

Annual AIDS Surveillance Report 1998

San Francisco AIDS Cases Reported Through December 31, 1998

Special Focus: Trends in AIDS Incidence and Deaths

**San Francisco Department of Public Health
HIV Seroepidemiology and Surveillance Section
AIDS Surveillance Unit**

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The **Annual AIDS Surveillance Report** is published annually covering trends in AIDS incidence and mortality and other topics of interest. Contents of this report may change from year to year. A free copy of the report can be obtained from the San Francisco Department of Public Health AIDS Surveillance Unit, 25 Van Ness Avenue, Suite 500, San Francisco, CA 94102. Telephone: (415) 554-9050. Fax: (415) 431-0353.

The **Annual AIDS Surveillance Report** is available on the Internet:
<http://phd.dph.sf.ca.us/AIDS.htm>

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Trends in AIDS Incidence and Deaths

Background

The San Francisco Department of Public Health (SFDPH) has conducted active surveillance for AIDS since 1981. Periodic evaluations of surveillance activities have demonstrated the reporting of persons with AIDS in San Francisco is highly complete (95%-98%). As part of routine surveillance, local death certificates are reviewed on a weekly basis. This allows for identifying individuals with AIDS who may not have been reported prior to death as well as documenting the date of death for persons who were previously reported with AIDS. In addition to reviewing local and State vital statistics records, periodic matches against the National Death Index are conducted to identify deaths among persons reported with AIDS in San Francisco who may have died elsewhere. Thus, the SFDPH AIDS registry provides a highly complete source of information on AIDS incidence and mortality.

Trends in AIDS incidence

Between January 1, 1981 and December 31, 1998, a total of 25,826 persons with AIDS have been reported to the SFDPH. The incidence of AIDS peaked sharply in 1992 and has declined steadily thereafter. The majority of AIDS cases in San Francisco have occurred among men. Thus it is not surprising that the incidence of AIDS in men peaked in 1992. Until 1995, white men were disproportionately affected by AIDS (Figure 1). However, in 1996 the rate of AIDS among African American men (416 per 100,000) surpassed that of white men (372 per 100,000). By 1997 the difference diminished and the rate of AIDS among African American men (290 per 100,000) was similar to that among white men (286 per 100,000).

The incidence of AIDS peaked in 1992 among white women and in 1994 among African American and Latino women (Figure 2). The AIDS incidence has declined since 1994 among women of all racial/ethnic groups. African American women experienced a sharp increase in AIDS incidence beginning in 1987 and from that time on, African American women have been disproportionately affected by AIDS when compared to women of other racial/ethnic groups. In 1994, the incidence of AIDS was 120 per 100,000 among African American women and was 28 per 100,000 among Latina women and was 15 per 100,000 among white women. Although the incidence of AIDS has declined among white, African American, and Latina women, the discrepancy in incidence remains; in 1997 the incidence rate of AIDS among African American women was 64 per 100,000 while the incidence rate of AIDS among Latina women was 18 per 100,000 and was 6 per 100,000 among white women.

The AIDS incidence rate has declined among all risk groups since 1992 (Figure 3). The greatest declines have occurred among men who have sex with men (MSM) in whom the incidence of AIDS declined 73% between 1992 and 1997 and among MSM who also have injected drugs (MSM IDU) in whom the incidence declined 78% between 1992 and 1997. Male and female heterosexual injection drug users (IDU) continue to have lower rates of AIDS than MSM, but the decline in incidence among heterosexual IDUs has not been as great. Between 1992 and 1997, the decline in AIDS incidence was 47% among male IDUs and 60% among female IDUs. Despite the dramatic decline in AIDS among

MSM and MSM IDUs, these are the risk groups which continue to be most severely affected by AIDS.

Trends in AIDS deaths

The number of deaths among persons with AIDS peaked in 1992, remained stable between 1992 and 1994, and has declined each year since then (Table A). Between 1996 and 1997, the number of deaths declined by nearly 70%. The percent decline was slightly less among women than among men and less among African Americans than among persons of other racial/ethnic groups. The percent decline in deaths was much lower among heterosexuals (38%) than among persons in other risk groups, each of whom experienced a 58% or more decline in deaths between 1996 and 1997.

