reported through active and passive surveillance methods (see Technical Notes "HIV Surveillance Methods"). Due to the small number of cases among trans men and small population size, data on trans men are sometimes suppressed in this report to protect confidentiality. We believe this report likely underestimates the number of trans women and trans men affected by HIV because gender status information may not be complete in HIV surveillance data sources, such as the medical record. Information that may be discussed with the health care provider but not recorded in the medical record is generally not available for the purposes of HIV case reporting.

Grouping of Data Categories

Data in certain racial/ethnic or risk categories are grouped together when the number of persons with HIV in that particular group is small and/or does not present significant trends. For example, "Other" in the Race/Ethnicity breakdown in some tables or figures represents Asian/Pacific Islander, Native American, and persons of multiple race/ethnicity. Whenever possible, this report presents the expanded racial/ethnic categories rather than aggregating into the group "Other." The label "Other" in the Transmission Category breakdown may include transfusion recipients, hemophiliacs, heterosexuals, persons acquiring HIV perinatally, or persons of unidentified risk.

HIV and STD Diagnosis

The diagnosis of STD among PLWH was determined through a computerized match of the SFDPH HIV and STD case registries. The data from the STD registry included persons reported with gonorrhea, chlamydia, non-gonococcal urethritis, or infectious syphilis. All STD included in this report occurred after the HIV diagnosis.

HIV Care Outcomes and Definitions

The SFDPH monitors engagement in care and care outcomes among persons newly diagnosed and living with HIV using reports of CD4, HIV viral load and genotype tests as indicators of care, and viral load test results to measure viral suppression, defined as a HIV viral load less than 200 copies/mL. For new diagnoses, linkage to

care within 30 days of diagnosis, retention in care 3-9 months after linkage, and viral suppression within 6 and 12 months of diagnosis were assessed. For PLWH, receipt of care (one laboratory test), retention in care (two laboratory tests at least three months apart) and viral suppression in the specified calendar year were assessed.

Complete laboratory reporting of HIV-related test results is critical to evaluating care outcomes and data-to-care activities (using HIV surveillance and other data sources to identify persons with HIV who may not be in care, conduct outreach, and provide linkage to care and other support or prevention services). Incomplete care information may have resulted from persons who received care outside of San Francisco or participated in research studies in which the test results were not reported to SFDPH (Note California laws require laboratories to report all HIV-related test results to the local health department where the provider is located). In addition, some patients may have been in care but did not have any laboratory tests performed in the time period assessed.

HIV Case Rates and HIV Mortality Rates

Annual race-specific diagnosis rates were calculated as the number of cases diagnosed for a particular racial/ethnic group during each year divided by the San Francisco population for that racial/ethnic group, multiplied by 100,000. Age-adjusted mortality rates were calculated for persons 18 years and older. For each racial/ethnic and gender group, the number of HIV cases who died each year was divided by annual projected San Francisco population estimates across 14 age groups (18-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+ years) to generate crude rates applied to the standard population, defined using the annual California population estimates from the Department of Finance. Population denominators by year were obtained from the State of California, Department of Finance, Demographic Research Unit: California Population Projections[4] (http://www.dof.ca.gov/Forecasting/Demographics/Projections/). The annual population estimates were not available for transgender persons. The San Francisco trans women population estimate used was from Raymond HF, Wilson EC, McFarland W. Transwoman Population Size. Am J Public Health. 2017 Sep;107(9):e12. doi: 10.2105/AJPH.2017.303964. PMID: 28787216; PMCID: PMC5551612.

HIV Disease Stage 3 (AIDS) Survival

Survival time was calculated as the time between the date of HIV disease stage 3 (AIDS) diagnosis and either the date of death or end of the observation period. This analysis included persons who met the case definition for HIV disease stage 3 (AIDS). The follow-up information for cases was obtained through retrospective and prospective reviews of laboratory records and medical charts. Dates of death were obtained through review of local death certificates, reports from the State Office of AIDS, and matches with the National Death Index (NDI) and Social Security death files. The most recent NDI and Social Security death file matches included deaths that occurred through December 31, 2019. Survival time estimates reflect deaths that were HIV as well as non-HIV related. Persons not known to have died were censored on the date of their last known follow-up or on December 31, 2019, whichever was more recent.

