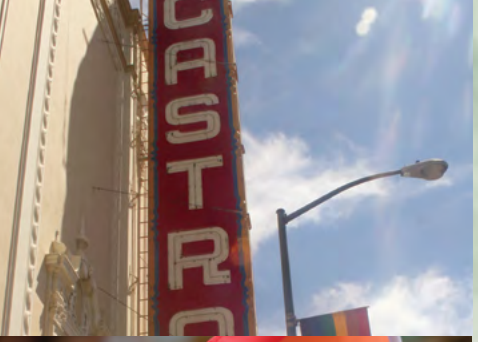

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Annual Report

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Department of Public Health
Population Health Division

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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	People 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

The 2019 HIV Epidemiology Annual Report presents another year of improvement in new HIV diagnoses and care outcomes. Nevertheless, some of the disparities observed in previous years have continued. To further understand these disparities, we have included new data and analyses in this report about social determinants of health among people newly diagnosed with HIV (Section 18).

Trends and disparities in new diagnoses

- New HIV diagnoses declined 19% from 204 diagnoses in 2018 to 166 diagnoses in 2019. This compares to a 13% decline between 2017 and 2018 (Figure 1.2).
- Rates of new diagnoses for both Black/African American and Latino men declined in 2019 after annual increases during 2016-2018 (Figure 2.2).
- Black/African American men and women had the highest HIV diagnosis rates by race, with rates per 100,000 population of 79 and 22, respectively, followed by Latinx men and women (Figure 2.2-2.3).
- The number and proportion of diagnoses among PWID declined in 2019 after annual increases during 2015-2018 (Table 1.2).
- The number and proportion of diagnoses among people experiencing homelessness declined in 2019 after annual increases during 2016-2018 (Figure 14.1).
- HIV diagnosis rates were higher among people who live in areas that have a higher percentage of people below the federal poverty level, a higher percentage with less than a high school education, and a lower median household income (Table 18.1).

Trends and disparities in care outcomes

- 95% of new diagnoses in 2019 were linked to care within one month of diagnosis compared to 90% in 2018 (Figure 3.1).
- 81% of new diagnoses in 2018 were virally suppressed within 12 months after diagnosis and the vast majority were virally suppressed within six months of diagnosis (Figure 3.1).
- Median time from diagnosis to first care visit declined from 7 days in 2015 to 2 days in 2018 (Table 3.1).
- Median time from diagnosis to viral suppression declined from 79 days in 2015 to 46 days in 2018 (Table 3.1).
- Compared to the overall proportion of viral suppression among PLWH (75%), viral suppression was lower for women (71%), Black/African Americans (70%), PWID (66%), MSM-PWID (69%), TWSM-PWID (67%), and was particularly low among people experiencing homelessness (39%) (Table 3.3).
- Three-year survival following an AIDS diagnosis was lowest among Black/African Americans (82%) compared to other races; and PWID (79%) compared to other transmission categories (Figure 4.5).
- The proportion of HIV-related deaths declined from 44% in 2014 to 29% in 2018 (Table 5.1).

These data show that San Francisco continues to make progress in HIV prevention and care and is on track toward Getting to Zero new infections and deaths. The recent declines in new diagnoses in populations who had no declines or an upward trend in past years is encouraging. Nevertheless, some vulnerable populations are still disproportionately affected by higher HIV diagnosis rates and poorer care outcomes. The COVID-19 pandemic in 2020 has added significant new challenges in managing the HIV epidemic due to reduced HIV testing and care utilization. We will continue to monitor the impact of COVID-19 on persons living with HIV in San Francisco using surveillance data in coming reports.

1 Overview of HIV in San Francisco

15,908
San Francisco residents were diagnosed and living with HIV as of 12/31/2019

12% **of PLWH in California resided in San Francisco**

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

- People 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 2019 there were similar proportions of women and trans women diagnosed in San Francisco (8% and 7%, respectively).
- Persons newly diagnosed with HIV in San Francisco were more likely to be men and white, Latinx or Asian/Pacific Islander (API) compared to persons newly diagnosed with HIV nationally.
- Among San Francisco newly diagnosed persons in 2019, there was a greater proportion of women, Black/African Americans, Latinx, APIs, trans women who have sex with men, and non-MSM who inject drugs (PWID) compared to all San Franciscans living with HIV.

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] 2019 (N= 15,908)	California[2] 2018 (N= 136,566)	United States[3] 2018 (N= 1,042,270)	San Francisco[1] 2019 (N= 166)	California[2] 2018 (N= 4,747)	United States[3] 2018 (N= 37,968)
Gender	Men	92%	87%	76%	83%	87%	79%
	Women	6%	12%	24%	8%	12%	19%
	Trans Women	2%	1%	<1%	7%	1%	1%
	Trans Men	<1%	<1%	<1%	1%	<1%	<1%
Race/Ethnicity	White	58%	38%	29%	35%	25%	25%
	Black/African American	12%	17%	41%	17%	18%	42%
	Latinx	20%	37%	24%	33%	48%	27%
	Asian/Pacific Islander	6%	4%	1%	11%	6%	2%
	Native American	<1%	<1%	<1%	2%	<1%	<1%
	Other/Unknown	3%	3%	5%	2%	3%	3%
Transmission Category[4]	MSM	73%	67%	55%	62%	62%	66%
	TWSM	1%	1%	--	5%	1%	--
	PWID	5%	6%	12%	7%	5%	7%
	MSM-PWID	14%	6%	5%	10%	4%	3%
	TWSM-PWID	1%	<1%	--	2%	--	--
	Heterosexual	4%	15%	26%	5%	19%	24%
	Other/Unidentified	2%	5%	2%	9%	9%	<1%

1 San Francisco data are reported through March 26, 2020 for cases diagnosed through December 31, 2019. San Francisco 2019 new diagnoses may be revised due to case reporting delay. Death reporting not complete for 2019; the number of San Francisco PLWH may be revised downward.

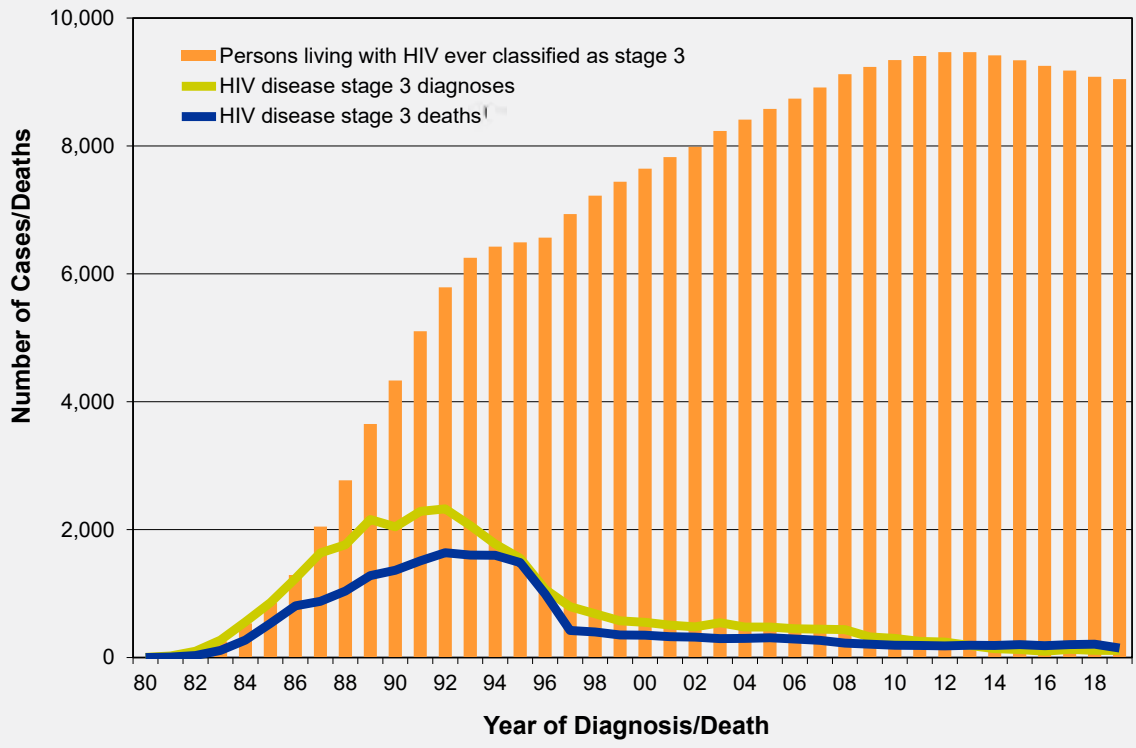
2 California data are reported through January 6, 2020 for cases diagnosed through December 31, 2018. California's new diagnosis case count does not include persons with unreported race and ethnicity.

3 U.S. data are reported through December 31, 2019 and reflect cases diagnosed and living through December 31, 2018. 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, 2018 (Updated); vol. 31. http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2020. Accessed [August 31, 2020]. 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 disease stage 3 (AIDS) reached a peak in 1992, declined from 1993 to 2016, and showed signs of plateau in 2018 and 2019.
- Beginning in 1995, the decrease in deaths among people ever classified as stage 3 (blue line) was due to antiretroviral therapies (ART).
- In 2013, the number of deaths among people with stage 3 diagnosis exceeded the number of new stage 3 diagnoses.
- Persons living with stage 3 diagnosis peaked in 2012 and has been declining since 2013.
- There were 9,044 San Francisco residents living with HIV ever classified as stage 3 by the end of 2019.

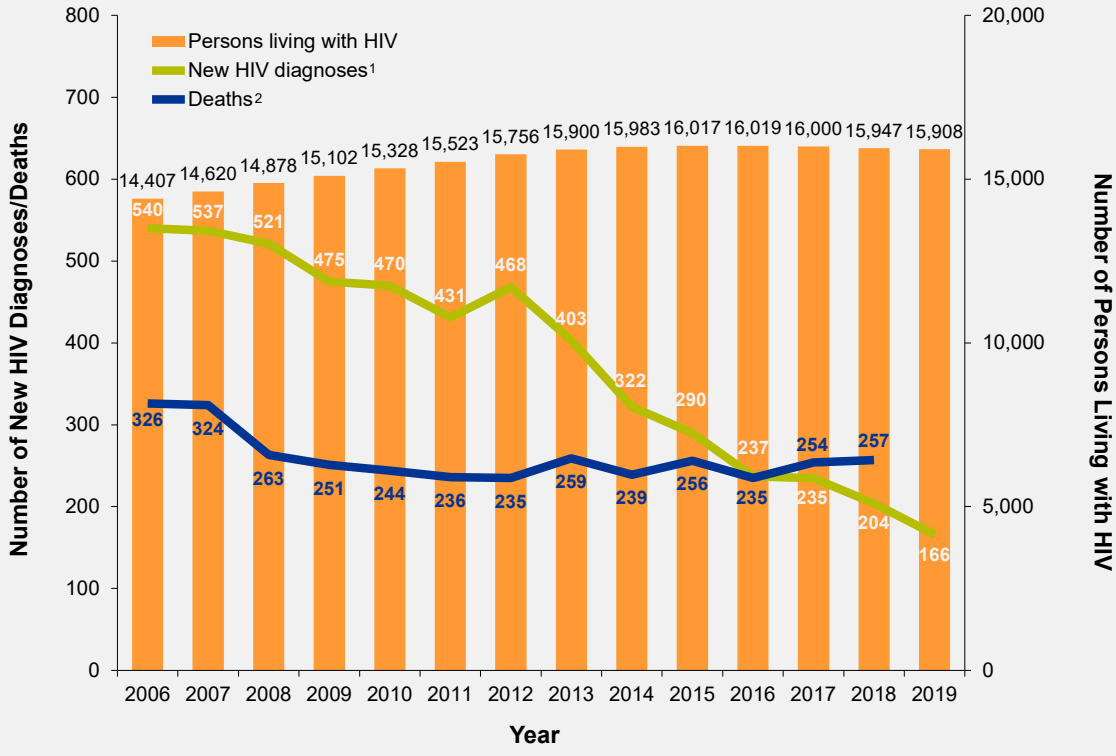
Figure 1.1 HIV disease stage 3 (AIDS) cases, deaths, and prevalence, 1980-2019, San Francisco



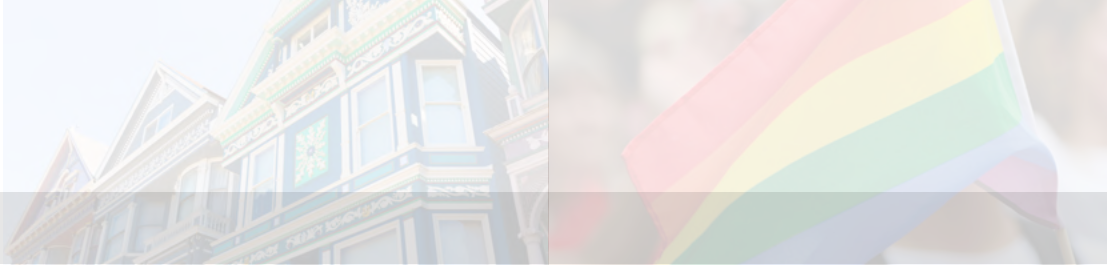
1 Death reporting for 2019 is not complete.

- The number of new HIV diagnoses declined from 540 in 2006 to 166 in 2019.
- The number of deaths each year fluctuated but remained relatively stable from 2008 to 2018.
- The number of PLWH increased each year until 2016 when it plateaued; new diagnoses and deaths in 2016 were almost equivalent.
- Deaths in PLWH began to exceed new diagnoses in 2017, and the number of PLWH started to decline that year.
- The provisional number of PLWH at the end of 2019 is 15,908; this will be revised when death reporting for 2019 is complete.

Figure 1.2 HIV diagnoses, deaths, and prevalence, 2006-2019, San Francisco



1 See Technical Notes "Date of Initial HIV Diagnosis."
2 Death data for 2019 not complete and not displayed.



- The majority of persons newly diagnosed with HIV between 2010 and 2019 were MSM.
- The proportion of PWID fluctuated during this time period.
- In the past decade Latinx persons experienced the largest proportional increase of new diagnoses, accounting for one-third of new diagnoses in 2019.
- The proportion of annual diagnoses who are white has declined and in 2019 was similar to Latinx persons.
- By age groups, 30-39 year olds continue to account for the most annual diagnoses (39% in 2019).
- In 2019 persons age 50 years and older were 20% of new diagnoses.
- While the numbers are small, the proportion of trans women and trans men increased in 2019.
- No children (<13 years) were diagnosed with HIV during 2010 to 2019.

Table 1.2 Trends in persons newly diagnosed with HIV by demographic and risk characteristics, 2010-2019, San Francisco

		Year of Initial HIV Diagnosis[1]									
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Total Number	470	431	468	403	322	290	237	235	204	166
Gender	Men	89%	87%	92%	92%	92%	88%	85%	86%	88%	83%
	Women	8%	10%	5%	5%	4%	10%	11%	11%	8%	8%
	Trans Women	4%	3%	3%	3%	4%	2%	3%	3%	3%	7%
	Trans Men	0%	0%	0%	0%	0%	0%	<1%	0%	<1%	1%
Race/Ethnicity	White	48%	52%	49%	45%	42%	41%	38%	35%	29%	35%
	Black/African American	14%	15%	11%	12%	10%	15%	14%	16%	21%	17%
	Latinx	23%	20%	24%	26%	30%	26%	30%	29%	38%	33%
	Asian/Pacific Islander	9%	9%	11%	12%	14%	12%	15%	13%	8%	11%
	Native American	<1%	<1%	1%	<1%	<1%	<1%	0%	1%	1%	2%
	Multi-race	6%	4%	3%	3%	4%	5%	3%	6%	2%	2%
	Unknown	<1%	<1%	<1%	<1%	0%	<1%	0%	0%	0%	0%
Age at HIV Diagnosis (years)	13 - 17	1%	0%	0%	<1%	<1%	1%	0%	1%	<1%	0%
	18 - 24	13%	11%	14%	15%	12%	13%	14%	10%	15%	10%
	25 - 29	14%	16%	16%	20%	18%	24%	22%	18%	19%	14%
	30 - 39	31%	27%	30%	28%	30%	30%	32%	34%	32%	39%
	40 - 49	27%	30%	28%	25%	23%	21%	16%	21%	21%	17%
	50+	14%	16%	12%	12%	17%	11%	15%	16%	13%	20%
Transmission Category	MSM	63%	69%	75%	75%	73%	73%	68%	60%	62%	62%
	TWSM	3%	2%	2%	2%	2%	2%	2%	1%	2%	5%
	PWID	8%	6%	4%	5%	8%	6%	9%	11%	13%	7%
	MSM-PWID	13%	13%	11%	11%	12%	8%	10%	13%	11%	10%
	TWSM-PWID	1%	1%	<1%	<1%	1%	<1%	1%	1%	1%	2%
	Heterosexual	8%	7%	6%	4%	3%	7%	7%	7%	5%	5%
	Other/Unidentified	4%	2%	2%	1%	1%	3%	3%	7%	5%	9%

1 Data include persons diagnosed with HIV in any stage and reported as of March 26, 2020. Percentages may not add to 100 due to rounding. See Technical Notes "Date of Initial HIV Diagnosis."

- The number of PLWH began to decline in 2017.
- Gender, racial/ethnic and risk distributions of PLWH remained mostly stable between 2015 and 2019; cases were predominately men, white, and MSM (including MSM-PWID).
- Persons living with HIV aged 40-49 years declined from 25% in 2015 to 18% in 2019.
- Persons living with HIV continued to shift into older age groups with the largest proportional increase observed among persons aged 60-69 years (19% to 25% from 2015 to 2019).

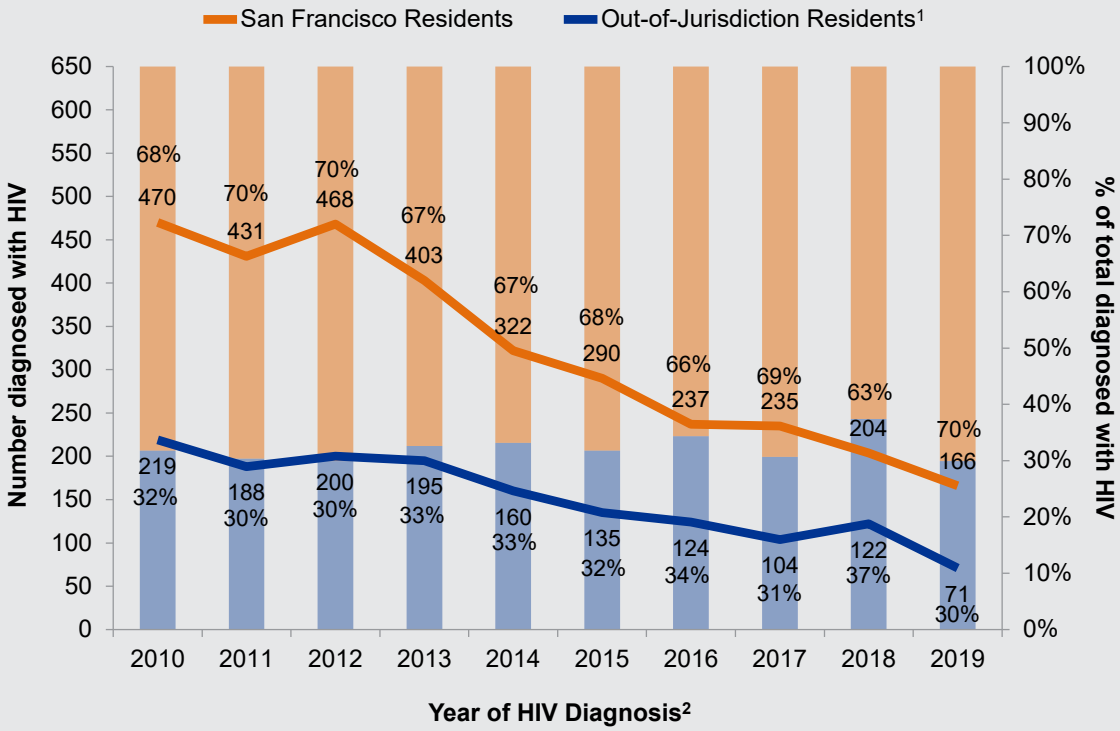
Table 1.3 Trends in persons living with HIV by demographic and risk characteristics, 2015-2019, San Francisco

		2015	2016	2017	2018	2019[2]
		Number (%)				
	Total[1]	16,017	16,019	16,000	15,947	15,908
Gender	Men	14,694 (92)	14,699 (92)	14,677 (92)	14,627 (92)	14,582 (92)
	Women	904 (6)	903 (6)	909 (6)	904 (6)	900 (6)
	Trans Women	414 (3)	411 (3)	408 (3)	410 (3)	418 (3)
	Trans Men	5 (<1)	6 (<1)	6 (<1)	6 (<1)	8 (<1)
Race/Ethnicity	White	9,464 (59)	9,413 (59)	9,330 (58)	9,255 (58)	9,203 (58)
	Black/African American	1,939 (12)	1,922 (12)	1,917 (12)	1,902 (12)	1,896 (12)
	Latinx	3,085 (19)	3,125 (20)	3,159 (20)	3,200 (20)	3,218 (20)
	Asian/Pacific Islander	933 (6)	965 (6)	992 (6)	994 (6)	1,002 (6)
	Native American	60 (<1)	60 (<1)	62 (<1)	64 (<1)	68 (<1)
	Multi-race	528 (3)	526 (3)	532 (3)	524 (3)	513 (3)
	Unknown	8 (<1)	8 (<1)	8 (<1)	8 (<1)	8 (<1)
Age in Years (at end of each year)	0 - 12	3 (<1)	2 (<1)	0 (0)	0 (0)	0 (0)
	13 - 17	5 (<1)	4 (<1)	6 (<1)	4 (<1)	3 (<1)
	18 - 24	140 (1)	121 (1)	105 (1)	100 (1)	78 (<1)
	25 - 29	476 (3)	445 (3)	409 (3)	356 (2)	301 (2)
	30 - 39	1,868 (12)	1,824 (11)	1,794 (11)	1,747 (11)	1,707 (11)
	40 - 49	3,951 (25)	3,649 (23)	3,375 (21)	3,133 (20)	2,880 (18)
	50 - 59	5,826 (36)	5,859 (37)	5,856 (37)	5,788 (36)	5,706 (36)
	60 - 69	3,068 (19)	3,305 (21)	3,503 (22)	3,719 (23)	3,967 (25)
	70+	680 (4)	810 (5)	952 (6)	1,100 (7)	1,266 (8)
Transmission Category	MSM	11,605 (72)	11,644 (73)	11,655 (73)	11,635 (73)	11,630 (73)
	TWSM	235 (1)	235 (1)	233 (1)	234 (1)	240 (2)
	PWID	914 (6)	900 (6)	886 (6)	880 (6)	862 (5)
	MSM-PWID	2,290 (14)	2,256 (14)	2,222 (14)	2,185 (14)	2,150 (14)
	TWSM-PWID	176 (1)	173 (1)	172 (1)	173 (1)	175 (1)
	Heterosexual	560 (3)	568 (4)	576 (4)	574 (4)	573 (4)
	Other/Unidentified	237 (1)	243 (2)	256 (2)	266 (2)	278 (2)

1 Persons living with HIV at the end of each year.
2 Provisional number will be revised when death reporting for 2019 is complete.

- Among all new cases reported by the SFDPH each year, 30% to 37% resided outside of San Francisco (Out- of-Jurisdiction, OOJ, residents) at the time of diagnosis (blue line).
- In 2019, OOJ residents accounted for 30% of cases diagnosed in San Francisco.
- During 2010 to 2019, annual diagnoses among OOJ residents declined; 2019 was the only year in this period when the number of OOJ residents diagnosed was below 100.

Figure 1.3 San Francisco HIV cases and out-of-jurisdiction HIV cases diagnosed in San Francisco, 2010-2019, San Francisco



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

- As of December 31, 2019, 15,908 San Francisco residents at diagnosis were alive and 9,366 (59%) of these residents were still living in the city based on their most recent available address.
- The total number of PLWH with a current address of San Francisco is 12,495.
- OOJ residents at diagnosis made up 25% of PLWH with a current address of San Francisco.
- 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 2019 by residence status, San Francisco

			PLWH who were SF residents based on most recent address[1] (N=12,495)	
		PLWH who were SF residents at diagnosis	SF residents at diagnosis	OOJ residents at diagnosis
		Number (%)		
	Total	**15,908**	**9,366**	**3,129**
Gender[2]	Men	14,582 (92)	8,437 (90)	2,923 (93)
	Women	900 (6)	621 (7)	112 (4)
	Trans Women	418 (3)	301 (3)	94 (3)
Race/Ethnicity	White	9,203 (58)	5,020 (54)	1,605 (51)
	Black/African American	1,896 (12)	1,167 (12)	462 (15)
	Latinx	3,218 (20)	2,147 (23)	717 (23)
	Asian/Pacific Islander	1,002 (6)	708 (8)	147 (5)
	Other/Unknown	589 (4)	324 (3)	198 (6)
Age in Years (as of 12/31/2019)	0 - 12	0 (0)	0 (0)	0 (0)
	13 - 17	3 (<1)	1 (<1)	0 (0)
	18 - 24	78 (<1)	57 (1)	40 (1)
	25 - 29	301 (2)	193 (2)	163 (5)
	30 - 39	1,707 (11)	1,077 (11)	730 (23)
	40 - 49	2,880 (18)	1,668 (18)	743 (24)
	50 - 59	5,706 (36)	3,248 (35)	954 (30)
	60 - 69	3,967 (25)	2,327 (25)	418 (13)
	70+	1,266 (8)	795 (8)	81 (3)
Transmission Category	MSM	11,630 (73)	6,622 (71)	2,382 (76)
	TWSM	240 (2)	172 (2)	61 (2)
	PWID	862 (5)	594 (6)	124 (4)
	MSM-PWID	2,150 (14)	1,266 (14)	359 (11)
	TWSM-PWID	175 (1)	127 (1)	33 (1)
	Heterosexual	573 (4)	390 (4)	85 (3)
	Other/Unidentified	278 (2)	195 (2)	85 (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 (non-PWID) comprised half of men living with HIV in San Francisco followed by Latino MSM (non-PWID) who accounted for 16% of men living with HIV.
- Black/African American men had the highest proportion of PWID (12%) while multiracial men had the highest proportion of MSM-PWID (22%).
- White and Black/African American men had similar age distributions at the end of 2019, while Latino, Asian/Pacific Islander, Native American, and multiracial men were younger than whites and Black/African Americans.
- White and Black/African American women accounted for the majority of women living with HIV in San Francisco.
- Injection drug use was the predominant transmission category for white, Black/African American, and multiracial women while heterosexual contact was the predominant transmission category for Latina and Asian/Pacific Islander and Native American women.
- Latinx and Black/African Americans each accounted for 36% and 31%, respectively, of trans women living with HIV.

Table 1.5 Characteristics of persons living with HIV as of December 2019, San Francisco

			White	Black/African American	Latinx	Asian/Pacific Islander & Native American	Multi-Race	Total Number[1]
			Number (%)					
Men	Transmission Category	MSM	7,255 (82)	877 (61)	2,354 (82)	814 (85)	329 (72)	11,630
		PWID	170 (2)	178 (12)	70 (2)	21 (2)	17 (4)	456
		MSM-PWID	1363 (15)	270 (19)	335 (12)	80 (8)	102 (22)	2,150
		Heterosexual	32 (<1)	72 (5)	51 (2)	21 (2)	6 (1)	182
		Other/Unidentified	54 (1)	36 (3)	47 (2)	18 (2)	4 (1)	164
	Age in Years (as of 12/31/2019)	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	12 (<1)	16 (1)	22 (1)	6 (1)	4 (1)	60
		25 - 29	67 (1)	42 (3)	101 (4)	41 (4)	11 (2)	262
		30 - 39	595 (7)	163 (11)	500 (18)	186 (19)	61 (13)	1505
		40 - 49	1,337 (15)	203 (14)	654 (23)	278 (29)	113 (25)	2,587
		50 - 59	3,328 (38)	483 (34)	1013 (35)	286 (30)	160 (35)	5,271
		60 - 69	2,605 (29)	424 (30)	455 (16)	123 (13)	85 (19)	3,695
		70+	930 (10)	102 (7)	112 (4)	34 (4)	23 (5)	1,201
		Men Total	**8,874**	**1,433**	**2,857**	**954**	**458**	**14,582**
Women	Transmission Category	PWID	144 (57)	161 (48)	62 (30)	13 (18)	22 (67)	402
		Heterosexual	82 (33)	138 (42)	113 (54)	52 (70)	6 (18)	391
		Other/Unidentified	25 (10)	33 (10)	33 (16)	9 (12)	5 (15)	107
	Age in Years (as of 12/31/2019)	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)	5 (2)	4 (2)	0 (0)	2 (6)	12
		25 - 29	6 (2)	6 (2)	9 (4)	1 (1)	2 (6)	24
		30 - 39	23 (9)	34 (10)	41 (20)	10 (14)	4 (12)	112
		40 - 49	50 (20)	54 (16)	41 (20)	20 (27)	9 (27)	175
		50 - 59	102 (41)	111 (33)	57 (27)	23 (31)	12 (36)	305
		60 - 69	56 (22)	99 (30)	39 (19)	18 (24)	3 (9)	216
		70+	13 (5)	22 (7)	16 (8)	2 (3)	1 (3)	54
		Women Total	**251**	**332**	**208**	**74**	**33**	**900**
		Trans Women Total	**77**	**129**	**149**	**42**	**21**	**418**

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 zero

- Of the 1,256 San Francisco residents diagnosed with HIV in 2015 to 2019, 343 (27%) were diagnosed at stage 0 (an indicator of recent HIV acquisition), 807 (64%) at stage 1-3, and 106 (8%) 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 higher among trans women, whites, Latinx, persons with other or unknown race/ethnicity, persons under age 30 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 2015-2019, San Francisco

		New Diagnoses[1]	Stage at Diagnosis[2]		
			Stage 0	Stage 1-3	Unknown
		Number (%[3])			
	Total	**1,256**	**343 (27)**	**807 (64)**	**106 (8)**
Year of HIV Diagnosis	2015	298	83 (28)	183 (61)	32 (11)
	2016	264	77 (29)	163 (62)	24 (9)
	2017	244	61 (25)	160 (66)	23 (9)
	2018	242	74 (31)	149 (62)	19 (8)
	2019	208	48 (23)	152 (73)	8 (4)
Gender[4]	Men	1,091	309 (28)	692 (63)	90 (8)
	Women	120	18 (15)	90 (75)	12 (10)
	Trans Women	41	14 (34)	23 (56)	4 (10)
Race/Ethnicity	White	447	131 (29)	285 (64)	31 (7)
	Black/African American	188	41 (22)	122 (65)	25 (13)
	Latinx	393	115 (29)	255 (65)	23 (6)
	Asian/Pacific Islander	173	37 (21)	118 (68)	18 (10)
	Other/Unknown	55	19 (35)	27 (49)	9 (16)
Age at HIV Diagnosis (years)	13-24	154	64 (42)	82 (53)	8 (5)
	25-29	242	76 (31)	146 (60)	20 (8)
	30-39	424	116 (27)	261 (62)	47 (11)
	40-49	254	50 (20)	186 (73)	18 (7)
	50+	182	37 (20)	132 (73)	13 (7)
Transmission Category	MSM	842	251 (30)	523 (62)	68 (8)
	PWID	107	20 (19)	70 (65)	17 (16)
	MSM-PWID	121	37 (31)	78 (64)	6 (5)
	Heterosexual	85	9 (11)	71 (84)	5 (6)
	Other/Unidentified[5]	101	26 (26)	65 (64)	10 (10)

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 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 15% in 2019.
- In 2019, the proportion of new diagnoses that occurred late was higher among trans women, Asians/Pacific Islanders, persons aged 50 years or older at time of diagnosis, PWID, and heterosexuals.

Table 1.7 Late diagnoses among persons newly diagnosed with HIV in 2015-2019 by demographic and risk characteristics, San Francisco

		Year of Diagnosis[1]				
		2015	2016	2017	2018	2019
		Number of new diagnoses (% of who had a late diagnosis[2])				
	Total	**298 (17)**	**264 (11)**	**244 (19)**	**242 (16)**	**208 (15)**
Gender[3]	Men	263 (16)	226 (11)	212 (18)	214 (16)	176 (15)
	Women	27 (22)	29 (10)	27 (22)	20 (25)	17 (12)
	Trans Women	8 (13)	8 (0)	5 (20)	7 (0)	13 (23)
Race/Ethnicity	White	118 (18)	96 (10)	91 (18)	72 (14)	70 (13)
	Black/African American	41 (12)	38 (16)	36 (17)	44 (7)	29 (17)
	Latinx	84 (19)	72 (7)	69 (19)	93 (17)	75 (8)
	Asian/Pacific Islander	38 (11)	50 (12)	32 (25)	26 (27)	27 (33)
	Other/Unknown	17 (24)	8 (13)	16 (19)	7 (43)	7 (29)
Age at HIV Diagnosis (Years)	13-24	46 (7)	34 (3)	29 (7)	30 (7)	15 (13)
	25-29	60 (7)	59 (10)	44 (16)	45 (20)	34 (6)
	30-39	95 (16)	86 (10)	80 (11)	84 (10)	79 (15)
	40-49	65 (26)	45 (16)	52 (33)	51 (18)	42 (12)
	50+	32 (34)	40 (13)	39 (28)	32 (34)	38 (26)
Transmission Category	MSM	220 (15)	177 (12)	150 (17)	159 (17)	136 (13)
	PWID	19 (32)	22 (9)	26 (19)	26 (12)	14 (29)
	MSM-PWID	23 (17)	26 (4)	32 (16)	24 (8)	16 (0)
	Heterosexual	23 (22)	23 (17)	16 (31)	11 (36)	12 (33)
	Other/Unidentified[4]	13 (15)	16 (0)	20 (30)	22 (14)	30 (20)
Housing Status	Homeless	28 (21)	25 (16)	29 (24)	50 (14)	37 (8)
	Housed	259 (16)	228 (11)	201 (18)	184 (17)	148 (7)
	Unknown	11 (18)	11 (0)	14 (21)	8 (13)	23 (74)
County of Birth	US/US Dep.	140 (16)	118 (7)	106 (15)	115 (10)	78 (13)
	Non-US	102 (16)	94 (12)	69 (32)	90 (23)	69 (16)
	Unknown	56 (20)	52 (17)	69 (12)	37 (16)	61 (16)

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.