Figures 8 and 9 compare the trends in AIDS incidence and deaths among MSM (including MSM IDU) and among heterosexual IDUs. The incidence of AIDS peaked in 1992 for both MSM and heterosexual IDUs. However, AIDS deaths were relatively stable among MSM between 1991 and 1995 and declined sharply after 1995. Among heterosexual IDUs, AIDS deaths increased until 1995 and only between 1996 and 1997 was there a demonstrable decline.

Persons living with AIDS

Although AIDS incidence has declined, the dramatic decline in AIDS deaths has resulted in an increase in the number of persons in San Francisco who are living with AIDS (Figure 10). Because the trends in AIDS incidence and deaths have affected demographic groups differently, the relative proportions of persons living with AIDS among different demographic groups have changed over time. Figures 11-13 depict the trends in the percent of persons living with AIDS in San Francisco by gender (Figure 11), by race/ethnicity (Figure 12), and by risk group (Figure 13). Between 1990 and 1998, the relative proportion of men living with AIDS declined while the relative proportion of women living with AIDS increased. Still, over 90% of persons living with AIDS in San Francisco are men. Over time, the proportion of whites living with AIDS has declined while the proportion of persons of color living with AIDS has increased. By the end of 1998, 69% of living AIDS cases were white, 14% were African American, 12% were Latino, and the other 4% were among persons of other race/ethnicity. While the proportion of MSM living with AIDS has declined during the past nine years, the proportion of heterosexual IDUs has increased.

Comment

The incidence of AIDS in San Francisco has declined substantially among all demographic and risk groups in recent years. Subsequent to this decline in AIDS incidence, there was decline in AIDS deaths. The decline in AIDS incidence and deaths has been greatest among men, whites, and MSM. Women, African Americans, IDUs, and heterosexuals have experienced declines in AIDS incidence and deaths as well, but many of these declines occurred later and to a lesser extent than occurred among men, whites, and MSM.

The decline in AIDS incidence and deaths observed in San Francisco preceded similar trends nationally. The earlier decline in AIDS incidence and deaths among San Francisco residents is most likely a reflection of prevention and treatment efforts occurring earlier and more successfully in San Francisco than in many other parts of the country.

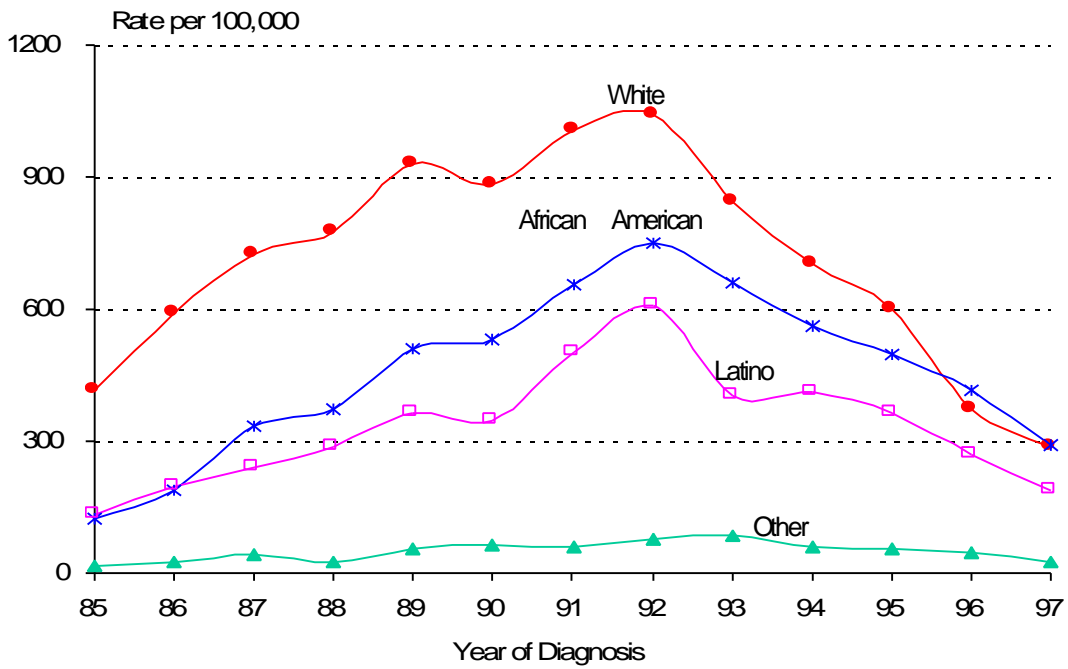
A substantial body of epidemiologic evidence demonstrates that at least half of the cumulative AIDS cases in San Francisco had acquired their HIV infection in the early 1980s. Following that period of extremely high incidence rates of HIV infection, the rate of new HIV infection has been relatively stable at approximately 500 new cases each year, due, at least in part, to the extensive prevention efforts which have kept the rate of new infections down. Thus, some of the decline in AIDS incidence and deaths is due to the natural history of HIV infection.

