

HIV/AIDS Epidemiology Annual Report

2006

SAN FRANCISCO

Department of Public Health



HIV Epidemiology Section

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Dear Colleague,

We want to call your attention to a change implemented in 2005 in how we present the San Francisco HIV/AIDS surveillance data. Beginning in 2005, publications of our data were changed to include only persons who were residents of San Francisco at the time they were diagnosed with HIV/AIDS. Prior to this change, our reports also included persons who were diagnosed with HIV/AIDS at a San Francisco medical facility, but who were residents elsewhere at the time of their diagnosis.

We decided to exclude non-San Francisco residents from the data presentations because HIV/AIDS case reporting practices result in our having a highly complete count of San Francisco residents with HIV/AIDS, but an incomplete record of non-San Francisco residents with HIV/AIDS. In order to provide consistent HIV/AIDS surveillance data, our surveillance quarterly and annual reports now include only reports of persons diagnosed with HIV or AIDS who were residents of San Francisco at the time of their diagnosis. Consequently, the numbers in reports from 2005 and later will differ from reports published prior to 2005.

You may contact the HIV Epidemiology Section of the San Francisco Department of Public Health at (415) 554-9050 if you have questions concerning our reports.

Thank you for your interest,

The HIV Epidemiology Section Staff



Executive Summary

We are pleased to present in this publication expanded information about the number of people diagnosed with HIV but who have not developed AIDS in San Francisco. Several changes have occurred in the past year that affect our reporting practices and enable us to gather more complete HIV case information.

In 2002, California implemented a code-based HIV case reporting system. Under the code-based system, persons with HIV were reported using a code rather than their name. Several factors led to the recent decision to replace the code-based reporting system with a name-based system (in which each person with HIV is reported using their name). These factors included concerns about the possible over-counting of HIV cases with a code-based system as well as difficulties in evaluating the completeness and accuracy of a code-based HIV system. In addition, the way that the Ryan White Comprehensive AIDS Resources and Emergency (CARE) Act allocates funds to areas for medical and social services for HIV-infected persons has changed. In the past, CARE funds were allocated, in part, on the number of living AIDS cases in a specified area. Now, CARE funds are allocated based upon living HIV cases (i.e., those with and without full-blown AIDS). Code-based HIV case reports can not be counted towards CARE funds because of concerns about the quality of the data.

In order to ensure that HIV case reporting is complete and represents an accurate count of persons diagnosed with HIV and to allow for the continued receipt of CARE funds, the State of California, with the support of organizations representing the HIV/AIDS care, treatment, prevention and advocacy communities, passed a bill (SB 699) requiring the implementation of name-based HIV reporting on April 17, 2006. This law took effect immediately. Since that time, the San Francisco HIV Epidemiology Section has been working hard to implement this change and to ensure a smooth and efficient transition to name-based HIV reporting.

Our goal has been to move as quickly as possible to report all HIV cases by name, including those cases that were previously reported using the code-based system. To date, over 55% of the code-based HIV cases identified before April 17, 2006 have been re-reported by name, the highest of any county in California. This proportion in San Francisco compares to 30% overall in the State. The data presented in this report include both name-based and code-based cases. However, because HIV case reporting is not yet complete and does not cover all the infected population (e.g., those infected but not aware of their infection), the data need to be interpreted with caution.

Our role as the HIV Epidemiology Section is to monitor the HIV/AIDS epidemic and to disseminate the information that we collect in a meaningful way. We believe that the move to HIV reporting by name will improve the quality, completeness and timeliness of the information we collect. Collecting reports of persons with AIDS and HIV provides more comprehensive data with which to monitor the HIV/AIDS epidemic in San Francisco. As such, we believe that name-based HIV and AIDS case reporting will permit better data analysis which will be helpful in planning for the needs of groups most severely affected by the HIV/AIDS epidemic.



Overview of HIV/AIDS in San Francisco

HIV/AIDS surveillance in San Francisco is conducted through various methods and evaluated regularly (see Technical Notes, HIV/AIDS Surveillance Methods). As of December 31, 2006, a cumulative total of 27,027 San Francisco residents were diagnosed with AIDS (Table 1.1). This comprises 19% of California AIDS cases and three percent of cases reported nationally. As of December 2005, San Francisco was ranked third in the cumulative number of AIDS cases and ranked fifth in the AIDS incidence rate in 2005 among metropolitan areas nationwide. Compared to California and the United States as a whole, AIDS cases in San Francisco are more likely to be male, white, and to occur among men who have sex with men (MSM), including MSM who also inject drugs (MSM IDU).

Table 1.1	Characteristics of cumulative AIDS cases in San Francisc	co,
	California, and the United States#	

	San Francisco (N = 27,027)		California (N = 143,043)	United States (N = 956,019)	
	Number	%	%	%	
Gender					
Male	25,574	95%	91%	81%	
Female	1,093	4%	8%	19%	
Transgender*	360	1%	<1%		
Race/Ethnicity					
White	19,454	72%	56%	40%	
African American	3,429	13%	18%	40%	
Latino	3,126	12%	23%	19%	
Asian/Pacific Islander	838	3%	2%	<1%	
Native American	140	<1%	<1%	<1%	
Other/Unknown	40	<1%	<1%	<1%	
Exposure Category					
MSM	20,170	75%	68%	44%	
IDU	2,060	8%	10%	24%	
MSM IDU	3,997	15%	9%	7%	
Heterosexual	370	1%	6%	13%	
Other/Unidentified	430	1%	7%	12%	

[#] San Francisco data are reported through March 13, 2007 for cases diagnosed through December 2006; California data are reported through December 2006; U.S. data are reported through December 2005.

^{*} Transgender data are not reported by the United States. See Technical Notes "Transgender Status."

In San Francisco, MSM account for the majority of male AIDS cases within all race/ethnic groups (Table 1.2). Among African American men, heterosexual injection drug use is the second most frequent exposure category. Among men of all other race/ethnic groups, MSM IDU represents the second most frequent exposure category and is a particularly prominent exposure category among Native American men. Two percent or less of men with AIDS acquired HIV infection through heterosexual contact.

Among women with AIDS, injection drug use (IDU) is the most frequent exposure category for white, African American, Latina, and Native American women, followed by heterosexual contact. For Asian/Pacific Islander women, 38% acquired their infection through heterosexual contact, 35% through injection drug use, and 17% through transfusion of blood or blood products.

Injection drug use is prevalent among male to female transgender AIDS cases. Among transgender AIDS cases, 59% of whites, 69% of African Americans, and 47% of Latinos were IDU.

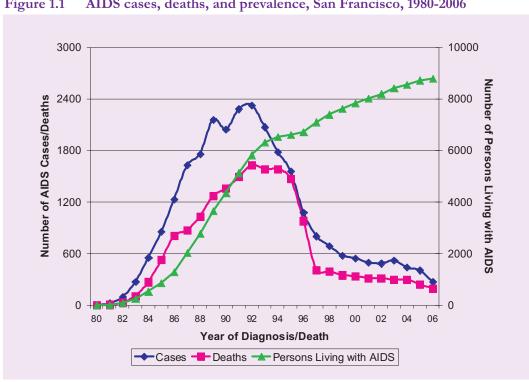
Table 1.2	Cumulative AIDS cases by gender, exposure category, and race/ethnicity, diagnosed
	through December 2006, San Francisco

			African		Asian/Pacific	Native
	Wh	ite	American	Latino	Islander	American
	Number	(%)	Number (%)	Number (%)	Number (%)	Number (%)
Male						
MSM	15,606	(82)	1,465 (52)	2,237 (78)	625 (84)	63 (51)
IDU	489	(3)	665 (24)	164 (6)	22 (3)	10 (8)
MSM IDU	2,762	(15)	566 (20)	364 (13)	53 (7)	45 (37)
Heterosexual Transfusion/	30	(<1)	40 (1)	23 (1)	7 (1)	2 (2)
Hemophilia	51	(<1)	17 (1)	22 (1)	14 (2)	0 (0)
Other/Unidentified	53	(<1)	54 (2)	63 (2)	26 (3)	3 (2)
Male Subtotal	18,991		2,807	2,873	747	123
Female						
IDU	234	(65)	363 (72)	70 (48)	22 (35)	11 (85)
Heterosexual	80	(22)	104 (21)	55 (37)	24 (38)	2 (15)
Transfusion/						
Hemophilia	29	(8)	13 (3)	10 (7)	11 (17)	0 (0)
Other/Unidentified	16	(4)	26 (5)	12 (8)	6 (10)	0 (0)
Female Subtotal	359		506	147	63	13
Transgender* (Male to	Female O	nly)				
IDU	61	(59)	79 (69)	49 (47)	#	#
Non IDU	42	(41)	36 (31)	56 (53)	#	#
Transgender Subtotal	103		115	105	#	#

^{*} See Technical Notes "Transgender Status."

[#] Data not released due to potential small population size.

The number of new AIDS cases diagnosed among San Francisco residents peaked in 1992 at 2,327 (Figure 1.1). There was a slight increase in the number of new AIDS cases between 2002 and 2003, followed by a decrease in cases in subsequent years. Delays in reporting affect the number of cases for recent years; therefore, the numbers of cases for 2005 and 2006 may be revised upward in future reports. Deaths among persons with AIDS reached a plateau between 1992 and 1995, and declined thereafter. The sharpest decline in AIDS deaths occurred between 1995 and 1997, reflecting the impact of effective combination antiretroviral therapies. By the end of 2006, there were 8,795 San Francisco residents living with AIDS. Of note, mortality data for 2005 and 2006 are not yet complete.



AIDS cases, deaths, and prevalence, San Francisco, 1980-2006 Figure 1.1

Table 1.3 shows the number and characteristics of cases whose initial HIV diagnosis occurred between 2002 and 2006. Initial date of HIV diagnosis was determined based on the earliest date of HIV antibody test, viral load or CD4 test, antiretroviral treatment start date, or patient self report of a positive HIV test. The number includes both code-based and name-based HIV cases reported to the San Francisco Department of Public Health, and does not include HIV-infected persons who are not aware of their infection or cases not yet reported. In addition, the data include persons who were initially diagnosed with HIV and had a later diagnosis of AIDS and those diagnosed with HIV and AIDS at the same time.

The number of persons newly diagnosed with HIV declined between 2004 and 2006. However the large decrease in recent years may be attributed to delays in reporting of persons recently diagnosed with HIV. Overall, the characteristics of persons newly diagnosed with HIV remained relatively stable with the majority of cases being male, white, and MSM.

Table 1.3 Characteristics of persons newly diagnosed with HIV between 2002 and 2006, San Francisco

	Year of Initial HIV Diagnosis				
	2002	2003	2004	2005	2006
Total number*	832	843	788	669	406
Gender					
Male	88%	89%	91%	89%	91%
Female	8%	8%	7%	9%	8%
Transgender	4%	3%	2%	2%	1%
Race/Ethnicity					
White	55%	51%	55%	50%	57%
African American	18%	19%	14%	17%	14%
Latino	16%	18%	18%	20%	20%
Asian/Pacific Islander	6%	6%	8%	6%	7%
Native American	1%	1%	1%	1%	1%
Other/Unknown	4%	5%	4%	6%	1%
Exposure Category					
MSM	66%	62%	71%	65%	70%
IDU	10%	12%	9%	8%	8%
MSM IDU	12%	12%	9%	10%	7%
Heterosexual	3%	3%	3%	5%	5%
Other/Unidentified	9%	11%	8%	12%	10%

^{*} Includes persons with a diagnosis of HIV (non-AIDS), an initial diagnosis of HIV (non-AIDS) and a later diagnosis of AIDS, or concurrent diagnosis of HIV and AIDS.

The number of persons living with HIV non-AIDS who were reported to the San Francisco Department of Public Health increased from 5,395 in 2002 to 6,334 in 2006 (Figure 1.2). The number includes both code-based and name-based HIV cases. The "2006 HIV Consensus Estimates" projected 18,735 persons living with HIV/AIDS in San Francisco on January 1, 2006 (see 2005 Annual Report). About half are persons with AIDS and the other half are persons with HIV non-AIDS. The gap between the consensus estimate and the case reporting data indicate that a good proportion of persons with HIV are not aware of their infection or not in care. In addition, reporting of HIV cases is incomplete including those diagnosed in earlier years and surveillance data only includes persons diagnosed with HIV/AIDS who are residents of San Francisco. Persons who are residents of other jurisdictions and receive care in San Francisco are not included in the case counts.

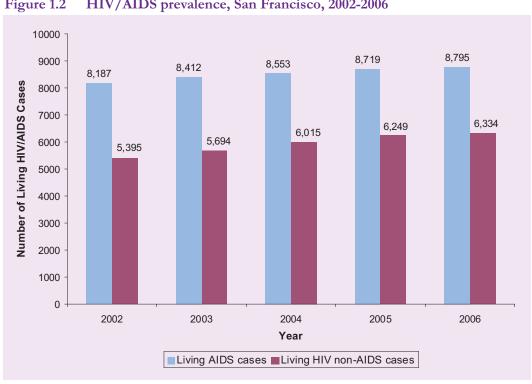


Figure 1.2 HIV/AIDS prevalence, San Francisco, 2002-2006

2

Trends in AIDS Incidence

Race/ethnicity

In absolute numbers, AIDS cases in San Francisco have occurred predominantly among whites (Figure 2.1). The number of white AIDS cases has declined over the last 10 years. The trend for African American and Latino AIDS cases show periods of slight increase until 2003 and decline thereafter. Delays in reporting affect the numbers of cases for recent years, particularly for 2005 and 2006.