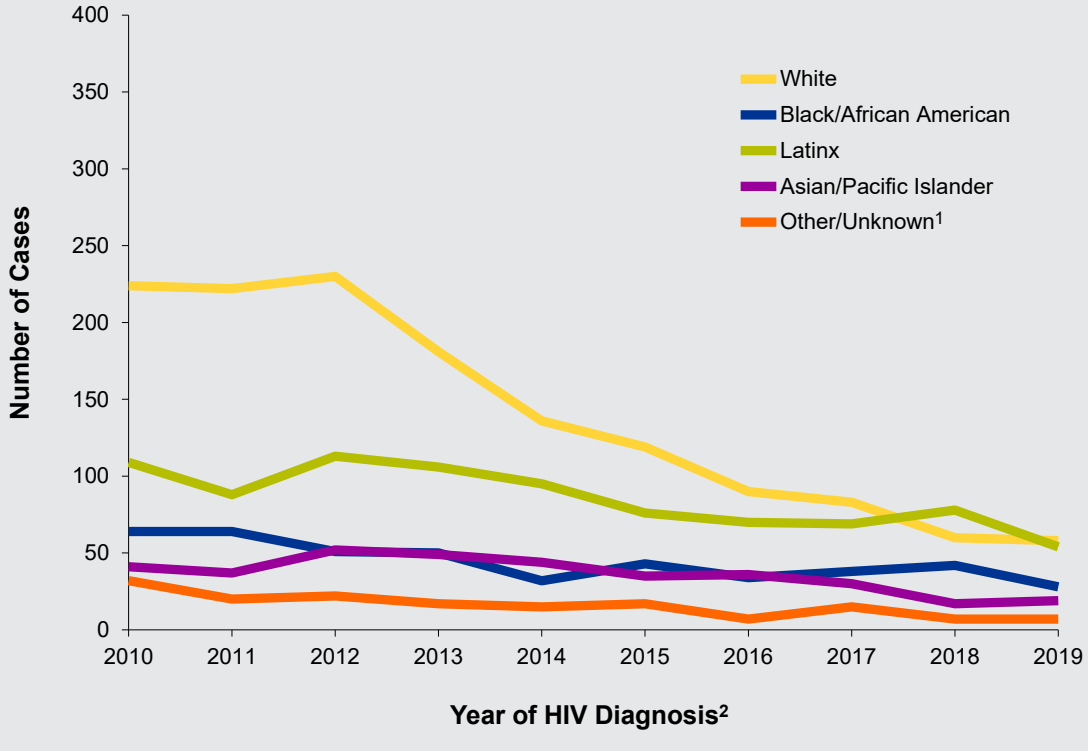
2 Trends in HIV Diagnoses

Race/ethnicity

Whites
ACCOUNTED FOR THE LARGEST NUMBER OF NEWLY DIAGNOSED CASES FROM 2010-2019

- Diagnoses among whites were stable from 2010 to 2012, declined from 2013 through 2018, and remained steady from 2018 to 2019.
- Overall, diagnoses among Latinx declined from 2010 to 2015 and were relatively stable from 2015 to 2018 with a slight decline in 2019 to 54.
- Diagnoses among Black/African Americans also declined since 2010 to 28 in 2019.
- Diagnoses among Asians/Pacific Islanders began slowly declining in 2013 and leveling in 2018-2019.

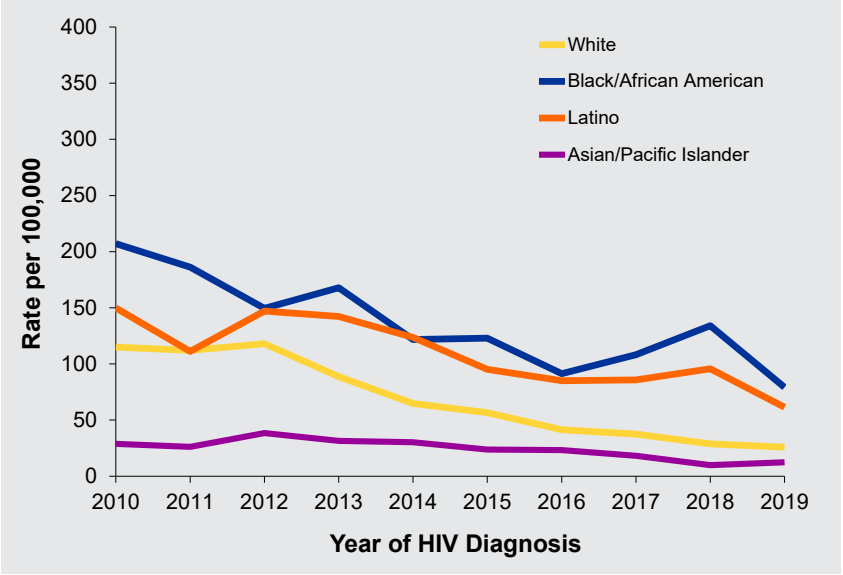
Figure 2.1 Number of persons newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco



1 Cases in the "Other/Unknown" racial/ethnic category include 12% Native Americans, 85% 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 2010 through 2019; the decline was most sustained for white men from 2013 to 2019.
- Black/African American and Latino men had similar rates for most years during 2012 to 2019.
- Diagnosis rates among both Black/African American and Latino men increased in 2018 and declined in 2019 to 79 and 61 per 100,000, respectively.
- From 2010 through 2019, Asian and Pacific Islander men had a peak diagnosis rate of 38 per 100,000 in 2012; the diagnosis rate dropped to 12 per 100,000 in 2019.

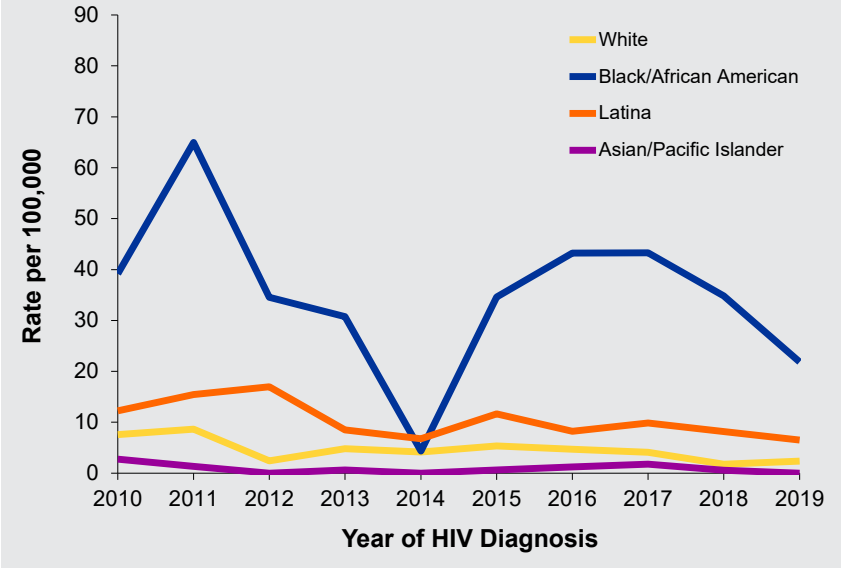
Figure 2.2 Annual rates[1] of men newly diagnosed with HIV per 100,000 population by race/ethnicity, 2010-2019, San Francisco



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

- From 2010 through 2019, the annual population-specific rates of HIV diagnosis were substantially lower for white, Black/African American, Latina, and Asian/Pacific Islander women compared to men of the same racial/ethnic group.
- Diagnosis rates among Black/African American women increased in 2011, then plateaued and declined during 2015 to 2019.
- Except for 2014, the annual rates of HIV diagnosis were higher for Black/African American women compared to white, Latina, and Asian/Pacific Islander women.

Figure 2.3 Annual rates[1] of women newly diagnosed with HIV per 100,000 population by race/ethnicity, 2010-2019, San Francisco

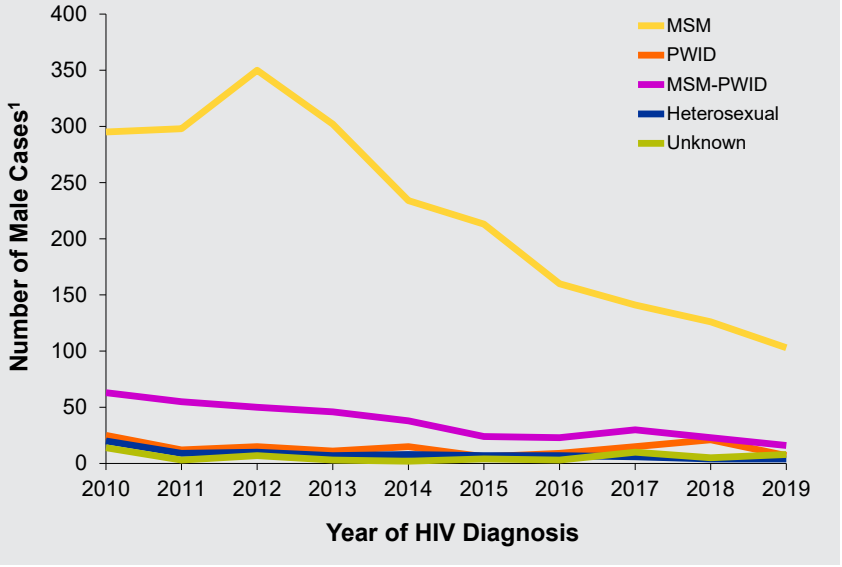


1 See Technical Notes "HIV Case Rates and HIV Mortality Rates." Includes persons with HIV by year of their initial HIV diagnosis. Excludes trans men diagnosed with HIV. Rates for Native American and multiracial cases are not calculated due to small numbers.

Transmission category

- The majority of men newly diagnosed with HIV during 2010 through 2019 were MSM (non-PWID).
- The annual number of MSM diagnosed increased from 2010 to 2012 and declined each year after 2013.
- The annual number of MSM-PWID diagnosed also declined gradually from 63 in 2010 to 16 in 2019.
- Diagnoses in heterosexual PWID increased starting in 2016 and declined in 2019.
- Annual diagnoses among men due to heterosexual contact declined during this time period to 4 cases in 2018 and 2019.

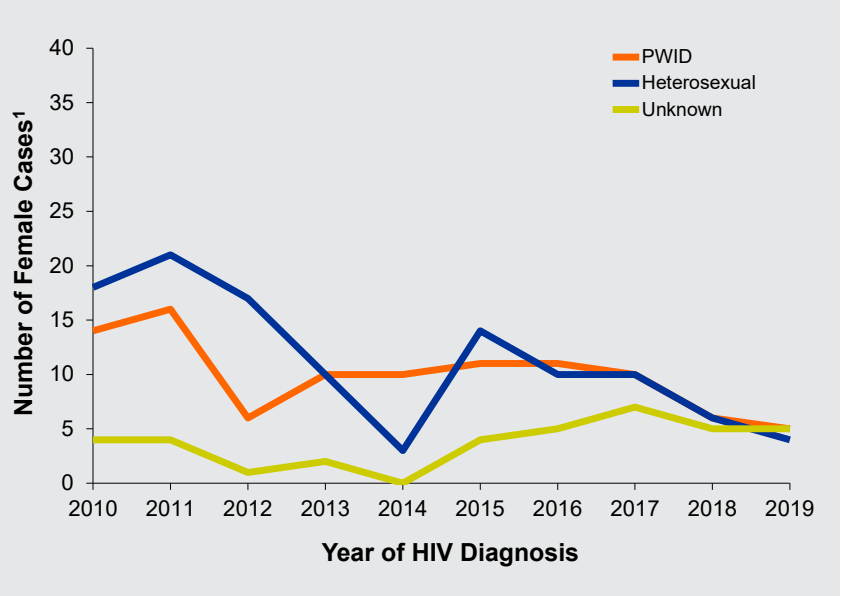
Figure 2.4 Number of men newly diagnosed with HIV by transmission category, 2010-2019, San Francisco



1 Excludes 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.
- The number of new diagnoses each year among female PWID was stable from 2013 to 2017 and declined in 2018 and 2019.

Figure 2.5 Number of women newly diagnosed with HIV by transmission category, 2010-2019, San Francisco



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

Age

- Diagnoses among men declined from 254 in 2015 to 138 in 2019, while diagnoses among women declined from 29 in 2015 to 14 in 2019.
- In this time period, among men, the 30-39 age group had the highest number of new diagnoses, followed by men 25-29 years of age.
- During this time period there were no new diagnoses in those under 13 years of age.

Table 2.1 Number of persons newly diagnosed with HIV by gender[1] and age at diagnosis, 2015-2019, San Francisco

		Year of Initial HIV Diagnosis[2]				
		2015	2016	2017	2018	2019
		Number (%)				
Men (Age in years)	0 - 12	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	13 - 17	2 (1)	0 (0)	1 (<1)	1 (1)	0 (0)
	18 - 24	35 (14)	30 (15)	20 (10)	26 (15)	12 (9)
	25 - 29	64 (25)	45 (22)	40 (20)	39 (22)	23 (17)
	30 - 39	73 (29)	67 (33)	73 (36)	53 (30)	51 (37)
	40 - 49	54 (21)	33 (16)	38 (19)	38 (21)	23 (17)
	50+	26 (10)	27 (13)	30 (15)	22 (12)	29 (21)
	Men Total	**254**	**202**	**202**	**179**	**138**
Women (Age in years)	0 - 12	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	13 - 17	1 (3)	0 (0)	2 (7)	0 (0)	0 (0)
	18 - 24	2 (7)	2 (8)	3 (11)	2 (12)	2 (14)
	25 - 29	6 (21)	5 (19)	1 (4)	0 (0)	0 (0)
	30 - 39	11 (38)	7 (27)	5 (19)	7 (41)	7 (50)
	40 - 49	4 (14)	4 (15)	9 (33)	3 (18)	3 (21)
	50+	5 (17)	8 (31)	7 (26)	5 (29)	2 (14)
	Women Total	**29**	**26**	**27**	**17**	**14**

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

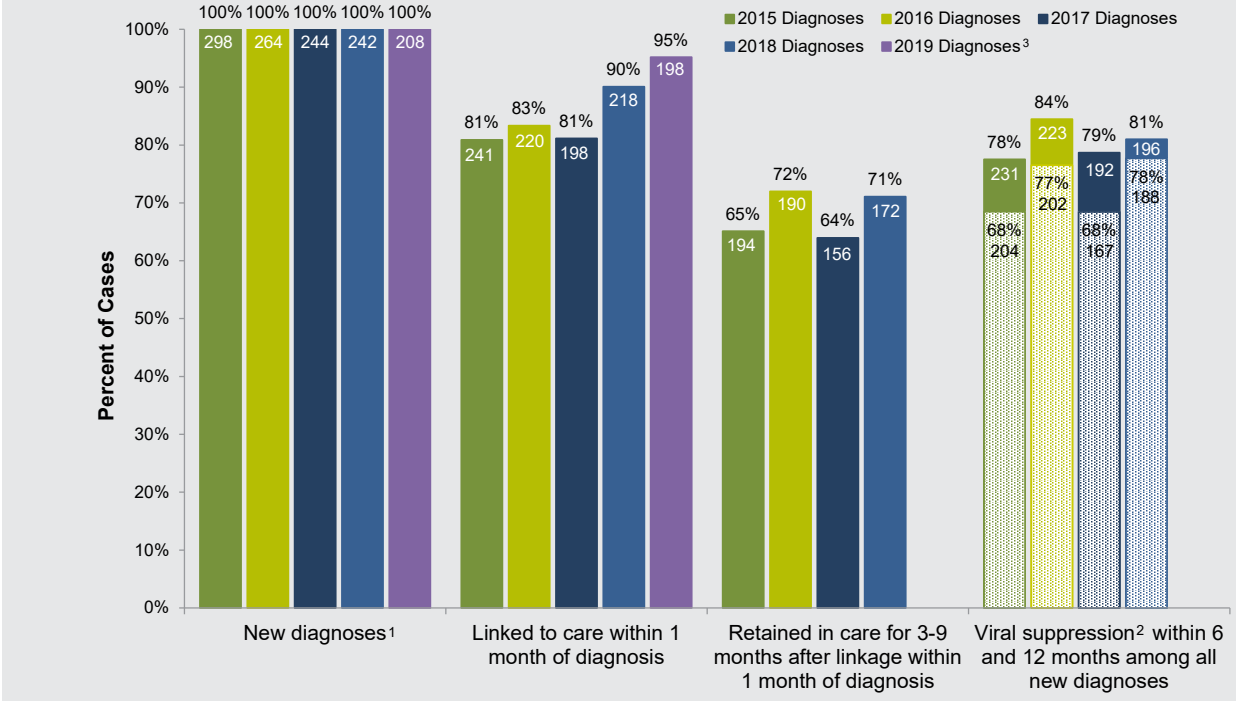
Continuum of HIV care among persons newly diagnosed with HIV

- Between 2015 through 2019, the proportion of newly diagnosed persons who entered care within one month increased to between 81% and 95%.
- Not all persons who entered care continued to receive care; 65%-72% of persons diagnosed in 2015 to 2018 remained in care three to nine months after initial linkage to care.
- The proportion of newly diagnosed persons who achieved viral suppression within 12 months showed an overall upward trend between 2015 and 2018 with the highest proportion virally suppressed among persons diagnosed in 2016 (84%).
- In 2018, 78% of persons diagnosed were virally suppressed within six months of diagnosis which is close to the level of viral suppression achieved in 12 months.

95%
OF PERSONS NEWLY DIAGNOSED IN 2019 ENTERED CARE WITHIN ONE MONTH

81%
OF PERSONS NEWLY DIAGNOSED IN 2018 ACHIEVED VIRAL SUPPRESSION WITHIN 12 MONTHS

Figure 3.1 Continuum of HIV care among persons newly diagnosed with HIV, 2015-2019, San Francisco

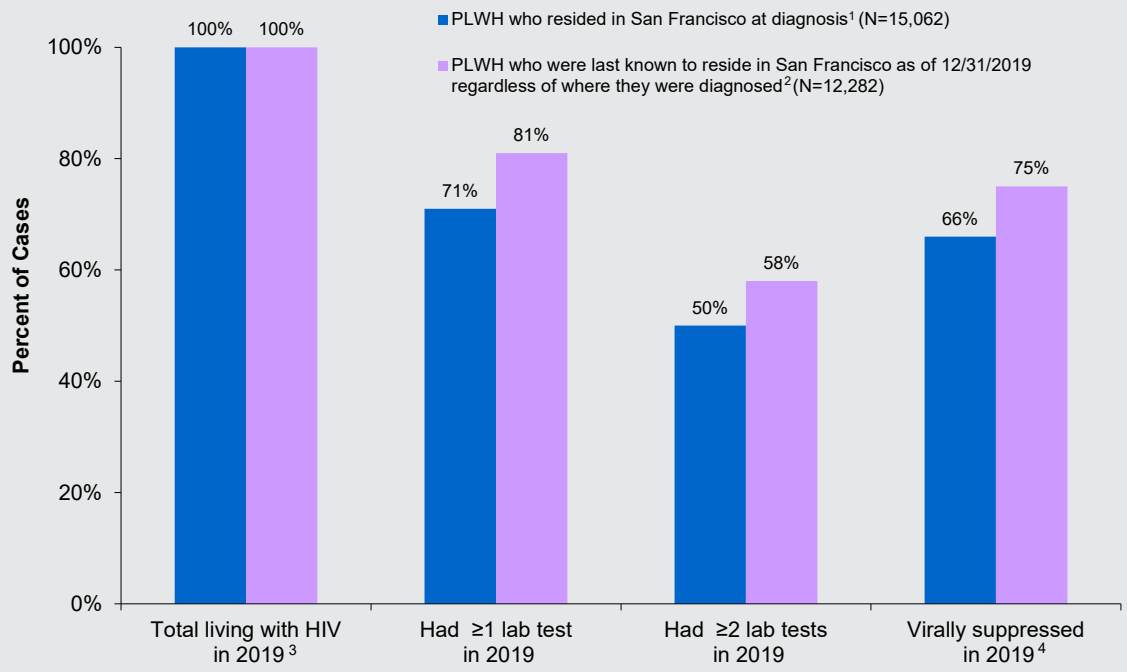


1 Number of new diagnoses shown each year is based on evidence of a confirmed HIV test and does not take into account self-report of HIV infection.
2 Defined as the latest viral load test within 6 and 12 months of HIV diagnosis <200 copies/mL. See Technical Notes "HIV Care Outcomes and Definitions."
3 Retention in care and viral suppression data are not available yet for persons diagnosed in 2019.

Continuum of HIV care among persons living with HIV

- As of December 31, 2019 there were 15,062 persons living with HIV (PLWH) who were diagnosed through the end of 2018 and who resided in San Francisco at time of diagnosis. Of these, 71% had at least one CD4, viral load or genotype test (received care), 50% had two or more laboratory tests at least three months apart (retained in care), and 66% were virally suppressed in 2019.
- Of the 12,282 PLWH who resided in San Francisco based on their most recent address (9,178 San Francisco residents at diagnosis and still in San Francisco, 3,104 out-of-jurisdiction (OOJ) residents at diagnosis who moved to San Francisco after diagnosis), 81% received care, 58% were retained in care and 75% were virally suppressed in 2019.

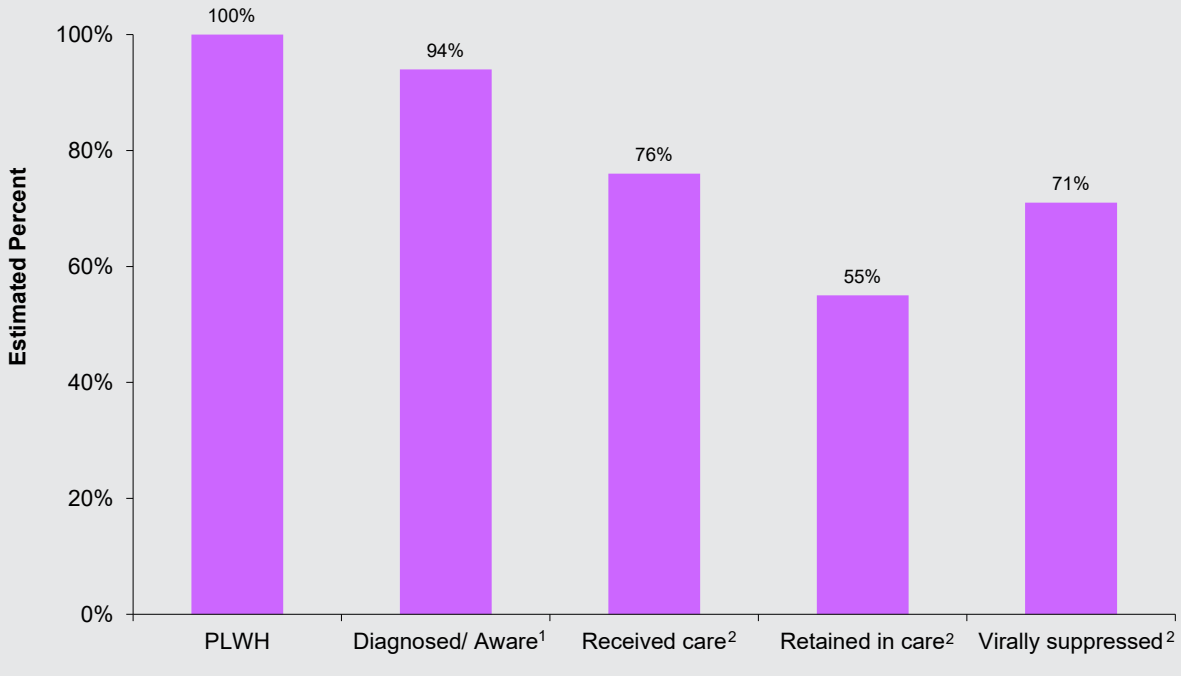
Figure 3.2 Continuum of HIV care among persons living with HIV, 2019, San Francisco



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 2019 (≥ 13 years old) and diagnosed by the end of 2018.
4 Defined as the latest viral load in 2019 <200 copies/mL.

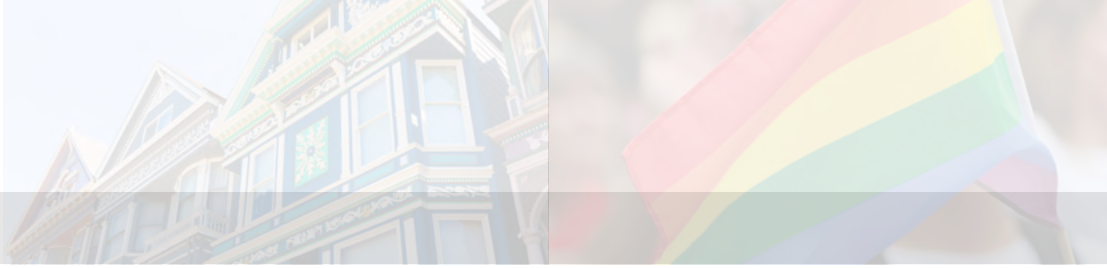
- Among all persons with HIV (diagnosed and undiagnosed), it is estimated that 94% were aware of their HIV diagnosis, 76% received care, 55% were retained in care, and 71% were virally suppressed in 2019.

Figure 3.3 Continuum of HIV care among persons living with diagnosed or undiagnosed HIV infection, 2019, San Francisco



1 The estimated percent aware of HIV diagnosis for San Francisco was 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 94% diagnosed/aware to the 81% who had ≥1 lab tests, 58% who had ≥2 lab tests, and 75% who were virally suppressed among persons living with HIV who were last known to reside in San Francisco as shown in Figure 3.2, respectively.



HIV care and prevention indicators

- The proportion of late stage HIV diagnosis, defined as a new case who developed HIV disease stage 3 (AIDS) within three months of HIV diagnosis, fluctuated from 17% in 2015 to 15% in 2019.
- The median time from HIV diagnosis to viral suppression decreased from 79 days in 2015 to 46 days in 2018.
- All care indicators from diagnosis to viral suppression improved over time including time from HIV diagnosis to first care (from 7 days in 2015 to 2 days in 2018), time from receipt of care to antiretroviral therapy (ART) initiation (from 7 days in 2015 to 0 day in 2017 and 2018) and time from ART initiation to viral suppression (from 54 days in 2015 to 35 days in 2018).
- 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%), remained relatively stable in recent years.

Table 3.1 Care and prevention indicators among persons newly diagnosed with HIV and living with HIV, 2015-2019, San Francisco

		Year				
		2015	2016	2017	2018	2019
Indicators	**New HIV diagnoses[1]**	**N=298**	**N=264**	**N=244**	**N=242**	**N=208**
	Proportion developed HIV stage 3 (AIDS) within 3 months of diagnosis	17%	11%	19%	16%	15%
	Proportion linked to care within 1 month of diagnosis	81%	83%	81%	90%	95%
	Proportion virally suppressed[2] within 12 months of diagnosis	78%	84%	79%	81%	NA
	Median time (days) from HIV diagnosis to first viral suppression	79	65	65	46	NA
	Median time (days) from HIV diagnosis to first care	7	5	4	2	NA
	Median time (days) from first care to ART initiation[3]	7	1	0	0	NA
	Median time (days) from ART initiation to first viral suppresssion[3]	54	42	46	35	NA
	Living HIV cases[4] (≥13 years old)	**N=13,713**	**N=13,053**	**N=12,768**	**N=12,420**	**N=12,282**
	Proportion of cases who had ≥1 CD4/viral load test	82%	82%	81%	81%	81%
	Proportion received ≥2 tests among those with ≥1 test	76%	76%	74%	72%	72%
	Proportion virally suppressed[2] among living cases	74%	74%	74%	74%	75%
	Proportion virally suppressed among those with ≥1 viral load test	91%	92%	92%	93%	93%

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 are noticeable differences in care outcomes among persons diagnosed with HIV in 2018 by demographic and risk characteristics.
- Linkage to care, retention in care, and viral suppression were lower among women, whites, Black/African Americans, persons aged 30-39 years, and persons who inject drugs (PWID).
- MSM-PWID and persons experiencing homelessness at HIV diagnosis had a lower proportion of linkage to care and viral suppression, and persons born in the U.S. had a lower proportion of viral suppression.

Table 3.2 Care indicators[1] among persons newly diagnosed with HIV in 2018 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	**242**	**90%**	**71%**	**81%**
Gender[4]	Men	214	90%	72%	82%
	Women	20	85%	55%	65%
	Trans Women	7	100%	86%	86%
Race/Ethnicity	White	72	88%	68%	74%
	Black/African American	44	86%	66%	80%
	Latinx	93	91%	73%	84%
	Asian/Pacific Islander	26	96%	85%	92%
	Other/Unknown	7	100%	57%	86%
Age at Diagnosis	13-24	30	100%	77%	80%
	25-29	45	91%	71%	80%
	30-39	84	88%	67%	76%
	40-49	51	88%	71%	86%
	50+	32	88%	78%	88%
Transmission Category	MSM	159	93%	74%	86%
	PWID	26	81%	65%	65%
	MSM-PWID	24	83%	71%	71%
	Heterosexual	11	91%	55%	91%
	Other/Unidentified[5]	22	86%	68%	68%
Housing Status at Diagnosis	Homeless	50	88%	72%	68%
	Housed	184	91%	71%	85%
	Unknown	8	75%	63%	75%
Country of Birth	US	115	92%	71%	77%
	Non-US	90	92%	73%	93%
	Unknown	37	78%	65%	65%

1 See Technical Notes "HIV Care Outcomes and Definitions."
2 Includes persons diagnosed in 2018 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 2019, 75% were virally suppressed; among those who received care in 2019, 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, and persons experiencing homelessness.

Table 3.3 Care indicators among persons living with HIV in 2019 who were known to reside in San Francisco as of the end of 2019, by demographic and risk characteristics

		Number of living cases[1]	% with >= 1 laboratory test in 2019[2]	% with >= 2 laboratory tests in 2019[2]	% Virally suppressed (most recent viral load test in 2019 <200 copies/mL) among all living cases	% Virally suppressed (most recent viral load test in 2019 <200 copies/mL) among those with >= 1 laboratory test in 2019
	Total	**12,282**	**81%**	**58%**	**75%**	**92%**
Gender[3]	Men	11,180	81%	58%	75%	93%
	Women	716	83%	57%	71%	86%
	Trans Women	381	86%	65%	74%	86%
Race/Ethnicity	White	6,559	82%	59%	77%	94%
	Black/African American	1,601	80%	58%	70%	87%
	Latinx	2,779	78%	57%	72%	92%
	Asian/Pacific Islander	830	81%	57%	76%	95%
	Other/Unknown	513	85%	59%	74%	87%
Age in Years (as of 12/31/2019)	13-24	84	86%	60%	76%	89%
	25-29	323	85%	54%	74%	87%
	30-39	1,716	78%	50%	68%	87%
	40-49	2,372	77%	52%	69%	89%
	50-59	4,181	80%	57%	75%	93%
	60-69	2,730	86%	67%	82%	96%
	70+	876	84%	69%	82%	97%
Transmission Category	MSM	8,862	81%	58%	77%	95%
	TWSM	223	88%	66%	78%	89%
	PWID	705	80%	55%	66%	82%
	MSM-PWID	1,612	81%	59%	69%	85%
	TWSM-PWID	156	82%	63%	67%	81%
	Heterosexual	463	83%	58%	75%	91%
	Other/Unidentified	261	63%	43%	57%	90%
Housing Status, Most Recent	Homeless	469	56%	41%	39%	71%
	Non-Homeless[4]	11,813	82%	59%	76%	93%
Country of Birth	US	8,687	83%	59%	76%	92%
	Non-US	2,287	74%	54%	70%	94%
	Unknown	1,308	81%	58%	75%	92%

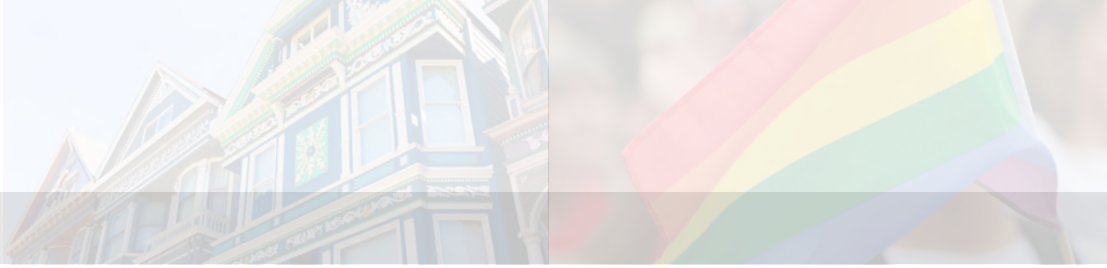
1 Includes San Francisco residents living with HIV as of the end of 2019 (≥13 years old) and diagnosed by the end of 2018. See Technical Notes "Residence and Receipt of Care for PLWH."
2 Percent of total living cases.
3 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."
4 Includes persons whose most recent residence in San Francisco was unknown.

- From January 1, 2018 through December 31, 2018, 140 PLWH were referred, accepted, and completed Linkage Integration Navigation Comprehensive Services (LINCS; see Technical Notes "Linkage Integration Navigation Comprehensive Services").
- 86% of those who completed LINCS had a viral load, CD4 test or genotyping test within three months of LINCS initiation.
- 61% of persons who completed LINCS had additional testing in the three to nine months after linkage, indicating retention in care.
- 58% of persons who completed LINCS showed evidence of viral suppression at their most recent viral load in the 12 month period after they began the LINCS program.
- Among persons who completed LINCS, women, whites, persons aged 13-29 years, PWID, and non-homeless persons had the highest proportion achieving viral suppression.

Table 3.4 Care indicators among persons who accepted and completed LINCS services in 2018 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	**140**	**86%**	**61%**	**58%**
Gender[2]	Men	111	86%	59%	57%
	Women	22	82%	68%	64%
	Trans Women	7	100%	71%	57%
Race/Ethnicity	White	51	80%	61%	65%
	Black/African American	28	93%	57%	57%
	Latinx	45	87%	60%	51%
	Asian/Pacific Islander	8	88%	50%	63%
	Other/Unknown	8	88%	88%	50%
Age in Years (as of 12/31/18)	13-24	6	67%	50%	67%
	25-29	15	100%	73%	67%
	30-39	44	84%	73%	52%
	40-49	33	82%	55%	52%
	50+	42	88%	50%	64%
Transmission Category	MSM	64	88%	56%	59%
	PWID	24	83%	58%	63%
	MSM-PWID	28	86%	71%	54%
	Heterosexual	12	83%	67%	58%
	Other/Unidentified[3]	12	83%	58%	50%
Housing Status	Homeless	61	82%	64%	51%
	Housed	78	88%	58%	63%
	Unknown	1	100%	100%	100%

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 2018.



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

- Awareness of HIV status in San Francisco is high (94%) compared to all of California (87%) and the U.S. (86%) using national data sources.
- Pre-exposure prophylaxis (PrEP) coverage is very high (71%) in San Francisco compared to California (22%) and the U.S. (18%).
- The proportion of late HIV diagnosis in 2018 was lower in San Francisco than in California and the U.S.
- The proportions of persons with HIV who received care and were virally suppressed in 2018 were higher in San Francisco than in California and the U.S.
- The death rates per 1,000 persons with HIV or HIV stage 3 (AIDS) in 2018 in San Francisco were higher than in California and the U.S.

Table 3.5 Comparison of HIV prevention and care indicators for San Francisco, California, and the United States, 2018

		San Francisco 2018	California[1] 2018	United States[1] 2018
Indicators	**Awareness of HIV status[2]**			
	Estimated % persons living with HIV who know their serostatus	94%	87%	86%
	Pre-exposure prophylaxis coverage			
	Estimated % persons with PrEP indications who have been prescribed PrEP	71%[1]	22%	18%
	Late HIV diagnosis			
	% persons diagnosed with AIDS within 3 months of HIV diagnosis	16%	19%	21%
	HIV care access and outcome			
	% newly diagnosed persons linked to care within 1 month of HIV diagnosis	90%	80%	80%
	% newly diagnosed persons virally supressed within 6 months of HIV diagnosis	78%	66%	67%
	% PLWH who are in care (≥1 laboratory tests)	81%	76%	76%
	% PLWH who are virally suppressed	74%	67%	65%
	HIV mortality			
	Death rate per 1,000 persons with HIV (all stages) diagnosis	15.2	12.9	15.0
	Death rate per 1,000 persons with HIV stage 3 (AIDS) diagnosis	23.0	19.6	22.5

1 CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2018. HIV Surveillance Supplemental Report 2020;25(No. 2). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2020.

2 CDC. Estimated HIV incidence and prevalence in the United States, 2014–2018. HIV Surveillance Supplemental Report 2020;25(No. 1). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2020.

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 people experiencing homelessness.
- Among 242 persons newly diagnosed with HIV in 2018, 93% received ART. ART use was lower among trans women, whites, and PWID.