The other major factor which has contributed to the decline in AIDS incidence and deaths has been the improvement in medical care for persons with HIV and AIDS. Several studies, including one in San Francisco, have demonstrated improved survival for persons with HIV/AIDS associated with the use of antiretroviral agents, especially protease inhibitors.

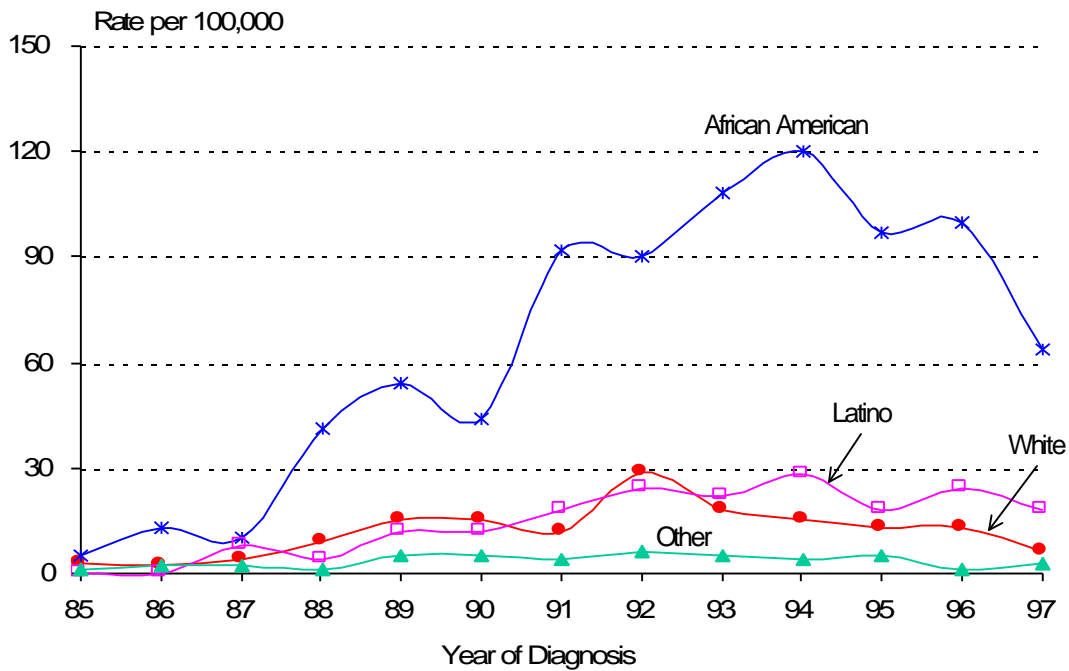
The discrepancies that we observed in the trends in AIDS incidence and deaths by demographic groups are likely a reflection of the time at which different groups acquired HIV infection, the success of prevention efforts in different communities, as well as differential access to and utilization of health care services, including use of antiretroviral agents and protease inhibitors. It appears that the HIV/AIDS epidemic in San Francisco began in white MSM and then spread to other groups. White MSM also appear to have benefited earliest from improved medications for the treatment of HIV/AIDS. However, recent trends suggest that the differences among demographic and risk groups are diminishing.

Improvements in medical care for persons with HIV and AIDS have extended the duration of illness resulting in an increasing number of persons living with AIDS. As we examine the trends in AIDS incidence and deaths we can see that although the majority of persons living with AIDS are men, whites, and MSM, the proportion of women, nonwhites, and IDUs who are living with AIDS is increasing. These factors should be kept in mind when determining the funds and mechanisms that will be required to provide adequate and equitable care for persons living with HIV and AIDS.