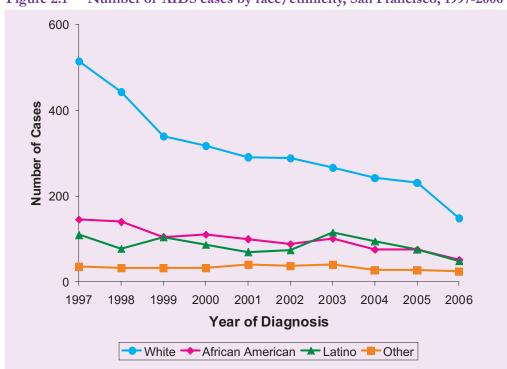
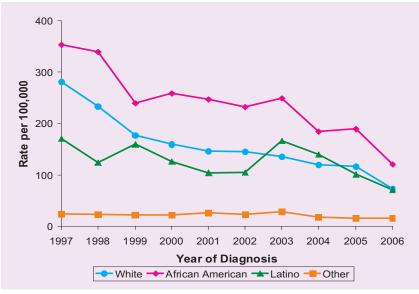


Figure 2.1 Number of AIDS cases by race/ethnicity, San Francisco, 1997-2006

Since 1997, the incidence rates of AIDS among African American men have consistently been higher than for men of all other race/ethnic groups on a per population basis (Figure 2.2). The incidence rate for Latino men exceeded that of white men in 2003 and 2004. In 2006, the incidence rate of AIDS per 100,000 population was 121 among African American men, 74 for white men, and 72 for Latino men. Delays in reporting result in under-estimation for recent years, particularly 2005 and 2006.

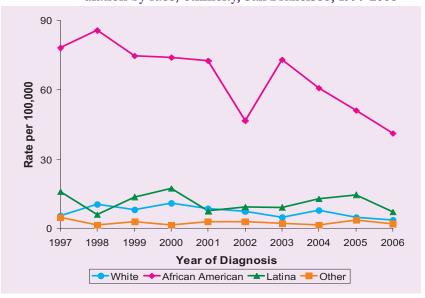
Figure 2.2 Male annual AIDS incidence rates* per 100,000 population by race/ethnicity, San Francisco, 1997-2006



^{*} See Technical Notes "AIDS Incidence Rates."

The incidence rate of AIDS among women is considerably lower than that among men. African American women have been disproportionately impacted by AIDS throughout the epidemic compared to women of other race/ethnic groups. However in recent years, the AIDS incidence rate for African American women has continued to decline (Figure 2.3). The incidence rate among African American women was 41 per 100,000 in 2006. Although incidence rates for Latinas are low, there has generally been an increase from 2001 through 2005.

Figure 2.3 Female annual AIDS incidence rates* per 100,000 population by race/ethnicity, San Francisco, 1997-2006



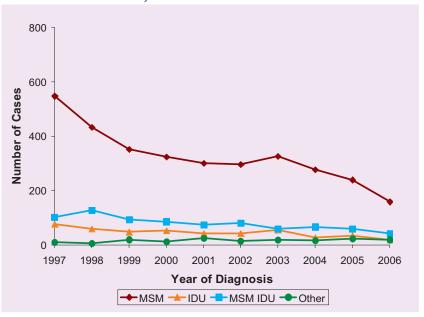
^{*} See Technical Notes "AIDS Incidence Rates."

Exposure category

The majority of male AIDS cases have occurred among MSM (Figure 2.4). The number of cases among MSM has decreased between 1997 and 2006. In 2006, 66% of male AIDS cases were MSM, 18% were MSM IDU, and 8% were heterosexual IDU.

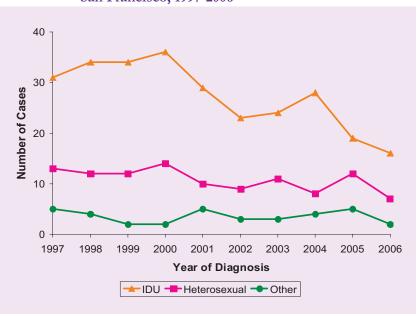
The predominant exposure category of AIDS cases among women is injection drug use, followed by heterosexual transmission (Figure 2.5).

Figure 2.4 Number of male AIDS cases* by exposure category, San Francisco, 1997-2006



^{*} Excludes male-to-female transgender AIDS cases.

Figure 2.5 Number of female AIDS cases* by exposure category, San Francisco, 1997-2006



st Excludes female-to-male transgender AIDS cases.

Age

The largest number of men, women and transgender persons with AIDS were diagnosed between ages 30 and 39 years (Table 2.1). Younger persons (under the age of 30) made up a larger proportion of female and transgender AIDS cases than male AIDS cases. Comparing cases diagnosed in 2003-2006 to those diagnosed in earlier periods, there was an increase in the percentage of women diagnosed with AIDS in the over 50 years age group, as well as the percentage of men in the over 40 years age group. This may reflect the use of more effective drug therapies which extended the time from acquiring HIV infection to the development of AIDS.

Table 2.1 AIDS cases by gender and age at diagnosis, diagnosed 1996-2006, San Francisco						
	1996-1998		1999-2002 20		2003-2006	Cumulative Totals
	Number	(%)	Number	(%)	Number (%)	Number (%)
Male (Age in years)						
0 - 19	3	(<1)	3	(<1)	4 (<1)	45 (<1)
20 - 29	238	(10)	145	(8)	117 (8)	2,862 (11)
30 - 39	994	(43)	788	(42)	494 (34)	11,591 (45)
40 - 49	780	(33)	636	(34)	530 (37)	8,051 (31)
50+	317	(14)	294	(16)	303 (21)	3,025 (12)
Male Subtotal	2,332	(100)	1,866	(100)	1,448 (100)	25,574 (100)
Female (Age in years)						
0 - 19	2	(1)	4	(2)	1 (1)	24 (2)
20 - 29	22	(13)	23	(13)	19 (14)	156 (14)
30 - 39	72	(41)	62	(35)	44 (32)	429 (39)
40 - 49	62	(35)	60	(34)	47 (34)	325 (30)
50+	17	(10)	30	(17)	28 (20)	159 (15)
Female Subtotal	175	(100)	179	(100)	139 (100)	1,093 (100)
Transgender (Age in years)						
13 - 29	16	(22)	11	(15)	7 (12)	86 (24)
30 - 39	31	(42)	32	(44)	27 (47)	164 (46)
40+	26	(36)	29	(40)	24 (41)	110 (31)
Transgender Subtotal	73	(100)	72	(100)	58 (100)	360 (100)

3

Persons Living with HIV/AIDS

HIV/AIDS surveillance data

Ongoing incidence of HIV, coupled with the increase in survival after AIDS, has resulted in an increasing number of persons living with HIV/AIDS. Persons were counted as living in a year if their HIV diagnosis date was in or before that year and they were known to be alive at the end of the year. As of December 31, 2006, there were 15,129 San Francisco residents recorded as living with HIV/AIDS (Table 3.1). The demographic and risk characteristics of persons living with HIV/AIDS have remained relatively stable between 2002 and 2006; most are white, age 40-49 years, and MSM (including MSM IDU). The proportion of persons living with HIV/AIDS in the 50+ years age group increased between 2002 and 2006. This may reflect that use of antiretroviral treatments is allowing persons with HIV/AIDS to live longer.

Table 3.1 Trends in persons living with HIV/AIDS by demographic and risk characteristics, San Francisco, 2002-2006#

	2002	2003	2004	2005	2006			
	Number (%)							
Gender								
Male	12,493 (92)	12,961 (92)	13,390 (92)	13,754 (92)	13,919 (92)			
Female	796 (6)	836 (6)	865 (6)	898 (6)	898 (6)			
Transgender	293 (2)	309 (2)	313 (2)	316 (2)	312 (2)			
Race/Ethnicity								
White	9,015 (66)	9,244 (66)	9,483 (65)	9,669 (65)	9,742 (64)			
African American	1,974 (15)	2,060 (15)	2,096 (14)	2,135 (14)	2,146 (14)			
Latino	1,830 (13)	1,949 (14)	2,056 (14)	2,163 (14)	2,217 (15)			
Asian/Pacific Islander	541 (4)	591 (4)	644 (4)	673 (4)	691 (5)			
Native American	85 (1)	92 (1)	99 (1)	104 (1)	106 (1)			
Other/Unknown	137 (1)	170 (1)	190 (1)	224 (1)	227 (2)			
Age in years (at end of eac	h year)							
0 - 19	41 (<1)	45 (<1)	43 (<1)	35 (<1)	29 (<1)			
20 - 29	559 (4)	571 (4)	617 (4)	627 (4)	582 (4)			
30 - 39	3,955 (29)	3,757 (27)	3,482 (24)	3,202 (21)	2,924 (19)			
40 - 49	5,588 (41)	5,843 (41)	6,064 (42)	6,264 (42)	6,276 (41)			
50+	3,439 (25)	3,890 (28)	4,362 (30)	4,840 (32)	5,318 (35)			
Risk								
MSM	9,755 (72)	10,104 (72)	10,499 (72)	10,802 (72)	10,949 (72)			
IDU	1,250 (9)	1,285 (9)	1,288 (9)	1,283 (9)	1,271 (8)			
MSM IDU	1,878 (13)	1,902 (13)	1,892 (13)	1,894 (13)	1,871 (12)			
Heterosexual	281 (2)	301 (2)	320 (2)	351 (2)	366 (2)			
Transfusion/Hemophilia	36 (<1)	38 (<1)	37 (<1)	37 (<1)	37 (<1)			
Other/Unidentified	382 (3)	476 (3)	532 (4)	601 (4)	635 (4)			
Total	13,582	14,106	14,568	14,968	15,129			

[#] Persons living with HIV/AIDS at the end of each year.

As of December 31, 2006, there were a total of 8,795 persons living with AIDS in San Francisco (Table 3.2). Of these, 92% were male, 6% were female, and 2% were transgender. Sixty-eight percent of the living male AIDS cases were white. Men who have sex with men account for the majority of living male AIDS cases within all race/ethnic groups. Among women living with AIDS, African American women comprise the largest race/ethnic group (45%), followed by white women (31%). The two most frequent exposure categories for living female AIDS cases are injection drug use and heterosexual contact.

Table 3.2 Persons living with AIDS by gender, exposure category and race/ethnicity, December 2006, San Francisco

	White	African		Asian/Pacific Islander & Native American	Total*
		American	Latino		
	Number (%)	Number (%)	Number (%)	Number (%)	Number
Male					
MSM	4,524 (82)	478 (51)	962 (79)	306 (79)	6,282
IDU	183 (3)	226 (24)	54 (4)	17 (4)	481
MSM IDU	780 (14)	189 (20)	142 (12)	40 (10)	1,158
Heterosexual	13 (<1)	21 (2)	19 (2)	4 (1)	58
Other	5 (<1)	5 (<1)	4 (<1)	6 (2)	21
No Reported Risk	26 (<1)	27 (3)	30 (2)	16 (4)	100
Male Subtotal	5,531	946	1,211	389	8,100
Female					
IDU	104 (68)	157 (70)	33 (41)	12 (30)	308
Heterosexual	39 (25)	53 (24)	36 (44)	19 (48)	147
Other	5 (3)	4 (2)	6 (7)	4 (10)	19
No Reported Risk	6 (4)	10 (4)	6 (7)	5 (12)	28
Female Subtotal	154	224	81	40	502
Transgender	50	62	59	21	193
Total	5,735	1,232	1,351	450	8,795

^{*} Includes persons with multiple race or whose race/ethnicity information is not available.

As of December 31, 2006, a total of 6,334 HIV non-AIDS cases living in San Francisco were reported (Table 3.3). Of these, 92% were male, 6% were female, and 2% were transgender. As in living AIDS cases, the majority of living male HIV non-AIDS cases were white and MSM; the majority of living female HIV non-AIDS cases were African American and injection drug user.

Demographic and risk characteristics of living HIV non-AIDS cases are similar to those for living AIDS cases. However, larger proportions of living HIV non-AIDS cases are reported without risk information. This is due, in part, to the non-name code-based HIV reporting system used to report HIV non-AIDS cases up until April 17, 2006, which resulted in the inability to follow up and obtain complete case information. It is expected that the risk information will be more complete with the name-based reporting of HIV cases.