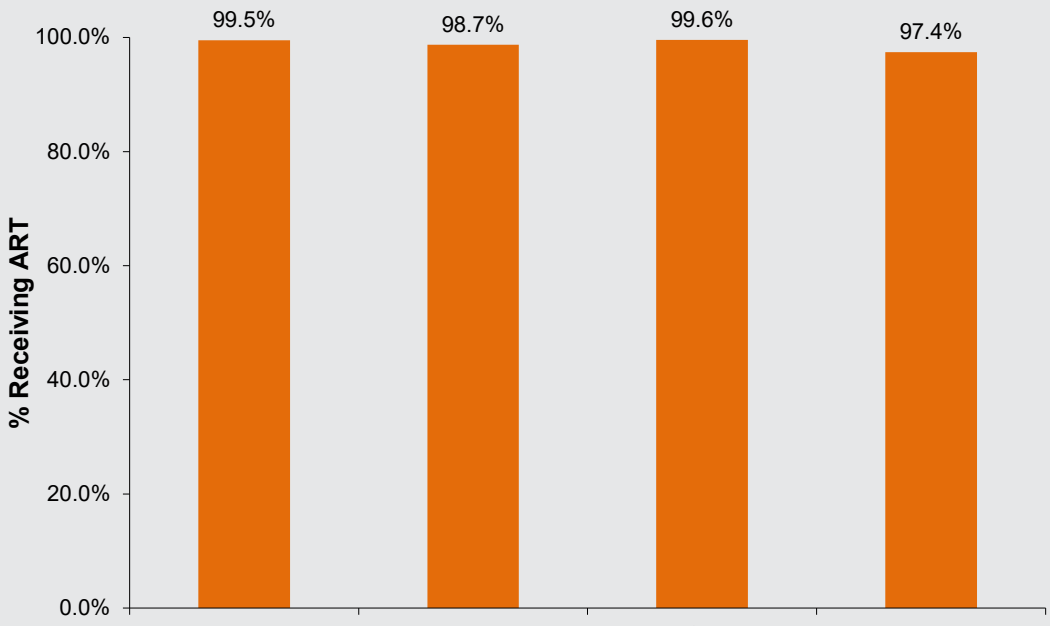
Table 3.6 Estimate of ART use among persons living with HIV as of December 2019 and diagnosed in 2018 by demographic and risk characteristics, San Francisco

		Persons living with HIV[1], December 2019 Percent receiving ART, ever		Persons newly diagnosed with HIV[1], 2018 Percent receiving ART
		Lower level estimate (N=15,236)	Upper level estimate (N=6,632)	(N=242)
	Overall	**91%**	**99%**	**93%**
Gender[2]	Men	91%	99%	93%
	Women	91%	96%	95%
	Trans Women	91%	99%	86%
Race/Ethnicity	White	92%	99%	88%
	Black/African American	88%	97%	91%
	Latinx	91%	99%	98%
	Asian/Pacific Islander	90%	99%	100%
	Other/Unknown	89%	97%	86%
Age[3]	13 - 24	96%	100%	97%
	25 - 29	90%	95%	91%
	30 - 39	86%	97%	94%
	40 - 49	87%	99%	92%
	50 +	93%	99%	94%
Transmission Category	MSM	92%	99%	94%
	PWID	87%	96%	85%
	MSM-PWID	92%	99%	96%
	Heterosexual	95%	98%	100%
	Other/Unidentified[4]	84%	97%	91%
Housing Status[5]	Homeless	68%	87%	94%
	Non-Homeless	92%	99%	93%
Insurance at Diagnosis	Private	95%	99%	96%
	Public	93%	98%	92%
	None	88%	99%	96%

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, 2019 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: 99.5% among those with a nadir CD4 count below 200 cells/μL, 98.7% among those with a nadir CD4 count between 200-350 cells/μL, 99.6% among those with a nadir CD4 count between 351-500 cells/μL, and 97.4% among those with a nadir CD4 count above 500 cells/μL.

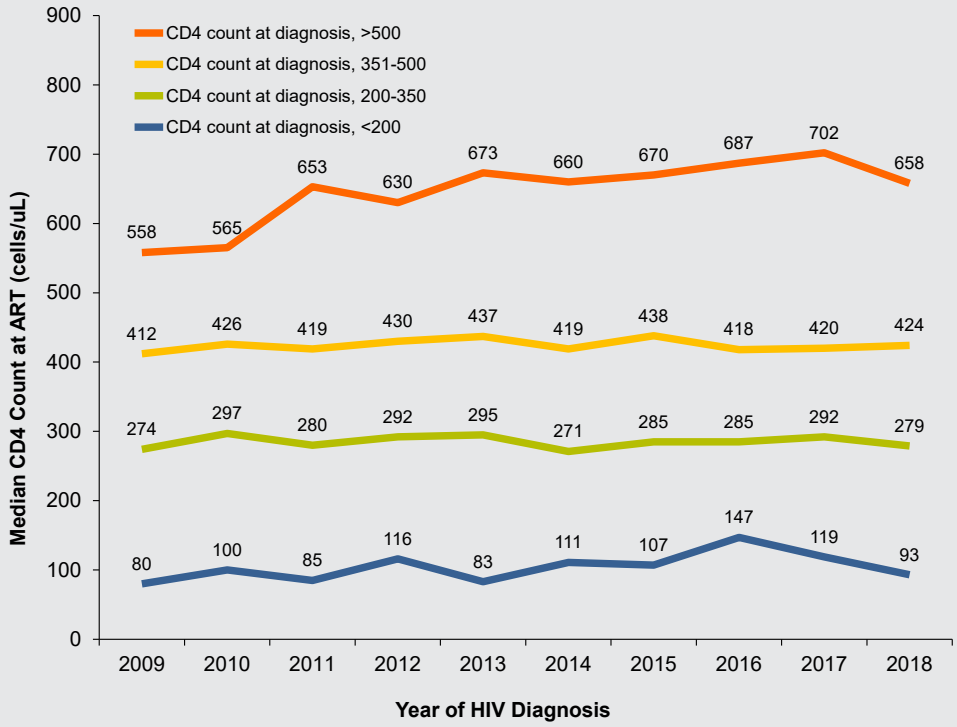
Figure 3.4 Estimate of ART use[1] among persons living with HIV[2] and with chart review, by nadir CD4 level, December 2019, San Francisco



1 See Technical Notes "Estimate of ART Use."
2 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.

- Among persons newly diagnosed with HIV between 2009 and 2018 whose CD4 count at diagnosis was >500 cells/μL, the median CD4 count at ART initiation increased from 558 cells/μL in 2009 to 702 cells/μL in 2017 and then decreased to 658 cells/μL in 2018.
- 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 80 and 147 cells/μL during 2009 and 2018.

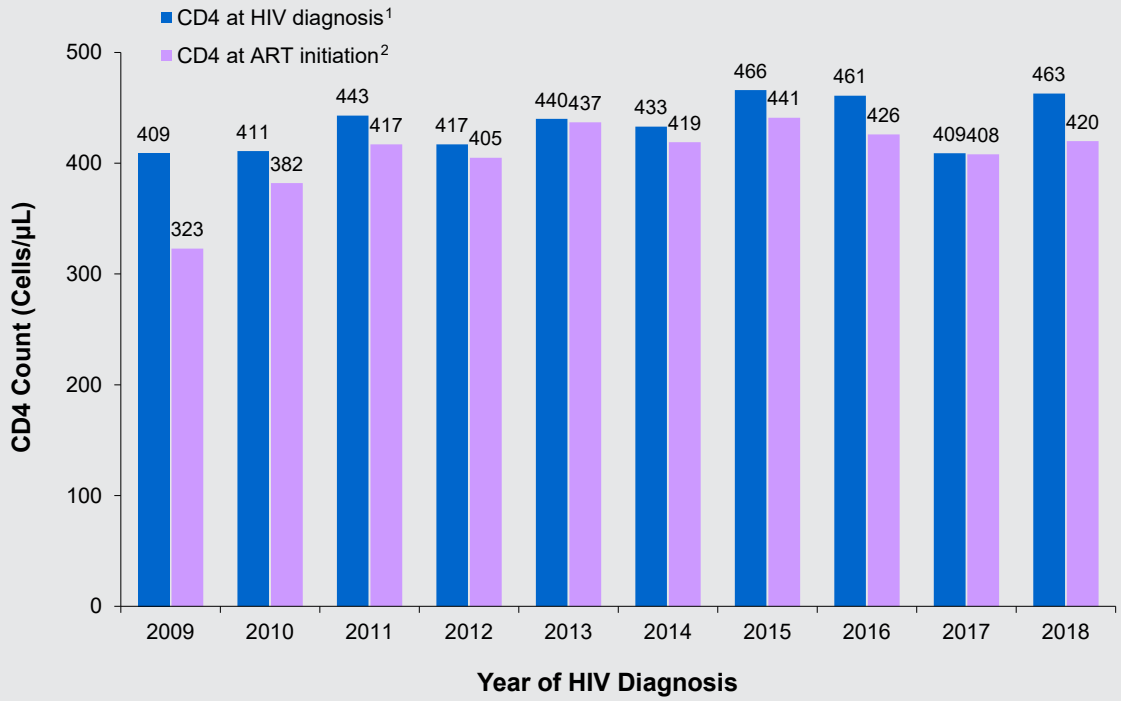
Figure 3.5 Trends in median CD4 count at time of ART initiation[1] by CD4 count at time of diagnosis, 2009-2018, San Francisco



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=2,610).

- Among persons newly diagnosed with HIV between 2009 and 2018, the median CD4 count at HIV diagnosis increased from 409 cells/μL in 2009 to 463 cells/μL in 2018.
- Among those newly diagnosed who started ART, the median CD4 count at ART initiation followed a similar trend as the median CD4 count at HIV diagnosis; increased from 323 cells/μL in 2009 to 420 cells/μL in 2018.
- The increasing CD4 count at diagnosis and CD4 count at ART initiation suggest a trend towards earlier HIV diagnosis and timely ART initiation between 2009 and 2018.

Figure 3.6 Trends in median CD4 count at time of diagnosis and at time of ART initiation among persons newly diagnosed with HIV, 2009-2018, San Francisco



1 Median CD4 count at HIV diagnosis was calculated among persons whose CD4 count at HIV diagnosis was available (N=3,150).
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=2,610).

- Overall, 34% of persons diagnosed with HIV between 2014 and 2018 who were in care started ART within seven days of diagnosis (rapid ART initiation), 29% started ART 8-30 days after diagnosis, 30% 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 16% in 2014 to 59% in 2018.
- A higher proportion of rapid ART initiation was observed among Latinx (44%), persons 13-24 years (41%), heterosexuals (40%), persons born outside the U.S. (39%), and those with public insurance (37%) or no insurance (38%).
- Trans women had the lowest proportion of rapid ART initiation (16%).

Table 3.7 Time from HIV diagnosis to ART initiation among persons diagnosed with HIV in 2014-2018 by demographic and risk characteristics, San Francisco

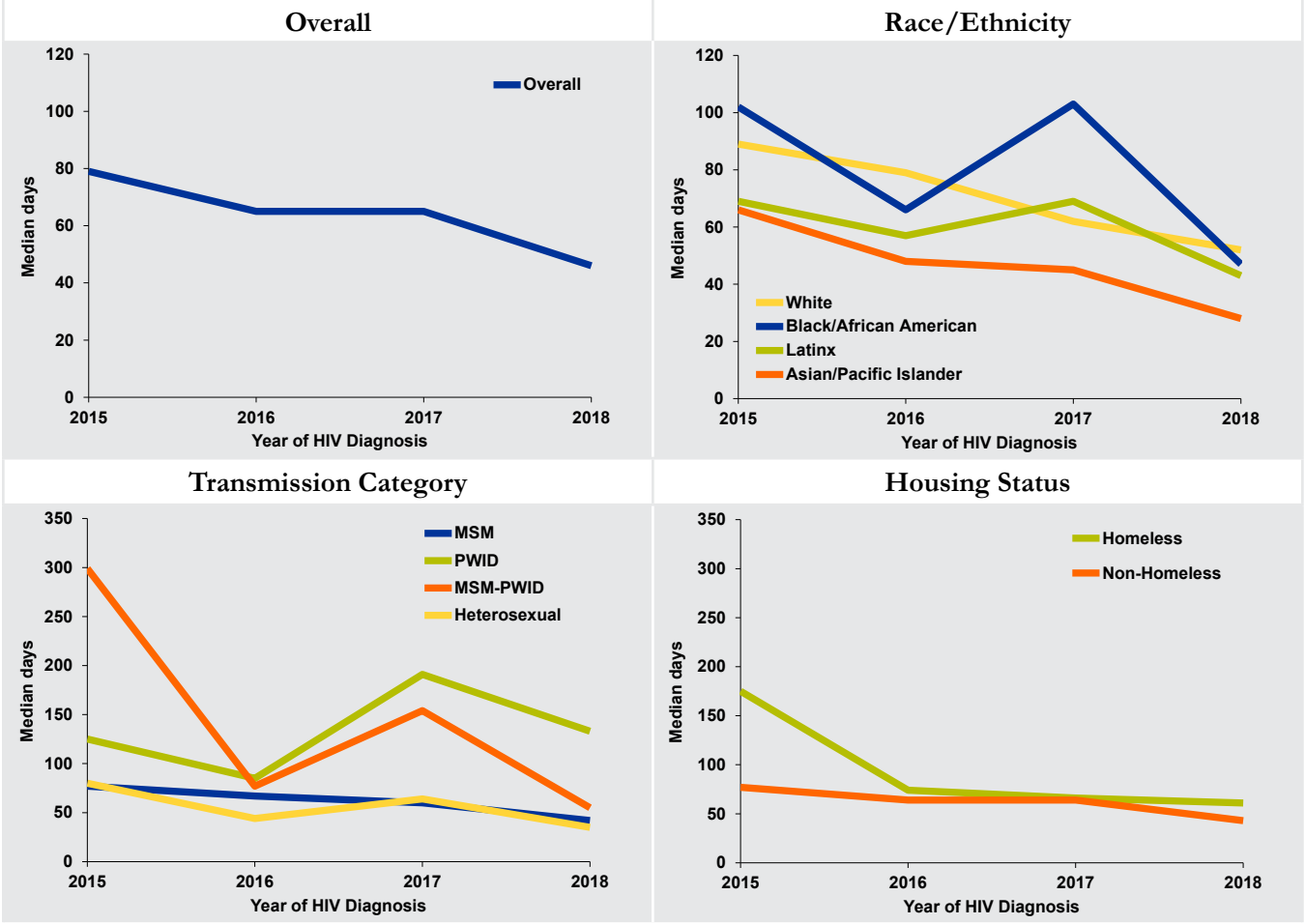
		Number of diagnoses[1]	% Started ART within 7 days of diagnosis	% Started ART 8-30 days after diagnosis	% Started ART > 30 days after diagnosis	% Not known to have started ART
	Total	**1,211**	**34%**	**29%**	**30%**	**7%**
Year of Diagnosis	2014	299	16%	29%	46%	9%
	2015	272	25%	31%	36%	7%
	2016	224	36%	29%	30%	5%
	2017	215	46%	27%	20%	7%
	2018	201	59%	26%	9%	6%
Gender	Men	1,067	35%	29%	29%	7%
	Women	105	32%	28%	31%	9%
	Trans Women	37	16%	27%	51%	5%
Race/Ethnicity	White	475	28%	32%	32%	8%
	Black/African American	179	35%	21%	35%	9%
	Latinx	350	44%	27%	24%	5%
	Asian/Pacific Islander	147	32%	31%	31%	6%
	Other/Unknown	60	32%	30%	33%	5%
Age at Diagnosis	13-24	161	41%	29%	23%	7%
	25-29	236	35%	30%	29%	6%
	30-39	378	35%	28%	30%	8%
	40-49	253	32%	28%	34%	7%
	50+	183	30%	29%	33%	8%
Transmission Category	MSM	820	35%	30%	28%	7%
	PWID	111	34%	20%	34%	12%
	MSM-PWID	132	29%	27%	36%	8%
	Heterosexual	75	40%	33%	23%	4%
	Other/Unidentified[2]	73	29%	26%	40%	5%
Housing Status at Diagnosis	Homeless	154	35%	21%	34%	10%
	Housed	1,011	35%	29%	30%	7%
	Unknown	46	26%	43%	22%	9%
Country of Birth	US	623	33%	27%	32%	8%
	Non-US	348	39%	31%	25%	5%
	Unknown	240	31%	28%	33%	8%
Insurance at Diagnosis	Private	426	32%	34%	28%	6%
	Public	409	37%	26%	30%	7%
	None	264	38%	26%	31%	5%
	Unknown	112	24%	26%	35%	15%

1 Excludes persons who were not in care (N=33) or persons who reported taking ART prior to diagnosis (N=132).
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 2018 among whites and Asians/Pacific Islanders; Black/African Americans had the highest median time to viral suppression in 2017 (103 days) and it has decreased by more than half in 2018 (47 days) to a level similar to that for whites (52 days) and Latinx (43 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 four-year time period.
- By housing status, time to viral suppression among people experiencing homelessness was high in 2015 but has decreased significantly in 2016 and remained relatively stable through 2018.

Figure 3.7 Median time from HIV diagnosis to viral suppression by race/ethnicity, transmission category, and housing status, 2015-2018, San Francisco

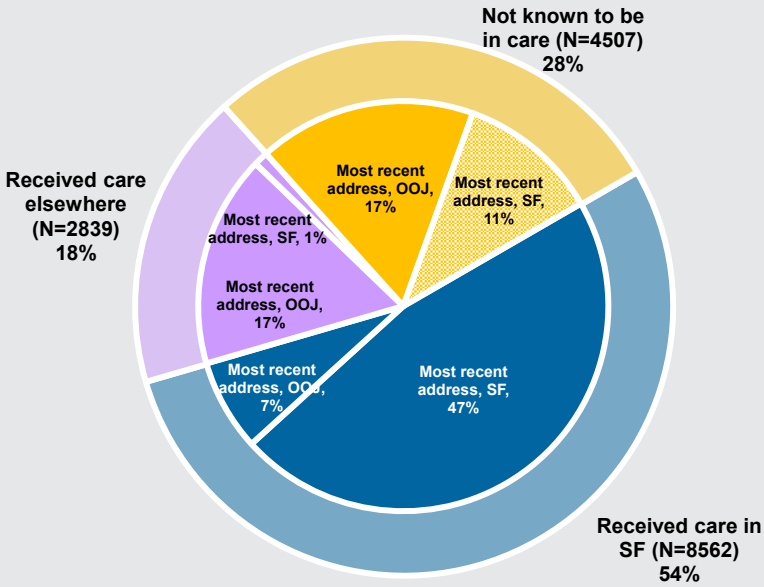


Receipt of HIV care among persons living with HIV by residence status

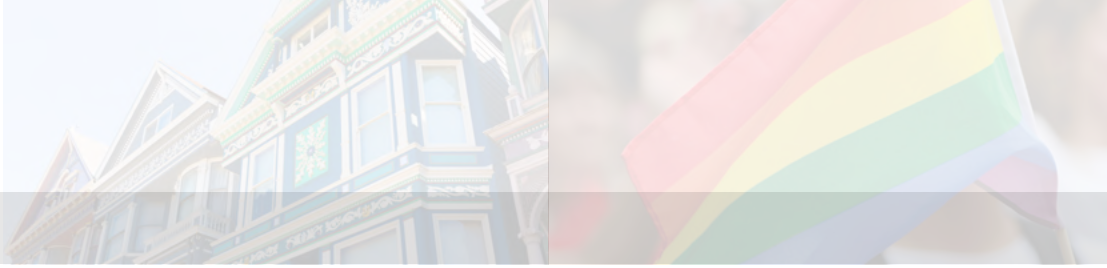
- Among 15,908 PLWH in 2019 who resided in San Francisco at time of diagnosis, 72% were known to receive HIV care in 2019 (54% received care in San Francisco, 18% received care outside of San Francisco) and 28% did not receive HIV care.
- Of the 28% not known to be in care, 11% had a current San Francisco address and represent a high priority population to be reengaged back into care.

Figure 3.8 Persons living with HIV in 2019 who resided in San Francisco at diagnosis by care and most recent residence status

N=15,908[1]



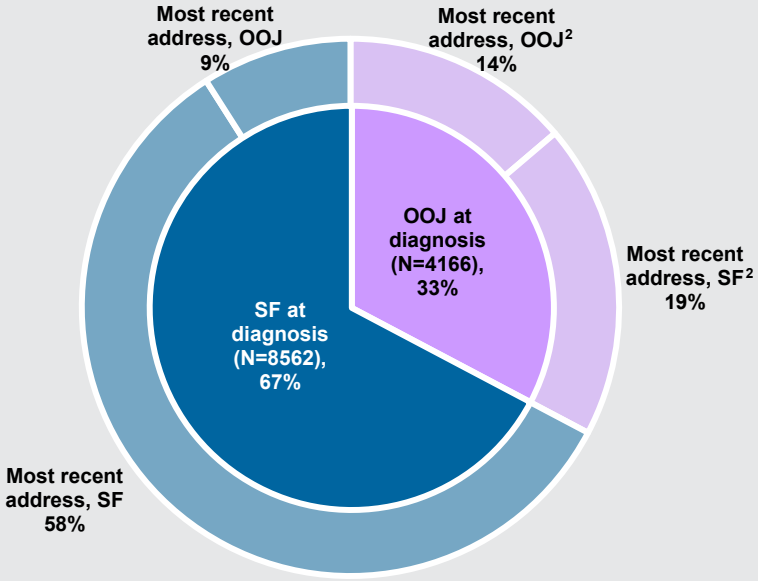
1 Includes persons who resided in San Francisco at diagnosis and were alive as of December 2019. See Technical Notes "Residence and Receipt of Care for PLWH."



- Of the 12,728 PLWH who received care in San Francisco in 2019, 33% were originally diagnosed elsewhere and 23% currently reside outside of San Francisco.

Figure 3.9 Persons living with HIV who received care in San Francisco in 2019 by residence at diagnosis and most recent residence status

N=12,728[1]



1 Includes persons who received HIV care in San Francisco in 2019 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 2019 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 2019 by most recent residence status

		Persons receiving HIV care in San Francisco[1]		
		Total cases receiving care in 2019	Most recent residence in San Francisco[2]	Most recent residence outside San Francisco[2]
		Number (%)		
	Total	**12,728 (100)**	**9,826 (100)**	**2,902 (100)**
Gender[3]	Men	11,562 (91)	8,889 (90)	2,673 (92)
	Women	773 (6)	598 (6)	175 (6)
	Trans Women	385 (3)	333 (3)	52 (2)
Race/Ethnicity	White	6,900 (54)	5,272 (54)	1,628 (56)
	Black/African American	1,684 (13)	1,277 (13)	407 (14)
	Latinx	2,739 (22)	2,181 (22)	558 (19)
	Asian/Pacific Islander	856 (7)	667 (7)	189 (7)
	Other/Unknown	549 (4)	429 (4)	120 (4)
Age in Years (as of 12/31/2019)	0-12	2 (<1)	0 (0)	2 (<1)
	13-24	131 (1)	80 (1)	51 (2)
	25-29	418 (3)	289 (3)	129 (4)
	30-39	1,785 (14)	1,352 (14)	433 (15)
	40-49	2,305 (18)	1,811 (18)	494 (17)
	50-59	4,204 (33)	3,270 (33)	934 (32)
	60-69	2,954 (23)	2,302 (23)	652 (22)
	70+	929 (7)	722 (7)	207 (7)
Transmission Category	MSM	9,278 (73)	7,061 (72)	2,217 (76)
	TWSM	235 (2)	202 (2)	33 (1)
	PWID	682 (5)	573 (6)	109 (4)
	MSM-PWID	1,561 (12)	1,304 (13)	257 (9)
	TWSM-PWID	147 (1)	129 (1)	18 (1)
	Heterosexual	529 (4)	388 (4)	141 (5)
	Other/Unidentified	296 (2)	169 (2)	127 (4)

1 Includes persons living with HIV at end of 2019 who received care in San Francisco in 2019 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."

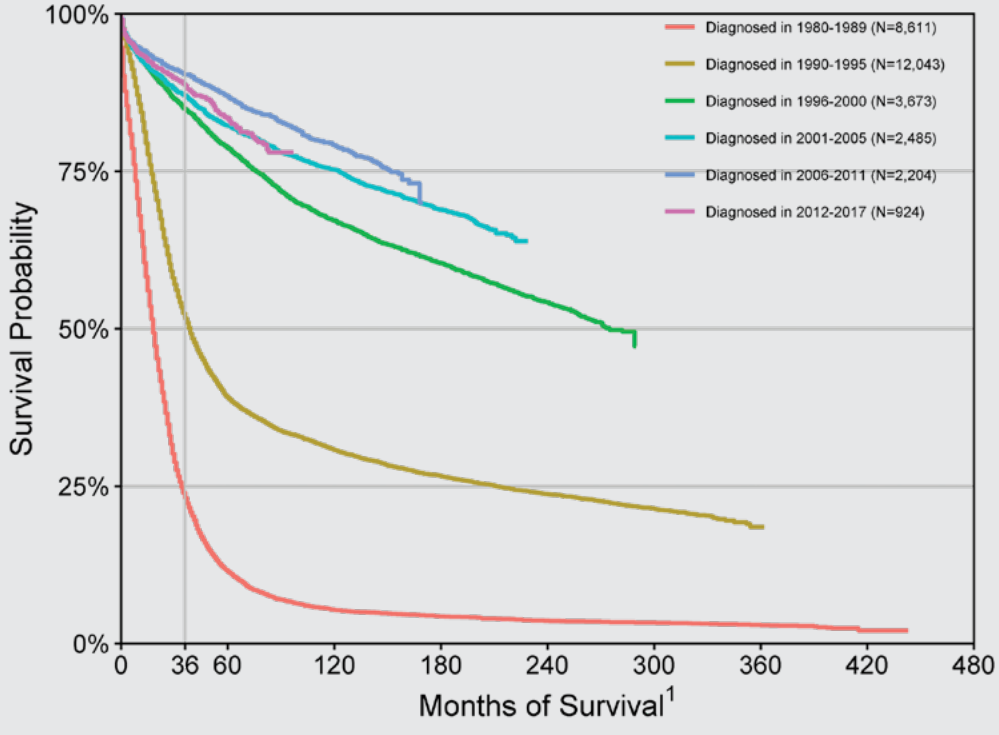
4 Survival among Persons with HIV Disease Stage 3 (AIDS)

- 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 239 months (~20 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 2012-2017.
- 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%, 89%).

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

89%
OF PERSONS DIAGNOSED WITH HIV STAGE 3 IN 2012-2017 SURVIVED FOR THREE YEARS

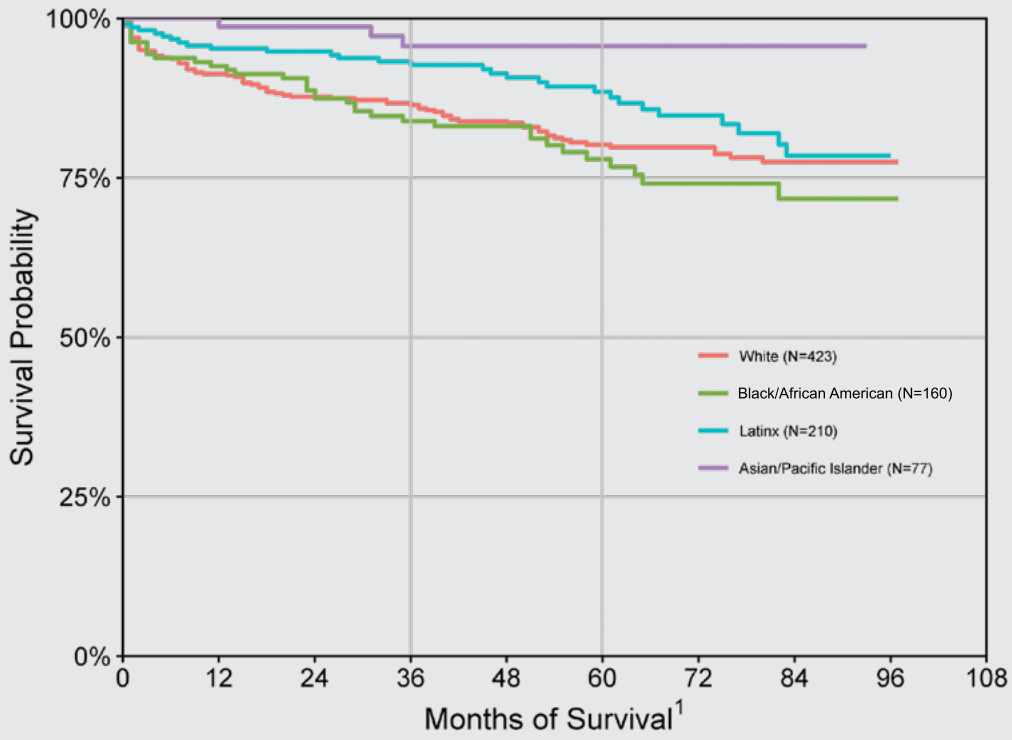
Figure 4.1 Kaplan-Meier survival curves for persons diagnosed with HIV disease stage 3 (AIDS) in six time periods, San Francisco



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

- Among persons diagnosed with HIV stage 3 in the years 2012-2017, survival probability at 36 months (three years) and 60 months (five years) was lower among Black/African Americans compared to whites, Latinx, and Asians/Pacific Islanders.

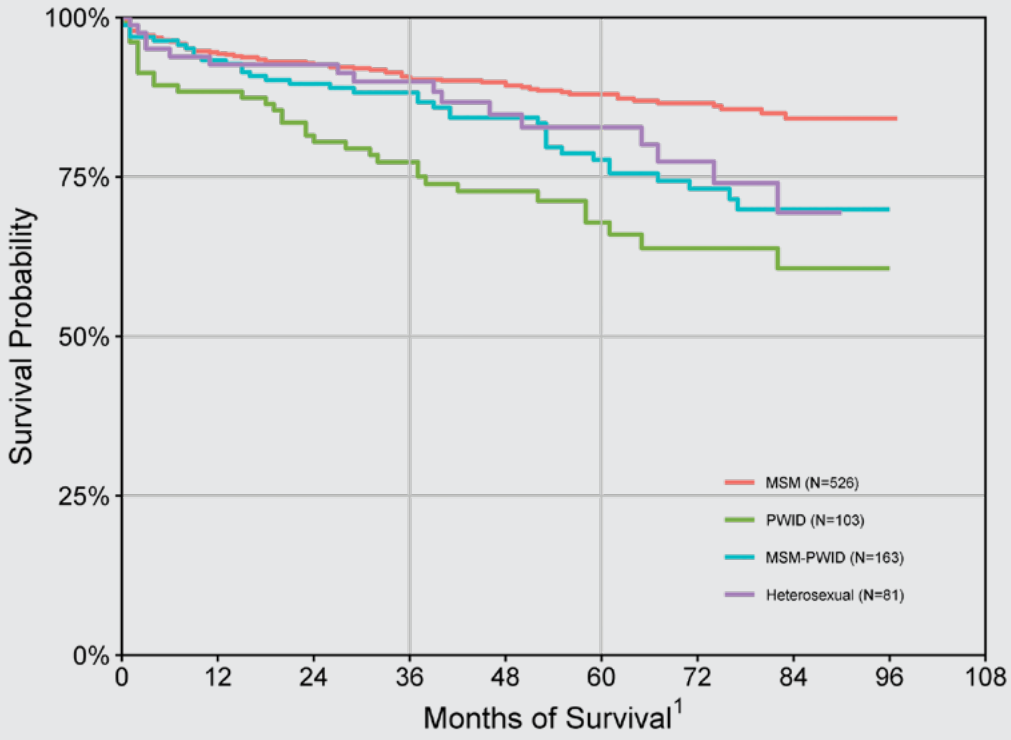
Figure 4.2 Kaplan-Meier survival curves for persons diagnosed with HIV disease stage 3 (AIDS) between 2012 and 2017 by race/ethnicity, San Francisco



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

- Among persons diagnosed with HIV stage 3 in the years 2012-2017, the three-year survival probability (36 months) was similar for MSM, MSM-PWID, and persons who acquired HIV through heterosexual contact.
- Disparities in survival by transmission category were more pronounced when measuring five-year survival probabilities (60 months); MSM had the highest (88%) and heterosexual PWID had the lowest (68%) five-year survival probability.

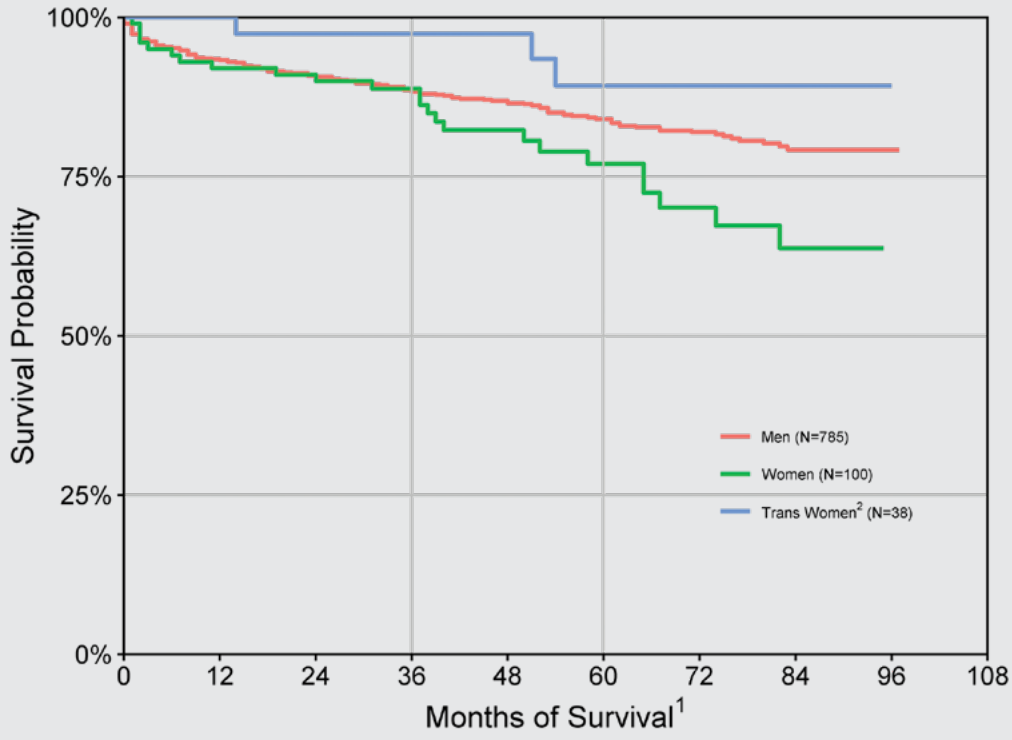
Figure 4.3 Kaplan-Meier survival curves for persons diagnosed with HIV disease stage 3 (AIDS) between 2012 and 2017 by transmission category, San Francisco



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

- From 2012 through 2017, three-year survival probabilities (36 months) for men and women with HIV stage 3 diagnosis were similar.
- Disparities by gender were more apparent when measuring five-year survival probabilities (60 months); women had the lowest five-year survival probability (77%).