**Figure 1. Male Annual AIDS Incidence Rates per 100,000 Population*
by Race/Ethnicity, San Francisco, 1985-1997**

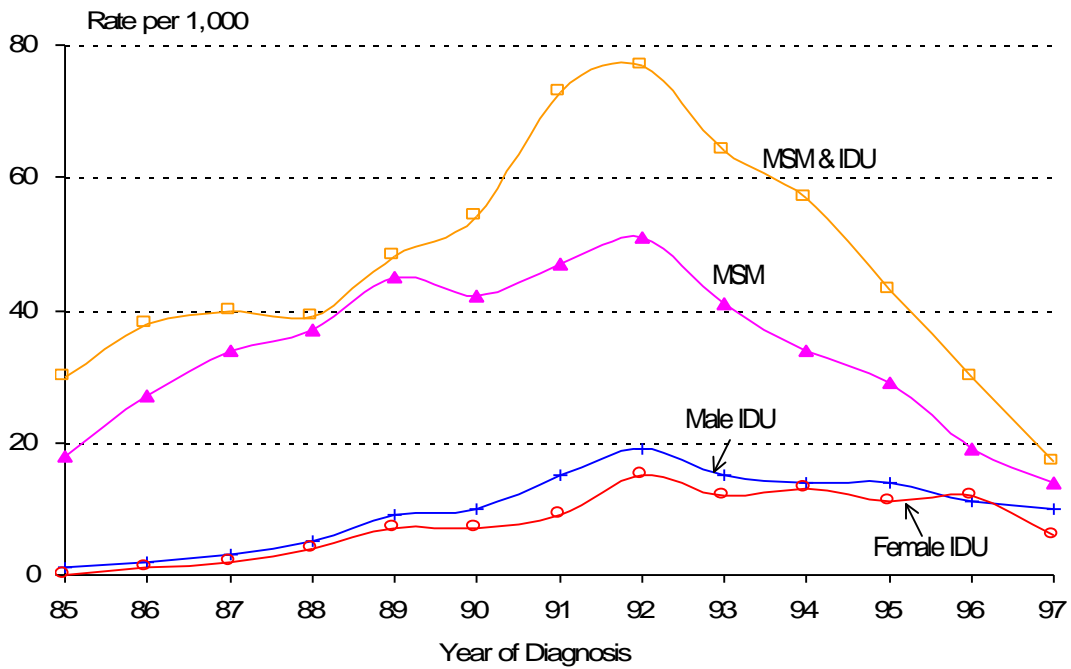


**Figure 2. Female Annual AIDS Incidence Rates per 100,000 Population*
by Race/Ethnicity, San Francisco, 1985-1997**



* Sex and race specific populations are based on 1990 census data.

Figure 3. Estimated Adult/Adolescent Annual AIDS Incidence Rates per 1,000 Population* by Risk, San Francisco, 1985-1997



* Estimates of population size for each risk group are based on the 1997 Consensus Report, published by the San Francisco Department of Public Health HIV Seroepidemiology Unit. It is estimated that in San Francisco there are 39,000 men who have sex with men (MSM); 4,100 men who have sex with men and who also inject drugs (MSM & IDU); 8,500 men and 4,500 women who are heterosexual injection drug users (IDU).

Table A. AIDS Deaths Occurred Between 1993 and 1997, and Percent Change by Sex, Race/Ethnicity, and Risk, San Francisco

	Year of Death and Percent Change* in Number of Deaths									Cumulative Totals as of 12/31/98
	1993	1994	% Change 1993-1994	1995	% Change 1994-1995	1996	% Change 1995-1996	1997	% Change 1996-1997	
Sex										
Male	1731	1740	(1%)	1625	(-7%)	1062	(-35%)	336	(-68%)	17300
Female	57	67	(18%)	52	(-22%)	56	(8%)	19	(-66%)	434
Race/Ethnicity										
White	1370	1302	(-5%)	1222	(-6%)	778	(-36%)	244	(-69%)	13766
African American	211	230	(9%)	212	(-8%)	164	(-23%)	62	(-62%)	1804
Latino	156	202	(29%)	177	(-12%)	135	(-24%)	39	(-71%)	1663
Asian Pac Isl	42	63	(50%)	56	(-11%)	32	(-43%)	7	(-78%)	427
Native American	9	10	(11%)	10	(0%)	9	(-10%)	3	(-67%)	74
Risk										
MSM	1406	1441	(2%)	1272	(-12%)	831	(-35%)	249	(-70%)	14346
IDU	116	116	(0%)	125	(8%)	118	(-6%)	49	(-58%)	903
MSM & IDU	212	186	(-12%)	231	(24%)	137	(-41%)	45	(-67%)	2017
Heterosexual	23	24	(4%)	19	(-21%)	13	(-32%)	8	(-38%)	152
Other	31	40	(29%)	30	(-25%)	19	(-37%)	4	(-79%)	316
Yearly Total	1788	1807	(1%)	1677	(-7%)	1118	(-33%)	355	(-68%)	17734