Table 3.3 Persons living with HIV non-AIDS by gender, exposure category and race/ethnicity, December 2006, San Francisco

		African	Asian/Pacific Islander		
	White	American	Latino	& Native American	Total*
	Number (%) Number (%)	Number (%)	Number (%)	Number
Male					
MSM	3,187 (82) 362 (53)	654 (82)	242 (83)	4,517
IDU	140 (4) 118 (17)	24 (3)	13 (4)	296
MSM IDU	381 (10	96 (14)	53 (7)	20 (7)	561
Heterosexual	9 (<1) 22 (3)	12 (2)	2 (<1)	47
Other	6 (<1	2 (<1)	4 (<1)	0 (0)	12
No Reported Risk	155 (4) 83 (12)	46 (6)	16 (5)	386
Male Subtotal	3,878	683	793	293	5,819
Female					
IDU	62 (54) 81 (46)	17 (33)	16 (43)	181
Heterosexual	23 (20	52 (29)	17 (33)	16 (43)	111
Other	3 (3	4 (3)	2 (4)	1 (3)	11
No Reported Risk	27 (23) 40 (23)	15 (29)	4 (11)	93
Female Subtotal	115	177	51	37	396
Transgender	23	54	22	17	119
Total	4,016	914	866	347	6,334

^{*} Includes persons with multiple race or whose race/ethnicity information is not available.

Estimate of unmet need for HIV medical care

An analysis was conducted to estimate unmet need for primary medical care for persons diagnosed with HIV/AIDS or residing in San Francisco. Persons with HIV/AIDS were considered to have a met need for care if they had received antiretroviral therapy or had at least one CD4 or viral load test during the 12-month period from July 1, 2004 through June 30, 2005. Care information was obtained from laboratory reporting of viral load and CD4 test results, medical record reviews, and data from Medi-Cal, AIDS Drug Assistance Program (ADAP) and Kaiser Permanente Northern California. The total number of persons living with AIDS (PLWA), the total number of persons living with HIV non-AIDS (PLWH), the proportion of PLWA who did not receive care from a sample of chart reviews, and the number of PLWH who did not receive care were determined using all available data sources. The unmet need estimates were for persons who have been diagnosed with HIV/AIDS and do not include undiagnosed cases or those infected individuals who are not aware of their infection.

We estimated that there were 9,916 PLWA and 8,665 PLWH in San Francisco during July 2004 and June 2005. These included San Francisco residents with HIV/AIDS and non-San Francisco residents diagnosed with HIV/AIDS in San Francisco. A total of 883 PLWA (9%) and 2,546 PLWH (29%) did not receive primary medical care during that time period (Table 3.4). Among PLWA, unmet need was similar across all categories examined. Among PLWH, persons 20 to 29 years of age were identified to have the greatest unmet need for medical care (44%).

Table 3.4 Unmet need by demographic characteristics among persons living with HIV/AIDS*, San Francisco, July 2004-June 2005

	Persons with AIDS N=9,916 with unmet need		Persons with H N=8,		All HIV/AIDS N=18,581 with unmet need		
			with unm	et need			
	Number	%	Number	%	Number	%	
Total	883	9%	2,546	29%	3,429	18%	
Gender							
Male	841	9%	2,350	30%	3,191	19%	
Female	42	7%	196	26%	238	18%	
Race/Ethnicity*							
White	623	10%	1,572	29%	2,195	19%	
African American	101	7%	430	31%	531	19%	
Latino	116	8%	374	31%	490	19%	
Asian/Pacific Islander	30	7%	129	28%	159	18%	
Other	13	14%	41	16%	54	16%	
Age in years (as of 6/30/0)5)						
0-19	2	9%	25	36%	27	29%	
20-29	18	11%	294	44%	312	38%	
30-39	190	11%	827	33%	1,017	24%	
40-49	396	9%	918	27%	1,314	17%	
50-59	201	7%	391	25%	592	13%	
60+	76	9%	91	19%	167	13%	

^{*} Includes both San Francisco residents and nonresidents who were diagnosed with HIV/AIDS in San Francisco.

4

Survival among Persons with AIDS

The Kaplan-Meier curve presented below demonstrates that survival improved for San Francisco residents diagnosed with AIDS between 1996 and 2006, compared with persons diagnosed in earlier time periods. Survival was poor for persons diagnosed in the first ten years of the AIDS epidemic (1980-1989) with 50% of cases surviving 18 months (median survival time) after AIDS diagnosis. Survival improved for persons diagnosed between 1990 and 1995, when the median survival time was over three years (39 months). Approximately 60% of persons diagnosed with AIDS between 1996 and 2006 are still living. Improvements in survival among persons diagnosed with AIDS after 1995 are attributable to more effective antiretroviral therapies.

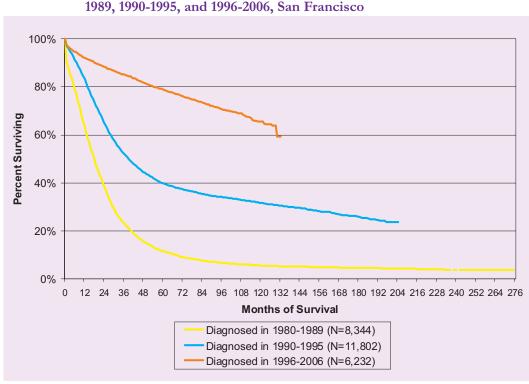


Figure 4.1 Kaplan-Meier survival* curves for persons diagnosed with AIDS in 1980-1989, 1990-1995, and 1996-2006, San Francisco

^{*} See Technical Notes "AIDS Survival."

Survival after AIDS diagnosis is worse for African Americans than other racial/ethnic groups (Figure 4.2). Among persons diagnosed between 1996 and 2006, the percent of African Americans surviving 36 months (three years) after AIDS was 80%, compared to 86% of whites, 88% of Latinos, and 89% of Asians/Pacific Islanders. The percent surviving 60 months (five years) after AIDS was 72% for African Americans, 80% for whites, 83% for Latinos, and 84% for Asians. The percent surviving 84 months (seven years) after AIDS was 65% for African Americans, 75% for whites, 77% for Latinos, and 82% for Asians.

Although these survival differences are due in part to lower proportions of African American AIDS cases on highly active antiretroviral therapies, other reasons for these differences are not entirely understood.

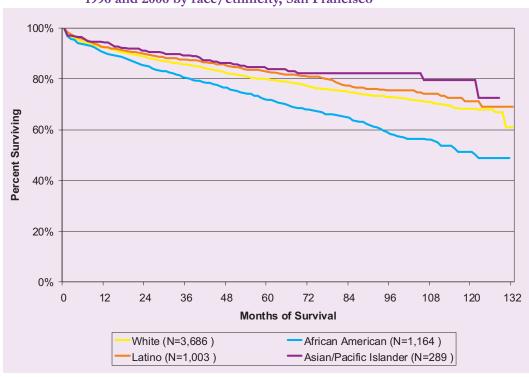


Figure 4.2 Kaplan-Meier survival* curves for persons diagnosed with AIDS between 1996 and 2006 by race/ethnicity, San Francisco

^{*} See Technical Notes "AIDS Survival."

Survival after AIDS diagnosis has been better for MSM and heterosexuals compared to MSM IDU and heterosexual IDU (Figure 4.3). Eighty-eight percent of MSM and 89% of heterosexuals diagnosed in 1996-2006 survived 36 months (three years) after their AIDS diagnosis, compared to 82% of MSM IDU and 76% of other IDU. The 5-year (60 months) survival was 84% for MSM, 81% for heterosexuals, 73% for MSM IDU, and 65% for heterosexual IDU. The 7-year (84 months) survival was 80% for MSM, 71% for heterosexuals, 66% for MSM IDU, and 55% for heterosexual IDU.

Worse survival among IDU partly reflects higher death rates from causes associated with drug use such as overdose, liver disease, and other infections.

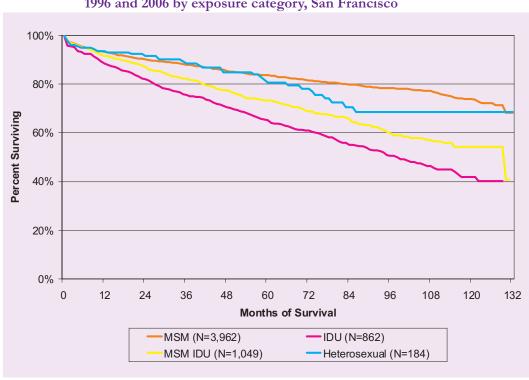


Figure 4.3 Kaplan-Meier survival* curves for persons diagnosed with AIDS between 1996 and 2006 by exposure category, San Francisco

^{*} See Technical Notes "AIDS Survival."

Eighty-six percent of men, 81% of women, and 83% of transgenders survived 36 months (three years) after AIDS diagnosis (Figure 4.4). The 5-year (60 months) survival was 80% for men, 71% for women, and 73% for transgenders. The 7-year (84 months) survival was 75% for men, 64% for women, and 65% for transgenders.

These differences in survival are consistent with lower use of highly active antiretroviral therapies among women and transgender AIDS cases.

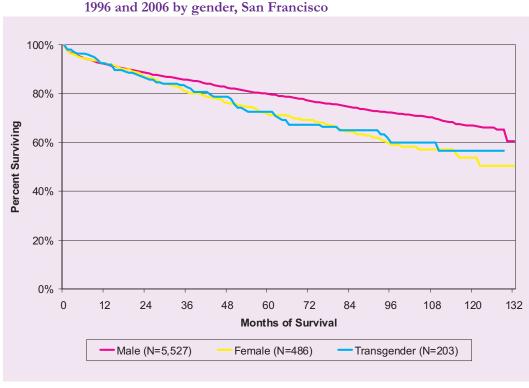
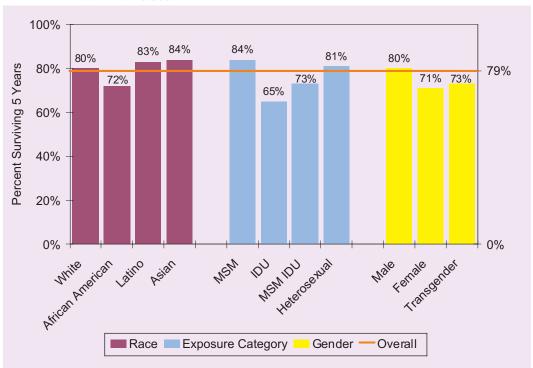


Figure 4.4 Kaplan-Meier survival* curves for persons diagnosed with AIDS between 1996 and 2006 by gender. San Francisco

^{*} See Technical Notes "AIDS Survival."

Overall, the 5-year survival after AIDS for persons diagnosed with AIDS between 1996 and 2006 is 79% (Figure 4.5). Disparities in survival have occurred across race/ethnicity, exposure category, and gender groups. African Americans, IDU, MSM IDU, women and transgenders with AIDS had a lower proportion surviving five years compared to other groups.

Figure 4.5 Proportion surviving five years after AIDS for persons diagnosed with AIDS between 1996 and 2006 by race/ethnicity, exposure category, and gender, San Francisco



^{*} See Technical Notes "AIDS Survival."



Trends in HIV/AIDS Mortality

AIDS surveillance data

Since the beginning of the epidemic, a total of 18,232 deaths have occurred among San Francisco AIDS cases as of December 31, 2006 (Table 5.1). The number of AIDS deaths was fairly steady between 2003 and 2004, and reporting of deaths in recent years is not yet complete. Cumulatively, the highest number of deaths occurred in the 30-39 year old age group; but in recent years, the largest number of deaths occurred in the 40-49 year old age group, followed by deaths occurred in the 50-59 year old age group.

Table 5.1 Deaths in persons with AIDS, by demographic and risk characteristics, San Francisco, 2003-2006

	Year of Death						
	200	3	200	4	2005*	2006*	Totals as of
	Number	(%)	Number	(%)	Number (%)	Number (%)	12/31/2006
Gender							
Male	262 (88)	266	(89)	210 (87)	167 (85)	17,474
Female	28 (9)	23	(8)	24 (10)	23 (12)	591
Transgender	8 (3)	11	(4)	8 (3)	7 (4)	167
Race/Ethnicity							
White	192 (64)	182	(61)	137 (57)	125 (63)	13,719
African American	65 (22)	63	(21)	70 (29)	40 (20)	2,197
Latino	31 (10)	36	(12)	21 (9)	20 (10)	1,775
Other	10 (3)	19	(6)	11 (5)	12 (6)	541
Exposure Category							
MSM	155 (52)	157	(52)	116 (48)	103 (52)	13,804
IDU	60 (20)	59	(20)	52 (21)	36 (18)	1,268
MSM IDU	73 (24)	71	(24)	59 (24)	50 (25)	2,734
Heterosexual	6 (2)	5	(2)	5 (2)	4 (2)	164
Other/Unidentified	4 (1)	8	(3)	10 (4)	4 (2)	262
Age at death							
0-29	5 (2)	6	(2)	2 (1)	0 (0)	1,078
30-39	51 (17)	53	(18)	29 (12)	18 (9)	7,071
40-49	129 (43)	115	(38)	106 (44)	81 (41)	6,851
50-59	78 (26)	77	(26)	70 (29)	72 (37)	2,425
60+	35 (12)	49	(16)	35 (14)	26 (13)	807
Total	298 (100)	300	(100)	242 (100)	197 (100)	18,232

^{*} Data are incomplete due to reporting delay. In addition, deaths that occurred outside of San Francisco are primarily identified through matches with the National Death Index (NDI) which are complete only through 2004.