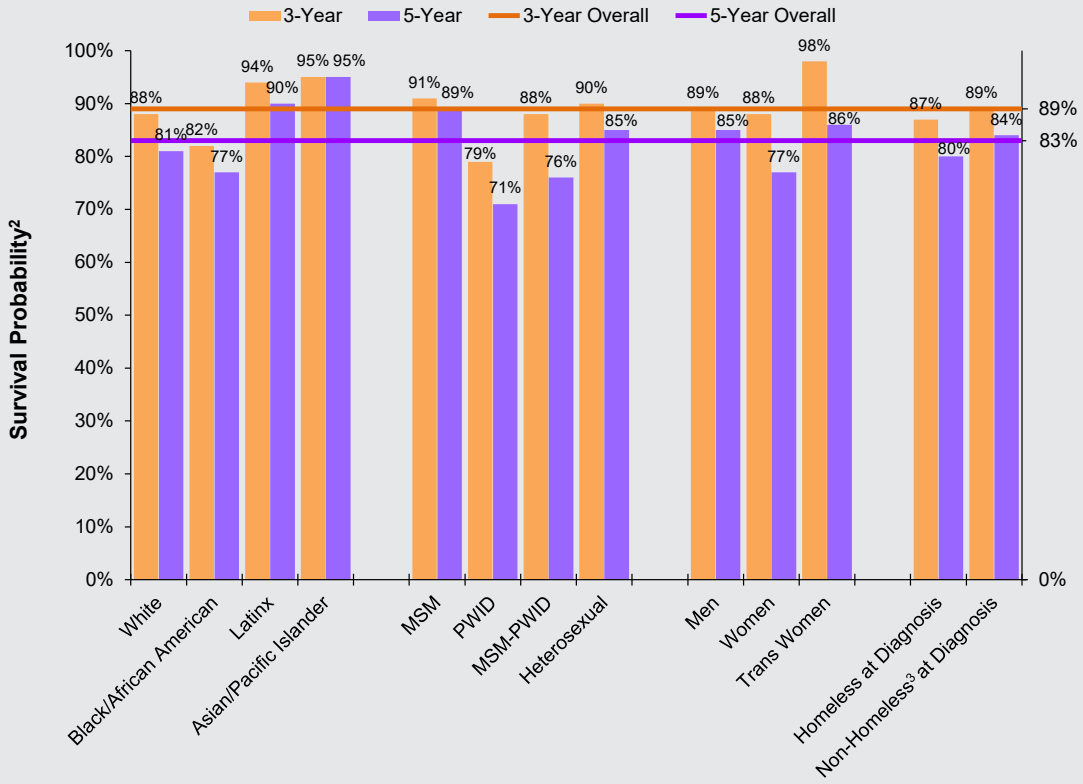
Figure 4.4 Kaplan-Meier survival curves for persons diagnosed with HIV disease stage 3 (AIDS) between 2012 and 2017 by gender, San Francisco



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."

- Overall three-year and five-year survival probabilities (Kaplan-Meier method) after HIV stage 3 for persons diagnosed during 2012 to 2017 were 89% and 83%, respectively.
- Black/African Americans, PWID, women, and persons experiencing homelessness at stage 3 diagnosis had lower three-year and five-year survival probabilities compared to other groups.

Figure 4.5 Three-year and five-year survival probabilities for persons diagnosed with HIV disease stage 3 (AIDS) between 2012 and 2017 by race/ethnicity[1], transmission category, and gender[1], 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

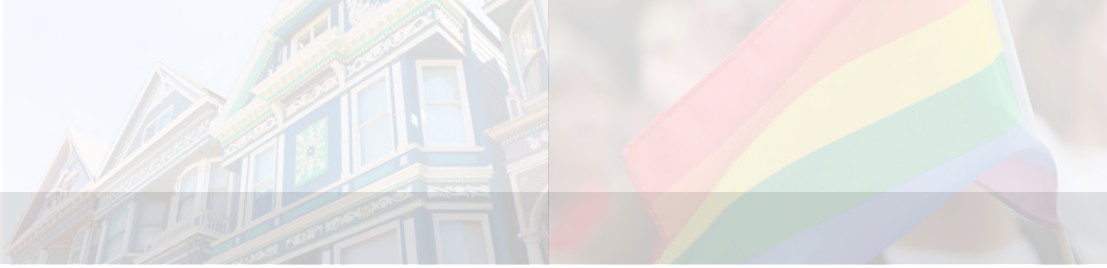
- As of December 31, 2018, the cumulative number of deaths among persons diagnosed with HIV in San Francisco was 21,787.
- From 2014 to 2017 the proportions of deaths by gender, race/ethnicity, and transmission category were relatively stable.
- The majority of deaths occurred among persons aged 50 years and older.
- Deaths due to non-HIV-related causes increased in this time period and accounted for two-thirds of deaths in 2018.

67%
OF DEATHS IN 2018 WERE DUE TO NON-HIV-RELATED CAUSES

Table 5.1 Deaths among persons diagnosed with HIV, by demographic and risk characteristics, 2014-2018, San Francisco

		Year of Death					Cumulative Totals as of 12/31/2018
		2014	2015	2016	2017	2018	
		Number (%)					
Gender[1]	Men	207 (87)	228 (89)	197 (84)	224 (88)	229 (89)	20,573
	Women	20 (8)	27 (11)	27 (11)	21 (8)	23 (9)	922
	Trans Women	12 (5)	1 (<1)	11 (5)	9 (4)	5 (2)	292
Race/Ethnicity	White	138 (58)	146 (57)	141 (60)	166 (65)	135 (53)	15,758
	Black/African American	52 (22)	48 (19)	51 (22)	43 (17)	57 (22)	2,829
	Latinx	35 (15)	31 (12)	30 (13)	35 (14)	37 (14)	2,316
	Asian/Pacific Islander/ Native American	4 (2)	8 (3)	4 (2)	3 (1)	15 (6)	565
	Multi-Race	10 (4)	23 (9)	9 (4)	7 (3)	13 (5)	319
Transmission Category	MSM	141 (59)	140 (55)	126 (54)	135 (53)	149 (58)	15,757
	PWID	39 (16)	43 (17)	35 (15)	39 (15)	33 (13)	1,844
	MSM-PWID	50 (21)	62 (24)	63 (27)	68 (27)	62 (24)	3,591
	Heterosexual	9 (4)	6 (2)	9 (4)	8 (3)	12 (5)	266
	Other/Unidentified[2]	0 (0)	5 (2)	2 (1)	4 (2)	1 (<1)	329
Age at Death (years)	0 - 29	4 (2)	7 (3)	1 (<1)	4 (2)	4 (2)	1,120
	30 - 39	11 (5)	15 (6)	11 (5)	12 (5)	8 (3)	7,372
	40 - 49	36 (15)	37 (14)	39 (17)	39 (15)	29 (11)	7,734
	50 - 59	89 (37)	100 (39)	76 (32)	84 (33)	80 (31)	3,640
	60 - 69	70 (29)	66 (26)	78 (33)	66 (26)	92 (36)	1,441
	70+	29 (12)	31 (12)	30 (13)	49 (19)	44 (17)	480
HIV Disease Stage	Stage 0, 1, 2, or unknown	41 (17)	42 (16)	38 (16)	40 (16)	35 (14)	657
	Stage 3 (AIDS)	198 (83)	214 (84)	197 (84)	214 (84)	222 (86)	21,130
Cause of Death[3]	HIV-related	104 (44)	102 (40)	76 (32)	83 (33)	74 (29)	--
	Non-HIV-related	132 (55)	149 (58)	155 (66)	161 (63)	172 (67)	--
	Unknown	3 (1)	5 (2)	4 (2)	10 (4)	11 (4)	--
Total		**239 (100)**	**256 (100)**	**235 (100)**	**254 (100)**	**257 (100)**	**21,787**

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 2018. See Technical Notes "Death Ascertainment."



- The case-fatality rate due to underlying HIV-related causes among persons with HIV disease stage 3 (AIDS) diagnosis declined from 12.39 per 1,000 persons in 2009 to 7.53 per 1,000 persons for 2018.
- Non-HIV-related causes of death among persons with HIV stage 3 diagnosis fluctuated between 2009 and 2014, and increased gradually to the highest annual rate of 15.50 per 1,000 persons in 2018.
- When deaths in all stages of HIV disease were evaluated, case-fatality rates for HIV-related causes declined from 8.01 per 1,000 persons in 2009 to 4.57 per 1,000 persons in 2018.
- Case-fatality rates for non-HIV causes among decedents of all HIV stages began to increase gradually in 2015 and rose to 10.61 per 1,000 persons in 2018.

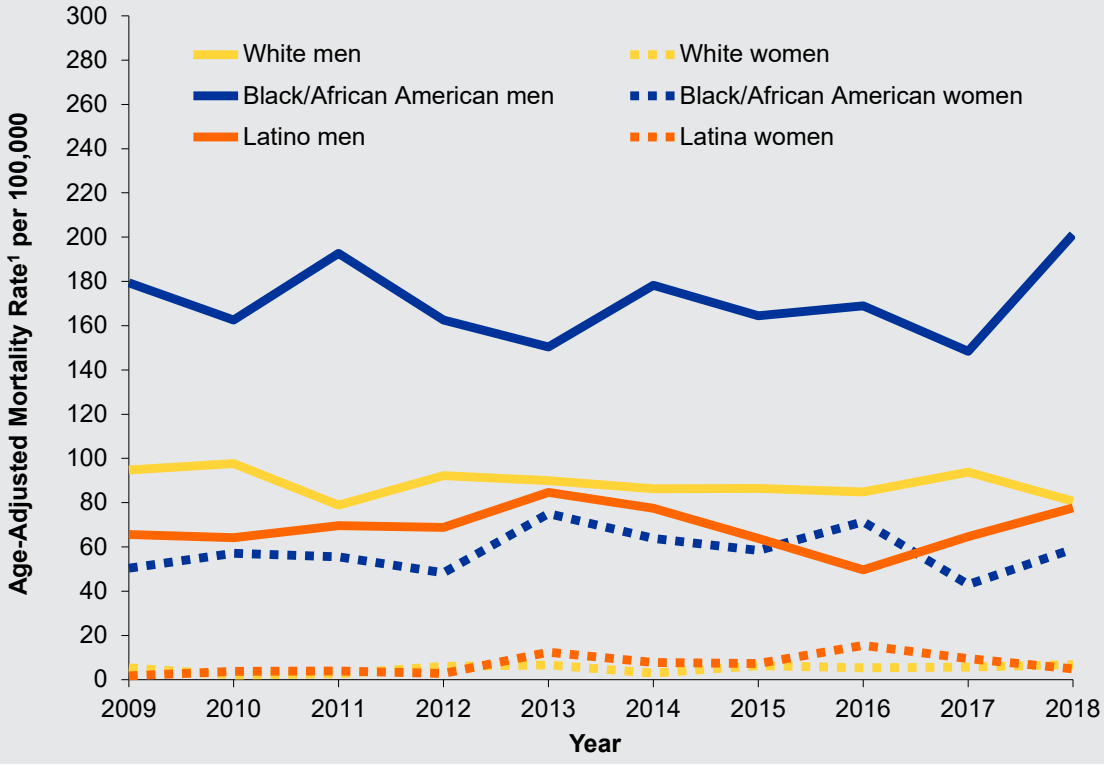
Table 5.2 Case-fatality rates per 1,000 due to HIV-related and non-HIV-related causes among persons diagnosed with HIV, 2009-2018, San Francisco

		Persons with HIV (all stages)		Persons with HIV Stage 3 (AIDS)	
		HIV-related cause of death	Non-HIV-related cause of death	HIV-related cause of death	Non-HIV-related cause of death
		Case-fatality rate[1] per 1,000			
Year	2009	8.01	8.01	12.39	10.38
	2010	6.68	8.61	9.65	11.32
	2011	6.41	7.87	9.90	10.21
	2012	5.19	9.32	7.98	11.92
	2013	6.25	9.28	9.11	11.29
	2014	6.41	8.14	9.68	10.72
	2015	6.27	9.16	9.85	12.26
	2016	4.68	9.54	7.52	12.93
	2017	5.11	9.91	7.89	13.96
	2018	4.57	10.61	7.53	15.50

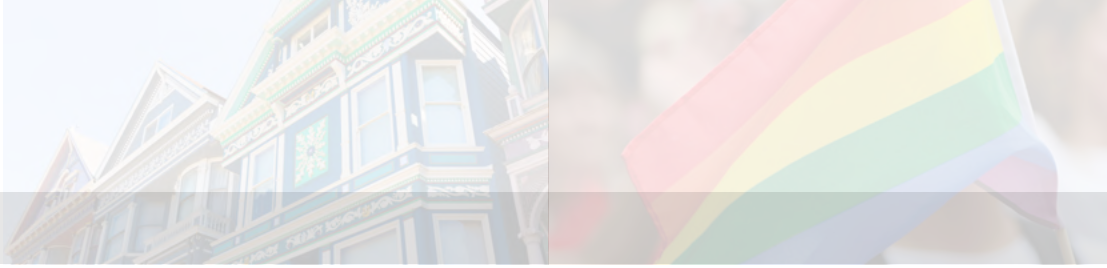
1 Case-fatality rates are calculated as the number of persons with HIV stage 3 (AIDS), or all HIV disease stages, who died each year divided by the number of total HIV stage 3 (AIDS), or HIV disease all stage, cases alive during that year. See Technical Notes for "Death Ascertainment."

- The age-adjusted HIV mortality rates among Black/African American men remained higher than Latino and white men during 2009-2018, reaching 201 per 100,000 in 2018.
- The mortality rate among Black/African American men in 2018 rate was 2.5 times higher than white men (81 per 100,000) and Latino men (78 per 100,000).
- HIV mortality rates for women were much lower than the rates for men.
- In 2018, Black/African American women had a mortality rate of 59 deaths per 100,000, which was 8.6 times higher than Latina women and 12.2 times higher than white women.

Figure 5.1 Age-adjusted mortality rates among persons aged 18 and older with HIV per 100,000 by sex at birth and race/ethnicity, 2009-2018, San Francisco



1 Age-adjusted mortality rates are calculated for persons 18 and over. For each race/ethnicity and sex group, the number of HIV cases who died each year was divided by projected San Francisco population estimates across seven age groups (18-29, 30-39, 40-49,50-59,60-69,70-79, 80+) 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."



- HIV as the underlying cause of death declined from 48.7% in 2007-2010 to 34.5% of deaths in 2015-2018.
- 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, including drug overdose, and other traumatic injury deaths (suicide and assault) are preventable and relatively frequent causes of death among people with HIV.

Table 5.3 Underlying causes of death among persons diagnosed with HIV, 2007-2018, San Francisco

		Year of Death		
		2007-2010 N=1,062	2011-2014 N=944	2015-2018 N=972
		Number (%)		
Underlying Cause of Death[1]	HIV	517 (48.7)	389 (41.2)	335 (34.5)
	Non-AIDS cancer	121 (11.4)	137 (14.5)	151 (15.5)
	Lung cancer	42 (4.0)	35 (3.7)	31 (3.2)
	Liver cancer	19 (1.8)	20 (2.1)	15 (1.5)
	Anal cancer	7 (0.7)	10 (1.1)	12 (1.2)
	Pancreatic cancer	3 (0.3)	8 (0.8)	9 (0.9)
	Colon cancer	7 (0.7)	5 (0.5)	7 (0.7)
	Rectal cancer	4 (0.4)	1 (0.1)	4 (0.4)
	Hodgkins lymphoma	2 (0.2)	2 (0.2)	1 (0.1)
	Leukemia	2 (0.2)	5 (0.5)	1 (0.1)
	Accidents	123 (11.6)	111 (11.8)	137 (14.1)
	Drug overdose	94 (8.9)	93 (9.9)	121 (12.4)
	Heart disease	84 (7.9)	80 (8.5)	111 (11.4)
	Coronary heart disease	38 (3.6)	43 (4.6)	57 (5.9)
	Cardiomyopathy	4 (0.4)	2 (0.2)	10 (1.0)
	Suicide	46 (4.3)	32 (3.4)	36 (3.7)
	Chronic obstructive pulmonary disease	22 (2.1)	18 (1.9)	25 (2.6)
	Cerebrovascular disease	12 (1.1)	9 (1.0)	20 (2.1)
	Liver disease	24 (2.3)	25 (2.6)	19 (2.0)
	Alcoholic liver disease	9 (0.8)	12 (1.3)	11 (1.1)
	Liver cirrhosis	13 (1.2)	10 (1.1)	7 (0.7)
	Assault	8 (0.8)	9 (1.0)	14 (1.4)
	Mental disorders due to substance use	20 (1.9)	7 (0.7)	10 (1.0)
	Diabetes	2 (0.2)	13 (1.4)	9 (0.9)
	Renal disease	8 (0.8)	4 (0.4)	8 (0.8)
	Septicemia	3 (0.3)	1 (0.1)	8 (0.8)
	Viral hepatitis	9 (0.8)	8 (0.8)	7 (0.7)
	Pneumonitis	2 (0.2)	3 (0.3)	5 (0.5)
	Hyperlipidemia	3 (0.3)	1 (0.1)	4 (0.4)
	Diseases of arteries	5 (0.5)	2 (0.2)	3 (0.3)

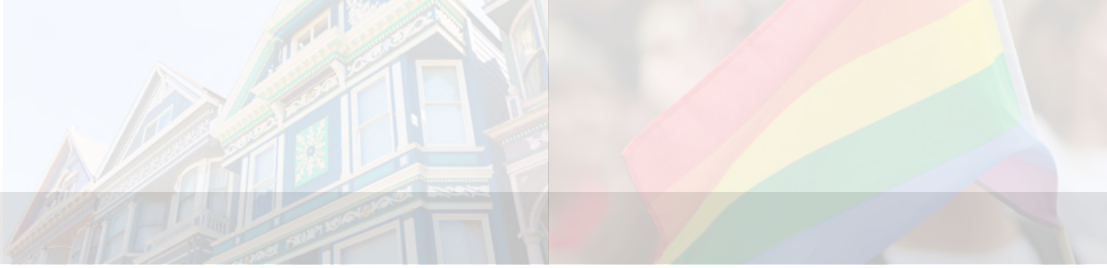
1 See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

- The most frequent, yet declining, underlying cause of death for males and females was HIV.
- The differences in the proportions of deaths due to non-AIDS cancers among males and females declined over time.
- In all three time periods, males had a higher proportion of deaths due to heart disease and suicide than females.
- In all three time periods, females had a higher proportion of deaths due to accidents and chronic obstructive pulmonary disease than males.

Table 5.4 Underlying causes of death among persons diagnosed with HIV by sex at birth, 2007-2018, San Francisco

		Year of Death					
		2007-2010		2011-2014		2015-2018	
		Male	Female	Male	Female	Male	Female
		Number (%)					
	Total	961	101	860	84	878	94
Underlying Cause of Death[1]	HIV	466 (48.5)	51 (50.5)	356 (41.4)	33 (39.3)	298 (33.9)	37 (39.4)
	Non-AIDS cancer	117 (12.2)	4 (4.0)	127 (14.8)	10 (11.9)	139 (15.8)	12 (12.8)
	Accidents (including drug overdose)	106 (11.0)	17 (16.8)	96 (11.2)	15 (17.9)	118 (13.4)	19 (20.2)
	Heart disease	79 (8.2)	5 (5.0)	75 (8.7)	5 (6.0)	105 (12.0)	6 (6.4)
	Suicide	45 (4.7)	1 (1.0)	32 (3.7)	0 (0.0)	36 (4.1)	0 (0.0)
	Chronic obstructive pulmonary disease	16 (1.7)	6 (5.9)	15 (1.7)	3 (3.6)	21 (2.4)	4 (4.3)
	Cerebrovascular disease	11 (1.1)	1 (1.0)	7 (0.8)	2 (2.4)	20 (2.3)	0 (0.0)
	Liver disease	23 (2.4)	1 (1.0)	23 (2.7)	2 (2.4)	17 (1.9)	2 (2.1)
	Assault	7 (0.7)	1 (1.0)	9 (1.0)	0 (0.0)	12 (1.4)	2 (2.1)
	Mental disorders due to substance use	16 (1.7)	4 (4.0)	6 (0.7)	1 (1.2)	9 (1.0)	1 (1.1)
	Diabetes	2 (0.2)	0 (0.0)	12 (1.4)	1 (1.2)	8 (0.9)	1 (1.1)

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



- Latinx decedents had the highest proportion of deaths attributed to HIV as the underlying cause, compared to Black/African Americans and whites.
- The proportion of deaths where HIV was the underlying cause declined across time periods among Latinx, Black/African Americans and whites.
- The proportion of deaths due to non-AIDS cancers and heart disease increased across all time periods for Black/African Americans and whites.
- Among Latinx persons, the proportion of deaths due to non-AIDS cancers and accidents tripled between 2007-2010 and 2011-2014.

Table 5.5 Underlying causes of death among persons diagnosed with HIV by race/ethnicity, 2007-2018, San Francisco

		Year of Death								
		2007-2010			2011-2014			2015-2018		
		Latinx	Black/African American	White	Latinx	Black/African American	White	Latinx	Black/African American	White
		Number (%)								
	Total	120	226	644	130	198	548	127	195	572
Underlying Cause of Death[1]	HIV	82 (68.3)	105 (46.5)	288 (44.7)	66 (50.8)	83 (41.9)	214 (39.1)	50 (39.4)	68 (34.9)	185 (32.3)
	Non-AIDS cancer	5 (4.2)	23 (10.2)	86 (13.4)	16 (12.3)	27 (13.6)	86 (15.7)	14 (11.0)	37 (19.0)	93 (16.3)
	Accidents (including drug overdose)	4 (3.3)	32 (14.2)	79 (12.3)	14 (10.8)	23 (11.6)	65 (11.9)	13 (10.2)	31 (15.9)	79 (13.8)
	Heart disease	10 (8.3)	14 (6.2)	56 (8.7)	7 (5.4)	15 (7.6)	52 (9.5)	12 (9.4)	19 (9.7)	72 (12.6)
	Suicide	6 (5.0)	0 (0.0)	38 (5.9)	3 (2.3)	2 (1.0)	23 (4.2)	5 (3.9)	3 (1.5)	24 (4.2)
	Chronic obstructive pulmonary disease	0 (0.0)	9 (4.0)	13 (2.0)	3 (2.3)	5 (2.5)	10 (1.8)	2 (1.6)	4 (2.1)	18 (3.1)
	Cerebrovascular disease	3 (2.5)	2 (0.9)	5 (0.8)	0 (0.0)	4 (2.0)	5 (0.9)	4 (3.1)	3 (1.5)	12 (2.1)
	Liver disease	2 (1.7)	5 (2.2)	17 (2.6)	4 (3.1)	3 (1.5)	14 (2.6)	5 (3.9)	4 (2.1)	9 (1.6)
	Mental disorders due to substance use	1 (0.8)	7 (3.1)	10 (1.6)	1 (0.8)	2 (1.0)	4 (0.7)	2 (1.6)	1 (0.5)	6 (1.0)
	Assault	0 (0.0)	2 (0.9)	6 (0.9)	1 (0.8)	2 (1.0)	5 (0.9)	2 (1.6)	6 (3.1)	5 (0.9)
	Diabetes	0 (0.0)	1 (0.4)	1 (0.2)	2 (1.5)	6 (3.0)	5 (0.9)	2 (1.6)	1 (0.5)	5 (0.9)

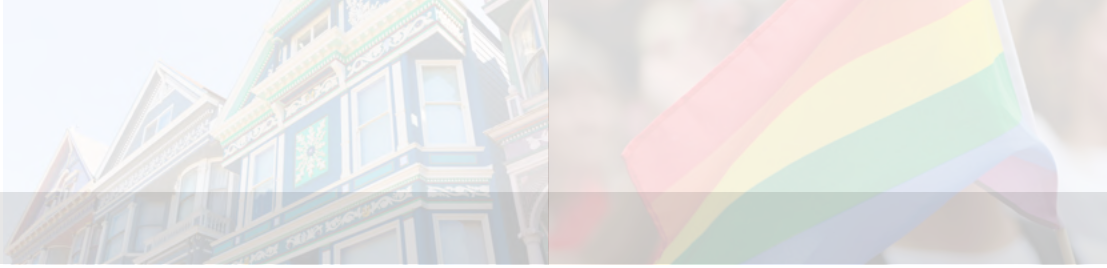
1 See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table. Asian, Pacific Islander, Native American, and multiracial decedents were not displayed due to small cell sizes.

- The proportion of deaths where HIV was the underlying cause of death declined across three time periods to 33.7% for MSM, 34.5% for PWID, and 32.4% for MSM-PWID in the 2015-2018 time period.
- Deaths due to accidents and drug overdoses increased from the first to the last time periods, particularly among all PWID.
- The proportion of deaths due to non-AIDS cancers increased for MSM and MSM-PWID across three time periods.
- The proportion of deaths due to heart disease increased for MSM and PWID across three time periods.

Table 5.6 Underlying causes of death among persons diagnosed with HIV by select transmission categories, 2007-2018, San Francisco

		Year of Death								
		2007-2010			2011-2014			2015-2018		
		MSM	PWID	MSM-PWID	MSM	PWID	MSM-PWID	MSM	PWID	MSM-PWID
		Number (%)								
	Total	540	166	252	525	163	188	517	145	241
Underlying Cause of Death[1]	HIV	255 (47.2)	76 (45.8)	128 (50.8)	225 (42.9)	65 (39.9)	64 (34.0)	174 (33.7)	50 (34.5)	78 (32.4)
	Non-AIDS cancer	81 (15.0)	10 (6.0)	22 (8.7)	96 (18.3)	19 (11.7)	18 (9.6)	98 (19.0)	16 (11.0)	30 (12.4)
	Heart disease	50 (9.3)	10 (6.0)	18 (7.1)	51 (9.7)	13 (8.0)	13 (6.9)	60 (11.6)	14 (9.7)	31 (12.9)
	Accidents	45 (8.3)	28 (16.9)	40 (15.9)	41 (7.8)	23 (14.1)	37 (19.7)	44 (8.5)	31 (21.4)	51 (21.2)
	Drug overdose	31 (5.7)	24 (14.5)	33 (13.1)	31 (5.9)	20 (12.3)	34 (18.1)	37 (7.2)	29 (20.0)	46 (19.1)
	Suicide	33 (6.1)	3 (1.8)	9 (3.6)	19 (3.6)	1 (0.6)	11 (5.9)	26 (5.0)	0 (0.0)	10 (4.1)
	Chronic obstructive pulmonary disease	7 (1.3)	7 (4.2)	6 (2.4)	11 (2.1)	5 (3.1)	1 (0.5)	13 (2.5)	6 (4.1)	4 (1.7)
	Liver disease	15 (2.8)	3 (1.8)	5 (2.0)	15 (2.9)	3 (1.8)	6 (3.2)	12 (2.3)	4 (2.8)	1 (0.4)
	Cerebrovascular disease	8 (1.5)	2 (1.2)	0 (0.0)	4 (0.8)	4 (2.5)	0 (0.0)	11 (2.1)	0 (0.0)	8 (3.3)
	Assault	3 (0.6)	2 (1.2)	2 (0.8)	5 (1.0)	0 (0.0)	3 (1.6)	9 (1.7)	4 (2.8)	0 (0.0)
	Mental disorders due to substance use	3 (0.6)	8 (4.8)	5 (2.0)	3 (0.6)	1 (0.6)	3 (1.6)	9 (1.7)	1 (0.7)	0 (0.0)
	Diabetes	2 (0.4)	0 (0.0)	0 (0.0)	7 (1.3)	2 (1.2)	2 (1.1)	5 (1.0)	1 (0.7)	2 (0.8)

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



- The proportion of deaths in which HIV was either the underlying or contributory cause declined from 67% in the period 2007-2010 to 55% during 2015-2018.
- Heart disease was the second most common cause of death when underlying and contributory causes were considered.
- When contributory causes were considered, non-AIDS cancers were the third most frequent cause of death; lung, liver and anal cancers were the most common.

Table 5.7 Multiple causes of death among persons diagnosed with HIV, 2007-2018, San Francisco

		Year of Death		
		2007-2010 N=1,062	2011-2014 N=944	2015-2018 N=972
		Number (%)		
Multiple Causes of Death[1]	HIV	712 (67.0)	611 (64.7)	534 (54.9)
	Heart disease	277 (26.1)	265 (28.1)	295 (30.3)
	Coronary heart disease	78 (7.3)	80 (8.5)	105 (10.8)
	Cardiomyopathy	23 (2.2)	22 (2.3)	26 (2.7)
	Non-AIDS cancer	165 (15.5)	180 (19.1)	204 (21.0)
	Lung cancer	47 (4.4)	40 (4.2)	39 (4.0)
	Liver cancer	27 (2.5)	25 (2.6)	17 (1.7)
	Anal cancer	10 (0.9)	12 (1.3)	16 (1.6)
	Colon cancer	8 (0.8)	5 (0.5)	11 (1.1)
	Pancreatic cancer	3 (0.3)	11 (1.2)	9 (0.9)
	Rectal cancer	7 (0.7)	2 (0.2)	7 (0.7)
	Leukemia	4 (0.4)	9 (1.0)	5 (0.5)
	Hodgkin lymphoma	8 (0.8)	5 (0.5)	3 (0.3)
	Accidents	135 (12.7)	114 (12.1)	152 (15.6)
	Drug overdose	103 (9.7)	93 (9.9)	127 (13.1)
	Renal disease	109 (10.3)	94 (10.0)	127 (13.1)
	Mental disorders due to substance use	98 (9.2)	91 (9.6)	104 (10.7)
	Septicemia	104 (9.8)	88 (9.3)	103 (10.6)
	Liver disease	144 (13.6)	113 (12.0)	99 (10.2)
	Liver cirrhosis	69 (6.5)	67 (7.1)	56 (5.8)
	Alcoholic liver disease	10 (0.9)	13 (1.4)	13 (1.3)
	Viral hepatitis	129 (12.1)	125 (13.2)	85 (8.7)
	Chronic obstructive pulmonary disease	76 (7.2)	61 (6.5)	73 (7.5)
	Cerebrovascular disease	38 (3.6)	34 (3.6)	52 (5.3)
	Diabetes	42 (4.0)	56 (5.9)	49 (5.0)
	Suicide	46 (4.3)	32 (3.4)	36 (3.7)
	Pneumonitis	12 (1.1)	14 (1.5)	20 (2.1)
	Hyperlipidemia	6 (0.6)	10 (1.1)	15 (1.5)
	Assault	8 (0.8)	9 (1.0)	14 (1.4)
	Diseases of arteries	12 (1.1)	12 (1.3)	13 (1.3)

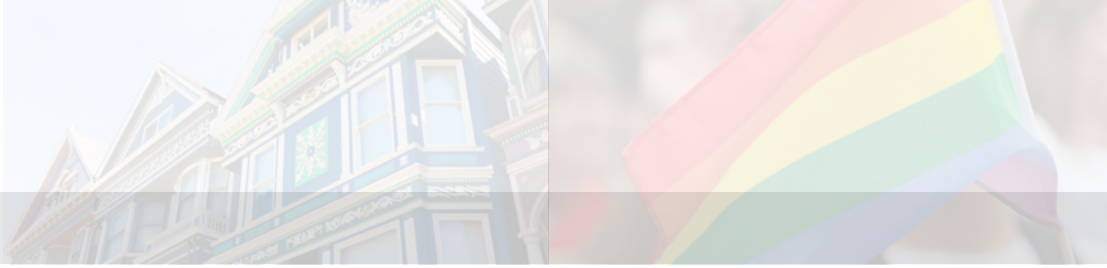
1 Includes underlying and contributory causes of death. Individuals may have more than one cause of death. See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

- Among both males and females, 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 males and females were most pronounced in the 2015-2018 time period, with women having a higher proportion of deaths due to HIV.
- Heart disease was the second most frequent underlying or contributory cause of death in both males and females, and increased from 26.2% of deaths in males in 2007-2010 to 31.0% of deaths in males in 2015-2018.
- The differences in deaths from non-AIDS cancers among males and females decreased over time; in the 2015-2018 time period the proportion of non-AIDS cancer deaths was 21.3% for males and 18.1% for females.
- In the most recent time period, HIV, drug overdose, renal disease, mental disorders due to substance use, septicemia, and chronic obstructive pulmonary disease accounted for a higher proportion of deaths in females than in males.

Table 5.8 Multiple causes of death among persons diagnosed with HIV by sex at birth, 2007-2018, San Francisco

		Year of Death					
		2007-2010		2011-2014		2015-2018	
		Male	Female	Male	Female	Male	Female
		Number (%)					
	Total	**961**	**101**	**860**	**84**	**878**	**94**
Multiple Causes of Death[1]	HIV	645 (67.1)	67 (66.3)	556 (64.7)	55 (65.5)	473 (53.9)	61 (64.9)
	Heart disease	252 (26.2)	25 (24.8)	238 (27.7)	27 (32.1)	272 (31.0)	23 (24.5)
	Non-AIDS cancer	159 (16.5)	6 (5.9)	167 (19.4)	13 (15.5)	187 (21.3)	17 (18.1)
	Accidents	116 (12.1)	19 (18.8)	99 (11.5)	15 (17.9)	132 (15.0)	20 (21.3)
	Drug overdose	88 (9.2)	15 (14.9)	79 (9.2)	14 (16.7)	108 (12.3)	19 (20.2)
	Renal disease	97 (10.1)	12 (11.9)	82 (9.5)	12 (14.3)	109 (12.4)	18 (19.1)
	Mental disorders due to substance	82 (8.5)	16 (15.8)	80 (9.3)	11 (13.1)	91 (10.4)	13 (13.8)
	Liver disease	128 (13.3)	16 (15.8)	107 (12.4)	6 (7.1)	90 (10.3)	9 (9.6)
	Septicemia	92 (9.6)	12 (11.9)	80 (9.3)	8 (9.5)	89 (10.1)	14 (14.9)
	Viral hepatitis	116 (12.1)	13 (12.9)	104 (12.1)	21 (25.0)	77 (8.8)	8 (8.5)
	Chronic obstructive pulmonary disease	62 (6.5)	14 (13.9)	48 (5.6)	13 (15.5)	63 (7.2)	10 (10.6)
	Cerebrovascular disease	28 (2.9)	10 (9.9)	31 (3.6)	3 (3.6)	48 (5.5)	4 (4.3)

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 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 80% of deaths in the first time period and declined to 56% by the last time period.
- For decedents in 2015-2018, HIV contributed to similar proportions of deaths among Latinx, Black/African Americans, and whites (56%, 57%, 54%).
- Liver disease and septicemia contributed to greater proportions of deaths among Latinx than Black/African Americans and whites.
- Across all three time periods, there were greater proportions of deaths from heart disease, renal disease and chronic obstructive pulmonary disease among Black/African Americans than Latinx and whites.

Table 5.9 Multiple causes of death among persons diagnosed with HIV by race/ethnicity, 2007-2018, San Francisco

		Year of Death								
		2007-2010			2011-2014			2015-2018		
		Latinx	Black/African American	White	Latinx	Black/African American	White	Latinx	Black/African American	White
		Number (%)								
	Total	120	226	644	130	198	548	127	195	572
Multiple Causes of Death[1]	HIV	96 (80.0)	154 (68.1)	413 (64.1)	94 (72.3)	137 (69.2)	337 (61.5)	71 (55.9)	112 (57.4)	311 (54.4)
	Heart disease	28 (23.3)	70 (31.0)	157 (24.4)	31 (23.8)	66 (33.3)	152 (27.7)	31 (24.4)	66 (33.8)	176 (30.8)
	Non-AIDS cancer	9 (7.5)	31 (13.7)	111 (17.2)	20 (15.4)	40 (20.2)	108 (19.7)	22 (17.3)	47 (24.1)	125 (21.9)
	Accidents	4 (3.3)	36 (15.9)	85 (13.2)	14 (10.8)	25 (12.6)	66 (12.0)	19 (15.0)	32 (16.4)	87 (15.2)
	Drug overdose	4 (3.3)	26 (11.5)	66 (10.2)	12 (9.2)	22 (11.1)	50 (9.1)	12 (9.4)	30 (15.4)	73 (12.8)
	Renal disease	11 (9.2)	44 (19.5)	46 (7.1)	13 (10.0)	31 (15.7)	43 (7.8)	14 (11.0)	44 (22.6)	60 (10.5)
	Mental disorders due to substance use	6 (5.0)	34 (15.0)	56 (8.7)	7 (5.4)	20 (10.1)	60 (10.9)	17 (13.4)	16 (8.2)	59 (10.3)
	Liver disease	25 (20.8)	30 (13.3)	84 (13.0)	21 (16.2)	23 (11.6)	62 (11.3)	18 (14.2)	16 (8.2)	56 (9.8)
	Septicemia	23 (19.2)	23 (10.2)	47 (7.3)	21 (16.2)	16 (8.1)	44 (8.0)	16 (12.6)	20 (10.3)	56 (9.8)
	Chronic obstructive pulmonary disease	1 (0.8)	27 (11.9)	45 (7.0)	4 (3.1)	20 (10.1)	35 (6.4)	5 (3.9)	17 (8.7)	47 (8.2)
	Viral hepatitis	13 (10.8)	32 (14.2)	77 (12.0)	18 (13.8)	43 (21.7)	53 (9.7)	16 (12.6)	16 (8.2)	45 (7.9)
	Cerebrovascular disease	7 (5.8)	10 (4.4)	16 (2.5)	3 (2.3)	11 (5.6)	20 (3.6)	9 (7.1)	13 (6.7)	26 (4.5)

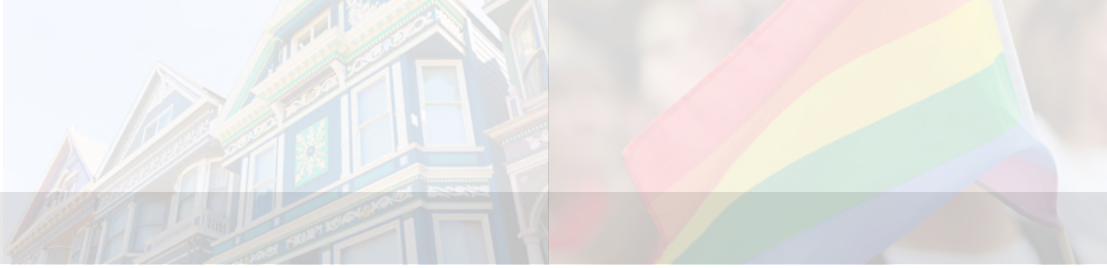
1 Includes underlying and contributory causes of death. Individuals may have more than one cause of death. See Technical Notes "Death Ascertainment." Deceased HIV cases that lack cause of death information are not represented in this table.