4 State of California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060. Sacramento, California, March 2021.

HIV Qualitative Pool Testing

The San Francisco Public Health Laboratory screens patients who test negative on point-of-care (POC) HIV tests through pooled RNA testing. Sera from ten patients are combined and the mixture is tested for the presence of HIV RNA. If HIV RNA is found, then each patient's serum sample is tested individually. This method provides a means of quickly testing several patients at a time who may not yet have enough antibody or antigen in their blood to yield a positive result on a POC test. It is used by sites that see large numbers of uninsured and underinsured clients who are at risk of HIV. The qualitative pool testing data shown in this report include three large community testing sites: Strut- San Francisco AIDS Foundation, San Francisco City Clinic and Mission Wellness Pharmacy.

HIV Surveillance Methods

San Francisco HIV cases are reported primarily through active surveillance activities in which public health personnel review laboratory and pathology reports and medical records to identify cases and complete the case report forms. HIV cases are also identified through passive reporting from HIV medical and testing providers, review of death certificates, validation studies using secondary data sources such as hospital billing records or other disease registries, and reports from other health departments. HIV cases are routinely checked for duplicate reporting with other California counties, states, and U.S. territories and duplicates are removed. The surveillance system is regularly evaluated for completeness, timeliness, and accuracy.

The completeness of HIV diagnosis case reporting in 2019 was evaluated (on 12/31/2020) and found to be 98% (using the CDC-developed reporting delay model). In terms of timeliness, an estimated 98% of 2019 diagnoses were reported within six months of HIV diagnosis.

The HIV data in this report included persons who were residents of San Francisco at the time they were diagnosed with HIV (all stages of infection) including San Francisco residents who were diagnosed in other jurisdictions. This report also included data in some sections for out-of-jurisdiction residents who were diagnosed or received care in San Francisco (see Technical Notes "Out-of-Jurisdiction cases") or who moved to San Francisco after HIV diagnosis (see Technical Notes "Residence and Receipt of Care for PLWH"). San Francisco started name-based case reporting for HIV cases in April 2006, as mandated by California law. All cases included in this report were reported confidentially by name.

Housing Status

The housing status for HIV cases was determined through collection of address at time of diagnosis and current address through laboratory reports, passive case reports, medical record review, death certificates, and reports from other health departments. A person was defined as homeless if: (1) the medical record states that the

patient is homeless or not housed or (2) the person's address is a known homeless shelter or Navigation Center.

Persons with missing address information were not classified as homeless. Persons were also considered "not homeless" if they resided in a (1) single room occupancy (SRO) facility, (2) transitional housing, (3) partner's, family member's, or other non-family member's residence, (4) institutional facility (examples: hospice, inpatient drug/alcohol recovery facility, facility housing physically/mentally disabled, residential treatment program, correctional facility, long-term care facility), or (5) SIP (shelter-in-place) shelter.

Persons were classified as living in an SRO if the residential addresses matched a known SRO facility in San Francisco. A list of SRO facility addresses is maintained and updated annually using data from the Department of Building Inspections.

The HIV surveillance definition for homelessness excluded marginalized or unstable housing, and thus our findings may differ from other Department of Public Health or City and County of San Francisco programs.

Linkage Integration Navigation Comprehensive Services (Updated)

Linkage Integration Navigation Comprehensive Services (LINCS) is a program maintained by SFDPH that helps PLWH re-engage with care. Since 2011, health care navigators on the LINCS team have worked at San Francisco City Clinic and other SFDPH sites to address patient needs, including finding insurance, attending care appointments and adhering to medication. Patients may have come to LINCS through direct referral by a provider or, more recently, through not-in-care lists generated from HIV surveillance or medical record databases. LINCS programmatic data were used to define patient's housing status. Trans women were defined as either being transgender in HIV surveillance or in LINCS programmatic data. Transmission category was determined from HIV surveillance data.