The trend in death rates in persons with AIDS was examined by their single, underlying cause of death. The death rate due to HIV/AIDS-related causes plateaued between 1993 and 1995, and then decreased from 15.6 per 100 persons with AIDS in 1995 to 2.2 per 100 persons with AIDS in 2004 (Figure 5.1). The drop in death rates beginning in 1996 reflects the impact of highly active antiretroviral therapies. For non-HIV/AIDS-related causes, the death rate in 1993 was 2.2 per 100 persons with AIDS, declining to 1.0 per 100 persons with AIDS in 2004.

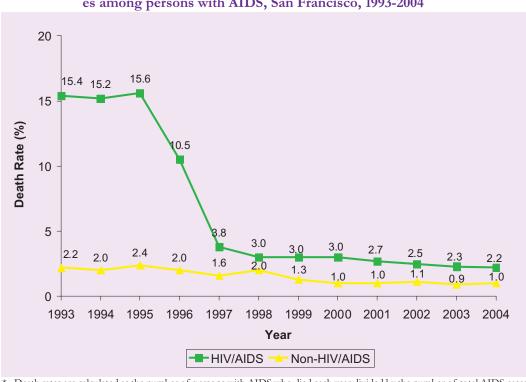


Figure 5.1 Death rates* due to HIV/AIDS-related and non-HIV/AIDS-related causes among persons with AIDS, San Francisco, 1993-2004

^{*} Death rates are calculated as the number of persons with AIDS who died each year divided by the number of total AIDS cases for that year. See Technical Notes for "Causes of Death."

The proportion of deaths in which HIV/AIDS was listed as the underlying cause of death decreased from 87% of AIDS deaths occurring in 1993-1996 to 71% in 2001-2004 (Table 5.2). Other frequently occurring underlying causes of death in 2001-2004 include non-AIDS cancer (7.1%), heart disease (5.2%), and liver disease (2.5%) which are diseases that may be due to HIV-related risk behaviors or tobacco use.

Table 5.2 Underlying causes of death among persons with AIDS*, San Francisco, 1993-2004

				Year	of [Death			
	199	1993-1996		199	000	2001-2004			
	N= 5,202			N= 1,472			N= 1,191		
Underlying Cause of Death**	No.	(<u>%)</u>	No.	(<u>%)</u>	No.	(%)
HIV/AIDS	4,510	(86.7)	1,004	(68.2)	843	(70.8)
Non-AIDS cancer	78	(1.5)	86	(5.8)	84	(7.1)
Lung cancer	24	(0.5)	12	(1.5)	26	(2.2)
Liver cancer	8	(0.2)	16	(1.1)	12	(1.0)
Heart disease	57	(1.1)	61	(4.1)	62	(5.2)
Coronary heart disease	18	(0.3)	28	(1.9)	43	(3.6)
Cardiomyopathy	5	(0.1)	12	(0.8)	5	(0.4)
Liver disease	46	(0.9)	25	(1.7)	30	(2.5)
Liver cirrhosis	12	(0.2)	11	(0.7)	15	(1.3)
Alcoholic liver disease	12	(0.2)	12	(0.8)	11	(0.9)
Drug overdose	45	(0.9)	46	(3.1)	27	(2.3)
Mental disorders due to substance use	19	(0.4)	9	(0.6)	19	(1.6)
Suicide	51	(1.0)	28	(1.9)	18	(1.5)
Chronic obstructive lung disease	20	(0.4)	13	(0.9)	18	(1.5)
Cerebrovascular disease	15	(0.3)	13	(0.9)	12	(1.0)
Viral hepatitis	61	(1.2)	44	(3.0)	7	(0.6)
Pneumonia	49	(0.9)	14	(1.0)	0	(0.0)
Aspergillosis	63	(1.2)	16	(1.1)	0	(0.0)

^{*} Deceased AIDS cases without cause of death information are not represented in this table.

^{**} See Technical Notes "Causes of Death."

Table 5.3 summarizes both underlying and contributory causes of death among persons with AIDS. Although persons with AIDS predominantly died of HIV/AIDS-related causes, the increasing proportion of deaths due to non-HIV/AIDS-related causes suggests that certain highly prevalent risk behaviors in this population are playing an important role in mortality trends. Co-infection with HIV and hepatitis viruses may be related to deaths associated with liver disease, viral hepatitis, and liver cancer. Smoking is likely to be related to deaths associated with lung cancer, obstructive lung disease, and coronary heart disease. Use of illicit drugs and alcohol abuse may contribute to deaths due to drug overdoses, liver disease, and mental disorders.

	Year of Death					
		3-1996	1997-2000	2001-2004		
Multiple Causes of Death**	N = No.	5,202 (%)	N = 1,472 No. (%)	N = 1,191 No. (%)		
Multiple Causes of Death	NO.	(70)	140. (%)	140. (%)		
HIV/AIDS	4,952	(95.2)	1,257 (85.4)	1,019 (85.6)		
Heart disease	804	(15.5)	268 (18.2)	247 (20.7)		
Coronary heart disease	39	(0.7)	45 (3.1)	71 (6.0)		
Cardiomyopathy	58	(1.1)	33 (2.2)	25 (2.1)		
Liver disease	274	(5.3)	181 (12.3)	194 (16.3)		
Liver cirrhosis	74	(1.4)	61 (4.1)	85 (7.1)		
Alcoholic liver disease	22	(0.4)	17 (1.2)	14 (1.2)		
Pneumonia	832	(16.0)	213 (14.5)	179 (15.0)		
Viral hepatitis	110	(2.1)	129 (8.8)	178 (14.9)		
Septicemia	324	(6.2)	134 (9.1)	129 (10.8)		
Non-AIDS cancer	305	(5.9)	134 (9.1)	120 (10.1)		
Lung cancer	27	(0.5)	25 (1.7)	29 (2.4)		
Liver cancer	10	(0.2)	9 (0.6)	14 (1.2)		
Renal disease	189	(3.6)	96 (6.5)	116 (9.7)		
Mental disorders due to substance use	65	(1.2)	54 (3.7)	76 (6.4)		
Chronic obstructive lung disease	57	(1.1)	42 (2.9)	58 (4.9)		
Drug overdose	54	(1.0)	59 (4.0)	33 (2.8)		
Cerebrovascular disease	73	(1.4)	39 (2.6)	32 (2.7)		
Suicide	51	(1.0)	28 (1.9)	18 (1.5)		
Aspergillosis	91	(1.7)	33 (2.2)	7 (0.6)		

^{*} Deceased AIDS cases without cause of death information are not represented in this table.

^{**} Includes underlying and contributory causes of death. Individuals may have more than one cause of death. See Technical Notes "Causes of Death."

Vital statistics death data

We examined data obtained from the California Vital Statistics Death Files for San Francisco residents who died between 1999 and 2003. The cause of death was determined based on a set of ICD-10 codes representing the underlying cause of death in a fashion that is consistent with the National Vital Statistics Reports. HIV/AIDS was the leading cause of death for men aged 25-54 years in San Francisco between 1999 and 2003 (Figure 5.2). The number of deaths due to HIV/AIDS declined during this time period. Accidents were the second leading cause of death for men in this age group, followed closely by non-AIDS related cancers between 1999 and 2001. In 2002, heart disease exceeded accidents and non-AIDS cancer to become the second leading cause of death.

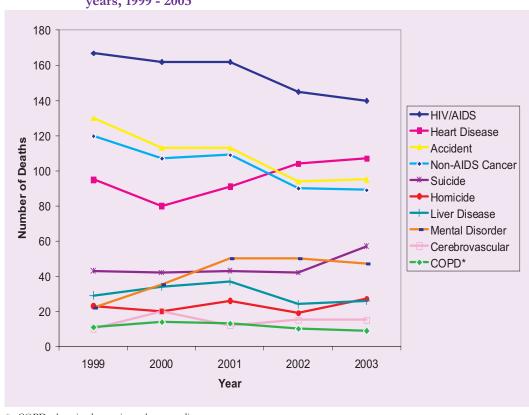
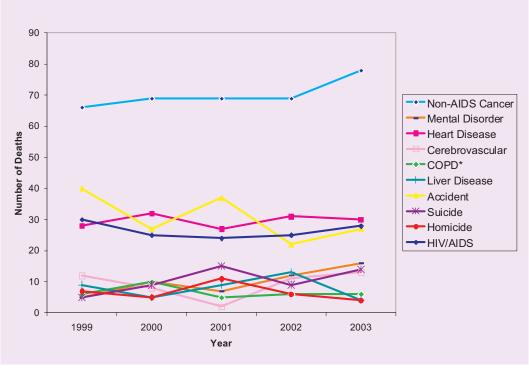


Figure 5.2 Leading causes of death among San Francisco male residents aged 25-54 years, 1999 - 2003

^{*} COPD: chronic obstructive pulmonary disease.

Compared to men, the number of deaths due to HIV/AIDS for women was much smaller. In 2003, 140 men aged 25-54 years died of HIV/AIDS and 28 women in the same age group died of HIV/AIDS. HIV/AIDS ranked third in the causes of death for women aged 25-54 years in 2003 (Figure 5.3).

Figure 5.3 Leading causes of death among San Francisco female residents aged 25-54 years, 1999-2003

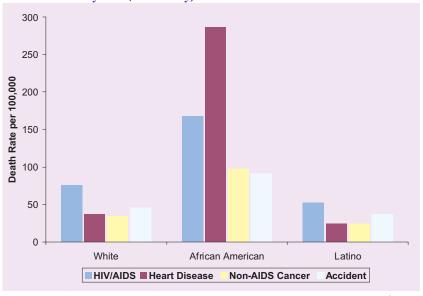


^{*} COPD: chronic obstructive pulmonary disease.

For white and Latino men aged 25-54 years, HIV/AIDS was the leading cause of death in 2003, followed by accidents, heart disease and cancer (Figure 5.4). For American men. African HIV/AIDS was the second leading cause of death, next to heart disease. Although HIV/AIDS was not the leading cause of death for African American men, the death rate of HIV/AIDS for African American men aged 25-54 years (168 per 100,000) was higher than that for white men (76 per 100,000) and Latino men (52 per 100,000).

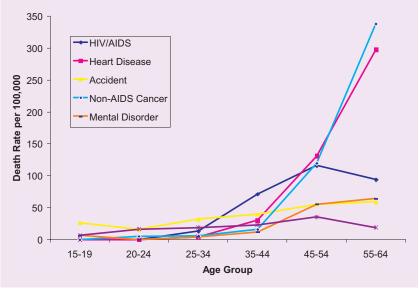
The age-specific death rates increased by age for causes related to heart disease, cancer, accident, and mental disorder from substance use (Figure 5.5). The death rate of HIV/AIDS ranked third for those aged 25-34 years (13 per 100,000), was prominent for those aged 35-44 years (71 per 100,000), and was close to the death rate of heart disease and cancer for those aged 45-54 years (116 per 100,000).

Figure 5.4 Leading causes of death rates per 100,000 population among San Francisco male residents* aged 25-54 years by race/ethnicity, 2003



^{*} Population denominator obtained from State of California, Department of Finance, Race/Ethnic Population with Age and Sex detail 2000-2050 data file.

Figure 5.5 Leading causes of death rates per 100,000 population among San Francisco male residents* aged 15-64 years by age group, 2003

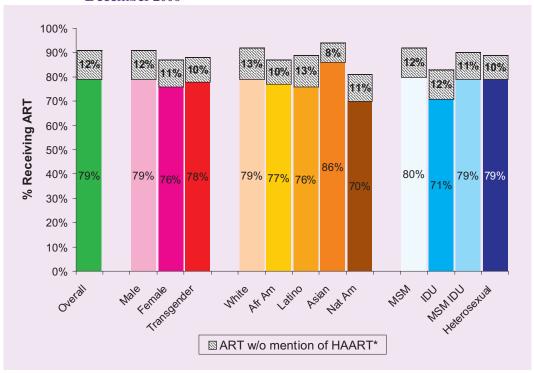


^{*} Population denominator obtained from State of California, Department of Finance, Race/Ethnic Population with Age and Sex detail 2000-2050 data file.

Use of Antiretroviral Therapy among Persons with AIDS

Figure 6.1 shows an estimate of ART use among persons living with AIDS as of December 31, 2006. This includes those who moved outside of San Francisco or who were lost to follow up. Therefore, the ascertainment of treatment in this population may be incomplete resulting in a conservative or lower level estimate of ART use. Overall, a minimum estimate of 79% of persons living with AIDS received the form of ART known to be highly active antiretroviral therapy (HAART) which includes a protease inhibitor or a non-nucleoside reverse transcriptase inhibitor. An additional 12% of persons who initiated ART either did not include HAART or information regarding the type of ART or change in treatment regimen was not available. Although the disparity in ART use still exists by gender, race/ethnicity, and risk group, the gap appears to be smaller than previously observed. Use of ART was especially low among injection drug users and Native Americans.