- 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, and accidents (including drug overdoses) were a factor.

Table 5.10 Multiple causes of death among persons diagnosed with HIV by select transmission categories, 2007-2018, San Francisco

		Year of Death								
		2007-2010			2011-2014			2015-2018		
		MSM	PWID	MSM-PWID	MSM	PWID	MSM-PWID	MSM	PWID	MSM-PWID
		Number (%)								
	Total	540	166	252	525	163	188	517	145	241
Multiple Causes of Death[1]	HIV	361 (66.9)	107 (64.5)	171 (67.9)	351 (66.9)	105 (64.4)	107 (56.9)	282 (54.5)	87 (60.0)	115 (47.7)
	Heart disease	144 (26.7)	35 (21.1)	68 (27.0)	148 (28.2)	46 (28.2)	46 (24.5)	154 (29.8)	40 (27.6)	74 (30.7)
	Non-AIDS cancer	107 (19.8)	13 (7.8)	33 (13.1)	121 (23.0)	28 (17.2)	21 (11.2)	129 (25.0)	23 (15.9)	43 (17.8)
	Renal disease	46 (8.5)	22 (13.3)	28 (11.1)	44 (8.4)	27 (16.6)	14 (7.4)	65 (12.6)	23 (15.9)	23 (9.5)
	Accidents	49 (9.1)	31 (18.7)	43 (17.1)	42 (8.0)	24 (14.7)	38 (20.2)	51 (9.9)	32 (22.1)	57 (23.7)
	Drug overdose	34 (6.3)	26 (15.7)	36 (14.3)	31 (5.9)	20 (12.3)	34 (18.1)	38 (7.4)	30 (20.7)	50 (20.7)
	Mental disorders due to substance use	33 (6.1)	27 (16.3)	28 (11.1)	42 (8.0)	18 (11.0)	27 (14.4)	48 (9.3)	19 (13.1)	30 (12.4)
	Septicemia	49 (9.1)	19 (11.4)	20 (7.9)	43 (8.2)	20 (12.3)	18 (9.6)	48 (9.3)	21 (14.5)	25 (10.4)
	Liver disease	52 (9.6)	31 (18.7)	47 (18.7)	53 (10.1)	23 (14.1)	32 (17.0)	43 (8.3)	19 (13.1)	29 (12.0)
	Chronic obstructive pulmonary disease	26 (4.8)	21 (12.7)	21 (8.3)	23 (4.4)	23 (14.1)	12 (6.4)	34 (6.6)	18 (12.4)	16 (6.6)
	Cerebrovascular disease	17 (3.1)	7 (4.2)	5 (2.0)	20 (3.8)	10 (6.1)	3 (1.6)	30 (5.8)	8 (5.5)	11 (4.6)
	Diabetes	18 (3.3)	8 (4.8)	9 (3.6)	39 (7.4)	7 (4.3)	5 (2.7)	27 (5.2)	9 (6.2)	10 (4.1)

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 persons who died during 2007 to 2018, those who ever experienced homelessness from time of HIV diagnosis to death accounted for 21% of decedents.
- Among persons who ever experienced homelessness, a higher proportion of deaths were due to AIDS opportunistic illnesses, liver disease, viral hepatitis, accidents (including drug overdoses), renal disease, septicemia, mental disorders due to substance abuse, chronic obstructive pulmonary disease, and assault.

Table 5.11 Multiple causes of death among persons diagnosed with HIV by housing status, 2007-2018, San Francisco

		Housing status from HIV diagnosis to death	
		Ever homeless	Consistently housed
		Number (%)	
	Total	**625**	**2,353**
Multiple Causes of Death[1]	HIV	377 (60.3)	1,480 (62.9)
	AIDS opportunistic illness	170 (27.2)	566 (24.1)
	AIDS cancer	37 (5.9)	151 (6.4)
	Heart disease	142 (22.7)	695 (29.5)
	Non-AIDS cancer	57 (9.1)	492 (20.9)
	Liver disease	81 (13.0)	275 (11.7)
	Viral hepatitis	93 (14.9)	246 (10.5)
	Accidents	128 (20.5)	273 (11.6)
	Drug overdose	110 (17.6)	213 (9.1)
	Renal disease	87 (13.9)	243 (10.3)
	Septicemia	71 (11.4)	224 (9.5)
	Mental disorders due to substance abuse	91 (14.6)	202 (8.6)
	Chronic obstructive pulmonary disease	52 (8.3)	158 (6.7)
	Diabetes	13 (2.1)	134 (5.7)
	Suicide	17 (2.7)	97 (4.1)
	Cerebrovascular disease	18 (2.9)	106 (4.5)
	Pneumonitis	6 (1.0)	40 (1.7)
	Diseases of arteries	5 (0.8)	32 (1.4)
	Hyperlipidemia	2 (0.3)	29 (1.2)
	Assault	16 (2.6)	15 (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.

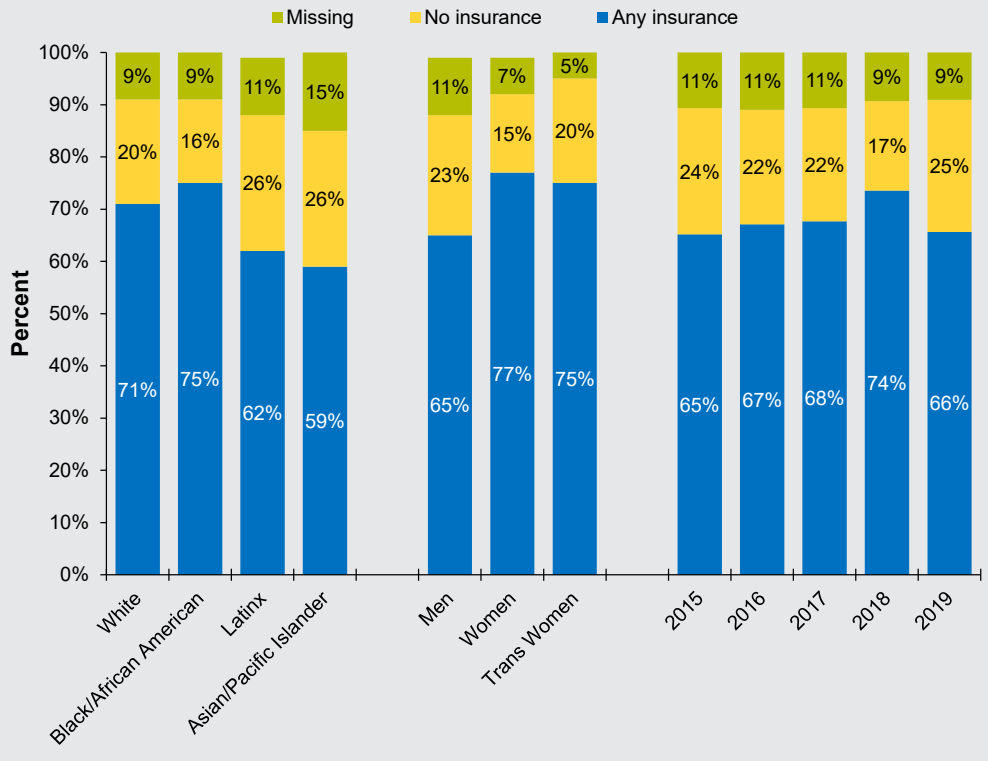
6 Health Insurance Status at Time of HIV Diagnosis

- Among persons diagnosed with HIV in 2015 to 2019, 71% of whites, 75% of Black/African Americans, 62% of Latinx, and 59% of Asians/Pacific Islanders (APIs) had health insurance at time of diagnosis.
- Latinx and APIs had the highest proportion with no insurance at diagnosis (26%).
- APIs had the highest proportion missing health insurance status information (15%).
- By gender, men had the highest proportion without no insurance at diagnosis.
- About 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 ranged from 17% to 25%.

26%
OF LATINX AND APIS WERE UNINSURED AT TIME OF DIAGNOSIS, 2015-2019

~2/3
OF PERSONS NEWLY DIAGNOSED EACH YEAR IN 2015-2019 HAD HEALTH INSURANCE

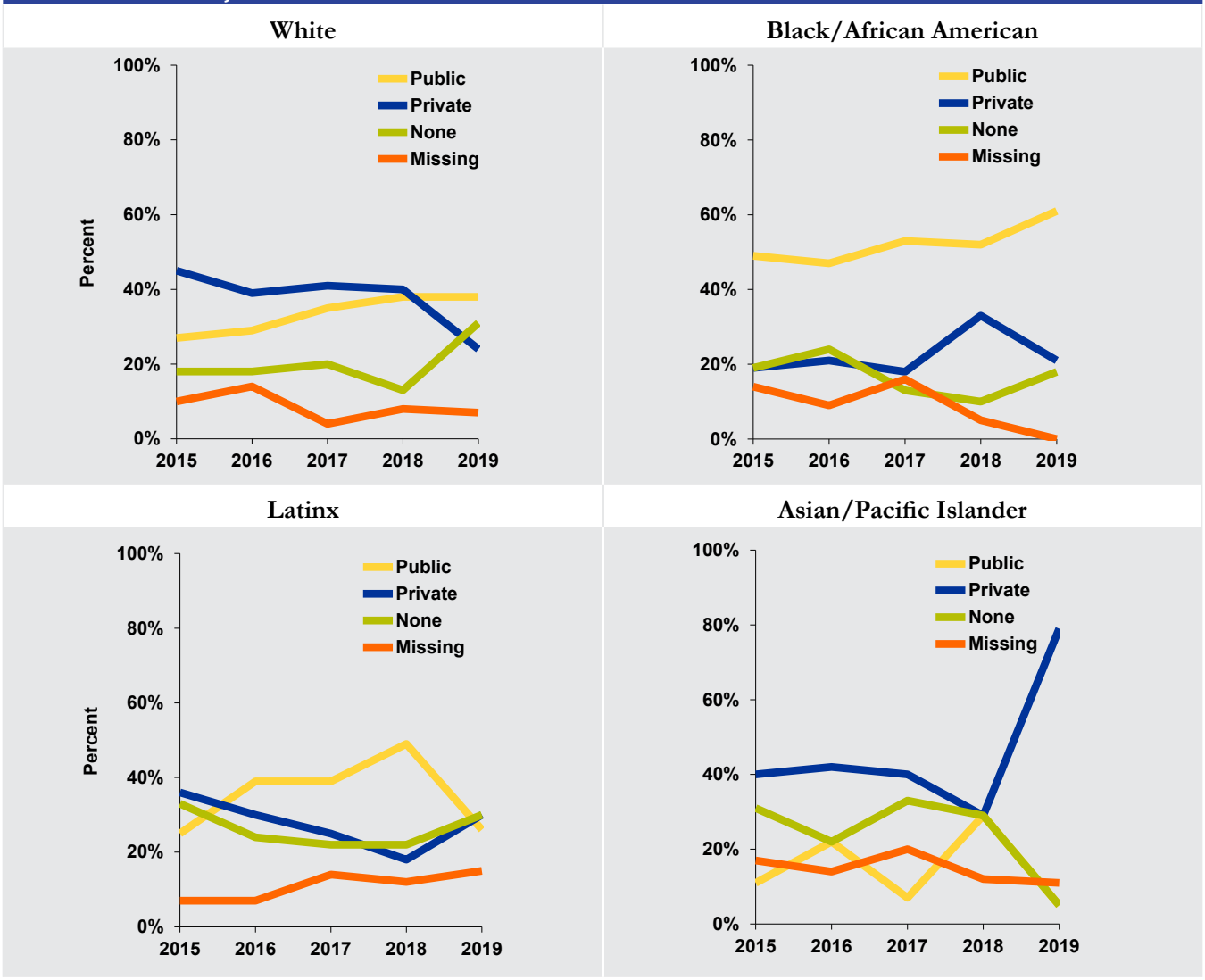
Figure 6.1 Health insurance status at time of HIV diagnosis by race/ethnicity, gender[1], and year of diagnosis, 2015-2019, San Francisco



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

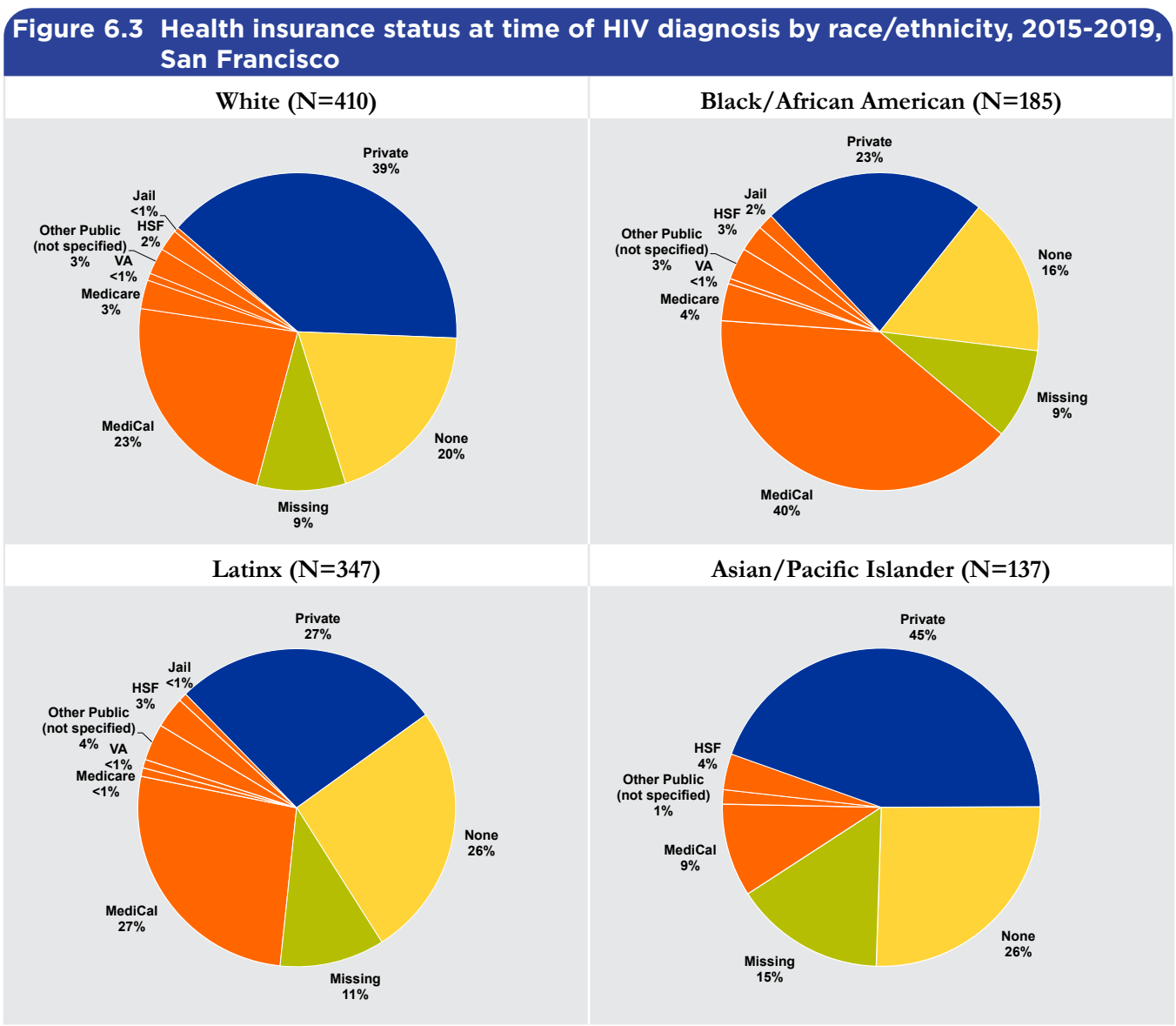
- Among whites, the proportion with public insurance increased in 2015 to 2019, leveling at 38% for 2018 and 2019. In 2019, the proportion with no insurance surpassed the proportion with private insurance.
- Between 47% and 61% of Black/African Americans diagnosed each year were publicly insured.
- Beginning in 2016 the proportion of Latinx with no health insurance declined while the proportion of Latinx with public insurance increased. In 2019, among Latinx, there were similar proportions with public, private, or no insurance.
- Private insurance was the most common form of insurance for Asians/Pacific Islanders (APIs). Eighty-four percent of APIs diagnosed had public or private insurance in 2019.

Figure 6.2 Trends in health insurance status at time of HIV diagnosis by race/ethnicity, 2015-2019, San Francisco



- From 2015 to 2019, 71% of whites, 75% of Black/African Americans, 63% of Latinx, and 59% of Asians/Pacific Islanders 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.
- Asians/Pacific Islanders had the highest proportion (45%) with privately-funded insurance compared to other racial/ethnic groups.
- Latinx and Asians/Pacific Islanders had the highest proportion uninsured (26%), followed by whites (20%).

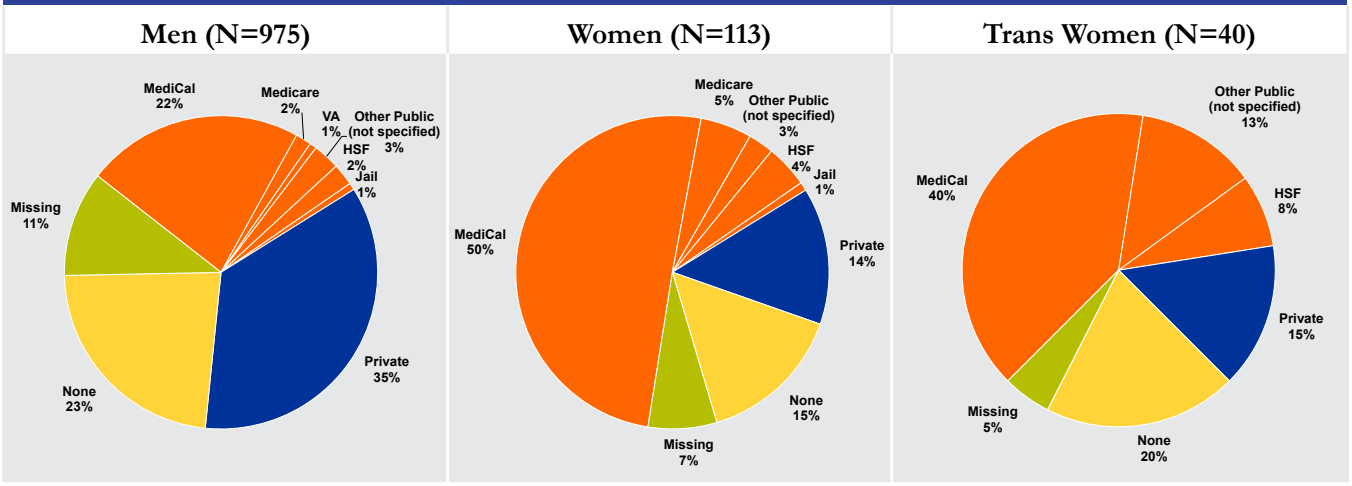
Figure 6.3 Health insurance status at time of HIV diagnosis by race/ethnicity, 2015-2019, San Francisco



HSF: Healthy San Francisco.

- Compared to men at the time of HIV diagnosis in 2015 to 2019, 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).
- Fifty percent of women and 40% of trans women reported using MediCal, state-sponsored insurance for persons meeting financial criteria, compared to 22% of men.
- Healthy San Francisco, the county-sponsored health access program for residents, was used by 2% of men, 4% of women, and 8% of trans women at time of diagnosis.
- Twenty-three percent of men, 15% 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], 2015-2019, San Francisco



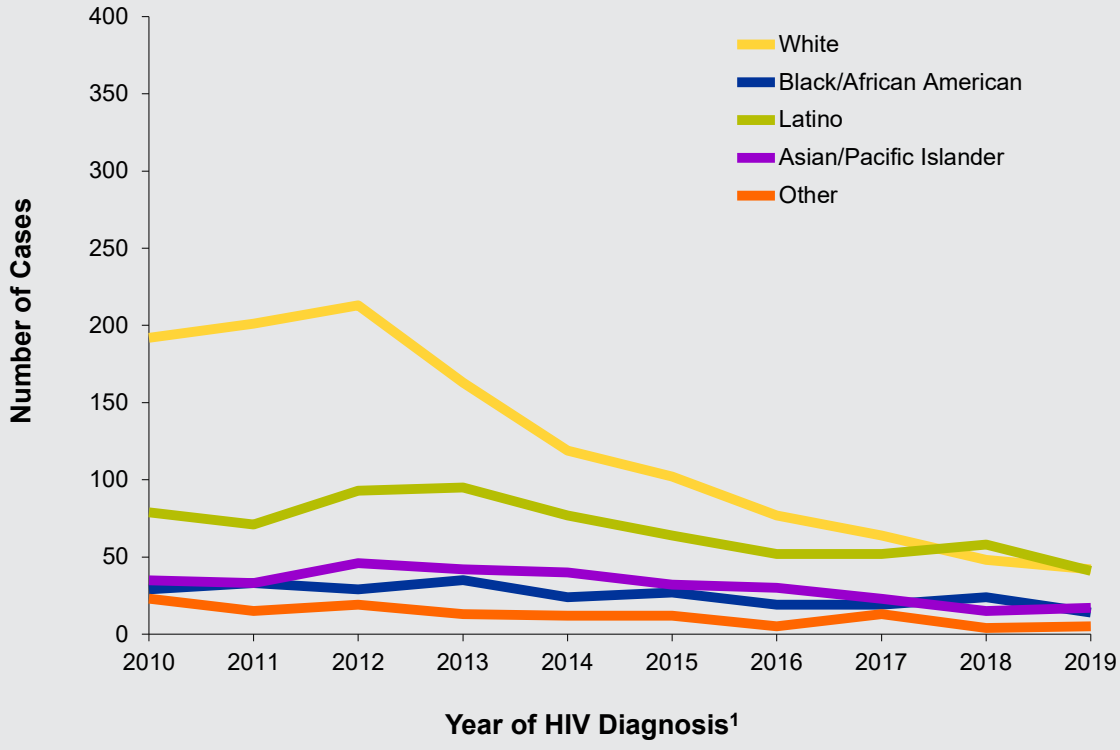
1 Data on trans men are not presented due to small numbers and potential small population size. See Technical Notes "Gender Status."
HSF: Healthy San Francisco.

7 HIV among Men who Have Sex with Men

Whites
ACCOUNTED FOR THE LARGEST NUMBER OF NEWLY DIAGNOSED MSM, 2010-2019

- The number of white MSM newly diagnosed with HIV consistently declined from 2013 to 2019.
- The annual number of white and Latino MSM diagnosed were very similar in 2019.
- The annual number of Black/African Americans and Asians/Pacific Islanders were similar in 2019.
- Among MSM newly diagnosed in 2019, whites made up 35%, Black/African Americans 12%, Latino 34%, and Asians/Pacific Islanders 14%.

Figure 7.1 Number of MSM newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco

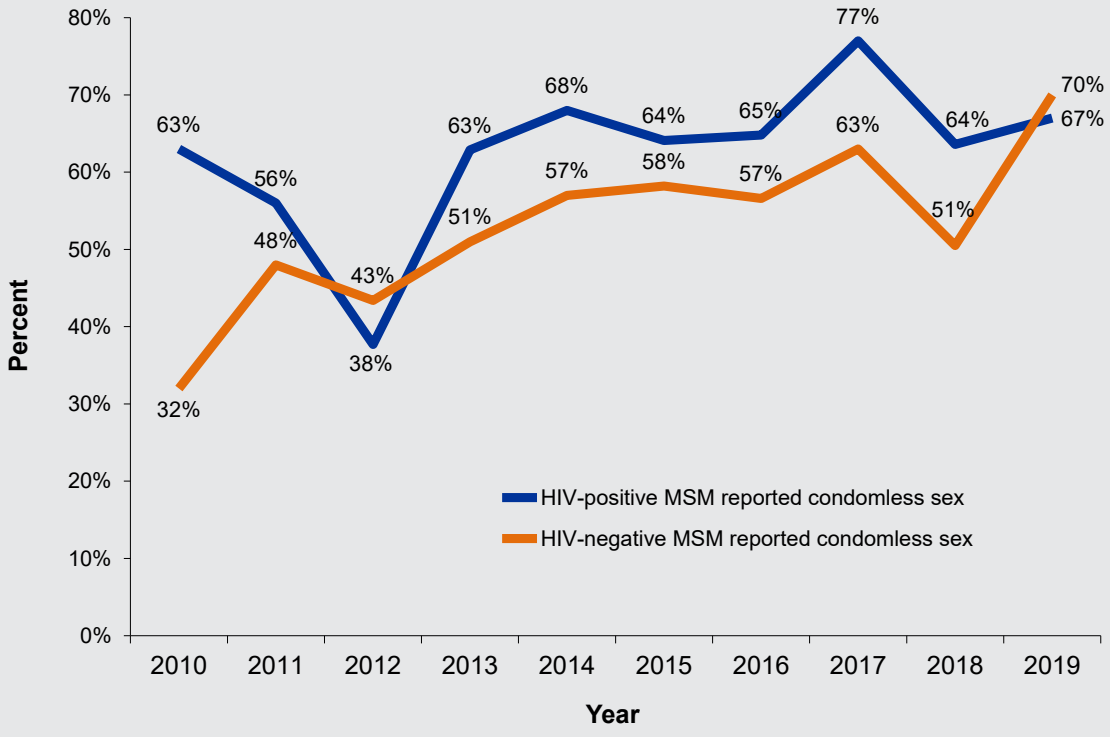


1 Includes MSM and MSM-PWID with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

HIV sexual behavior data

- Data from the STOP AIDS Project show that the percent of HIV-negative MSM who reported any condomless anal intercourse increased from 32% in 2010 to 70% in 2019.
- 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 take into account other factors related to HIV transmission such as use of pre-exposure prophylaxis (PrEP), viral suppression or serosorting. For example, the level of condomless sex may be lower among HIV-negative MSM who are not on PrEP in recent years.

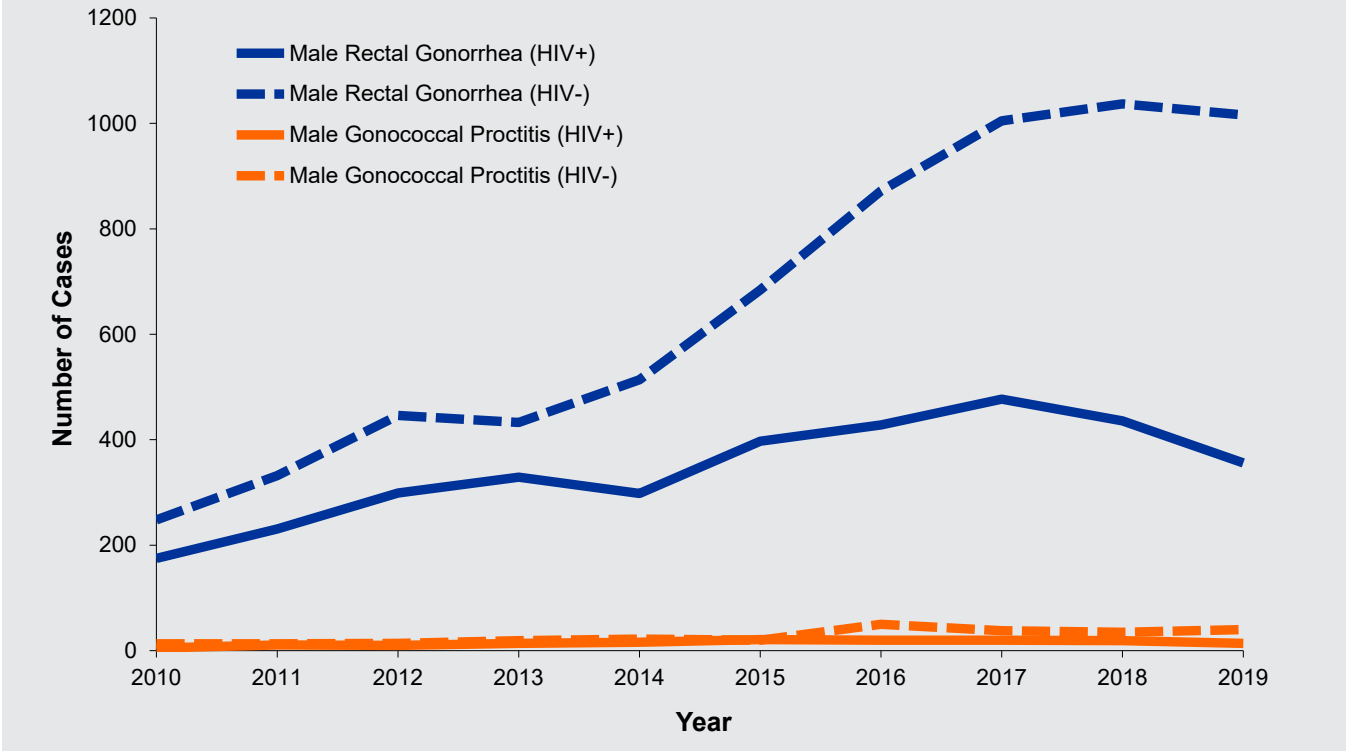
Figure 7.2 Percent of MSM reporting condomless anal intercourse in the last six months by self-reported HIV status, the STOP AIDS Project, 2010-2019, San Francisco



Sexually transmitted diseases among MSM

- Overall, the last decade has seen an increase in reported cases of male rectal gonorrhea among MSM irrespective of HIV serostatus.
- The number of reported rectal gonorrhea cases among HIV-positive MSM peaked at 477 cases in 2017 and has declined since to 356 cases in 2019.
- The number of reported rectal gonorrhea cases has been higher among HIV-negative MSM than among HIV-positive MSM from 2010 through 2019.
- 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.

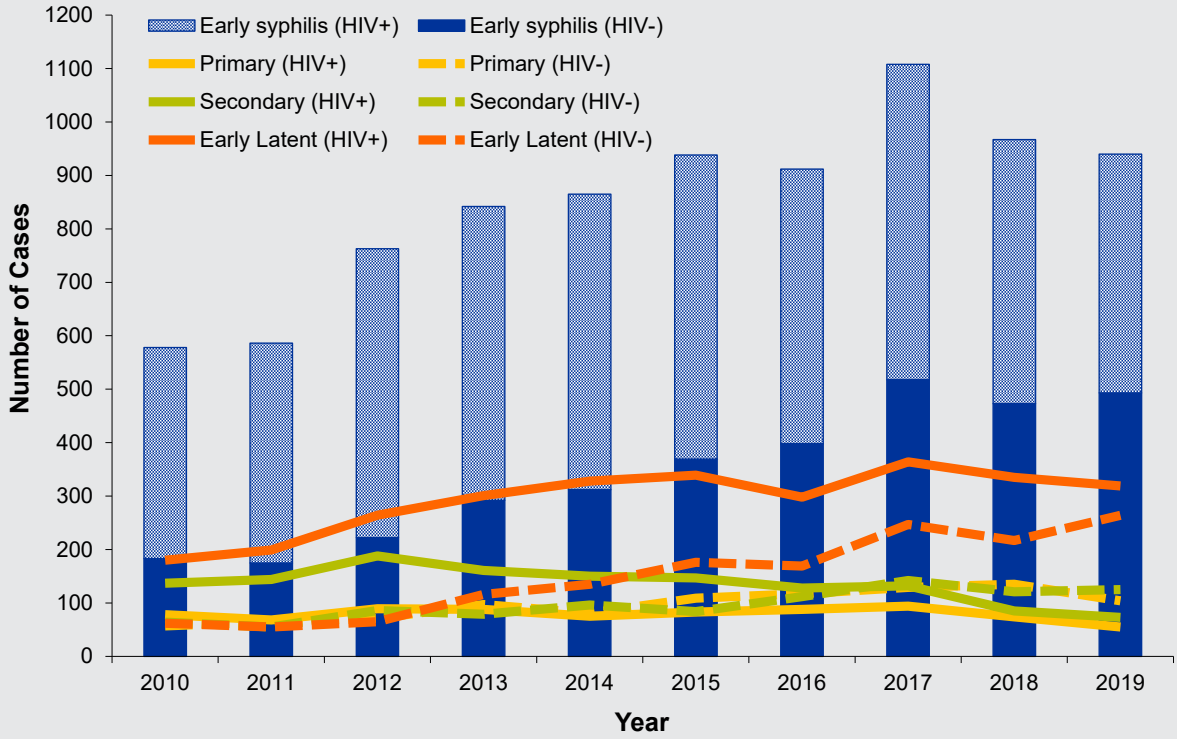
Figure 7.3 Male rectal gonorrhea and male gonococcal proctitis among MSM by HIV serostatus[1], 2010-2019, San Francisco



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

- The number of early latent syphilis cases increased from 2010 to 2017 irrespective of HIV serostatus.
- HIV-positive MSM accounted for a greater proportion of early syphilis cases between 2010 and 2018. In 2019, the proportion of early syphilis cases among HIV-negative MSM (52%) exceeded the proportion among HIV-positive MSM (48%).