LINCS outcomes can vary from year to year due to staffing capacity and referral sources. The Data to Care (DTC) program began in 2016 and included persons in the San Francisco HIV case surveillance registry with a most recent address of San Francisco who had never had an HIV lab recorded after HIV diagnosis, or had no evidence of a care visit in 12 months or longer (defined as a HIV viral load, CD4 test or genotype test). In addition, there were a number of individuals referred to the LINCS program who were not eligible for navigation services for reasons such as having moved out of the jurisdiction, already being in HIV care, not being locatable, or being deceased or incarcerated.

Out-of-Jurisdiction Cases

Routine HIV case surveillance assigns case ownership by residence at diagnosis. HIV cases who resided in San Francisco at time of diagnosis were considered San Francisco cases. HIV cases who were diagnosed or

received care in San Francisco but resided elsewhere at time of diagnosis were considered out-of-jurisdiction (OOJ) cases. In 2009, the California Department of Public Health upgraded the surveillance database and updated procedures, and case reporting for OOJ cases was conducted and reported in the same manner as San Francisco cases.

Residence and Receipt of Care for PLWH

The overall number of PLWH in San Francisco is affected by 1) out-migration: San Francisco residents at the time of diagnosis who later moved out of San Francisco, and 2) in-migration: OOJ residents at the time of diagnosis who moved to and received care in San Francisco. Because in- and out-migration occurred and the residence at time of diagnosis may have differed from the current residence among PLWH, SFDPH collected and updated information regarding current residence for PLWH who resided in San Francisco at time of diagnosis as well as PLWH who resided elsewhere at time of diagnosis but received care in San Francisco.

Care indicators (defined by using CD4, viral load, or genotype tests) were assessed for PLWH known to reside in San Francisco, based on their most recent available residence at the end of the calendar year, regardless of their residence at time of diagnosis (Table 3.3 on page 20). San Francisco residents at diagnosis who subsequently moved outside of San Francisco were excluded, and persons who resided elsewhere at time of HIV diagnosis and moved to San Francisco after diagnosis were included.

The extent of care utilization and HIV case migration patterns cannot be fully understood until more complete laboratory and residence information is collected and shared between jurisdictions.

San Francisco HIV/STD Home Testing Program

The San Francisco HIV/STD Home Testing Program is a partnership between the SFDPH Community Health Equity & Promotion (CHEP) Branch and the National Mailed HIV Testing Program developed by Building Healthy Online Communities (BHOC) and the Emory University, Rollins School of Public Health. The goal is to reach young men who have sex with men at high risk for HIV infection in San Francisco who are finding sexual partners solely through online- and smartphone application-based services and do not attend traditional HIV/STD testing locations.

The program promotes free mailed HIV/STD home testing via online social networking or dating apps. Clients are directed to the home test portal through links promoted on the apps, and they can order the home test kits if they have a San Francisco mailing address.

The program was piloted from March to December 2020 (Phase I) and offered only the HIV OraQuick test in this period. This is a self-administered test that allowed clients, at location of their choice, to collect their saliva

sample, perform the test, and interpret the test result themselves based on the instructions provided in the test kit. The home test kit also includes a HIV test hotline to provide further assistance. After receiving the test kit, clients were asked to complete a voluntary, anonymous follow-up survey to report their user experiences and test results.

The program was rolled out to Phase II on January 2021 and allows clients to order STD and HIV lab-based tests, with self-administered sample collection to be sent to a designated laboratory for processing. Clients are able to access the results through a secure portal. Outcomes of the program's Phase II will be reported in a future publication.