* Percent change is calculated using the number of deaths occurred in a given year minus the number of deaths occurred in the previous year, divided by the number of deaths occurred in the previous year; a positive percent indicates increase and a negative percent indicates decrease in the number of deaths from previous year.

Figure 4. AIDS Cases and Deaths Among Men by Year of Diagnosis/Death, San Francisco, 1985-1997

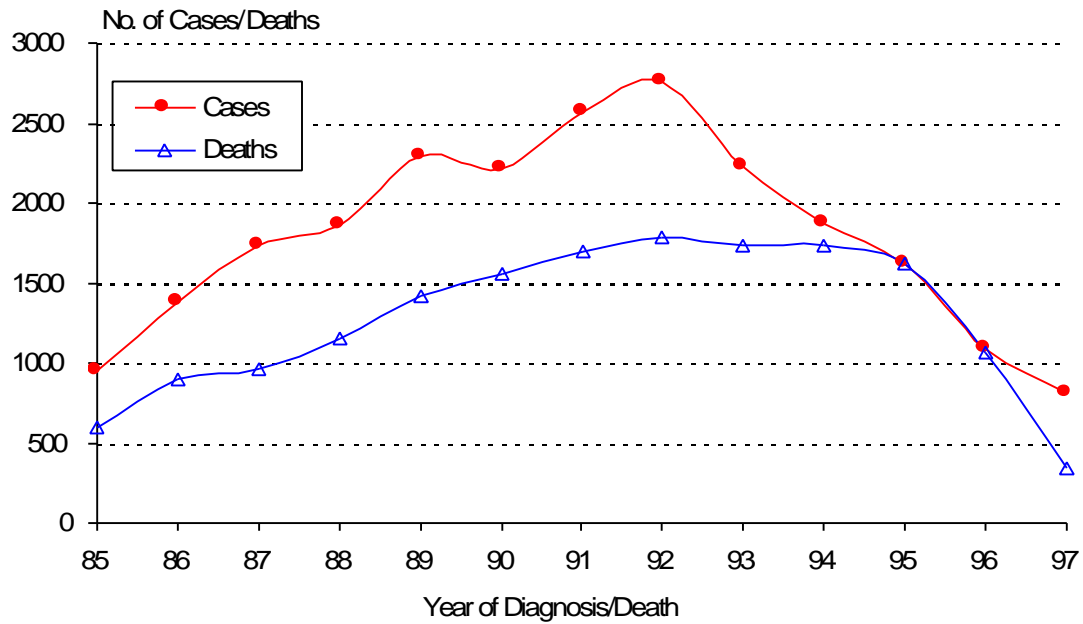


Figure 5. AIDS Cases and Deaths Among Women by Year of Diagnosis/Death, San Francisco, 1985-1997