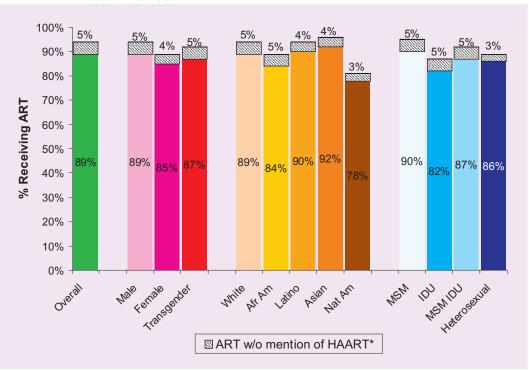
Figure 6.1 Lower level estimate of antiretroviral therapy use among persons living with AIDS by gender, race/ethnicity, and exposure category, San Francisco, December 2006



^{*} Shaded areas indicate patients who are known to have started ART but the type of ART does not refer to the highly active antiretroviral therapy (HAART) or such information is not available.

Figure 6.2 shows ART use among persons living with AIDS after excluding those who moved outside of San Francisco or were lost to follow-up (e.g., no updated information available for more than two years). Because treatment information is less complete on these patients, excluding them provides an upper level estimate of ART use. Overall, 89% of persons with AIDS received HAART including a protease inhibitor or a non-nucleoside reverse transcriptase inhibitor; an additional 5% are known to have received ART but without including or specifying use of HAART. It is estimated, based on this methodology, that 6% of persons living with AIDS in San Francisco did not receive any antiretroviral therapy.

Figure 6.2 Upper level estimate of antiretroviral therapy use among persons living with AIDS by gender, race/ethnicity, and exposure category, San Francisco, December 2006



^{*} Shaded areas indicate patients who are known to have started ART but the type of ART does not refer to the highly active antiretroviral therapy (HAART) or such information is not available.

Insurance Status at Time of HIV/AIDS Diagnosis

Insurance status at the time of AIDS diagnosis differs by gender. There was a higher proportion of male AIDS cases with private insurance than female and transgender AIDS cases (Figure 7.1). The majority of female AIDS cases had public insurance. The proportion of transgender AIDS cases with no insurance decreased from 71% in 2001 to 13% in 2006. In general, the proportion of male, female and transgender AIDS cases with public insurance increased between 2001 and 2006, while the proportion with no insurance declined.

For AIDS cases diagnosed between 2001 and 2006, 94% of transgenders and 84% of women were underinsured (i.e. having no insurance or public insurance), compared to 54% of men (Figure 7.2).

Figure 7.1 Trends in insurance status among persons with AIDS by gender, San Francisco, 2001-2006

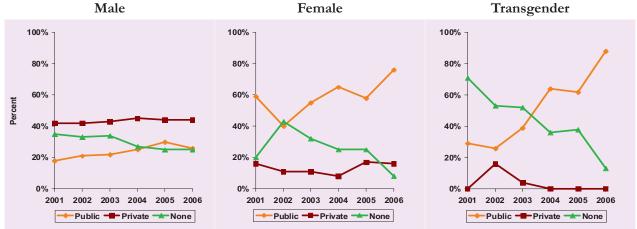
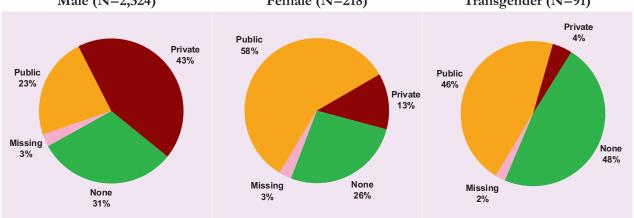


Figure 7.2 AIDS cases by gender and insurance status at diagnosis, San Francisco, 2001-2006

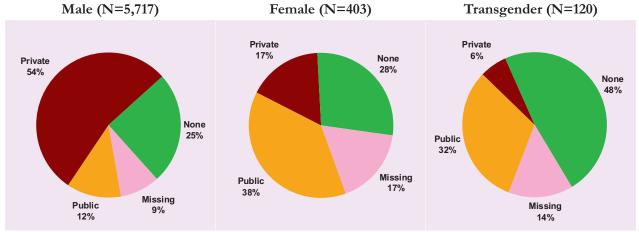
Male (N=2,324) Female (N=218) Transgender (N=91)



We examined the insurance status for HIV non-AIDS cases reported between 2002 and 2006. This included cases diagnosed before and during this time period. Compared to AIDS cases (Figure 7.2), a higher proportion of HIV non-AIDS cases had private insurance (Figure 7.3). There was also a greater percentage of HIV non-AIDS cases for whom the insurance status was not available. HIV non-AIDS cases without insurance information reported were mainly those tested at confidential testing sites or cases whose follow-up information could not be obtained from the health care providers (e.g., reported with a non-name code).

Similar to AIDS cases, a gender disparity in insurance status was observed among HIV non-AIDS cases. Thirty-seven percent of male HIV non-AIDS cases were under-insured, compared to 66% of female and 80% of transgender HIV non-AIDS cases (Figure 7.3).

Figure 7.3 HIV non-AIDS cases by gender and insurance status at diagnosis, San Francisco, cases reported in 2002-2006

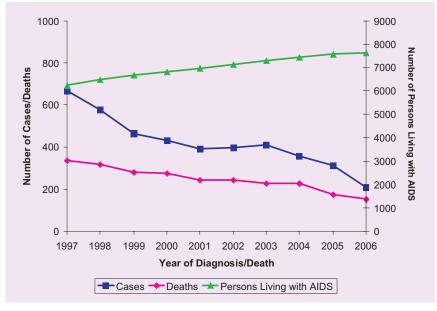


HIV/AIDS among Men Who Have Sex with Men

AIDS surveillance data

While the numbers of new AIDS cases and AIDS deaths among MSM have continued to decline, the number of MSM living with AIDS continues to rise (Figure 8.1). This is due in part to improved treatment for persons with AIDS. In 2006, there were 7,629 MSM living with AIDS in San Francisco.

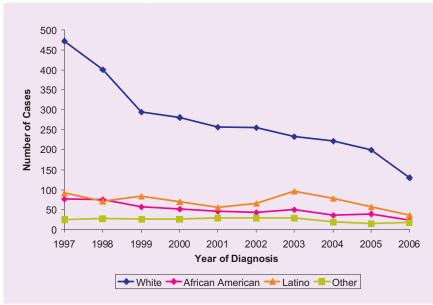
Figure 8.1 AIDS cases, deaths, and prevalence among MSM*, San Francisco, 1997-2006



^{*} Includes MSM and MSM IDU.

The majority of San Francisco AIDS cases are white MSM. Although the number of AIDS cases has declined among all MSM, whites still account for the largest number of MSM AIDS cases, followed by Latino MSM.

Figure 8.2 AIDS cases among MSM* by race/ethnicity, San Francisco, 1997-2006



^{*} Includes MSM and MSM IDU.

HIV sexual behavior data

The Stop AIDS Project

The Stop AIDS Project collects information on sexual behavior and self-reported HIV status through the course of outreach HIV prevention activities for MSM in San Francisco. Their data provide an opportunity to track annual trends in HIV-related risk behavior in a large, community-recruited sample of MSM.

Figure 8.3 illustrates trends in unprotected anal intercourse (UAI) from 1999 through 2006 by self-reported HIV serostatus. An overall trend of increasing UAI is apparent among HIV-positive as well as HIV-negative MSM for the whole time period. Figure 8.3 also illustrates that UAI is most commonly reported by HIV-positive MSM.

Figure 8.4 shows the proportion of MSM who report having UAI with one or more sex partners whose HIV status was not known to them. This measure most closely gauges the potential for HIV transmission to occur by excluding sex between individuals known to be of the same HIV status. Overall UAI with potentially HIV-serodiscordant men peaked in 2001. Following a downward trend beginning in 2001, it appears that the percent of men engaging in UAI with potentially HIV serodiscordant partners has levelled off to about 10% to 13% in 2006.

Figure 8.3 Percent of MSM reporting unprotected anal intercourse in the last six months by self-reported HIV status, the Stop AIDS Project, San Francisco, 1999-2006

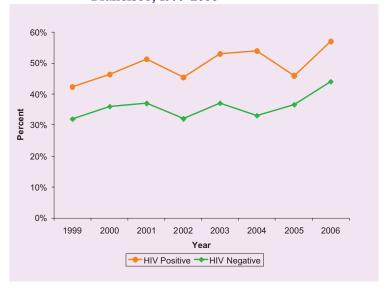
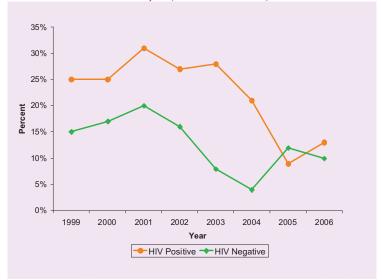


Figure 8.4 Percent of MSM reporting unprotected anal intercourse in the last six months with at least one partner of unknown HIV status*, the Stop AIDS Project, San Francisco, 1999-2006



For MSM who did not know or report their HIV status, any UAI was considered potentially serodiscordant.

Sexually transmitted diseases among MSM

Figure 8.5 shows trends in male rectal gonorrhea and male gonococcal proctitis in San Francisco from 1997 through 2006. Data on male rectal gonorrhea originate from case reporting from laboratories and health providers throughout the city. Data on male gonococcal proctitis originate from the municipal STD clinic only. Infection with gonorrhea is a biological marker for high risk sexual behavior as well as a factor that enhances the acquisition and spread of HIV. Among men, rectal gonorrhea is a marker for unprotected receptive anal sex.

The last several years have seen a steady increase in reported cases of male rectal gonorrhea. Male gonococcal proctitis are cases with symptomatic infection. Data on male gonococcal proctitis suggest that some of the increase in reported male rectal gonorrhea may be due to increased screening.

Data may underestimate true levels of infections due to several factors, including lack of rectal screening by many health providers, under reporting, delayed reporting, and a large proportion of cases that do not manifest symptoms.

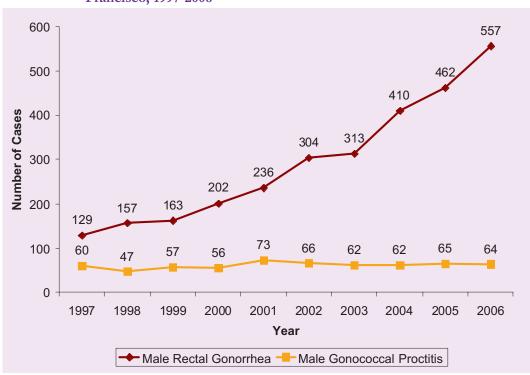
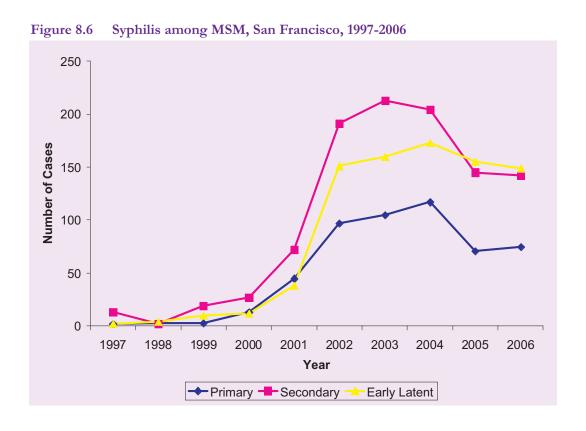


Figure 8.5 Male rectal gonorrhea and male gonococcal proctitis among MSM, San Francisco, 1997-2006

Figure 8.6 shows trends in primary, secondary, and early latent cases of syphilis among MSM in San Francisco from 1997 through 2006. Data originate from case reporting from laboratories and health providers throughout the city although the majority are patients seen at the municipal STD clinic. Like gonorrhea, syphilis is a biological marker for high risk sexual behavior as well as a factor that enhances the acquisition and spread of HIV. The increase in early syphilis among MSM in San Francisco since 1998 is dramatic. However, in 2005, for the first time since this rapid rise, early syphilis among MSM declined.



HIV/AIDS among Injection Drug Users

Injection drug use by non-MSM is the third most frequent exposure group among cumulative AIDS cases in San Francisco, behind MSM and MSM IDU. This fact contrasts national AIDS data where non-MSM IDU are the second most frequent exposure group among all cases. The number of new AIDS cases among non-MSM IDU has continued to decline. In recent years, similar numbers of deaths and new AIDS cases have resulted in a steady number of non-MSM IDU living with AIDS. As of December 31, 2006, there were 792 non-MSM IDU living with AIDS in San Francisco.

African Americans accounted for the greatest number of AIDS cases among non-MSM IDU during the majority of 1997-2006 (Figure 9.2). Whites accounted for the second greatest number of cases in this risk group.