Social Determinants of Health

Social determinants of health (SDH) indicators (federal poverty level, educational attainment, median annual household income, and Gini index) among persons with HIV in San Francisco were evaluated in this report. San Francisco census tract level SDH data were derived from the U.S. Census Bureau American Community Surveys (ACS) 2014-2018 and 2015-2019. Persons in the San Francisco HIV case surveillance registry, who were 18 years and older at time of HIV diagnosis and resided in San Francisco at diagnosis in 2018 and 2019, had their residential addresses geocoded to the U.S. census tract level (assessed at minimum 12 months after diagnosis). Cases with a residential address that could not be geocoded to the census tract level (for example, homeless persons) were not included in this analysis. Residential census tracts were assigned SDH indicator values by linking to the ACS (survey year range ending in the person's year of HIV diagnosis). SDH indicator values assigned to a case represented the poverty level, educational attainment, median household income, and the Gini index of income inequality of the census tract the case lived in at time of diagnosis. The Gini index is a statistical measurement of the dispersion of household income distribution, with higher indices reflecting higher income inequality in the census tract. Poverty level and educational attainment were divided by quartiles by using ACS data from all census tracts in the 50 states, the District of Columbia, and Puerto Rico[5]. To be representative of San Francisco, the median annual household income and Gini index were divided by quartiles using ACS data from San Francisco census tracts. Population denominators used were from the ACS. HIV diagnosis rates per 100,000 population for each year were calculated by SDH indicators and demographic characteristics.

Stage of Disease at HIV Diagnosis

In 2014, the United States surveillance case definition[6] for HIV infection among adults and adolescents aged ≥13 years and children age<13 years was revised to expand the HIV infection classification staging system into five stages of HIV infection as described below. With the new case definition, stages 1-3 were classified based on the first CD4 T-lymphocyte count and age on date of CD4 T-lymphocyte test, unless there was a

5 Centers for Disease Control and Prevention. Social determinants of health among adults with diagnosed HIV infection, 2018. HIV Surveillance Supplemental Report 2020;25(No. 3). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published November 2020. [Accessed March 1, 2021].

6 Selik RE, Mokotoff ED, Branson B, Owen SM, Whitmore S, Hall HI. Revised Surveillance Case Definitions for HIV Infection -- United States, 2014. MMWR 2014;63(No. RR-3):1-10.

stage-3-defining opportunistic illness. The CD4 T-lymphocyte percentage of total lymphocytes was only used when the corresponding CD4 T-lymphocyte count was unknown. This change in definition may have reduced the number of persons diagnosed with stage 3 in 2014 and onward.

- HIV infection stage 0: This stage is early HIV infection and is established by a sequence of discordant HIV test results indicative of early HIV infection. The criteria for stage 0 infection can be established by a testing history of 1) a confirmed HIV positive test that occurs 180 days or less after a negative or indeterminate test for HIV infection, 2) a negative or indeterminate HIV antibody test is on or less than 180 days before a positive HIV virologic test and on or less than 60 days after a positive HIV antibody test, or 3) a negative or indeterminate HIV antibody test is on or less than 60 days after a positive HIV virologic test. This sequence of discordant results may be based on testing history (previous laboratory documented or patient's self-report of negative/indeterminate results), or by a HIV testing algorithm. If the criteria for stage 0 are met, the stage is 0 (supersedes other stages) regardless of criteria for other stages (CD4 T-lymphocyte test results and opportunistic illness diagnoses).

- HIV infection stage 1-3: HIV infection stage 1-3 is based on age-specific CD4 T-lymphocyte count or CD4 T-lymphocyte percentage of total lymphocytes.

	Age on date of CD4 T-lymphocyte test					
	<1 year		1-5 years		≥6 years	
Stage	Cells/ μL	%	Cells/ μL	%	Cells/ μL	%
1	≥1,500	≥34	≥1,000	≥30	≥500	≥26
2	750-1,499	26-33	500-999	22-29	200-499	14-25
3	<750	<26	<500	<22	<200	<14

Data on persons with HIV infection, stage 3 (AIDS) include persons whose infection has ever been classified as stage 3 (AIDS).

- HIV infection, stage unknown: No information available on CD4 count or percentage and no reported information on AIDS-defining conditions (every effort is made to collect CD4 counts or percentages at time of diagnosis).