Figure 7.4 Early syphilis among MSM by HIV serostatus[1], 2010-2019, San Francisco

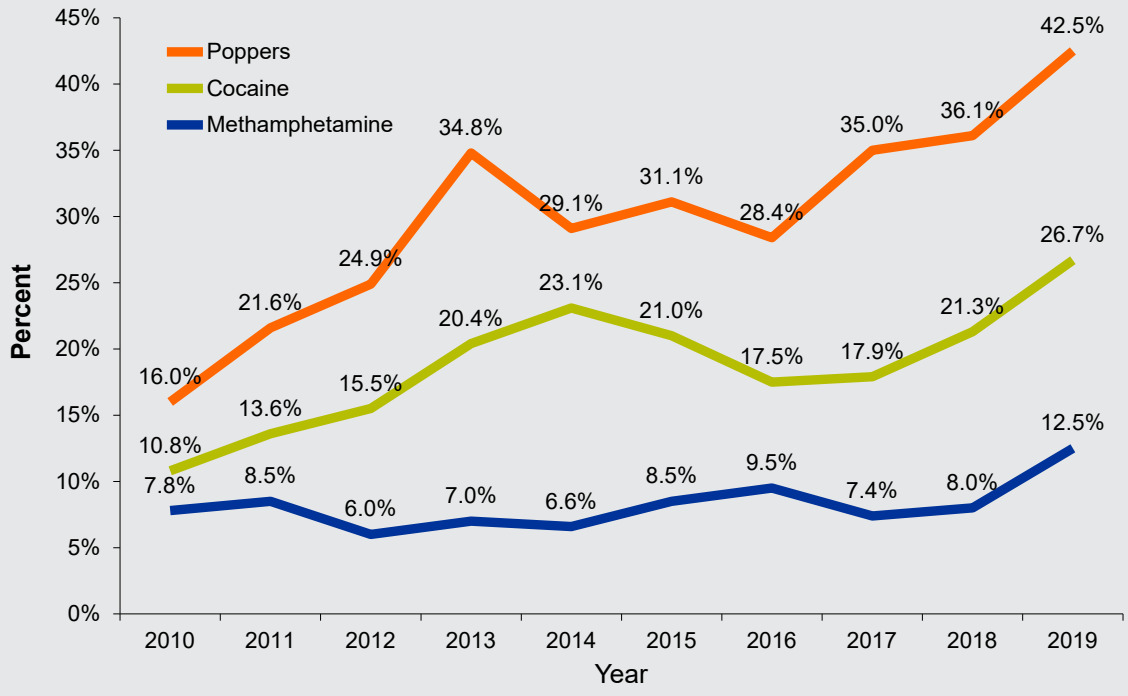


1 Data on early syphilis originate from San Francisco Department of Public Health STD case registry.

Substance use

- Data from the STOP AIDS Project show an increase in cocaine use from 2010 to 2014, a decrease from 2014 to 2017, and then an increase in recent years.
- Popper use increased from a low in 2010 to a high in 2019.
- Methamphetamine use was relatively stable from 2010 to 2018 with an increase in 2019.

Figure 7.5 Substance use among MSM, the STOP AIDS Project, 2010-2019, San Francisco



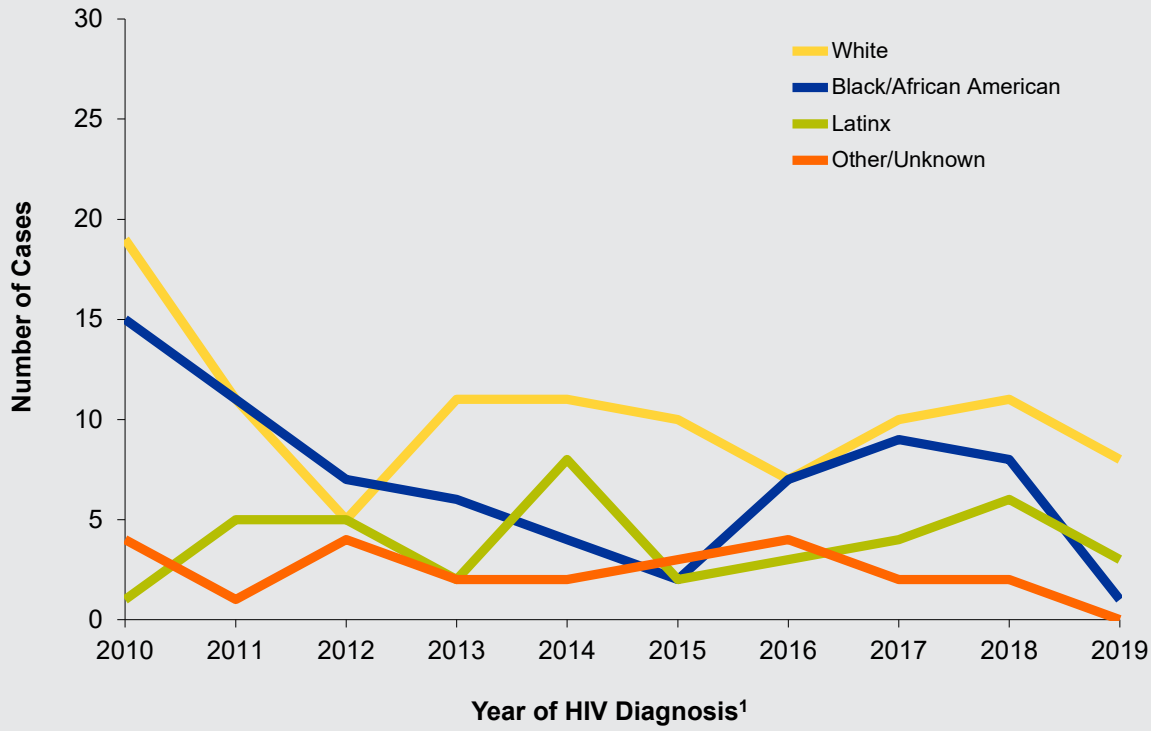
8 HIV among People who Inject Drugs

Whites

ACCOUNTED FOR 44% OF NON-MSM PWID NEWLY DIAGNOSED WITH HIV FROM 2010-2019

- From 2010 to 2019, whites accounted for 44% of non-MSM PWID newly diagnosed with HIV, Black/African Americans 30%, and Latinx 17%.
- From 2016 to 2018, there was an increase in the total number of non-MSM PWID diagnosed with HIV; the total number declined to 12 in 2019.

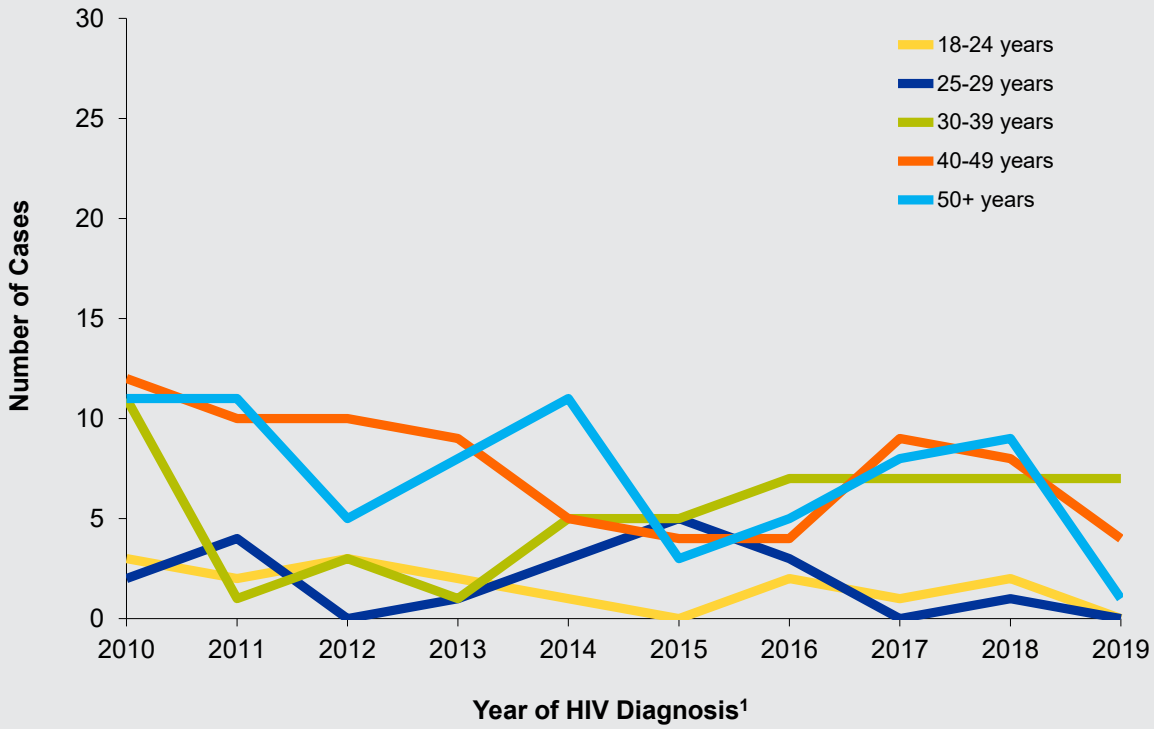
Figure 8.1 Number of non-MSM PWID newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco



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

- Eighty-five percent of non-MSM PWID newly diagnosed with HIV between 2010 and 2019 were over 29 years old.
- Persons who were aged 40-49 years made up 32% of all non-MSM PWID, and 31% were aged 50 years and older.
- While numbers are small, the annual diagnoses among PWID who were aged 30-39 years have been steady from 2016 to 2019.
- The numbers of annual HIV diagnoses among non-MSM PWID aged 18-24 years and 25-29 years remained low.

Figure 8.2 Number of non-MSM PWID newly diagnosed with HIV by age group at HIV diagnosis, 2010-2019, San Francisco



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

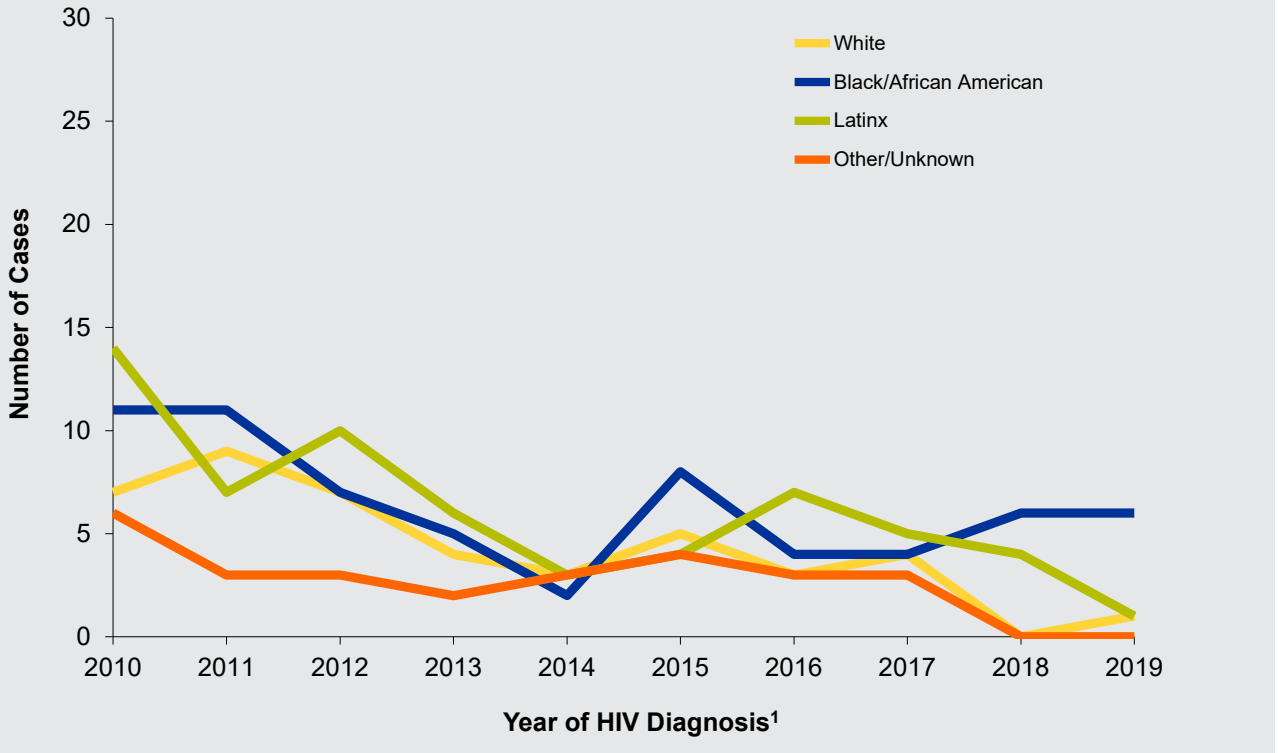
9 HIV among Heterosexuals

- Among persons who acquired HIV through heterosexual contact in 2010 to 2019, Black/African Americans accounted for 33%, Latinx accounted for 31%, and whites 22% of new diagnoses.
- The number of whites who acquired HIV through heterosexual contact have declined to 0 and 1 in 2018 and 2019.
- In 2018 and 2019, no Asians/Pacific Islanders, Native Americans, or persons of multi-race acquired HIV through heterosexual contact.

0

New HIV Diagnosis by heterosexual contact among APIs, Native Americans, or multiracial persons in 2018 and 2019

Figure 9.1 Number of heterosexuals newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco

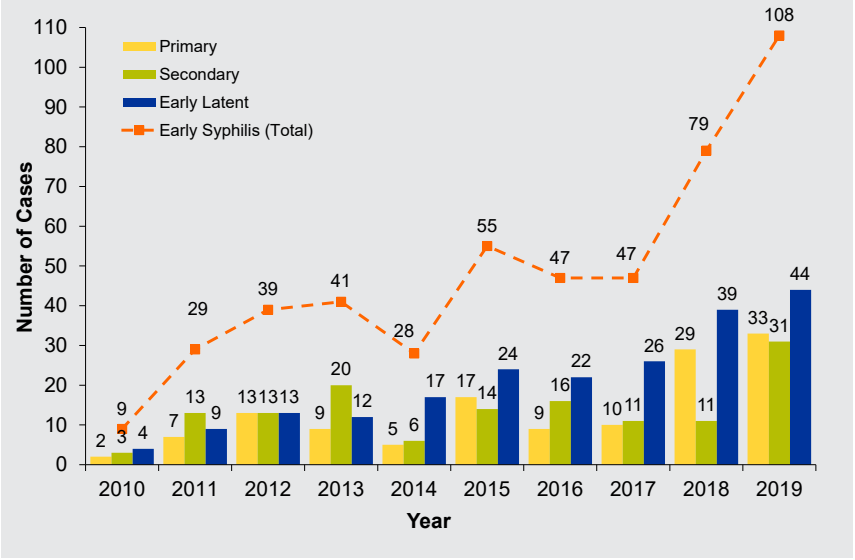


1 Includes persons with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

Sexually transmitted diseases among heterosexuals

- Overall, the number of early syphilis cases among heterosexual men regardless of HIV status has increased more than 10 times over the past 10 years and reached a peak at 108 cases in 2019.

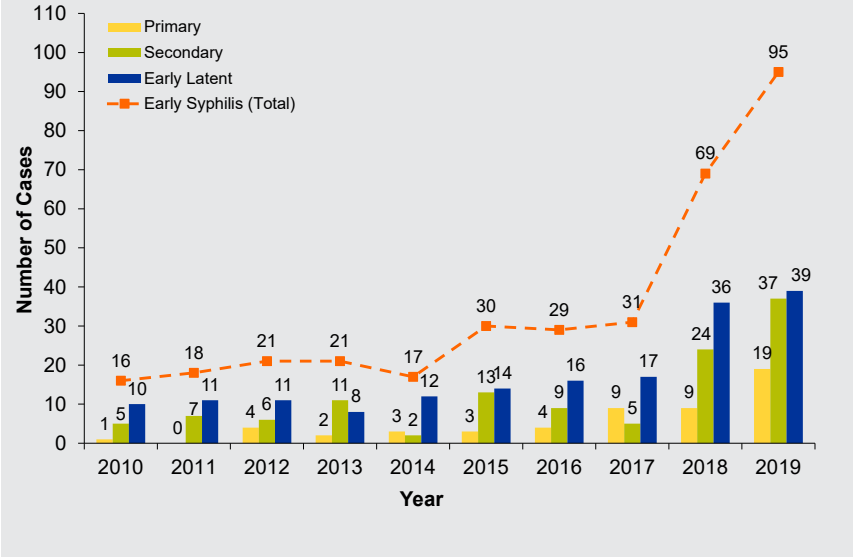
Figure 9.2 Early syphilis among heterosexual men[1], 2010-2019, San Francisco



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

- Among women and starting in 2011, the number of syphilis cases were lower relative to men, although the numbers of early syphilis cases have been increasing in recent years.

Figure 9.3 Early syphilis among women[1], 2010-2019, San Francisco

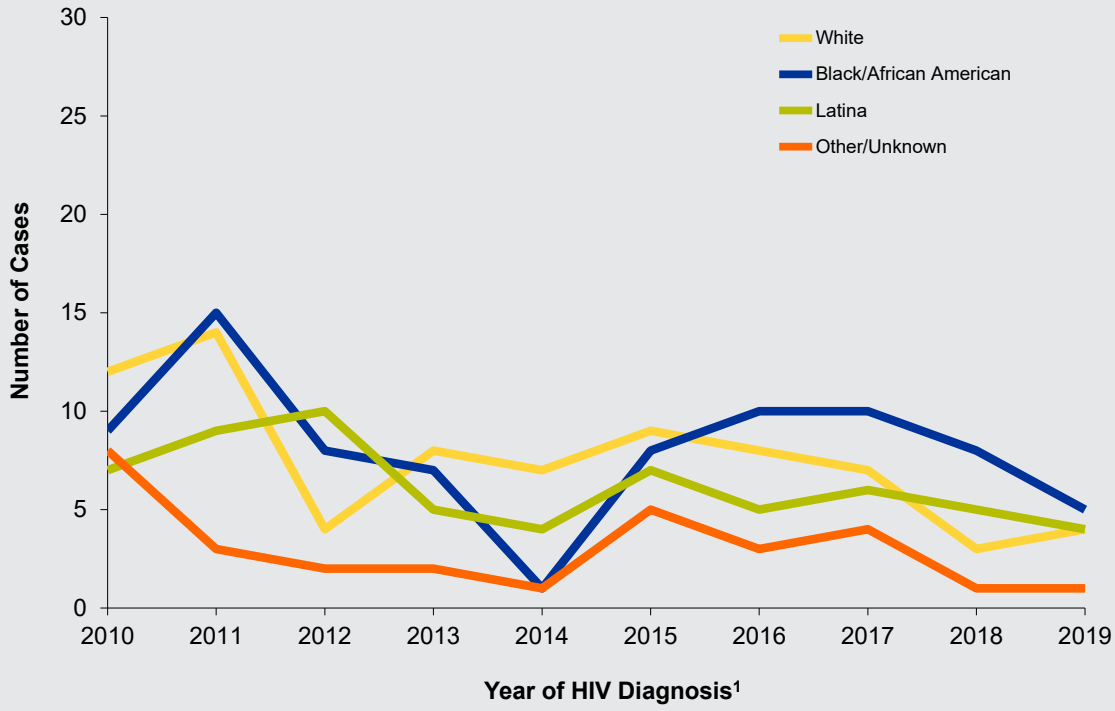


1 Data on early syphilis originate from San Francisco Department of Public Health STD case registry.

10 HIV among Women

- Among women newly diagnosed with HIV from 2010 to 2019, whites accounted for 31% of diagnoses, Black/African Americans accounted for 33%, and Latina accounted for 25%.
- In 2019, white, Black/African American, and Latina women had very similar numbers of annual diagnoses.

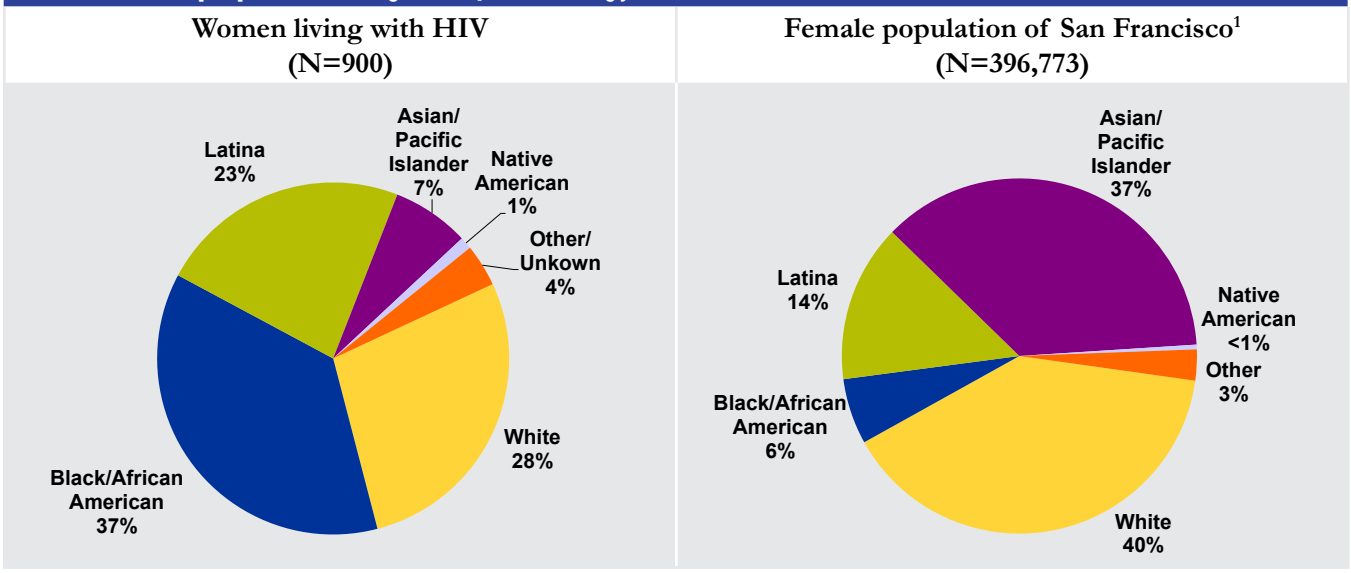
Figure 10.1 Number of women newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco



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

- Although Black/African American women represent 6% of the total female population in San Francisco (pie chart on the right), as of December 31, 2019 they accounted for 37% of women living with HIV in San Francisco (pie chart on the left).

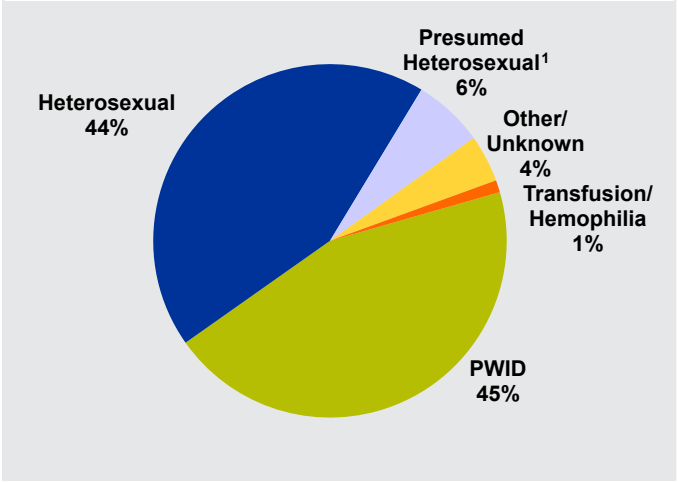
Figure 10.2 Women living with HIV diagnosed through December 2019 and female population by race/ethnicity, San Francisco



1 United States 2010 Census data.

- Among women diagnosed and living with HIV in San Francisco through the end of 2019, 45% acquired HIV through injecting drugs and 50% through heterosexual contact.

Figure 10.3 Women living with HIV diagnosed through December 2019 by transmission category, San Francisco



1 See Technical Notes "Female Presumed Heterosexual Contact."

11 HIV among Children, Adolescents and Young Adults

Latinx

ACCOUNTED FOR 38% OF YOUNG ADULTS LIVING WITH HIV AS OF 12/31/2019

- 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, 2019 there were fewer than five adolescents and 78 young adults living with HIV.
- Among young adults living with HIV, 79% were MSM (either with or without a history of injecting drugs).
- 38% of young adults living with HIV were Latinx, 18% were white, 28% were Black/African American, and 6% were Asian/Pacific Islander.

Table 11.1 Characteristics of young adults living with HIV, December 2019, San Francisco

		18 - 24 Years Old
		Number (%)
	Total	**78 (100)**
Transmission Category	MSM	53 (68)
	MSM-PWID	9 (12)
	Heterosexual	5 (6)
	Perinatal	6 (8)
	Other/Unidentified[1]	5 (6)
Gender[2]	Men	60 (77)
	Women	12 (15)
	Trans Women	6 (8)
Race/Ethnicity	White	14 (18)
	Black/African American	22 (28)
	Latinx	30 (38)
	Asian/Pacific Islander	5 (6)
	Multi-race	7 (9)

1 Includes TWSM, TWSM-PWID, heterosexual 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 2015-2019 and compared to the U.S., San Francisco had lower proportions of adolescents and young adults diagnosed with HIV.
- Annual diagnoses among persons aged 20-24 years ranged from 8% to 13% of total annual diagnoses from 2015 to 2019.

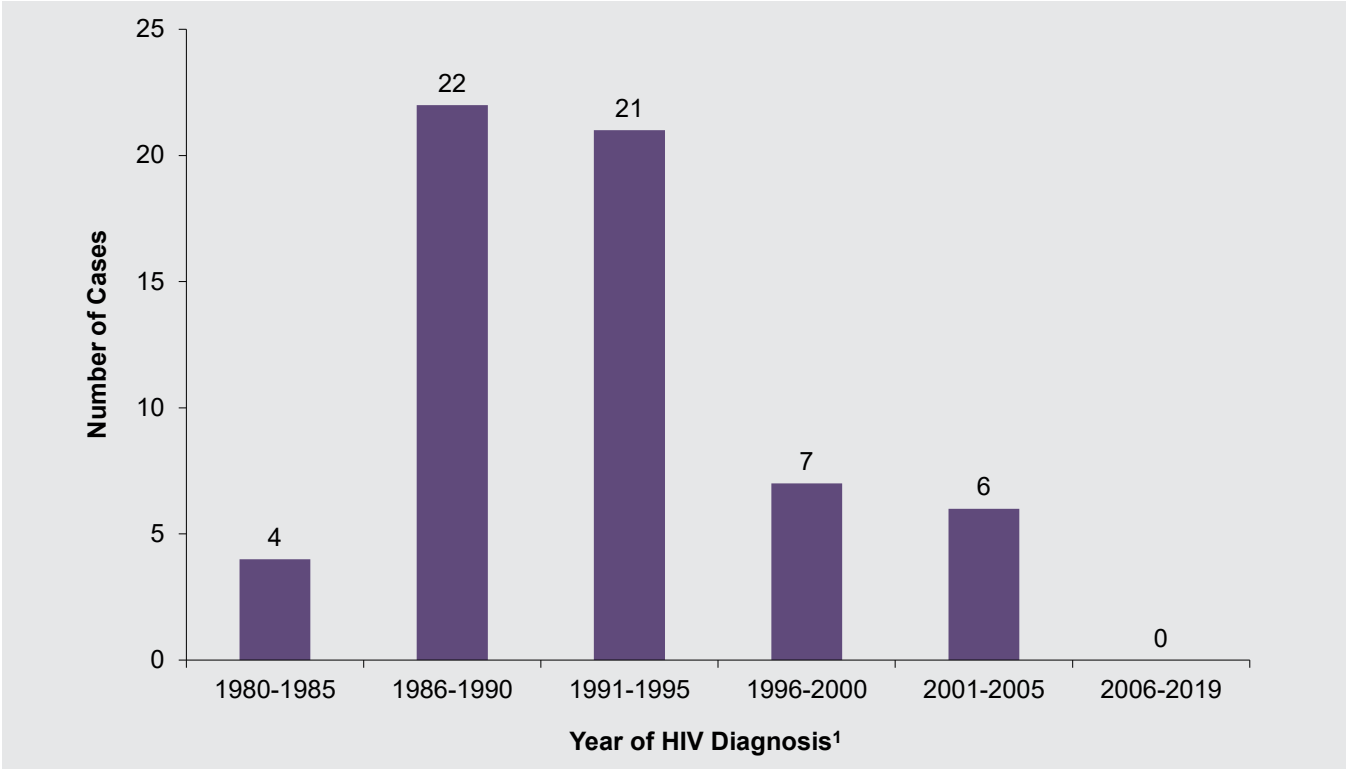
Table 11.2 Number of adolescents and young adults newly diagnosed with HIV, 2015-2019, San Francisco and the United States

		Year of HIV Diagnosis				
		2015	2016	2017	2018	2019
		Number (%)				
San Francisco	**All ages**	290	237	235	204	166
	Age 13-19 years at HIV diagnosis	5 (2)	4 (2)	8 (3)	5 (2)	3 (2)
	Age 20-24 years at HIV diagnosis	36 (12)	30 (13)	19 (8)	26 (13)	13 (8)
U.S.[1]	**All ages**	40,514	40,201	38,789	37,832	
	Age 13-19 years at HIV diagnosis	1,788 (4)	1,742 (4)	1,803 (5)	1,722 (5)	N/A
	Age 20-24 years at HIV diagnosis	7,360 (18)	6,986 (17)	6,517 (17)	6,085 (16)	N/A

1 U.S. data are based on reported diagnoses from the 50 states and 6 dependent areas with confidential name-based HIV reporting in CDC HIV Surveillance Report, 2018 (volume 30).

- As of December 31, 2019, 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, 26 (43%) have died as of December 2019 and 34 (57%) have survived beyond childhood (current age ≥13 years).

Figure 11.1 Number of children diagnosed with HIV by time period of HIV diagnosis, 1980-2019, San Francisco



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

12 HIV among Persons Aged 50 Years and Older

- As of December 31, 2019, 69% (N=10,939) of persons living with HIV were aged 50 years and older.
- In this age group, 73% were between the ages of 50-64 years old.
- Among those aged 50 years and older, 65% were white and 16% were Latinx compared to 43% and 30%, respectively, among those under age 50.

69%
OF PLWH WERE AGED 50 YEARS AND OLDER AS OF 12/31/2019

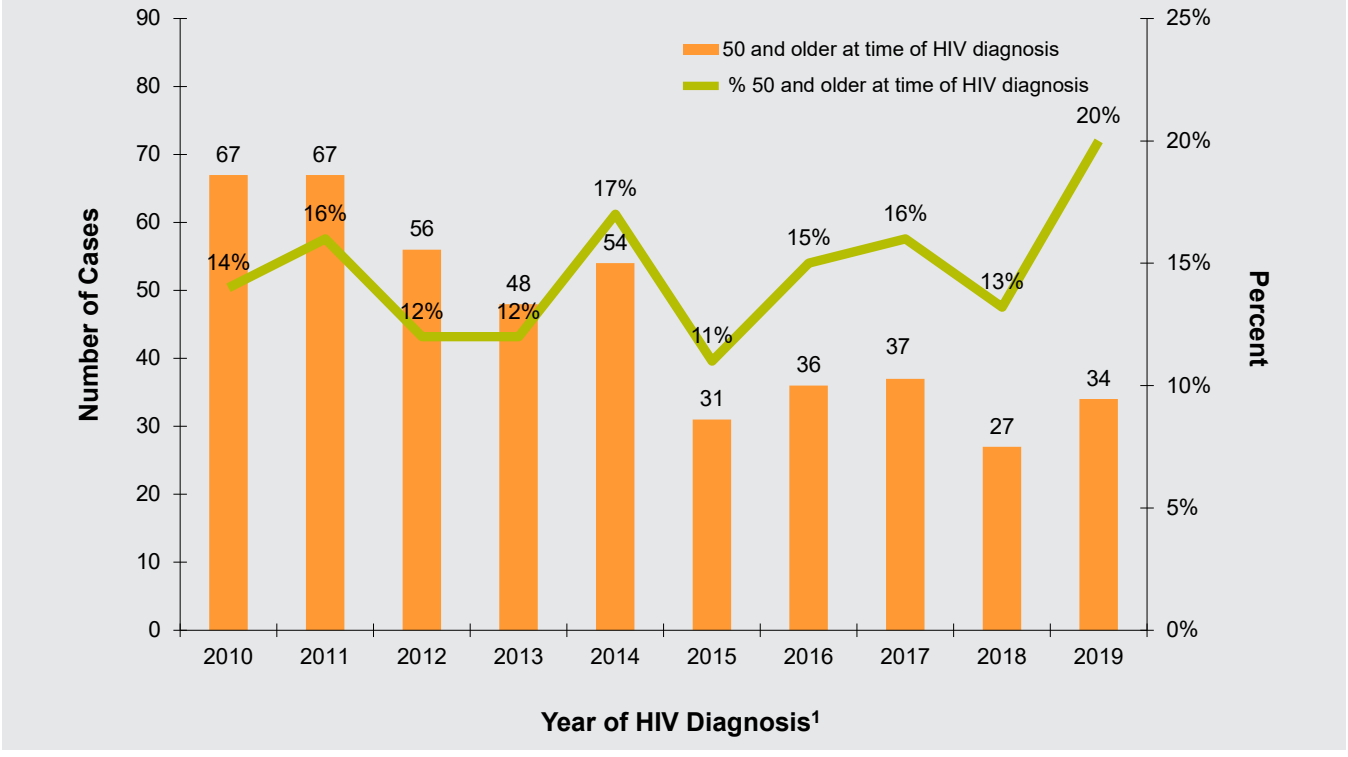
Table 12.1 Characteristics of persons living with HIV by age group, December 2019, San Francisco

		Age ≥ 50 years as of 12/31/2019	Age < 50 years as of 12/31/2019
		Number (%)	
	Total	**10,939**	**4,969**
Gender[1]	Men	10,167 (93)	4,415 (89)
	Women	575 (5)	325 (7)
	Trans Women	195 (2)	223 (4)
Race/Ethnicity	White	7,079 (65)	2,124 (43)
	Black/African American	1,305 (12)	591 (12)
	Latinx	1,748 (16)	1,470 (30)
	Asian/Pacific Islander	464 (4)	538 (11)
	Native American	41 (<1)	27 (1)
	Other/Unknown	302 (3)	219 (4)
Transmission Category	MSM	8,180 (75)	3,450 (69)
	TWSM	88 (1)	152 (3)
	PWID	643 (6)	219 (4)
	MSM-PWID	1,439 (13)	711 (14)
	TWSM-PWID	104 (1)	71 (1)
	Heterosexual	345 (3)	228 (5)
	Other/Unidentified	140 (1)	138 (3)
Age in Years	50-54	2,599 (24)	
	55-59	3,107 (28)	
	60-64	2,290 (21)	
	65+	2,943 (27)	

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 20% in 2019 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, 2010-2019, San Francisco



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

- Between 2010 and 2019, 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.
- Of those diagnosed at the age of 50 and older, 45% were 50-54 years old, 26% were 55-59 years old, 19% were 60-64 years old, and 10% were 65 years or older.

Table 12.2 Characteristics of persons newly diagnosed with HIV in 2010-2019 by age at diagnosis, San Francisco

		Age ≥ 50 years at diagnosis	Age < 50 years at diagnosis
		Number (%)	
	Total	**457**	**2,769**
Gender[1]	Men	379 (83)	2,488 (90)
	Women	73 (16)	176 (6)
	Trans Women	5 (1)	101 (4)
Race/Ethnicity	White	244 (53)	1,159 (42)
	Black/African American	92 (20)	354 (13)
	Latinx	68 (15)	790 (29)
	Asian/Pacific Islander	30 (7)	330 (12)
	Other/Unknown	23 (5)	136 (5)
Transmission Category	MSM	259 (57)	1,963 (71)
	PWID	72 (16)	164 (6)
	MSM-PWID	41 (9)	327 (12)
	Heterosexual	55 (12)	140 (5)
	Other/Unidentified[2]	30 (7)	175 (6)
Age in Years	50-54	206 (45)	
	55-59	121 (26)	
	60-64	85 (19)	
	65+	45 (10)	

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 2010-2019 WERE AMONG TRANS WOMEN

- From 2010 through 2019, there were 106 trans women newly diagnosed with HIV in San Francisco comprising 3% of all persons diagnosed with HIV in this time period.
- 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 and Latinx, PWID, and younger; 26% of newly diagnosed trans women were 18-24 years old.
- Among the 418 trans women living with HIV in San Francisco as of December 31, 2019, Latinx and Black/African Americans accounted for the largest proportions, 36% and 31%, respectively.
- 42% of trans women living with HIV were PWID.
- Similar to trans women newly diagnosed with HIV in 2010-2019, there was a higher proportion of people of color, PWID, and younger ages among trans women living with HIV compared to PLWH who were not trans women in San Francisco.