Figure 9.1 AIDS cases, deaths, and prevalence among non-MSM IDU, San Francisco, 1997-2006

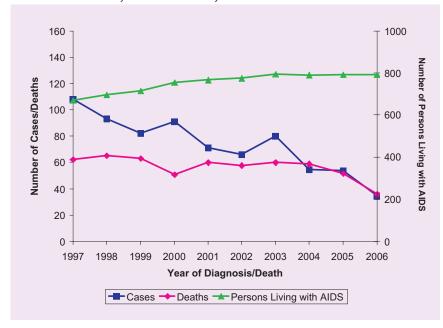


Figure 9.2 AIDS cases among non-MSM IDU by race/ethnicity, San Francisco, 1997-2006

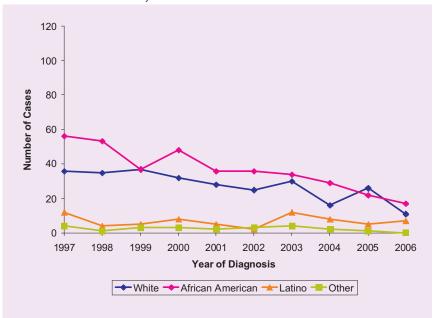


Table 9.1 shows the risk and race/ethnicity distribution of AIDS cases directly and indirectly associated with injection drug use. MSM IDU account for the majority (64%) of IDU-associated AIDS cases followed by male heterosexual IDU (22%). Of the MSM IDU cases, 71% are white and 16% are African American. This is a marked difference from the heterosexual male and female IDU AIDS cases, where African Americans represent 49% and 53%, respectively.

Table 9.1 Injection drug use-associated AIDS cases by exposure category and race/ethnicity, diagnosed through December 2006, San Francisco

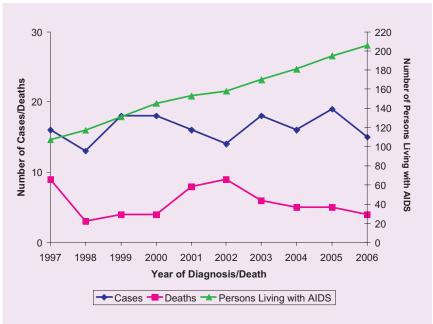
	Race/Ethnicity Distribution by Percent							
Exposure Category	Total Number	White	African American	Latino	Other			
Male heterosexual IDU	1,356	36%	49%	12%	2%			
Female heterosexual IDU	660	32%	53%	10%	5%			
MSM IDU	3,997	71%	16%	10%	3%			
Lesbian IDU	44	48%	34%	11%	7%			
Heterosexual contact with IDU	143	34%	43%	15%	8%			
Children whose mothers are IDUs or mother's sex partners are IDUs	23	22%	43%	17%	17%			

HIV/AIDS among Heterosexuals

AIDS surveillance data

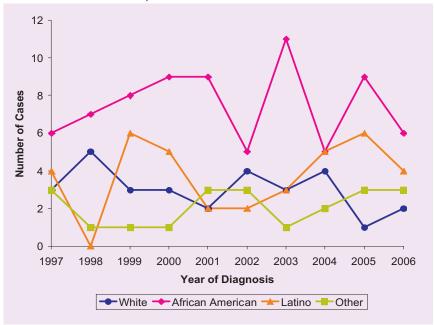
The number of AIDS cases among persons who acquired HIV infection through heterosexual contact is small relative to other risk groups. The number of deaths among non-IDU heterosexuals has declined while the number of AIDS cases diagnosed each year is within the range of 13 to 19 cases. The number of non-IDU heterosexuals living with AIDS has increased to a total of 206 by December 31, 2006.

Figure 10.1 AIDS cases, deaths, and prevalence among heterosexuals, San Francisco, 1997-2006



Trends in heterosexual AIDS cases by race/ethnicity fluctuate from year to year due to the small number of cases (Figure 10.2). Overall, African American heterosexuals account for the greatest number of AIDS cases since 1997, followed by Latinos.

Figure 10.2 AIDS cases among heterosexuals by race/ethnicity, San Francisco, 1997-2006



The majority of heterosexually-acquired AIDS cases are women (Table 10.1). Among women in this risk group, sex with an IDU and sex with an HIV-infected partner of unknown risk were both reported as the most frequent exposure category (41%). Sex with an HIV-infected partner of unknown risk factor was the most frequent exposure category (64%) for men in this risk group.

Table 10.1 AIDS cases among heterosexuals by exposure category and gender, diagnosed through December 2006, San Francisco

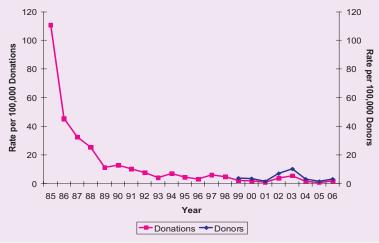
	Men	1	Wome	en
Exposure Category	Number	%	Number	%
Sex with injection drug user	34	33%	109	41%
Sex with bisexual men	N/A	N/A	46	17%
Sex with HIV+ transfusion recipient	<5	-	<5	-
Sex with HIV+ persons of unknown risk	67	64%	108	41%

HIV prevalence data

Blood Donations

HIV prevalence data among blood donations (keep in mind that multiple donations can be made by one donor) are available from 1985 to 2006, and the data among unique donors are available from 1999 to 2006. The proportion of blood donors and blood donations testing HIV-positive has remained low and stable since the early 1990s (Figure 10.3). Blood donation is voluntary and donors are pre-screened for risk factors associated with HIV infection prior to giving blood. Although blood donors constitute a large population of heterosexual non-injection drug users, interpretation of these data must take into account that only persons at lowest risk for HIV are encouraged to donate blood.

Figure 10.3 HIV prevalence rate among blood donations and donors through 2006, San Francisco Bay Area



Sexually transmitted diseases among heterosexuals

Figure 10.4 shows the annual number of primary, secondary, and early latent cases of syphilis among heterosexual men in San Francisco from 1997 through 2006. Data originate from case reporting from laboratories and health providers throughout the city, although the majority are patients seen at the municipal STD clinic. Compared to MSM, syphilis among heterosexual men remains relatively low in recent years.

Figure 10.4 Syphilis among heterosexual men, San Francisco, 1997-2006

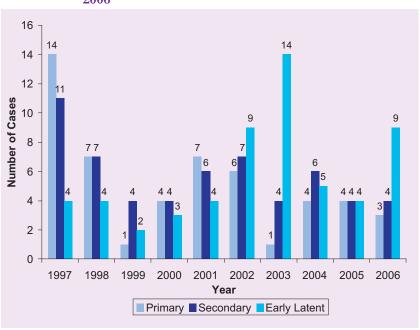
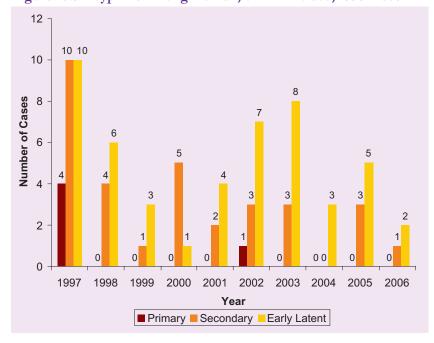


Figure 10.5 shows the annual number of primary, secondary, and early latent cases of syphilis among women in San Francisco from 1997 through 2006. Data originate from case reporting from laboratories and health providers throughout the city, although the majority are patients seen at the municipal STD clinic. Among women, syphilis cases are low and stable in recent years.

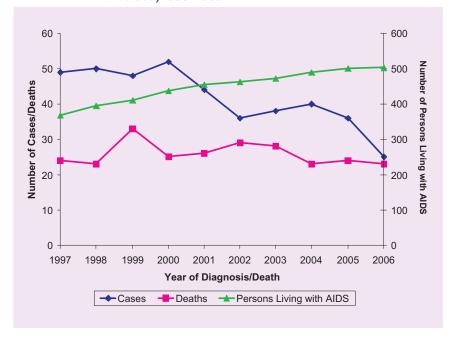
Figure 10.5 Syphilis among women, San Francisco, 1997-2006



HIV/AIDS among Women

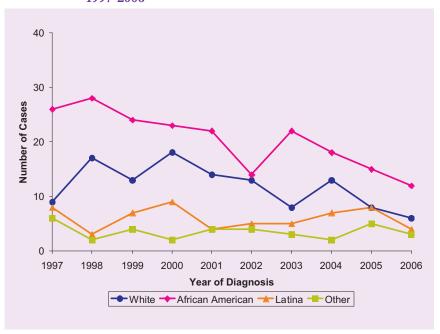
The number of AIDS cases among women in San Francisco declined while the number of deaths remained stable through 2006 (Figure 11.1). As of December 31, 2006 there were 503 women living with AIDS.

Figure 11.1 AIDS cases, deaths, and prevalence among women, San Francisco, 1997-2006



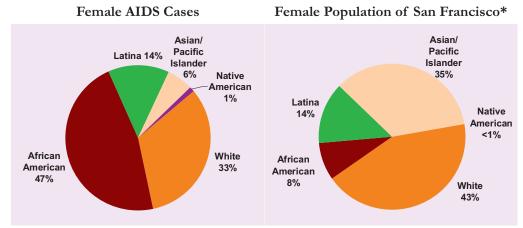
African American women represent the highest number of newly diagnosed female AIDS cases in comparison to other racial/ethnic groups from 1997-2006 (Figure 11.2).

Figure 11.2 Female AIDS cases by race/ethnicity, San Francisco, 1997-2006



African American women are disproportionately affected by AIDS in San Francisco. Although African American women represent 8% of the female population, they account for 47% of the female AIDS cases in San Francisco (Figure 11.3).

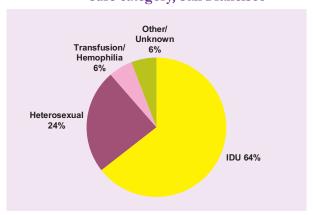
Figure 11.3 Female AIDS cases diagnosed through December 2006 and female population by race/ethnicity, San Francisco



* United States 2000 Census data.

Injection drug use (64%) is the most prominent risk exposure for women with AIDS, followed by heterosexual contact (24%) (Figure 11.4).

Figure 11.4 Female AIDS cases diagnosed through December 2006 by exposure category, San Francisco



HIV/AIDS among Adolescents 12 HIV/AIDS among and Young Adults

As of December 31, 2006, a cumulative total of 33 adolescents (age 13-19 years) and 536 young adults (20-24 years) were diagnosed with AIDS in San Francisco (Table 12.1). The characteristics of young adults with AIDS are similar to other adult AIDS cases; the majority of cases are MSM, white, and male. In both adolescents and young adults, MSM IDU is the second most frequent risk group.

Table 12.1 Adolescent and young adult AIDS cases by exposure category, gender, and race/ethnicity, diagnosed through December 2006, San Francisco

	13-19 Years Old (N=33)	20-24 Years Old (N=536)
Exposure Category		
MSM	39%	58%
IDU	0%	10%
MSM IDU	27%	27%
Transfusion/Hemophilia	9%	1%
Heterosexual	12%	4%
Perinatal	3%	0%
Other/Unknown	9%	1%
Gender		
Male	88%	93%
Female	12%	7%
Race/Ethnicity		
White	30%	58%
African American	3%	15%
Latino	58%	20%
Asian/Pacific Islander	3%	5%
Native American	6%	1%

HIV/AIDS among Children

HIV/AIDS surveillance data

As of December 31, 2006, a cumulative total of 38 pediatric AIDS cases (less than 13 years old) were diagnosed who resided in San Francisco at the time of diagnosis. The first pediatric case was diagnosed in San Francisco in 1980 and there were only two cases diagnosed before 1987 (Figure 13.1). The number of new pediatric AIDS cases peaked between 1987 and 1991. Between 1992 and 1996 there were 13 pediatric AIDS cases, and five pediatric cases were diagnosed between 1997 and 2003. There were no pediatric AIDS cases diagnosed between 2004 and 2006.

There were a total of 28 living pediatric HIV/AIDS cases as of December 2006. The majority of living pediatric HIV/AIDS cases are children of a high-risk or AIDS-diagnosed parent (Table 13.1). Sixty-four percent of living pediatric cases are female, 93% are children of color.