D Data Tables

	2020											
Age Group	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
<30 years	1803	1631	1063	528	719	946	1078	1144	1179	1245	1070	1118
30-39 years	2242	2015	1347	864	1069	1424	1485	1430	1480	1601	1383	1433
40-49 years	1077	992	706	327	465	704	724	704	722	745	694	712
50-59 years	859	800	532	242	414	572	579	598	590	671	577	645
60+ years	918	874	619	359	489	659	618	682	701	740	668	752

	2021		
Age Group	**Jan**	**Feb**	**Mar**
<30 years	1101	983	1211
30-39 years	1560	1500	1849
40-49 years	800	831	945
50-59 years	636	682	800
60+ years	777	790	1013

	2020											
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
White	2159	1768	1382	910	1421	1969	1622	1494	1662	1761	1370	1429
Latinx	922	748	652	451	558	808	737	675	756	775	630	680
Black/African American	638	504	443	302	419	508	515	436	522	483	424	481
Asian/Pacific Islander	233	196	149	99	134	233	188	162	193	195	159	199

	2021		
	Jan	**Feb**	**Mar**
White	1517	1646	1857
Latinx	702	752	809
Black/African American	446	451	579
Asian/Pacific Islander	184	192	203

Figure 1.1 HIV disease stage 3 (AIDS) cases, deaths, and prevalence, 1980-2020, San Francisco 2

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
HIV disease stage 3 diagnoses	3	26	99	274	557	859	1237	1636	1762	2159
HIV disease stage 3 deaths	0	8	32	111	273	534	807	878	1038	1279
Persons living with HIV ever classified as stage 3	3	21	88	251	535	860	1290	2048	2772	3652

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
HIV disease stage 3 diagnoses	2043	2284	2325	2064	1775	1550	1065	794	685	574
HIV disease stage 3 deaths	1363	1511	1639	1603	1600	1485	992	424	401	353
Persons living with HIV ever classified as stage 3	4332	5105	5791	6252	6427	6492	6565	6935	7219	7440

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
HIV disease stage 3 diagnoses	553	505	481	544	477	476	451	443	435	324
HIV disease stage 3 deaths	349	324	321	296	300	309	288	270	227	208
Persons living with HIV ever classified as stage 3	7644	7825	7985	8233	8410	8577	8740	8913	9121	9237

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
HIV disease stage 3 diagnoses	301	252	243	189	139	126	97	130	113	111
HIV disease stage 3 deaths	193	190	181	191	188	203	185	203	209	193
Persons living with HIV ever classified as stage 3	9345	9407	9469	9467	9418	9341	9253	9180	9084	9002

Year	2020
HIV disease stage 3 diagnoses	85
HIV disease stage 3 deaths	137
Persons living with HIV ever classified as stage 3	8950

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
White	222	229	180	136	119	90	84	60	59	37
Black/African American	64	53	49	32	44	34	39	42	29	27
Latinx	86	116	106	95	78	69	70	80	54	49
Asian/Pacific Islander	37	53	48	44	36	37	30	17	19	15
Other/Unknown	20	23	17	15	18	6	14	6	7	3

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
White	111	118	88	65	55	41	37	28	25	14
Black/African American	186	153	170	125	133	96	117	143	88	84
Latino	109	154	145	123	97	80	85	95	59	58
Asian/Pacific Islander	27	40	32	32	26	26	20	11	14	10

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
White	9	2	5	4	5	4	4	2	2	4
Black/African American	65	39	26	4	35	43	43	35	22	22
Latina	15	17	8	7	11	8	9	8	6	5
Asian/Pacific Islander	1	0	1	0	1	1	2	1	0	1

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
MSM	296	353	298	235	217	159	143	126	105	80
PWID	12	15	11	15	6	9	15	21	7	5
MSM-PWID	55	52	48	38	25	23	30	24	15	12
Heterosexual	9	10	7	7	7	7	6	4	4	3
Unknown	3	7	3	2	4	3	10	5	8	7