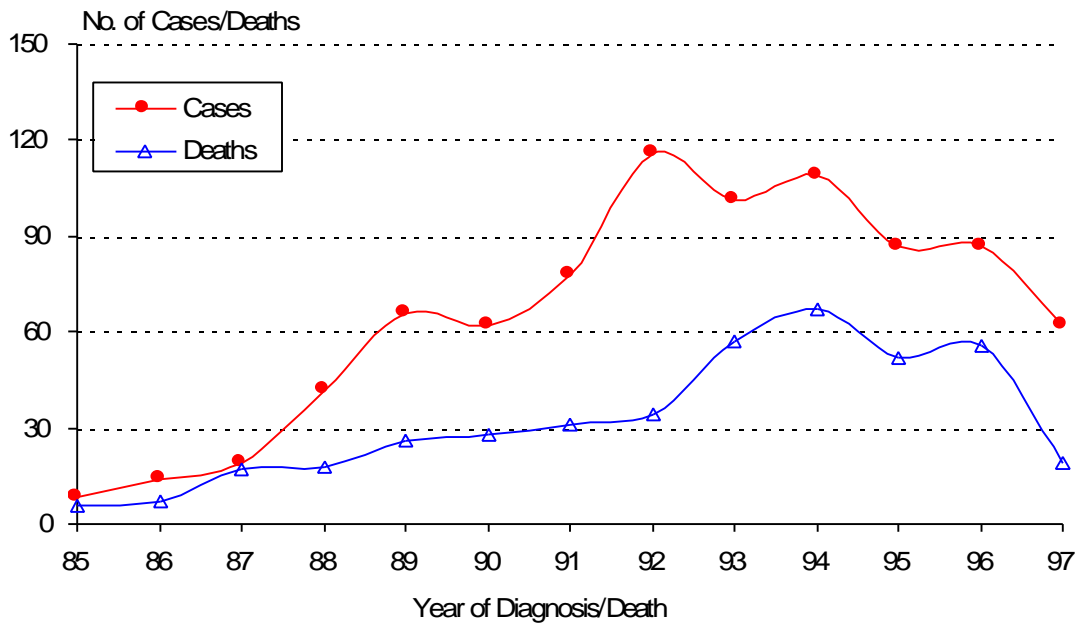


Figure 6. AIDS Cases and Deaths Among Whites by Year of Diagnosis/Death, San Francisco, 1985-1997