Figure 13.1 Pediatric AIDS cases by year of diagnosis, San Francisco, 1980-2006

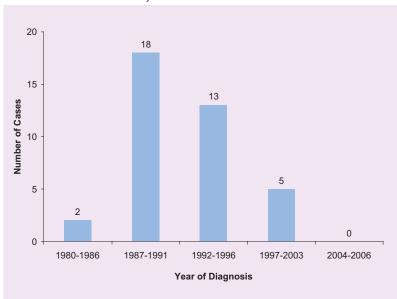


Table 13.1 Living pediatric HIV/AIDS cases by exposure category, gender, and race/ethnicity, San Francisco, December 2006

	N= 28	
Exposure Category		
Child of high risk/AIDS parent	89%	
Other/Unidentified	11%	
Gender		
Male	36%	
Female	64%	
Race/Ethnicity		
White	7%	
African American	29%	
Latino	36%	
Asian/Pacific Islander	11%	
Other/Multirace	17%	

Perinatal HIV data

Data on children with HIV in San Francisco are gathered through the Pediatric Spectrum of Disease (PSD) project. The PSD project was established in 1989 by the Centers for Disease Control and Prevention and collects data from eight areas throughout the United States. In Northern California, hospital surveillance for children under 13 years old infected with HIV or infants born to infected mothers has occurred at eight pediatric hospitals (including University of California at San Francisco and San Francisco General Hospital). Records from HIV positive pediatric patients cared for through the California Children's Services program, a state agency providing funding and case management for HIV-positive children, are also included in the PSD project. Data presented here include infants who were San Francisco residents and born to mothers documented to have HIV before delivery without a history of blood or blood product transfusion before 1985.

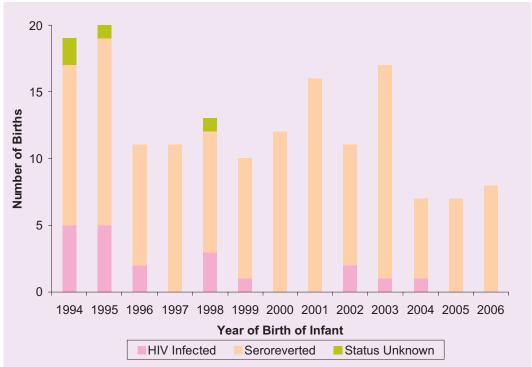
Through December 31, 2006, 300 infants were born to HIV-infected mothers who were residents of San Francisco (Table 13.2). Sixty-two (21%) of these infants were confirmed to be HIV infected, 227 (76%) seroreverted (were determined to be uninfected after maternal antibodies disappeared), and 11 (4%) were of unknown serostatus. Fifty percent of perinatally exposed infants were African American, while whites and Latinos each accounted for 20% and 18% of these infants respectively.

Table 13.2	Infants born to HIV-infected mothers by
	infant HIV status and race/ethnicity, San
	Francisco, December 2006

Trancisco, December 2000						
	N (%)					
Total	300					
Infant HIV Status						
IIIIaiii Hiv Siaius						
HIV-infected	62 (21)					
Seroreverted (HIV-)	227 (76)					
Unknown	11 (4)					
Race/Ethnicity						
White	60 (20)					
African American	151 (50)					
Latino	55 (18)					
Asian/Pacific Islander	21 (7)					
Other/Unknown	13 (4)					

The number of perinatally exposed infants who were confirmed as HIV-infected has remained low since 1996 (Figure 13.2). Declines in perinatal transmission of HIV are due to the improved therapies for mothers throughout pregnancy and for infants to prevent perinatal transmission. In 2006, eight infants born to HIV-infected mothers have been reported so far; all have seroreverted (i.e., were uninfected).

Figure 13.2 Infants born to HIV-infected mothers by year of birth and infant HIV status, San Francisco, 1994-2006



HIV/AIDS among Transgender Persons

Persons are categorized as transgender if information regarding gender identity is present in the medical record. Information on transgender status has been collected since 1996. There were a total of 168 transgender AIDS cases diagnosed between 1997 and 2006, and 124 HIV non-AIDS transgender cases reported thus far (Table 14.1). Transgender HIV/AIDS cases were more likely to be non-white, inject drugs and be younger compared to all HIV/AIDS cases.

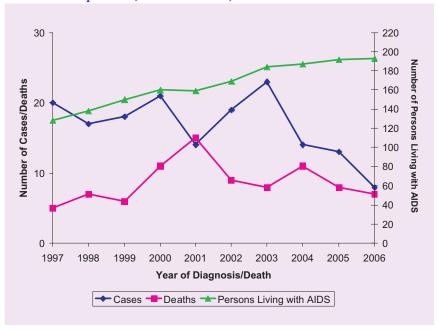
Table 14.1 Characteristics of transgender* HIV/AIDS cases compared to all HIV/AIDS cases, San Francisco

	Transgender AIDS Diagnosed 1997-2006 (N=168)	AIDS Cases Diagnosed 1997-2006 (N=5,260)	All Transgender HIV non-AIDS Cases (N=124)	All HIV non- AIDS Cases (N=6,487)
Race/Ethnicity				
White	28%	59%	19%	63%
African American	32%	19%	45%	15%
Latino	31%	16%	20%	14%
Other/Unknown	9%	6%	16%	9%
Injection Drug Use				
Yes	58%	31%	42%	18%
No	42%	69%	58%	82%
Age at Diagnosis (y	ears)			
13 - 29	17%	9%	37%	20%
30 - 39	43%	39%	36%	44%
40 - 49	31%	35%	23%	27%
50+	9%	17%	4%	9%

^{*} See Technical Notes "Transgender Status."

The number of transgender AIDS cases and deaths is small and fluctuate by year (Figure 14.1). An increasing number of transgenders are living with AIDS as a result of more new AIDS cases compared to new AIDS deaths. As of December 31, 2006 there were 193 transgender persons living with AIDS.

Figure 14.1 AIDS cases, deaths, and prevalence among transgender persons, San Francisco, 1997-2006



HIV/AIDS among Homeless Persons

A case is classified as homeless if, at the time of AIDS diagnosis, the medical record states that the patient is homeless or the patient's address is one of the following: (1) a known homeless shelter, (2) a health care clinic, or (3) a free postal address not connected to a residence ('general delivery'). Persons with missing information on residence are not classified as homeless. The number of homeless AIDS cases continues to decline through 2006. The proportion of homeless AIDS among all AIDS cases increased between 1997 and 2000, declined between 2000 and 2005, and increased slightly in 2006 (Figure 15.1). For 2006, 11% of AIDS cases were homeless at the time of diagnosis.

Compared to all HIV/AIDS cases, homeless persons with HIV/AIDS were more likely to be women, African American, injection drug users and younger (Table 15.1).

Figure 15.1 Number and percent of homeless AIDS cases by year of diagnosis, San Francisco, 1997-2006

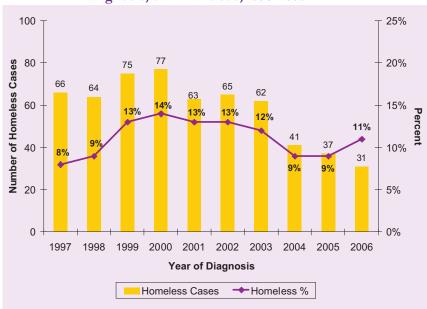


Table 15.1 Characteristics of homeless HIV/AIDS cases compared to all HIV/AIDS cases, San Francisco

	Homeless AIDS Diagnosed 1997-2006 (N=581)	AIDS Cases Diagnosed 1997-2006 (N=5,260)	All homeless HIV-non AIDS (N=353)	All HIV non- AIDS Cases (N=6,487)
Gender				
Male	84%	92%	85%	93%
Female	16%	8%	15%	7%
Race/Ethnicity				
White	42%	59%	44%	63%
African American	40%	19%	36%	15%
Latino	15%	16%	12%	14%
Other	3%	6%	8%	9%
Exposure Category				
MSM	19%	63%	28%	72%
IDU	41%	14%	33%	8%
MSM IDU	34%	17%	26%	10%
Heterosexual	3%	3%	4%	3%
Other/Unidentified	2%	3%	9%	8%
Age at Diagnosis (ye	ears)			
0 - 19	1%	<1%	2%	1%
20 - 29	12%	9%	25%	19%
30 - 39	38%	39%	39%	44%
40 - 49	37%	35%	25%	27%
50+	12%	17%	9%	9%

Sexually Transmitted Diseases among Persons with AIDS

The occurrence of STD diagnoses among persons living with AIDS is an important marker for sexual risk behavior and potential HIV transmission. Diagnosis of sexually transmitted diseases (STD) occurring among persons with AIDS was determined through a computerized match of the AIDS and STD case registries through 2005. A match was verified by name, date of birth, and gender. The STD registry included persons reported with gonorrhea, chlamydia, non-gonococcal urethritis, or infectious syphilis. Cases of STDs among persons with AIDS have steadily risen since 1996 with a dramatic increase in 2002 (Figure 16.1). This jump in STDs among persons with AIDS could be expected due to steep increases in male rectal gonorrhea (see Figure 8.5) and syphilis (see Figure 8.6), particularly among MSM, reported in 2002. All STDs occurred after the AIDS diagnosis, indicating unprotected sex among persons with known HIV infection.

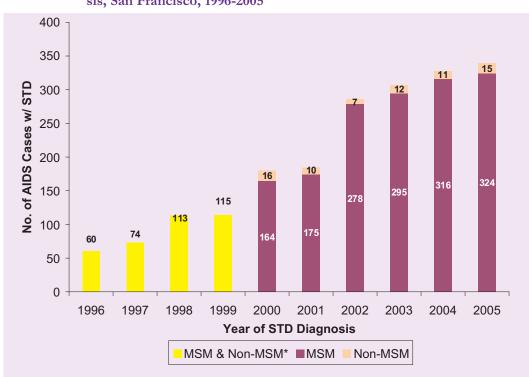


Figure 16.1 Number of AIDS cases diagnosed with an STD by year of STD diagnosis, San Francisco, 1996-2005

^{*} Prior to 2000, data for MSM and non-MSM was not separated.

Late HIV Testing

Persons diagnosed late in the course of HIV infection may be unknowingly transmitting infection and, once diagnosed, may have worse outcomes and greater medical expenses due to late stage of disease. We examined HIV testing histories of persons diagnosed with AIDS in San Francisco to determine the prevalence, trends, and characteristics of persons who were diagnosed with HIV late in the course of disease. Late testers were defined as persons whose diagnosis of HIV occurred 12 months or less before their AIDS diagnosis. Thirty-seven percent of AIDS cases diagnosed between 2002 and 2006 were late testers and this proportion remained relatively stable in recent years (Table 17.1). Late testing was more likely among younger persons, heterosexuals, persons without a reported risk, persons without health insurance, born outside of the USA, and whose initial AIDS diagnosis was an opportunistic infection. Characteristics of late testers suggest that these people may not be aware of their risk for HIV infection or may not have sufficient access to testing services.

Table 17.1 Characteristics of late HIV testers, AIDS cases diagnosed between 2002 and 2006, San Francisco

	Total	Late t	ester
Characteristic	Number	Number	(%)
Total	2,148	799	(37.2)
Gender			
Female	172	70	(40.7)
Male	1,899 77	710 19	(37.4)
Transgender	11	19	(24.1)
Age at AIDS diagnosis (years)	404	400	(542)
13-29 30-39	184 750	100 280	(54.3) (37.3)
40-49	730 786	264	(33.6)
50+	428	155	(36.2)
Race/Ethnicity			
White	1,190	397	(33.4)
African American	394	148	(37.6)
Latino	410	178	(43.4)
Other	154	76	(49.4)
Risk group			(00.4)
MSM	1,349	518	(38.4)
IDU MSM IDU	293 356	101 83	(34.5)
Heterosexual	80	48	(60.0)
No reported risk	68	49	(72.1)
Insurance at time of AIDS diagnosis			
Public	612	173	(28.3)
Private	849	327	(38.5)
None	652	283	(43.4)
Unknown	35	16	(45.7)
Homeless at time of AIDS diagnosis	213	83	(39.0)
Country of birth	1 717	616	(25.2.)
United States Outside of USA	1,747 298	616 158	(35.3)
Unknown	103	25	(24.3)
Initial AIDS diagnosis			,
Low CD4 count/percent	1,821	615	(33.8)
Opportunistic illness	327	184	(56.3)
Year of AIDS diagnosis			,
2002	474	179	(37.8)
2003	517	189	(36.6)
2004	442	168	(38.0)
2005	413	154	(37.3)
2006	302	109	(36.1)

We examined the first CD4 count following HIV diagnosis for persons who had a CD4 test result that occurred within 12 months of their HIV diagnosis among persons diagnosed with HIV/AIDS between 2002 and 2006. The date of the initial HIV diagnosis was based on the earliest date of the HIV antibody test, viral load or CD4 test, antiretroviral treatment start date, or patient self report of HIV positive date. There were 3,527 persons diagnosed with HIV/AIDS during 2002 and 2006 (Table 17.2). For 29% of these, their first CD4 count was less than 350, suggesting a late HIV diagnosis. Forty-eight percent had a CD4 count more than 350, and 23% did not have a CD4 count within 12 months of their HIV diagnosis. Persons who were diagnosed with HIV/AIDS at an older age, African Americans, Latinos, injection drug users, heterosexuals, persons with public insurance, and those born outside of the United States were more likely to have a CD4 count < 350 within 12 months following their HIV diagnosis. These data supplement the late tester data among AIDS cases by including persons with HIV non-AIDS and provide additional evidence of late HIV diagnosis among San Francisco residents.