Figure 2.5 Number of women newly diagnosed with HIV by transmission category, 2011-2020, San Francisco 13

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
PWID	17	6	10	10	11	11	10	6	5	7
Heterosexual	20	18	9	3	14	10	10	7	4	6
Unknown	4	1	2	0	4	4	7	4	5	5

Figure 3.7 Trends in median time from HIV diagnosis to viral suppression by race/ethnicity, transmission category, and housing status, 2015-2019, San Francisco 28

	2015	2016	2017	2018	2019
Overall	79	65	65	46	40

	2015	2016	2017	2018	2019
White	87	79	62	53	51
Black/African American	102	66	94	47	41
Latinx	71	58	71	43	37
Asian/Pacific Islander	66	48	40	25	37

	2015	2016	2017	2018	2019
MSM	77	68	60	40	39
PWID	125	86	169	132	65
MSM-PWID	254	77	172	59	37
Heterosexual	80	44	64	35	38

	2015	2016	2017	2018	2019
Homeless	175	77	69	64	37
Non-Homeless	77	64	62	42	40

Figure 3.9 Trends in mean percent time spent >200 copies/mL during the 12 months after HIV diagnosis by race/ethnicity, transmission category, and housing status, 2015-2019, San Francisco 30

	2015	2016	2017	2018	2019
Overall	36%	28%	33%	29%	30%

	2015	2016	2017	2018	2019
White	35%	33%	33%	34%	37%
Black/African American	51%	26%	43%	32%	40%
Latinx	35%	29%	30%	26%	22%
Asian/Pacific Islander	24%	20%	24%	16%	23%

	2015	2016	2017	2018	2019
MSM	32%	26%	26%	22%	25%
PWID	49%	37%	65%	59%	50%
MSM-PWID	69%	41%	55%	33%	57%
Heterosexual	35%	17%	31%	30%	21%

	2015	2016	2017	2018	2019
Homeless	51%	32%	58%	47%	44%
Non-Homeless	35%	28%	30%	24%	26%

Figure 5.1 Age-adjusted mortality rates among persons aged 18 and older with HIV per 100,000 by gender and race/ethnicity, 2010-2019, San Francisco 41

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
White men	95	76	84	82	80	81	78	88	73	78
Black/African American men	137	174	150	132	138	157	133	132	179	140
Latino men	55	61	60	72	61	54	40	56	71	77
White women	2	2	6	6	3	6	5	5	5	5
Black/African American women	56	54	46	74	61	54	68	40	58	50
Latina women	3	5	3	12	8	7	14	10	4	2
Trans women (not age-adjusted)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	290	161	161

Figure 6.2 Trends in health insurance status at time of HIV diagnosis by race/ethnicity, 2016-2020, San Francisco 52

White	2016	2017	2018	2019	2020
Public	29%	35%	38%	37%	43%
Private	39%	40%	40%	25%	41%
None	18%	21%	13%	31%	14%
Missing	14%	4%	8%	7%	3%

Black/ African American	2016	2017	2018	2019	2020
Public	47%	51%	52%	62%	48%
Private	21%	18%	33%	21%	11%
None	24%	15%	10%	17%	26%
Missing	9%	15%	5%	0%	15%

Latinx	2016	2017	2018	2019	2020
Public	39%	39%	49%	26%	49%
Private	30%	24%	18%	28%	16%
None	23%	21%	21%	31%	33%
Missing	7%	16%	13%	15%	2%

API	2016	2017	2018	2019	2020
Public	22%	7%	29%	5%	27%
Private	41%	40%	29%	79%	33%
None	24%	33%	29%	5%	40%
Missing	14%	20%	12%	11%	0%