Table 13.1 Characteristics of trans women newly diagnosed with HIV in 2010-2019, San Francisco

		New HIV Diagnoses, 2010-2019	
		Trans Women[1]	Others
		Number (%)	
	Total	**106**	**3,120**
Race/Ethnicity	White	17 (16)	1,386 (44)
	Black/African American	28 (26)	418 (13)
	Latinx	42 (40)	816 (26)
	Asian/Pacific Islander	11 (10)	349 (11)
	Other/Unknown	8 (8)	151 (5)
People who Inject Drugs	Yes	32 (30)	604 (19)
	No	74 (70)	2,516 (81)
Age at Diagnosis (Years)	13 - 17	1 (1)	11 (<1)
	18 - 24	28 (26)	382 (12)
	25 - 29	16 (15)	561 (18)
	30 - 39	37 (35)	951 (30)
	40 - 49	19 (18)	763 (24)
	50+	5 (5)	452 (14)

1 See Technical Notes "Gender Status."

Table 13.2 Characteristics of trans women living with HIV, December 2019, San Francisco

		Trans Women PLWH[1]	Others
		Number (%)	
	Total	**418**	**15,490**
Race/Ethnicity	White	77 (18)	9,126 (59)
	Black/African American	129 (31)	1,767 (11)
	Latinx	149 (36)	3,069 (20)
	Asian/Pacific Islander	39 (9)	963 (6)
	Other/Unknown	24 (6)	565 (4)
People who Inject Drugs	Yes	177 (42)	3,010 (19)
	No	241 (58)	12,480 (81)
Age in Years (at end of 2019)	13 - 17	0 (0)	3 (<1)
	18 - 24	6 (1)	72 (<1)
	25 - 29	15 (4)	286 (2)
	30 - 39	86 (21)	1,621 (10)
	40 - 49	116 (28)	2,764 (18)
	50+	195 (47)	10,744 (69)

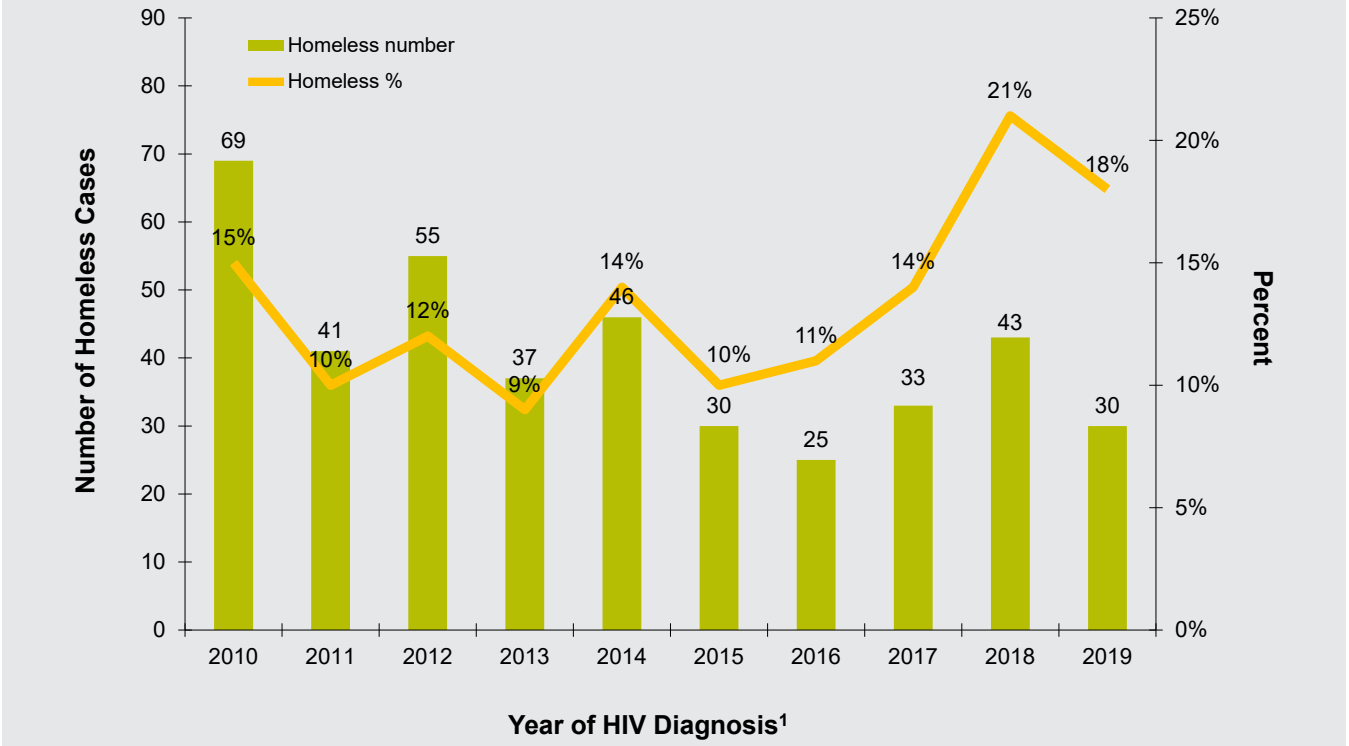
1 See Technical Notes "Gender Status."

14 Housing Status among Persons Living with HIV

- Among homeless persons newly diagnosed with HIV (see Technical Notes "Housing Status") from 2010 through 2019, the number of diagnoses declined from 69 in 2010 to 30 in 2019.
- In recent years the proportion of new diagnoses among persons experiencing homelessness showed an overall increasing trend: 11% in 2016, 14% in 2017, 21% in 2018, and decreased slightly in 2019 to 18%.

18%
OF NEW DIAGNOSES IN 2019 WERE AMONG THE HOMELESS

Figure 14.1 Number and percent of homeless persons newly diagnosed with HIV by year of diagnosis, 2010-2019, San Francisco



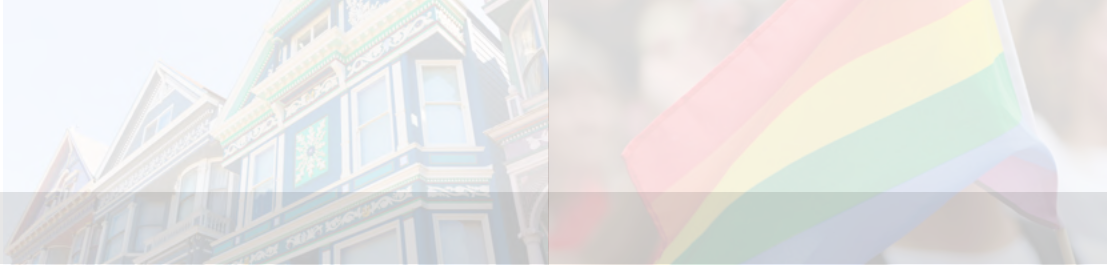
1 Includes persons with HIV by year of their initial HIV diagnosis. See Technical Notes "Date of Initial HIV Diagnosis."

- Compared to persons who were not homeless and diagnosed with HIV in 2010 to 2019, persons who experienced homelessness at time of HIV diagnosis were more likely to be women or trans women, Black/African American, trans women who have sex with men (TWSM), and PWID (including non-MSM, MSM, and TWSM).

Table 14.1 Characteristics of homeless persons newly diagnosed with HIV in 2010-2019, San Francisco

		New HIV Diagnoses, 2010-2019	
		Homeless	Non-Homeless
		Number (%)	
	Total	**409**	**2,817**
Gender[1]	Men	320 (78)	2,547 (90)
	Women	56 (14)	193 (7)
	Trans Women	33 (8)	77 (3)
Race/Ethnicity	White	169 (41)	1,234 (44)
	Black/African American	99 (24)	347 (12)
	Latinx	97 (24)	761 (27)
	Asian/Pacific Islander	10 (2)	350 (12)
	Other/Unknown	34 (8)	125 (4)
Transmission Category	MSM	126 (31)	2,096 (74)
	TWSM	22 (5)	52 (2)
	PWID	104 (25)	132 (5)
	MSM-PWID	100 (24)	268 (10)
	TWSM-PWID	11 (3)	21 (1)
	Heterosexual	32 (8)	163 (6)
	Other/Unidentified	14 (3)	85 (3)
Age at Diagnosis (Years)	13 - 17	1 (<1)	11 (<1)
	18 - 24	60 (15)	350 (12)
	25 - 29	76 (19)	501 (18)
	30 - 39	128 (31)	860 (31)
	40 - 49	86 (21)	696 (25)
	50+	58 (14)	399 (14)

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



- A total of 8,527 persons living with HIV (PLWH) had residential housing status or address information in 2019.
- Eight percent of PLWH with housing status or address in 2019 were homeless or lived in a single-room occupancy (SRO) facility during 2019.
- Among persons who were homeless or lived in a SRO facility during 2019, there were higher proportions of women, trans women, Black/African Americans, 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 SRO facility.

Table 14.2 Characteristics of persons living with HIV who were homeless or lived in SRO facility during 2019, San Francisco

		PLWH as of 12/31/2019[1]	
		Ever homeless or SRO in 2019	Non-homeless/non-SRO in 2019
		Number (%)	
	Total	**717**	**7,810**
Gender[2]	Men	581 (81)	7,191 (92)
	Women	70 (10)	425 (5)
	Trans Women	66 (9)	188 (2)
Race/Ethnicity	White	303 (42)	4,616 (59)
	Black/African American	170 (24)	824 (11)
	Latinx	159 (22)	1,538 (20)
	Asian/Pacific Islander	36 (5)	536 (7)
	Other	49 (7)	296 (4)
Transmission category	MSM	269 (38)	5,928 (76)
	TWSM	28 (4)	122 (2)
	PWID	123 (17)	340 (4)
	MSM-PWID	215 (30)	963 (12)
	TWSM-PWID	38 (5)	63 (1)
	Heterosexual	34 (5)	284 (4)
	Other/Unidentified	10 (1)	110 (1)
Age in years (as of 12/31/2019)	13-24	3 (<1)	42 (1)
	25-29	20 (3)	169 (2)
	30-39	134 (19)	875 (11)
	40-49	173 (24)	1,366 (17)
	50-59	229 (32)	2,784 (36)
	60-69	130 (18)	1,973 (25)
	70+	28 (4)	601 (8)

1 PLWH as of 12/31/2019 diagnosed in San Francisco at any HIV stage with residential housing status or address information in 2019.

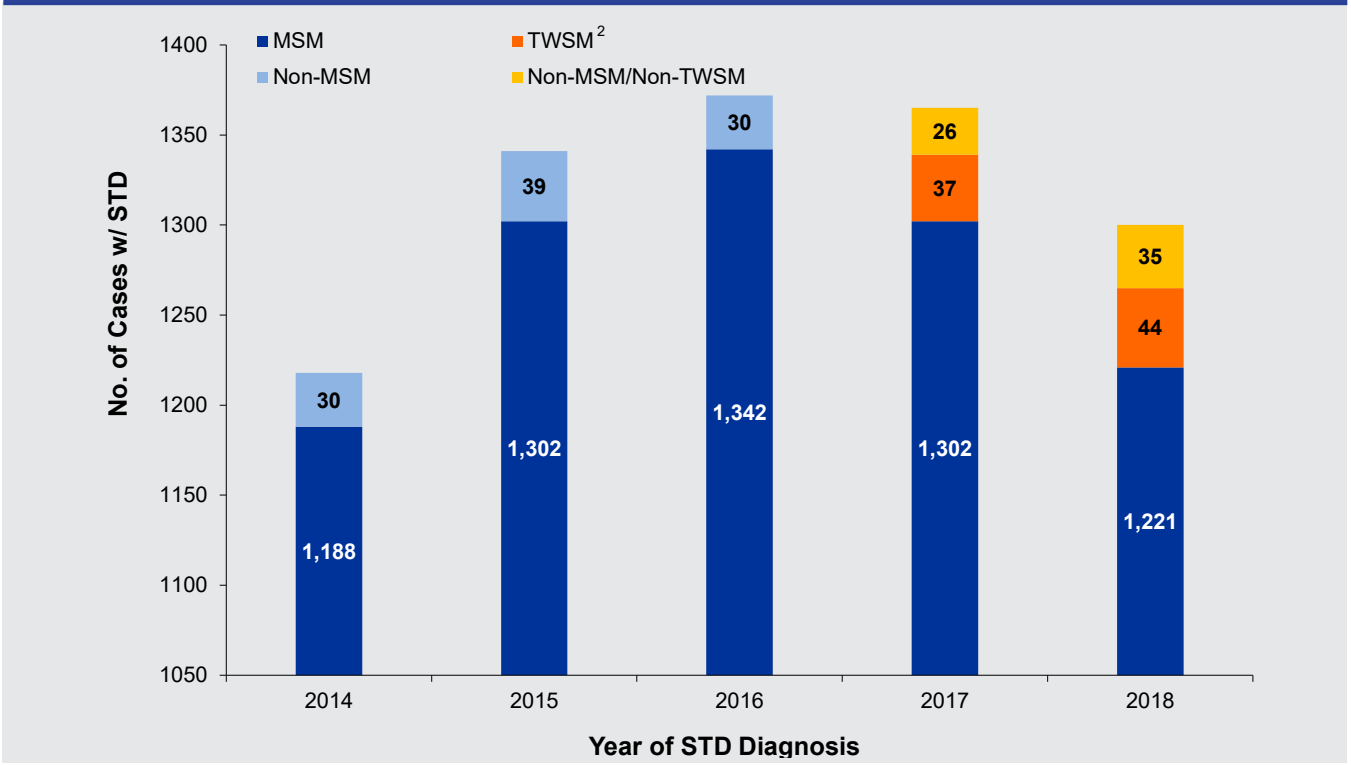
2 Data on trans men are not released separately due to small numbers. See Technical Notes "Gender Status."

15 Persons Diagnosed with HIV and Sexually Transmitted Diseases

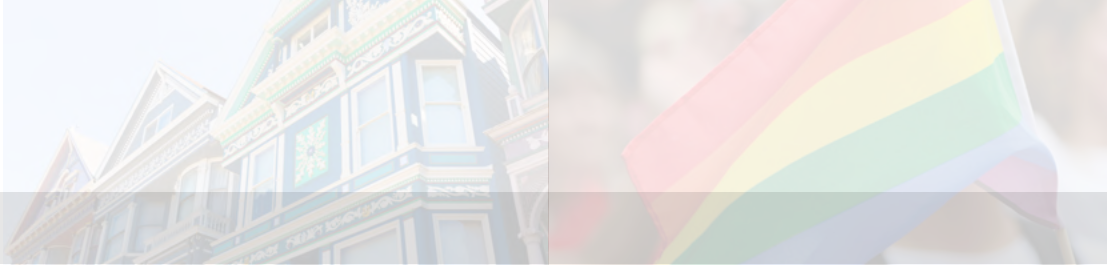
>93%
OF STD DIAGNOSES AMONG PLWH WERE AMONG MSM FROM 2014-2018

- The number of sexually transmitted disease (STD) diagnoses among persons living with HIV (PLWH) rose from 1,218 in 2014 to 1,372 in 2016, then declined to 1,300 in 2018. The majority of cases (>93%) were among men who have sex with men (MSM).
- Overall, this trend in STD diagnoses coincided with the recent trend shown in early syphilis (Figure 7.4 on page 56) and in male gonorrhea (Figure 7.3 on page 55) among MSM diagnosed with HIV.

Figure 15.1 Number of STD diagnoses[1] among persons living with HIV by year of STD diagnosis, 2014-2018, San Francisco



1 See Technical Notes "HIV and STD Diagnosis."
2 TWSM were included in MSM transmission category from 2014 to 2016 and are shown separately beginning in 2017.



- The majority of PLWH diagnosed with an STD from 2014 through 2018 were men, white, and aged 40-59 years at time of STD diagnosis.
- There were small 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 26% in 2014 to 40% in 2018, while the proportion of those aged 13-29 and 40-49 declined during the same period of time.

Table 15.1 Demographic characteristics of persons living with HIV who were diagnosed with STD[1], 2014-2018, San Francisco

		Year of STD Diagnosis				
		2014	2015	2016	2017	2018
		Number (%)				
Gender[2]	Men	1,181 (97)	1,286 (96)	1,312 (96)	1,311 (96)	1,232 (95)
	Women	12 (1)	19 (1)	14 (1)	16 (1)	23 (2)
	Trans Women	25 (2)	36 (3)	46 (3)	37 (3)	44 (3)
Race/Ethnicity	White	702 (58)	738 (55)	728 (53)	715 (52)	647 (50)
	Black/African American	103 (8)	118 (9)	119 (9)	114 (8)	125 (10)
	Latinx	284 (23)	331 (25)	366 (27)	366 (27)	345 (27)
	Asian/Pacific Islander	85 (7)	94 (7)	107 (8)	112 (8)	119 (9)
	Other/Unknown	44 (4)	60 (4)	52 (4)	58 (4)	64 (5)
Age at STD Diagnosis (years)	13 - 29	155 (13)	157 (12)	166 (12)	135 (10)	121 (9)
	30 - 39	287 (24)	300 (22)	312 (23)	326 (24)	306 (24)
	40 - 49	460 (38)	486 (36)	440 (32)	433 (32)	359 (28)
	50 - 59	247 (20)	326 (24)	361 (26)	356 (26)	373 (29)
	60 +	69 (6)	72 (5)	93 (7)	115 (8)	141 (11)
Total		1,218	1,341	1,372	1,365	1,300

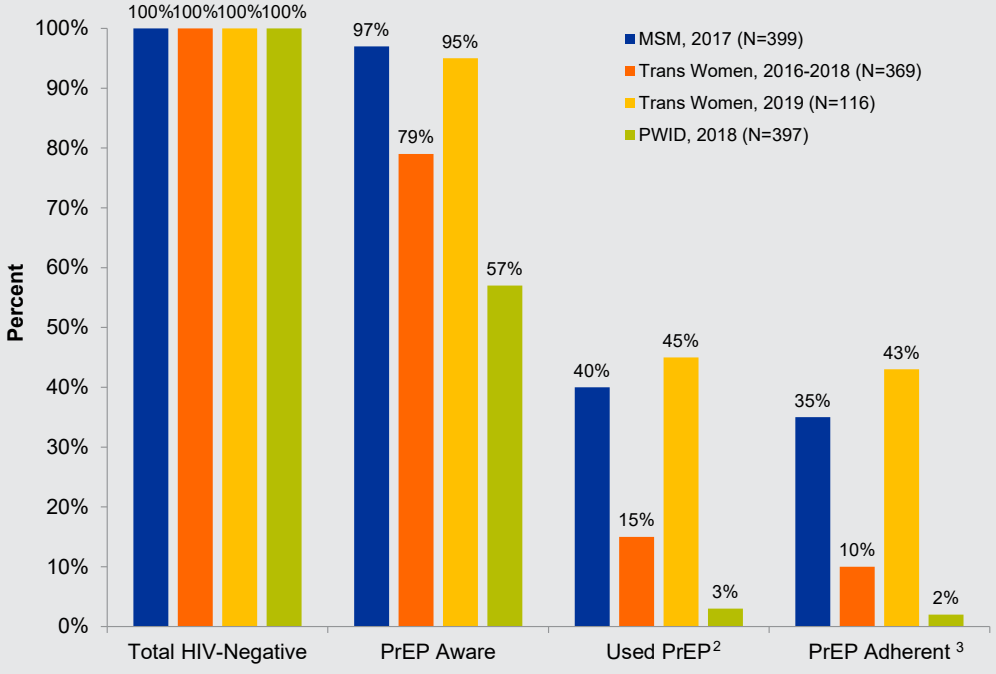
1 See Technical Notes "HIV and STD Diagnosis."

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 people who inject drugs (PWID) from NHBS, 2018 (N=397).
- 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 compared to other populations.

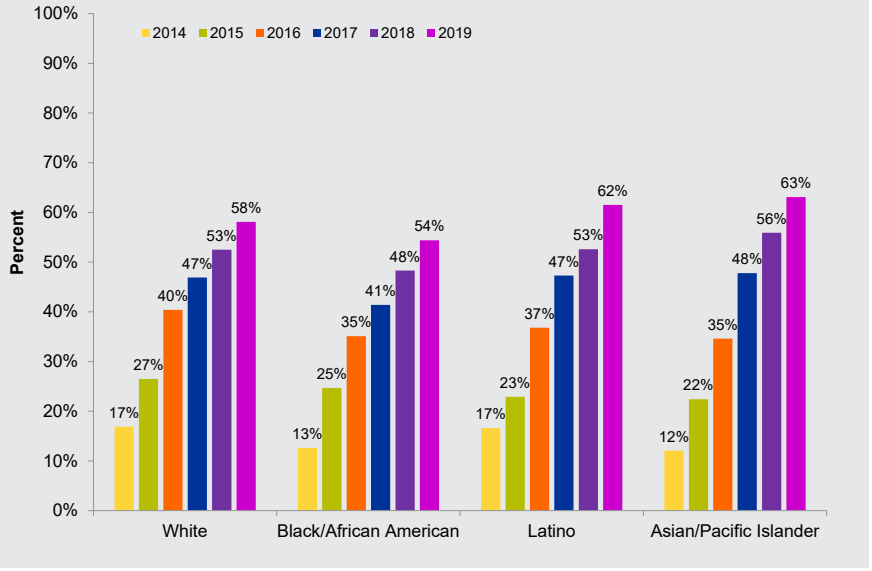
Figure 16.1 PrEP Cascade[1] among MSM, trans women, and persons who inject drugs, 2016-2019, San Francisco



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 and PWID in 2018.
3 Adherence to PrEP was defined as taking all or nearly all daily pills.

- Among San Francisco City Clinic patients seen in 2014-2019, PrEP use among MSM increased over time among all races.
- However, in recent years (2017-2019), Black/African American MSM had lower proportions of PrEP use compared to MSM of all other races.

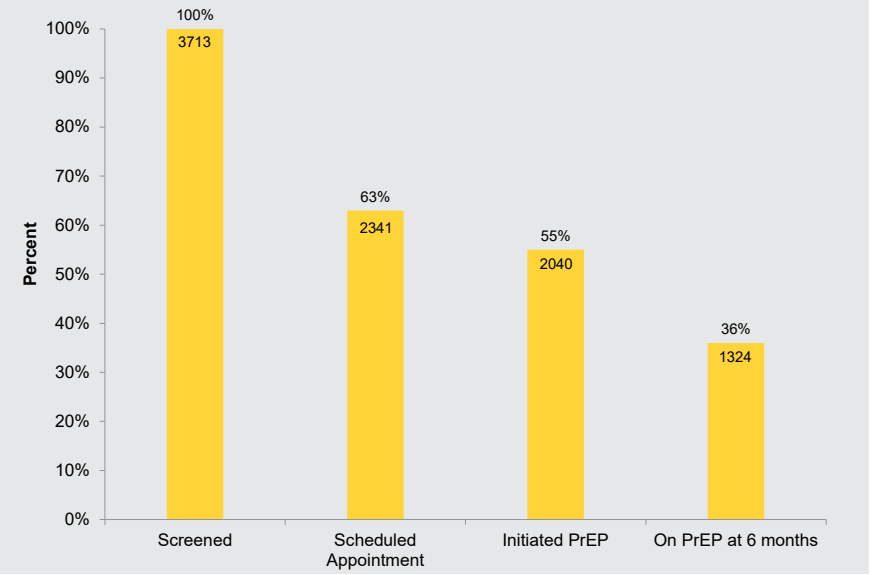
Figure 16.2 Proportion of MSM currently on PrEP[1] by race/ethnicity, San Francisco City Clinic patients, 2014-2019



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

- Between August 2016 and December 2019, 3,713 clients were screened for PrEP eligibility at selected community based organizations in San Francisco, 63% (N=2,341) were scheduled an appointment to discuss PrEP.
- Over half of clients (55%) initiated PrEP and 36% (N=1,324) were still taking PrEP at six months follow-up.

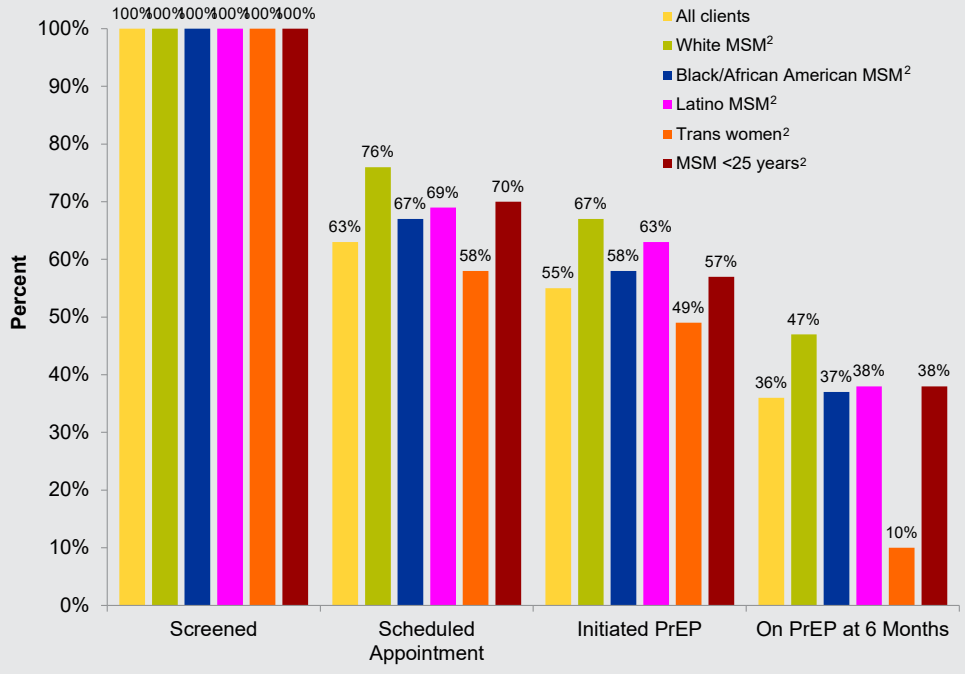
Figure 16.3 PrEP screening, appointments and PrEP initiation among clients being served by selected community based organizations[1], San Francisco, August 2016 - December 2019



1 Community Based Organizations included API Wellness, Lyric, San Francisco AIDS Foundation, Instituto de la Raza, and Alliance Health Project.

- Of the 3,713 clients screened for PrEP, white MSM were most likely to schedule an appointment (76%) followed by young MSM (70%). Trans women (58%) were less likely to schedule an appointment. PrEP initiation was highest among white MSM (67%) and Latino MSM (63%) and lowest among trans women (49%) and young MSM (57%). White MSM (47%) were most likely to be on PrEP at six months and trans women (10%) were least likely to be on PrEP at six months.

Figure 16.4 PrEP Cascade among clients being served by selected community based organizations[1], San Francisco, August 2016 - December 2019

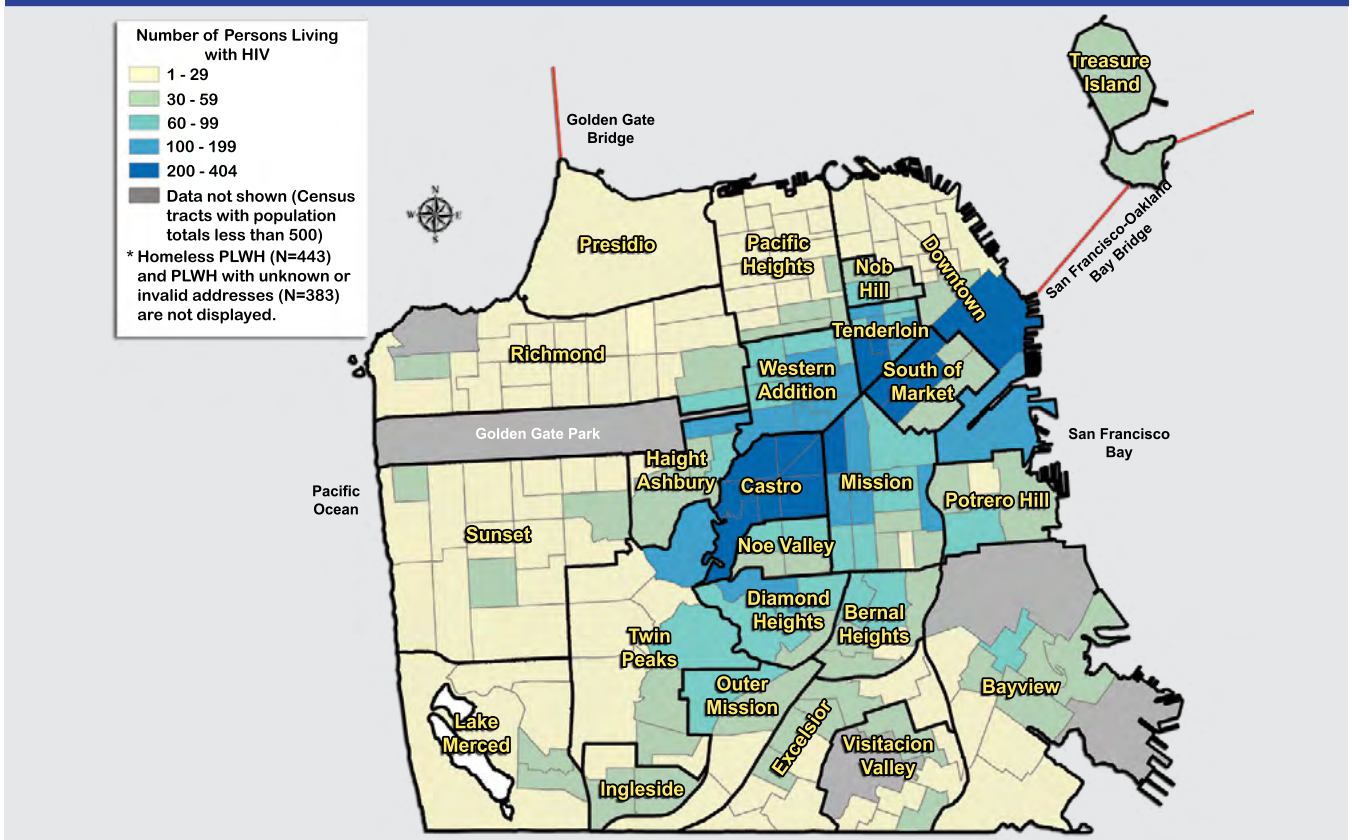


1 Community Based Organizations included API Wellness, Lyric, San Francisco AIDS Foundation, Instituto de la Raza, and Alliance Health Project.
2 These groups are priority populations and not mutually exclusive.

17 Geographic Distribution of Persons with HIV

- Approximately 41% of persons living with HIV (PLWH) who resided in San Francisco at time of diagnosis have since moved out of the city.
- There were 12,495 current San Francisco residents living with HIV as of December 31, 2019, regardless of their residence at HIV diagnosis. By neighborhood, Castro had the highest number of PLWH (N=1,871) followed by Tenderloin (N=1,485) and Western Addition (N=1,294).
- 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=404) followed by four census tracts in the Castro. The Tenderloin also contains smaller census tracts with a high number of PLWH, a reminder of the higher density of persons in these areas.

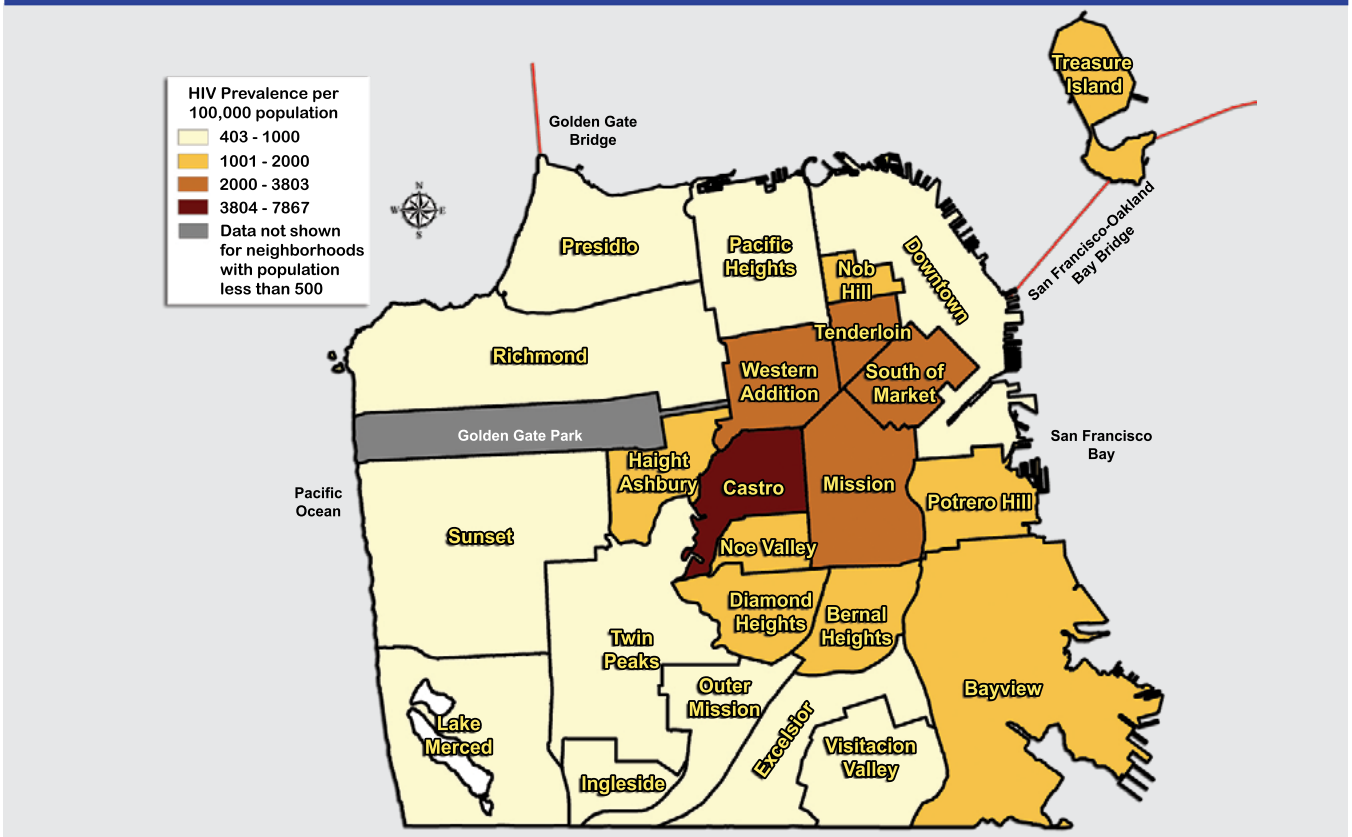
Map 17.1 Geographic distribution[1] of persons living with HIV who resided in San Francisco as of December 2019



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 26, 2020 and may reflect addresses after December 31, 2019. Last known addresses are obtained through chart review, laboratory reports, and communications with other jurisdictions.

- The Castro had the highest HIV prevalence of 7,867 PLWH per 100,000, followed by the Tenderloin (3,785 per 100,000), South of Market (3,735 per 100,000) and Western Addition (3,196 per 100,000).