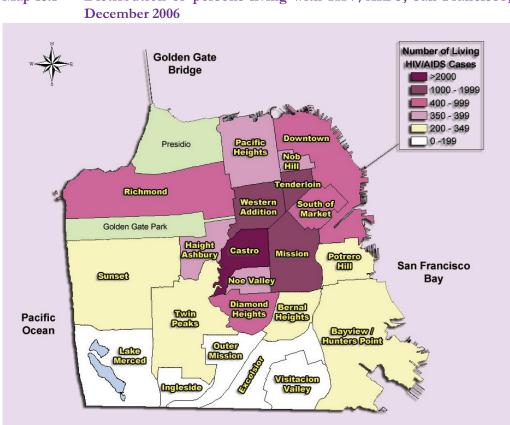
Table 17.2 Level of first CD4 count within 12 months after HIV diagnosis, HIV/AIDS cases diagnosed in 2002-2006, San Francisco

		% of cases whose	
		first CD4 count was	Median
	Number	less than 350	CD4 count
Total	3,527	29%	437
Gender			
Female	277	29%	441
Male	3,162	29%	437
Transgender	88	28%	440
Age at HIV diagnosis (years)			
13-29	729	22%	467
30-39	1,417	28%	459
40-49	973	32%	423
50+	408	41%	348
Race/Ethnicity			
White	1,900	26%	469
African American	581	33%	392
Latino	636	36%	348
Other	410	28%	440
Risk group			
MSM	2,341	29%	444
IDU	342	33%	417
MSM IDU	366	28%	453
Heterosexual	134	46%	309
No reported risk	341	NA*	NA
Insurance status			
Public	446	38%	388
Private	1,384	32%	452
None	1,167	30%	427
Unknown	530	NA	NA
Country of birth			
United States	2,666	29%	448
Outside of USA	465	41%	331
Unknown	396	NA	NA

NA: Median CD4 and proportion of CD4 count less than 350 are not calculated due to substantial missing CD4 data.

Geographic Distribution of **HIV/AIDS**

Map 18.1 shows the geographic distribution of persons living with HIV/AIDS by neighborhoods in San Francisco. Data include persons who were residents of San Francisco at the time of either their HIV or AIDS diagnosis and who were known to be alive on December 31, 2006. The most severely affected neighborhoods are the Castro, Tenderloin, Western Addition and Mission. The adjacent areas including South of Market, Nob Hill, Haight Ashbury, Noe Valley, Diamond Heights and Bernal Heights also have large numbers of persons living with HIV/AIDS.



Distribution of persons living with HIV/AIDS, San Francisco, Map 18.1

T Te

Technical Notes

HIV/AIDS Surveillance Methods

San Francisco HIV/AIDS 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/AIDS cases are also identified through passive reporting, 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. The surveillance system is evaluated regularly for completeness, timeliness, and accuracy. AIDS case reporting has found to be very complete (over 95%) while HIV case reporting is less complete due to an immature reporting system.

AIDS Incidence Rates

Annual race-specific rates are calculated as the number of cases diagnosed for a particular race/ethnic group during each year divided by the population for that race/ethnicity, multiplied by 100,000. These rates are calculated separately for males and females. The annual populations are not available for transgenders. Population denominators for the years 1997-2006 are obtained from the State of California, Department of Finance, Race/Ethnic Population with Age and Sex Detail, 1990-1999 and 2000-2050 data files, May 2004 (www.dof.ca.gov).

AIDS Survival

Survival was calculated as the time between the date of initial AIDS diagnosis and the date of death. This includes persons with low CD4 (count<200 or percent<14%) and persons diagnosed with AIDS opportunistic illnesses. The follow-up information of 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). The most recent NDI match included deaths that occurred through December 31, 2004. Persons not known to have died were censored at the date of their last known follow-up or at December 31, 2004, whichever was more recent.

Causes of Death

Cause of death information on death certificates is coded using the International Classification of Diseases, 10th revision (ICD-10) for deaths occurring in 1999 or after, and the 9th revision (ICD-9) for deaths occurring prior to 1999. These codes are then processed and evaluated using a computer system to determine the underlying and contributory causes of death (www.cdc.gov/nchs/about/major/dvs/im.htm). We obtained the ICD coded causes of death from the California multiple-cause-of-death computer tape for persons with AIDS who died prior to 1996. For AIDS deaths that occurred in 1996 and after, the cause

of death information was obtained through the match with the National Death Index. Deaths attributable to HIV infection or AIDS are coded as 042-044 under ICD-9 and B20-B24 under ICD-10. In addition, the AIDS opportunistic illnesses, if listed on death certificates, are included in the category of 'HIV/AIDS' cause of death.

Grouping of Data Categories

Data regarding certain racial/ethnic or risk categories are grouped together when the number of persons with HIV/AIDS in that particular group is small and/or does not present significant trends. For example, "Other" in the Race/Ethnicity breakdown represents Asian/Pacific Islander, Native American and people of mixed race; "Other" in the Exposure Category breakdown may includes transfusion, hemophilia, heterosexual, perinatal AIDS, or persons of unidentified risk.

Transgender Status

In September 1996, the San Francisco Department of Public Health began noting transgender status when this information is contained in the medical record. Transgender individuals are listed as either male-to-female or female-to-male. The majority of transgender HIV/AIDS cases are male-to-female. Please note that there are several limitations of our transgender data. We believe that our report likely underestimated the number of transgender persons affected by HIV/AIDS because data collected for HIV/AIDS reporting are derived from the medical record. Consequently, 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/AIDS case reporting. Because information about transgender status was not collected in a uniform way until September 1996, we have limited data on transgender prior to this, and therefore cannot perform valid time trend analysis for this group.



Data Tables

Figure 1.1 AIDS cases, deaths, and prevalence, San Francisco, 1980-20063

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
	1300	1301	1002	1000	1004	1500	1300	1307	1300	1000
Cases	3	26	99	274	557	859	1236	1629	1762	2161
Deaths	0	8	32	111	272	531	807	876	1036	1273
Persons Living with AIDS	3	21	88	251	536	864	1293	2046	2772	3660
	4000	4004	4000	4002	4004	4005	4000	4007	4000	4000
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Cases	2048	2283	2327	2074	1786	1561	1082	806	692	580
Deaths	1362	1495	1633	1584	1584	1475	981	413	395	352
Persons Living with AIDS	4346	5134	5828	6318	6520	6606	6707	7100	7397	7625

	2000	2001	2002	2003	2004	2005	2006
Cases	549	501	487	523	441	408	273
Deaths	340	318	317	298	300	242	197
Persons Living with AIDS	7834	8017	8187	8412	8553	8719	8795

Figure 2.1 Number of AIDS cases by race/ethnicity, San Francisco, 1997-2006 6

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
White	515	443	339	318	291	288	267	243	231	148
African American	146	140	105	111	100	88	101	76	75	52
Latino	110	77	104	87	70	74	115	95	75	49
Other	35	32	32	33	40	37	40	27	27	24

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
White	282	233	177	160	147	146	136	121	118	74
African American	354	340	240	259	247	233	249	184	189	121
Latino	170	125	160	127	105	105	166	141	102	72
Other	24	24	22	23	27	24	29	18	16	16

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
White	6	11	8	11	9	7	5	8	5	4
African American	78	86	75	74	73	47	73	61	51	41
Latina	16	6	14	17	8	9	9	13	15	7
Other	5	2	3	1	3	3	2	1	4	2

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
MSM	548	433	353	325	301	297	327	277	240	159
IDU	76	59	48	53	42	42	56	27	35	19
MSM IDU	102	127	93	86	75	80	60	67	60	42
Other	11	6	20	12	25	14	19	16	24	20

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
IDU	31	34	34	36	29	23	24	28	19	16
Heterosexual	13	12	12	14	10	9	11	8	12	7
Other	5	4	2	2	5	3	3	4	5	2

	1999	2000	2001	2002	2003
HIV/AIDS	167	162	162	145	140
Heart disease	95	80	91	104	107
Accident	130	113	113	94	95
Non-AIDS cancer	120	107	109	90	89
Suicide	43	42	43	42	57
Homicide	23	20	26	19	27
Liver disease	29	34	37	24	26
Mental disorder	22	35	50	50	47
Cerebrovascular	10	20	12	15	15
COPD	11	14	13	10	9

	1999	2000	2001	2002	2003
Non-AIDS cancer	66	69	69	69	78
Mental disorder	5	10	7	12	16
Heart disease	28	32	27	31	30
Cerebrovascular	12	8	2	11	13
COPD	6	10	5	6	6
Liver disease	9	5	9	13	4
Accident	40	27	37	22	27
Suicide	5	9	15	9	14
Homicide	7	5	11	6	4
HIV/AIDS	30	25	24	25	28

	White	African American	Latino
HIV/AIDS	76	168	52
Heart disease	36	286	24
Non-AIDS cancer	35	98	24
Accident	45	91	36

Figure 5.5 Leading causes of death rates per 100,000 population among San Francisco male residents aged 15-64 years by age group, 200325

	15-19	20-24	25-34	35-44	45-54	55-64
HIV/AIDS	0	0	13	71	116	94
Heart disease	0	0	4	30	131	298
Accident	26	16	32	40	56	59
Non-AIDS cancer	0	5	6	16	120	338
Mental disorder	7	0	4	12	56	64
Suicide	7	16	19	23	35	19

Male	2001	2002	2003	2004	2005	2006
Public	18%	21%	22%	25%	30%	26%
Private	42%	42%	43%	45%	44%	44%
None	35%	33%	34%	27%	25%	25%

Female	2001	2002	2003	2004	2005	2006
Public	59%	40%	55%	65%	58%	76%
Private	16%	11%	11%	8%	17%	16%
None	20%	43%	32%	25%	25%	8%

Transgender	2001	2002	2003	2004	2005	2006
Public	29%	26%	39%	64%	62%	88%
Private	0%	16%	4%	0%	0%	0%
None	71%	53%	52%	36%	38%	13%

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cases	668	577	464	430	390	395	410	358	313	209
Deaths	337	319	282	276	245	245	228	228	175	153
Persons Living with AIDS	6234	6492	6674	6828	6973	7123	7305	7435	7573	7629

Figure 8.2 AIDS cases among MSM by race/ethnicity, San Francisco, 1997-2006 . . 30

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
White	473	401	295	281	257	255	233	222	199	131
African American	77	76	58	52	47	44	51	37	40	24
Latino	92	72	84	70	56	66	97	79	58	36
Other	26	28	27	27	30	30	29	20	16	18

	1999	2000	2001	2002	2003	2004	2005	2006
HIV Positive	42%	46%	51%	45%	53%	54%	46%	57%
HIV Negative	32%	36%	37%	32%	37%	33%	37%	44%

	1999	2000	2001	2002	2003	2004	2005	2006
HIV Positive	25%	25%	31%	27%	28%	21%	9%	13%
HIV Negative	15%	17%	20%	16%	8%	4%	12%	10%

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Primary	2	3	3	13	45	97	105	117	71	75
Secondary	13	2	19	27	72	191	213	204	145	142
Early Latent	2	4	10	12	38	151	160	173	155	149

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cases	108	93	82	91	71	66	80	55	54	35
Deaths	62	65	63	51	60	58	60	59	52	36
Persons Living with AIDS	669	697	716	756	767	775	795	791	793	792

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
White	36	35	37	32	28	25	30	16	26	11
African American	56	53	37	48	36	36	34	29	22	17
Latino	12	4	5	8	5	2	12	8	5	7
Other	4	1	3	3	2	3	4	2	1	0

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cases	16	13	18	18	16	14	18	16	19	15
Deaths	9	3	4	4	8	9	6	5	5	4
Persons Living with AIDS	107	117	131	145	153	158	170	181	195	206

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
White	3	5	3	3	2	4	3	4	1	2
African American	6	7	8	9	9	5	11	5	9	6
Latino	4	0	6	5	2	2	3	5	6	4
Other	3	1	1	1	3	3	1	2	3	3

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
HIV prevalence rate per 100,000 donations	111	45	33	26	11	13	10	8	4	7	5
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
HIV prevalence rate per 100,000 donations	3	6	5	2	2	1	4	6	2	1	2
HIV prevalence rate per 100,000 donors				4	4	2	7	10	3	2	3

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cases	49	50	48	52	44	36	38	40	36	25
Deaths	24	23	33	25	26	29	28	23	24	23
Persons Living with AIDS	368	395	410	437	455	462	472	489	501	503

Figure 11.2 Female AIDS cases by race/ethnicity, San Francisco, 1997-2006 39

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
White	9	17	13	18	14	13	8	13	8	6
African American	26	28	24	23	22	14	22	18	15	12
Latina	8	3	7	9	4	5	5	7	8	4
Other	6	2	4	2	4	4	3	2	5	3

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
HIV Infected	5	5	2	0	3	1	0	0	2	1	1	0	0
Seroreverted	12	14	9	11	9	9	12	16	9	16	6	7	8
Status Unknown	2	1	0	0	1	0	0	0	0	0	0	0	0

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cases	20	17	18	21	14	19	23	14	13	8
Deaths	5	7	6	11	15	9	8	11	8	7
Persons Living with AIDS	128	138	150	160	159	169	184	187	192	193