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
White	201	212	162	120	103	78	65	48	42	24
Black/African American	33	30	35	24	28	19	20	24	15	14
Latino	69	96	95	77	66	50	53	60	41	38
Asian/Pacific Islander	33	47	41	40	33	31	23	15	17	14
Other	15	20	13	12	12	4	12	3	5	2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Male Rectal Gonorrhea (HIV+)	231	299	329	298	399	428	476	437	358	359
Male Rectal Gonorrhea (HIV-)	332	447	433	514	685	876	1006	1041	1026	651
Male Gonococcal Proctitis (HIV+)	11	10	14	16	21	20	20	19	14	25
Male Gonococcal Proctitis (HIV-)	13	14	19	22	20	50	38	34	39	23

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Early syphilis (HIV+)	411	541	550	552	570	513	589	494	448	409
Early syphilis (HIV-)	175	222	291	314	371	400	521	479	500	391
Primary (HIV+)	68	89	88	75	85	89	94	73	56	62
Primary (HIV-)	65	71	97	82	109	118	129	134	105	86
Secondary (HIV+)	144	188	161	149	146	128	131	86	73	74
Secondary (HIV-)	55	86	79	96	84	111	142	122	126	98
Early Latent (HIV+)	199	264	301	328	339	296	364	335	319	273
Early Latent (HIV-)	55	65	115	136	178	171	250	223	269	207

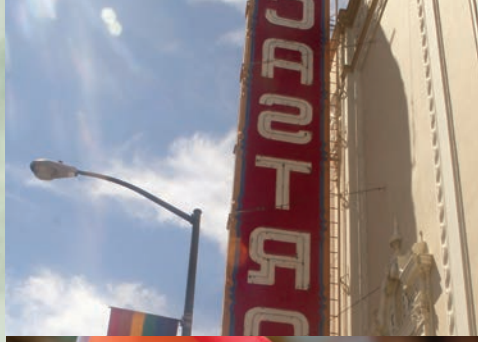
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
White	11	5	11	11	9	7	10	11	8	7
Black/African American	11	7	6	4	2	7	9	8	1	4
Latinx	6	5	2	8	2	3	4	6	3	2
Other/Unknown	1	4	2	2	4	4	2	2	0	0

Age Group	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
13-24 years	2	3	2	1	0	2	1	2	0	0
25-29 years	4	0	1	3	5	3	0	1	0	1
30-39 years	2	3	1	5	5	7	7	7	7	5
40-49 years	10	10	9	5	4	4	9	8	4	1
50+ years	11	5	8	11	3	5	8	9	1	6

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
White	9	7	4	2	5	3	4	0	1	3
Black/African American	11	8	4	2	8	4	4	7	6	1
Latinx	6	10	6	3	4	7	5	4	1	4
Other/Unknown	3	3	2	3	4	3	3	0	0	1

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
White	14	4	8	7	9	7	7	3	4	8
Black/African American	15	9	6	1	8	10	10	8	5	5
Latina	9	10	5	4	7	5	6	5	4	3
Other/Unknown	3	2	2	1	5	3	4	1	1	2

Neighborhood	Map 17.1 Number of PLWH	Map 17.2 HIV prevalence per 100,000	Map 17.3 Two-year rate of new diagnoses per 100,000	Map 17.4 HIV mortality rate per 100,000
Bayview	371	1034	45	14
Bernal Heights	251	1073	13	21
Castro	1786	7509	92	63
Diamond Heights	320	1914	18	18
Downtown	663	966	17	16
Excelsior	297	617	21	2
Haight Ashbury	308	1457	24	19
Ingleside	105	656	63	0
Lake Merced	106	637	24	0
Mission	1145	1998	51	28
Nob Hill	269	1471	33	38
Noe Valley	242	1956	24	0
Outer Mission	187	644	14	3
Pacific Heights	307	594	8	17
Potrero Hill	211	1742	33	25
Presidio	15	464	0	0
Richmond	425	462	13	9
South of Market	771	3881	86	60
Sunset	307	345	11	4
Tenderloin	1489	3795	89	102
Treasure Island	43	1493	69	35
Twin Peaks	352	843	14	17
Visitacion Valley	151	595	0	28
Western Addition	1249	3085	44	69
Homeless	329	N/A	N/A	N/A
Unknown	543	N/A	N/A	N/A



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