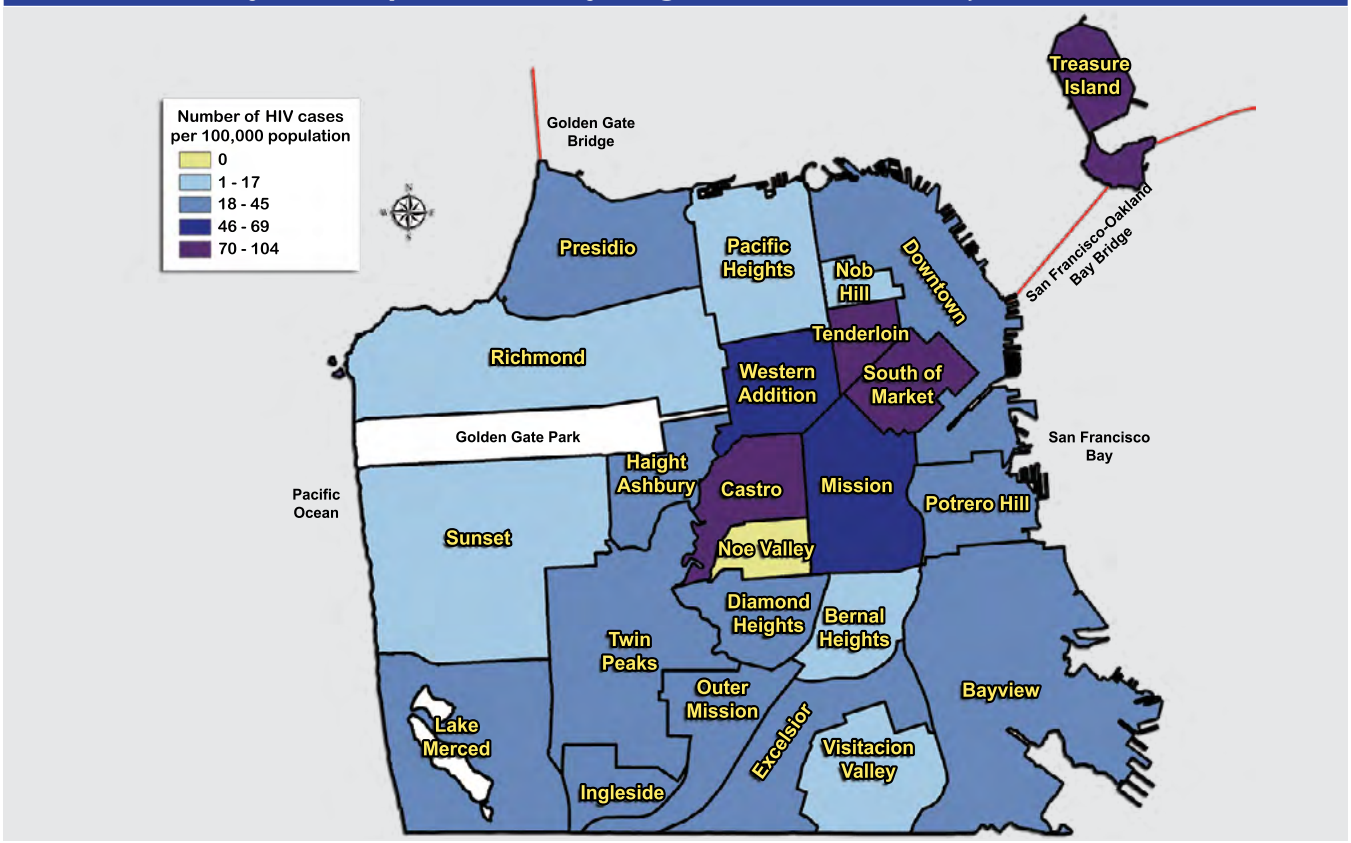
Map 17.2 HIV prevalence per 100,000 population by neighborhood, 2019, San Francisco



- Treasure Island had the highest rate of new diagnoses[1] in 2018-2019 (104 per 100,000), followed closely by Tenderloin (102 per 100,000) and the Castro (101 per 100,000).
- No new cases were diagnosed in Noe Valley in 2018 and 2019.

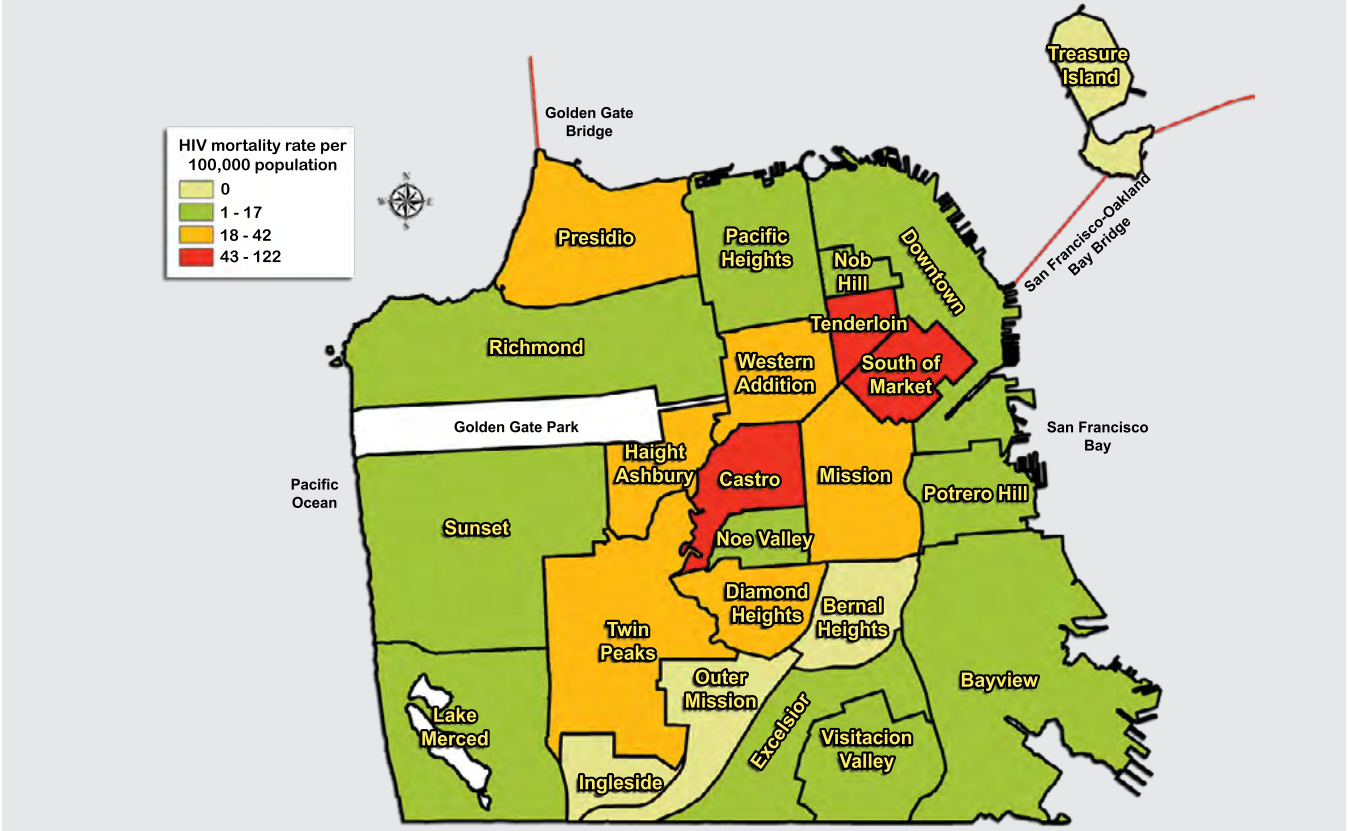
1 Two-year diagnosis rate numerators represent two years of diagnosed cases.

Map 17.3 Geographic distribution of rates of HIV diagnosis per 100,000 population per two years for persons newly diagnosed in 2018-2019, San Francisco



- Among persons with HIV, the Tenderloin had the highest mortality rate in 2019 (122 deaths per 100,000) followed by South of Market (91 per 100,000) and the Castro (67 per 100,000).
- Bernal Heights, Ingleside, Outer Mission, and Treasure Island had no deaths reported in 2019.
- Although the Castro had the highest HIV prevalence which was twice as high as the Tenderloin's HIV prevalence, the Tenderloin's mortality rate was twice as high as the Castro's mortality rate.

Map 17.4 Geographic distribution[1] of mortality rates among persons with HIV per 100,000 population, 2019, 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, and median household income, were assessed among persons diagnosed with HIV in 2017 and 2018 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 2017 and 2018 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).
- These patterns hold by gender; in 2018 the HIV diagnosis rates for men were 75.4 per 100,000 in census tracts with ≥19% below federal poverty level, 49.3 per 100,000 in census tracts with ≥18% less than high school diploma, and 69.0 per 100,000 in census tracts with household income level <$72,000.
- In 2018 the HIV diagnosis rates for women and trans women were 14.3 per 100,000 in census tracts with ≥19% below federal poverty level, 11.9 per 100,000 in census tracts with ≥18% less than high school diploma, and 17.4 per 100,000 in census tracts with household income level <$72,000.

Table 18.1 New HIV diagnosis rates among persons aged 18 years and older by selected social determinants of health[1] and gender, 2017-2018, San Francisco

		Year of Diagnosis					
		2017			2018		
		Men	Women/ Trans Women[2]	Total	Men	Women/ Trans Women[2]	Total
		Number of new diagnoses[3] (Rate per 100,000)					
Below Federal Poverty Level (%)	<7%	30 (30.0)	3 (3.1)	33 (16.7)	46 (35.1)	3 (2.3)	49 (18.9)
	7.00% - 10.99%	56 (43.1)	4 (3.2)	60 (23.5)	39 (31.4)	3 (2.4)	42 (17.3)
	11.00% - 18.99%	53 (53.0)	10 (10.2)	63 (31.8)	42 (52.7)	8 (10.0)	50 (31.3)
	≥19%	42 (81.9)	9 (19.8)	51 (52.6)	37 (75.4)	7 (14.3)	44 (48.0)
Less Than High School Diploma (%)	<6%	65 (45.9)	4 (3.0)	69 (25.2)	60 (43.4)	3 (2.3)	63 (23.4)
	6.00% - 10.99%	36 (51.3)	2 (3.0)	38 (27.6)	38 (40.7)	4 (4.6)	42 (23.3)
	11.00% - 17.99%	37 (40.6)	10 (10.8)	47 (25.6)	33 (38.6)	6 (7.2)	39 (23.0)
	≥18%	43 (54.9)	10 (13.4)	53 (34.7)	33 (49.3)	8 (11.9)	41 (30.6)
Median Household Income ($)	<$72,000	60 (72.8)	11 (14.1)	71 (44.3)	47 (69.0)	11 (17.4)	58 (44.1)
	$72,000 - $98,999	36 (33.4)	6 (5.6)	42 (19.5)	30 (35.9)	5 (5.9)	35 (20.8)
	$99,000 - $128,999	49 (50.6)	6 (6.4)	55 (28.8)	33 (30.1)	4 (3.8)	37 (17.1)
	≥$129,000	36 (38.1)	3 (3.4)	39 (21.5)	54 (44.0)	1 (0.9)	55 (23.2)

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.

- Among whites, the highest annual HIV diagnosis rates for both 2017 and 2018 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.
- Diagnosis rates were higher with increased poverty level for Latinx but not with lower education or household income level.

Table 18.2 New HIV diagnosis rates among persons aged 18 years and older by selected social determinants of health[1] and race/ethnicity, 2017-2018, San Francisco

		Year of Diagnosis					
		2017			2018		
		Black/ African American	Latinx	White	Black/ African American	Latinx	White
		Number of new diagnoses[2] (Rate per 100,000)					
Below Federal Poverty Level (%)	<7%	7 (91.8)	5 (13.3)	15 (9.0)	3 (23.6)	16 (34.8)	23 (10.7)
	7.00% - 10.99%	6 (42.3)	18 (33.7)	27 (16.2)	8 (69.3)	15 (27.3)	11 (7.6)
	11.00% - 18.99 %	9 (50.3)	19 (38.6)	21 (19.0)	13 (74.5)	22 (51.8)	9 (10.3)
	≥19%	9 (43.1)	19 (68.8)	14 (38.1)	9 (48.8)	11 (43.9)	14 (40.7)
Less Than High School Diploma (%)	<6%	8 (55.9)	15 (34.6)	35 (13.9)	8 (51.1)	22 (54.1)	24 (9.7)
	6.00% - 10.99%	2 (22.8)	13 (55.7)	15 (15.7)	6 (56.8)	14 (43.9)	14 (11.8)
	11.00% - 17.99%	11 (56.9)	14 (32.0)	12 (12.4)	10 (56.4)	13 (26.8)	7 (8.3)
	≥18%	10 (55.0)	19 (33.1)	15 (40.4)	9 (55.6)	15 (31.6)	12 (40.2)
Median Household Income ($)	<$72,000	12 (41.5)	23 (48.7)	20 (36.1)	13 (54.2)	16 (41.9)	17 (35.6)
	$72,000 - $98,999	4 (31.4)	16 (30.7)	11 (10.3)	11 (78.4)	13 (28.6)	8 (11.6)
	$99,000 - $128,999	13 (124.2)	10 (24.0)	28 (19.2)	6 (58.3)	18 (37.9)	7 (4.9)
	≥$129,000	2 (23.6)	12 (44.9)	18 (10.4)	3 (25.3)	17 (45.5)	25 (11.2)

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.

- By age group at diagnosis and poverty level, all age groups for 2017 diagnoses, and age groups 25 years and older for 2018 diagnoses showed highest diagnosis rates in census tracts with ≥19% below federal poverty level.
- By educational attainment, for diagnoses in age groups 34 years and under, diagnosis rates were highest in census tracts with lowest educational attainment (≥18% with less than high school diploma).
- For 2017 diagnoses by median household income, all age groups had the highest diagnosis rates in census tracts with household income level <$72,000; the pattern was different for 2018 diagnoses.

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, 2017-2018, San Francisco

		Year of Diagnosis									
		2017					2018				
		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)									
Below Federal Poverty Level (%)	<7%	2 (13.9)	16 (29.2)	10 (27.1)	5 (16.0)	0 (0.0)	3 (16.2)	16 (22.4)	15 (30.2)	12 (29.8)	3 (3.8)
	7.00% - 10.99%	6 (30.8)	20 (29.8)	17 (33.7)	9 (21.9)	8 (10.3)	6 (33.3)	15 (22.7)	9 (20.2)	10 (25.7)	2 (2.7)
	11.00% - 18.99%	7 (41.0)	23 (42.9)	17 (49.1)	9 (30.3)	7 (11.2)	9 (68.4)	24 (55.1)	6 (21.1)	8 (34.7)	3 (5.9)
	≥19%	8 (55.9)	14 (60.1)	14 (92.0)	9 (62.6)	6 (20.2)	5 (37.2)	16 (73.7)	11 (74.4)	7 (51.3)	5 (17.8)
Less Than High School Diploma (%)	<6%	4 (16.4)	28 (34.6)	20 (36.3)	10 (24.6)	7 (9.6)	9 (39.5)	22 (26.0)	14 (26.6)	15 (38.8)	3 (4.2)
	6.00% - 10.99%	3 (25.9)	16 (41.0)	7 (28.3)	7 (35.9)	5 (11.6)	3 (19.9)	15 (31.2)	10 (30.2)	11 (39.8)	3 (5.3)
	11.00% - 17.99%	7 (46.1)	11 (23.8)	21 (64.7)	5 (16.9)	3 (5.0)	5 (36.2)	19 (43.4)	8 (26.3)	5 (19.0)	2 (3.6)
	≥18%	9 (63.6)	18 (55.2)	10 (40.2)	10 (37.6)	6 (11.0)	6 (50.3)	15 (56.5)	9 (42.7)	6 (25.7)	5 (9.8)
Median Household Income ($)	<$72,000	10 (48.6)	25 (68.8)	16 (64.9)	12 (49.9)	4 (19.0)	3 (18.0)	28 (91.4)	16 (77.3)	5 (26.1)	6 (13.5)
	$72,000 - $98,999	5 (25.7)	14 (26.8)	12 (32.1)	7 (19.9)	1 (13.0)	8 (50.5)	9 (22.4)	5 (17.6)	12 (44.2)	1 (1.8)
	$99,000 - $128,999	5 (34.3)	17 (30.2)	19 (51.8)	8 (28.1)	3 (9.2)	5 (28.6)	16 (26.4)	7 (17.7)	7 (21.2)	2 (3.0)
	≥$129,000	3 (28.2)	17 (31.6)	11 (28.6)	5 (17.4)	13 (7.7)	7 (51.3)	18 (25.1)	13 (26.7)	13 (35.4)	4 (6.0)

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.

- By poverty level, PWID diagnosed in 2017 and 2018 had the highest proportions diagnosed in census tracts with ≥19% below federal poverty level.
- By median household income, PWID diagnosed in 2017 and 2018 had the highest proportions diagnosed in census tracts with household income level <$72,000.

Table 18.4 Proportion of new HIV diagnoses among persons aged 18 years and older by selected social determinants of health[1] and transmission category, 2017-2018, San Francisco

		Year of Diagnosis					
		2017			2018		
		MSM	MSM-PWID	PWID	MSM	MSM-PWID	PWID
		Number of new diagnoses[2] (%)					
Below Federal Poverty Level (%)	<7%	26 (18)	4 (17)	2 (13)	40 (29)	5 (28)	0 (0)
	7.00% - 10.99%	46 (32)	5 (22)	5 (31)	35 (25)	4 (22)	1 (13)
	11.00% - 18.99%	42 (29)	8 (35)	2 (13)	33 (24)	7 (39)	2 (25)
	≥19%	30 (21)	6 (26)	7 (44)	30 (22)	2 (11)	5 (63)
Less Than High School Diploma (%)	<6%	58 (40)	5 (22)	5 (31)	54 (39)	7 (39)	0 (0)
	6.00% - 10.99%	28 (19)	5 (22)	1 (6)	33 (24)	5 (28)	3 (38)
	11.00% - 17.99%	26 (18)	6 (26)	6 (38)	24 (17)	4 (22)	2 (25)
	≥18%	32 (22)	7 (30)	4 (25)	27 (20)	2 (11)	3 (38)
Median Household Income ($)	<$72,000	41 (28)	9 (39)	8 (53)	39 (28)	3 (17)	6 (75)
	$72,000 - $98,999	30 (21)	4 (17)	1 (7)	25 (18)	3 (17)	1 (13)
	$99,000 - $128,999	40 (28)	6 (26)	6 (33)	27 (20)	6 (33)	0 (0)
	≥$129,000	33 (23)	4 (17)	1 (7)	47 (34)	6 (33)	1 (13)

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.

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 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 year analyzed. 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 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 people moved into or out of the area under consideration).

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

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.

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 is 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 occur 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 is summarized and coded using the International Classification of Diseases, 10th revision (ICD-10) for deaths that occurred since 1999. A single cause of death is 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 2018. Decedents through 2018 have been matched to the NDI final file; cause of death information in this report is available for deaths through 2018. NDI information for 2019 decedents was not available at the time of this report's preparation.

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 racial subgroups such as Asian, Pacific Islander, Native American, and multiracial decedents was not displayed due to many small cells.

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

Estimate of ART Use

Information on ART use is obtained from medical chart reviews or reported by health care providers. Using surveillance data to estimate use of ART will most likely result in an underestimate of ART use. The underestimate occurs because use of ART is collected at the time a person with HIV infection is reported (which is often close to the time that they are diagnosed), a time when some people have not yet begun treatment. The

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

San Francisco Department of Public Health (SFDPH) collects follow-up information from selected health care facilities. For persons who receive care at these sites, treatment data are likely to be more complete because it allows us to capture the use of ART after diagnosis and the date the case report was completed. Follow-up information is not available for persons who have moved away from San Francisco or who receive ongoing care outside of the city. Surveillance data provide information that indicates when a person was prescribed ART but does not provide information on adherence. Persons whose medical records indicate that they were prescribed ART are 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 2018 and March 2020, 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 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. People who are classified as female at birth and have no other gender identity noted are classified as women. People 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.

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.

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 people of multiple race. 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 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, viral load and genotype tests as indicators of care, and viral load test results to measure viral suppression, defined as a 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 result for 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 laboratory to report all HIV-related test results to the local health department where the provider is located). In addition, some patients may be in care but do not have any laboratory tests performed in the time period assessed.

HIV Case Rates and HIV Mortality Rates

Annual race-specific mortality 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 race/ethnicity, multiplied by

100,000. Age-adjusted mortality rates were calculated for persons 18 and over. For each race/ethnicity and sex group, the number of HIV cases who died each year was divided by projected San Francisco population estimates across seven age groups (18-29, 30-39, 40-49,50-59,60-69,70-79, 80+) to generate crude rates applied to the standard population, defined using the California population estimates from the Department of Finance. These rates were calculated separately for males and females. The annual population estimates were not available for transgender persons. Population denominators by year were obtained from the State of California, Department of Finance, Demographic Research Unit, in two sources: the California Intercensal Population Estimates[4] and California Population Projections[5] (http://www.dof.ca.gov/Forecasting/Demographics/Projections/).

HIV Disease Stage 3 (AIDS) Survival

Survival time was calculated as the time between the date of HIV disease stage 3 (AIDS) diagnosis and the date of death. 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, 2018. 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, 2018, whichever was more recent.

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 de-duplicated with other California counties, states, and U.S. territories. The surveillance system is evaluated regularly for completeness, timeliness, and accuracy.

The completeness of case reporting of HIV diagnoses in 2018 was evaluated (on 12/31/2019) and found to be 98% (using CDC developed reporting delay model). In terms of timeliness, an estimated 97% of 2018 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

4 State of California, Department of Finance, Race/Hispanics Population with Age and Gender Detail, 2000–2010. Sacramento, California, September 2012.

5 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, December 2014.

jurisdictions. This report also includes 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 is 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 is 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.

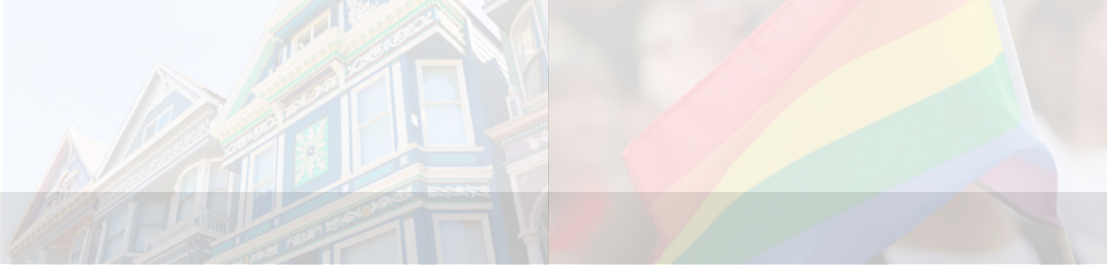
Persons with missing address information are not classified as homeless. Persons are also considered "not homeless" if they reside in (1) single room occupancy (SRO) facility, (2) transitional housing, (3) partner's, family member's, or other non-family member's residence, (4) institutional facility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

Persons are classified as living in a SRO if the residential addresses matches 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 excludes 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

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 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 race/ethnicity and 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 are considered San Francisco cases. HIV cases who were diagnosed or received care in San Francisco but resided elsewhere at time of diagnosis are considered out-of-jurisdiction (OOJ) cases. In 2009, 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 occur and the residence at time of diagnosis may differ from the current residence among PLWH, SFDPH collects and updates 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 receive 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 assessed, regardless of their residence at time of diagnosis (Table 3.3 on page 20). It excludes San Francisco residents at diagnosis who subsequently moved outside of San Francisco and includes persons who resided elsewhere at time of HIV diagnosis and moved to San Francisco after diagnosis.

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.

Social Determinants of Health

Social determinants of health (SDH) indicators among people with HIV in San Francisco were evaluated in this report (federal poverty level, educational attainment, and median annual household income). San Francisco census tract level SDH data were derived from the U.S. Census Bureau American Community Surveys (ACS) 2013-2017 and 2014-2018. 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 2017 and 2018, 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, and median household income of the census tract the case lived in at time of diagnosis. Poverty level and educational attainment were divided by quartiles by using ACS 2013-2017 data from all census tracts in the 50 states, the District of Columbia, and Puerto Rico[6]. To be representative of San Francisco income levels, median annual household income was divided by quartiles using ACS 2013-2017 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. The proportions of SDH indicators by transmission category were calculated; the ACS does not provide population estimates by transmission category or transgender status.

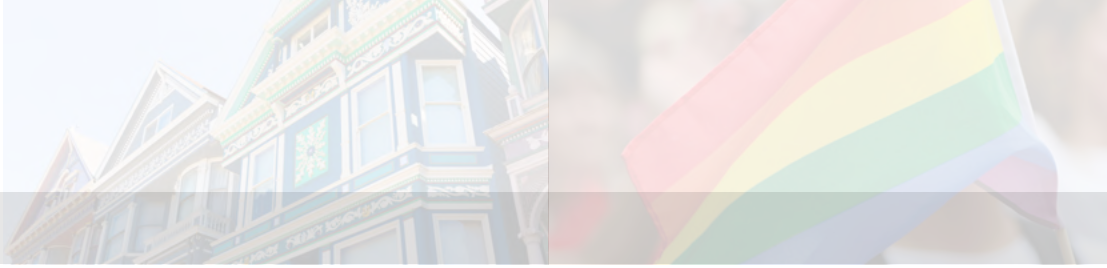
Stage of Disease at HIV Diagnosis

In 2014, the United States surveillance case definition[7] 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 to five stages of HIV infection as described below. With the new case definition, stages 1-3 are classified on the basis of the first CD4 T-lymphocyte count and age on date of CD4 T-lymphocyte test, unless there is a stage-3-defining opportunistic illness. The CD4 T-lymphocyte percentage of total lymphocytes is only used when the corresponding CD4 T-lymphocyte count is unknown. This change in definition may have reduced the number of people 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

6 Centers for Disease Control and Prevention. Social determinants of health among adults with diagnosed HIV infection, 2017. Part A: Census tract-level social determinants of health and diagnosed HIV infection—United States and Puerto Rico. Part B: County-level social determinants of health, selected care outcomes, and diagnosed HIV infection—41 states and the District of Columbia. HIV Surveillance Sup¬plemental Report 2019;24(No. 4). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published October 2019. [Accessed June 19, 2020].

7 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.



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

Figure 1.1 HIV disease stage 3 (AIDS) cases, deaths, and prevalence, 1980-2019, 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	2158
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	3651

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
HIV disease stage 3 diagnoses	2043	2284	2325	2064	1776	1551	1066	795	686	574
HIV disease stage 3 deaths	1363	1512	1639	1603	1600	1485	993	424	401	353
Persons living with HIV ever classified as stage 3	4331	5103	5789	6250	6426	6492	6565	6936	7221	7442

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
HIV disease stage 3 diagnoses	552	507	481	544	477	476	451	442	435	324
HIV disease stage 3 deaths	349	325	321	296	300	310	288	270	227	208
Persons living with HIV ever classified as stage 3	7645	7827	7987	8235	8412	8578	8741	8913	9121	9237

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
HIV disease stage 3 diagnoses	300	252	243	189	139	126	97	130	113	110
HIV disease stage 3 deaths	193	190	181	191	188	203	186	203	209	148
Persons living with HIV ever classified as stage 3	9344	9406	9468	9466	9417	9340	9251	9178	9082	9044

Figure 2.1 Number of persons newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco. 11

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
White	224	222	230	181	136	119	90	83	60	58
Black/African American	64	64	51	50	32	43	34	38	42	28
Latinx	109	88	113	106	95	76	70	69	78	54
Asian/Pacific Islander	41	37	52	49	44	35	36	30	17	19
Other/Unknown	32	20	22	17	15	17	7	15	7	7

Figure 2.2 Annual rates of men newly diagnosed with HIV per 100,000 population by race/ethnicity, 2010-2019, San Francisco. 12

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
White	115	112	118	89	65	56	41	37	29	26
Black/African American	207	186	150	168	122	123	91	108	134	79
Latino	150	111	147	142	124	95	85	86	96	61
Asian/Pacific Islander	29	26	38	32	30	24	23	18	10	12

Figure 2.3 Annual rates of women newly diagnosed with HIV per 100,000 population by race/ethnicity, 2010-2019, San Francisco. 12

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
White	8	9	2	5	4	5	5	4	2	2
Black/African American	39	65	35	31	4	35	43	43	35	22
Latina	12	15	17	8	7	12	8	10	8	7
Asian/Pacific Islander	3	1	0	1	0	1	1	2	1	0

Figure 2.4 Number of men newly diagnosed with HIV by transmission category, 2010-2019, San Francisco. 13

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MSM	295	298	350	302	234	213	160	141	126	103
PWID	25	12	15	11	15	6	9	15	21	7
MSM-PWID	63	55	50	46	38	24	23	30	23	16
Heterosexual	20	9	10	7	8	7	7	6	4	4
Unknown	14	3	7	3	2	4	3	10	5	8

Figure 2.5 Number of women newly diagnosed with HIV by transmission category, 2010-2019, San Francisco. 13

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
PWID	14	16	6	10	10	11	11	10	6	5
Heterosexual	18	21	17	10	3	14	10	10	6	4
Unknown	4	4	1	2	0	4	5	7	5	5

Figure 3.7 Median time from HIV diagnosis to viral suppression by race/ethnicity, transmission category, and housing status, 2015-2018, San Francisco . . . 28

	2015	2016	2017	2018
Overall	79	65	65	46

Race/Ethnicity	2015	2016	2017	2018
White	89	79	62	52
Black/African American	102	66	103	47
Latinx	69	57	69	43
Asian/Pacific Islander	66	48	45	28

Transmission Category	2015	2016	2017	2018
MSM	77	67	60	42
PWID	125	85	191	133
MSM-PWID	299	77	154	55
Heterosexual	80	44	64	35

Housing Status	2015	2016	2017	2018
Homeless	175	74	66	61
Non-Homeless	77	64	64	43

Figure 5.1 Age-adjusted mortality rates among persons aged 18 and older with HIV per 100,000 by sex at birth and race/ethnicity, 2009-2018, San Francisco 39

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
White men	95	98	79	92	90	86	86	85	94	81
Black/African American men	179	163	193	163	150	178	165	169	148	201
Latino men	66	64	70	69	85	78	64	50	65	78
White women	5	2	3	6	7	3	6	5	6	7
Black/African American women	50	57	55	48	75	64	58	71	43	59
Latina women	2	4	4	3	12	8	7	15	10	5

Figure 6.2 Trends in health insurance status at time of HIV diagnosis by race/ethnicity, 2015-2019, San Francisco 50

White	2015	2016	2017	2018	2019
Public	27%	29%	35%	38%	38%
Private	45%	39%	41%	40%	24%
None	18%	18%	20%	13%	31%
Missing	10%	14%	4%	8%	7%

Black/ African American	2015	2016	2017	2018	2019
Public	49%	47%	53%	52%	61%
Private	19%	21%	18%	33%	21%
None	19%	24%	13%	10%	18%
Missing	14%	9%	16%	5%	0%

Latinx	2015	2016	2017	2018	2019
Public	25%	39%	39%	49%	26%
Private	36%	30%	25%	18%	30%
None	33%	24%	22%	22%	30%
Missing	7%	7%	14%	12%	15%

API	2015	2016	2017	2018	2019
Public	11%	22%	7%	29%	5%
Private	40%	42%	40%	29%	79%
None	31%	22%	33%	29%	5%
Missing	17%	14%	20%	12%	11%

Figure 7.1 Number of MSM newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco 53

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
White	205	192	199	211	164	119	96	78	64	45
Black/African American	36	29	34	29	33	25	26	19	19	25
Latino	88	78	68	93	93	76	64	51	48	55
Asian/Pacific Islander	36	35	32	46	42	40	32	30	22	15
Other	22	22	14	19	13	12	12	4	11	4

Figure 7.3 Male rectal gonorrhea and male gonococcal proctitis among MSM by HIV serostatus, 2010-2019, San Francisco 55

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Male Rectal Gonorrhea (HIV+)	175	231	299	329	298	397	428	477	436	356
Male Rectal Gonorrhea (HIV-)	248	332	446	433	514	684	872	1005	1037	1016
Male Gonococcal Proctitis (HIV+)	5	11	10	14	16	21	20	20	19	14
Male Gonococcal Proctitis (HIV-)	13	13	14	19	22	20	50	38	35	40

Figure 7.4 Early syphilis among MSM by HIV serostatus, 2010-2019, San Francisco 56

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Early syphilis (HIV+)	395	411	541	550	553	569	514	590	494	447
Early syphilis (HIV-)	181	175	221	288	313	367	396	508	465	493
Primary (HIV+)	78	68	89	88	75	83	88	94	74	55
Primary (HIV-)	56	65	72	95	80	109	116	128	132	104
Secondary (HIV+)	137	144	188	161	150	147	128	132	85	73
Secondary (HIV-)	64	55	85	79	98	85	111	141	119	125
Early Latent (HIV+)	180	199	264	301	328	339	298	364	335	319
Early Latent (HIV-)	61	55	64	114	135	173	169	239	214	264

Figure 8.1 Number of non-MSM PWID newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco. 58

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
White	19	11	5	11	11	10	7	10	11	8
Black/African American	15	11	7	6	4	2	7	9	8	1
Latino	1	5	5	2	8	2	3	4	6	3
Other/Unknown	4	1	4	2	2	3	4	2	2	0

Figure 8.2 Number of non-MSM PWID newly diagnosed with HIV by age group at HIV diagnosis, 2010-2019, San Francisco. 59

Age in years	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
18-24	3	2	3	2	1	0	2	1	2	0
25-29	2	4	0	1	3	5	3	0	1	0
30-39	11	1	3	1	5	5	7	7	7	7
40-49	12	10	10	9	5	4	4	9	8	4
50+	11	11	5	8	11	3	5	8	9	1

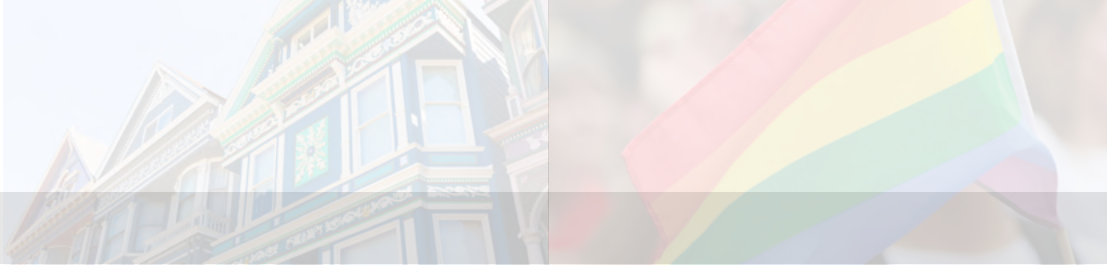


Figure 9.1 Number of heterosexuals newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco. 60

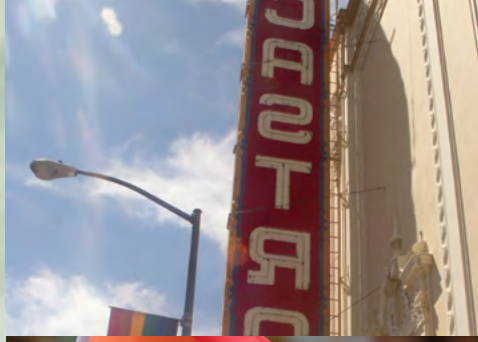
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
White	7	9	7	4	3	5	3	4	0	1
Black/African American	11	11	7	5	2	8	4	4	6	6
Latinx	14	7	10	6	3	4	7	5	4	1
Other/Unknown	6	3	3	2	3	4	3	3	0	0

Figure 10.1 Number of women newly diagnosed with HIV by race/ethnicity, 2010-2019, San Francisco. 62

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
White	12	14	4	8	7	9	8	7	3	4
Black/African American	9	15	8	7	1	8	10	10	8	5
Latina	7	9	10	5	4	7	5	6	5	4
Other/Unknown	8	3	2	2	1	5	3	4	1	1

Map 17.1 Geographic distribution of persons with HIV. 78

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	365	1017	45	3
Bernal Heights	275	1176	13	0
Castro	1871	7867	101	67
Diamond Heights	327	1956	30	24
Downtown	667	971	36	15
Excelsior	288	599	25	4
Haight Ashbury	303	1434	33	24
Ingleside	106	663	38	0
Lake Merced	100	601	36	12
Mission	1243	2169	58	24
Nob Hill	269	1471	16	16
Noe Valley	245	1981	0	16
Outer Mission	187	644	31	0
Pacific Heights	310	600	12	6
Potrero Hill	183	1511	25	17
Presidio	16	495	31	31
Richmond	447	485	11	7
South Of Market	742	3735	86	91
Sunset	359	403	17	4
Tenderloin	1485	3785	102	122
Treasure Island	45	1563	104	0
Twin Peaks	378	905	24	24
Visitacion Valley	164	646	16	12
Western Addition	1294	3196	69	42
Homeless	443	n/a	n/a	n/a
Unknown	383	n/a	n/a	n/a



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