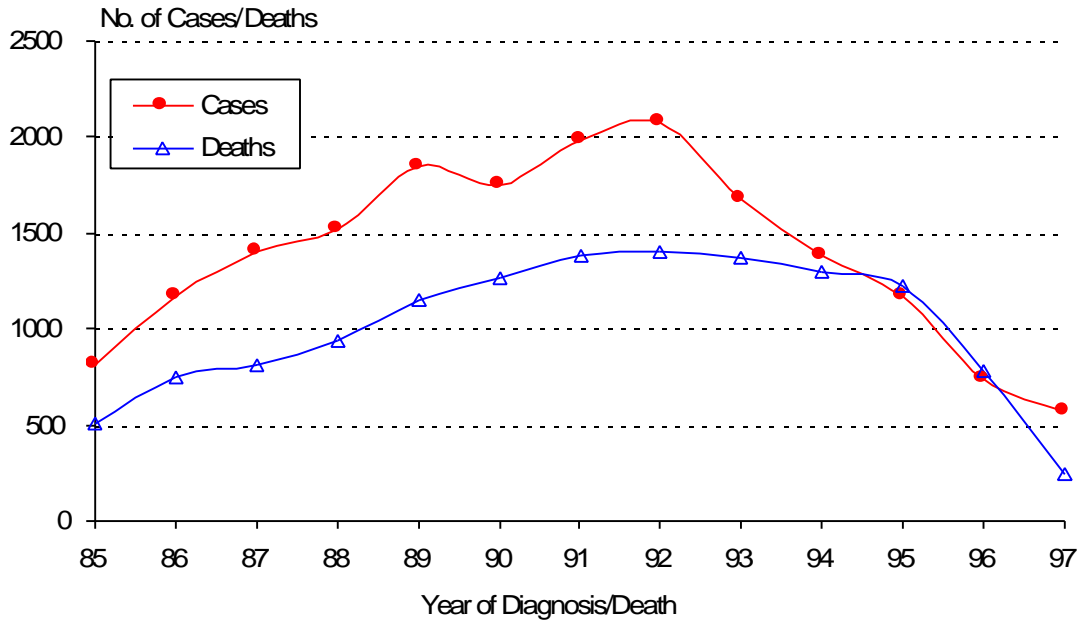
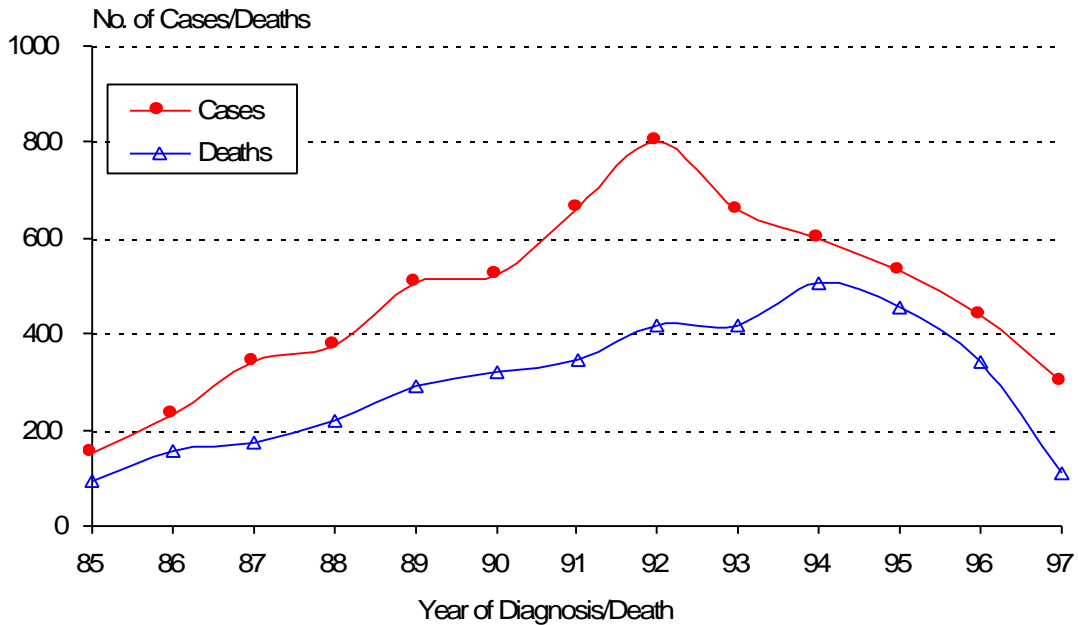
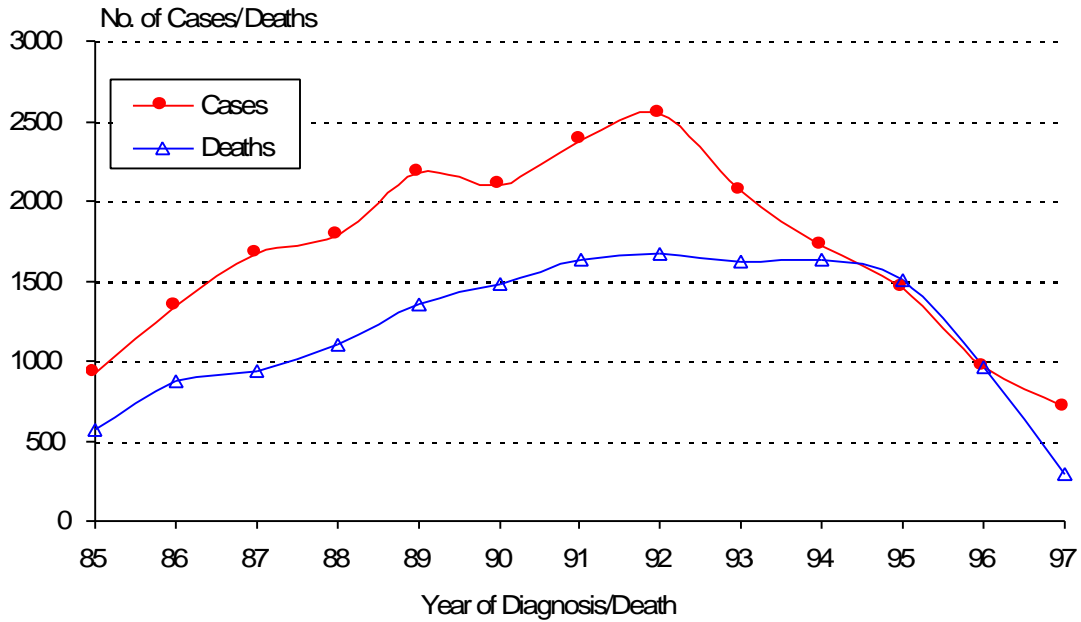


Figure 7. AIDS Cases and Deaths Among Nonwhites by Year of Diagnosis/Death, San Francisco, 1985-1997



**Figure 8. AIDS Cases and Deaths Among Men Who Have Sex With Men*
by Year of Diagnosis/Death, San Francisco, 1985-1997**



* Includes men who have sex with men and who also inject drugs.

**Figure 9. AIDS Cases and Deaths Among Heterosexual IDUs by Year of
Diagnosis/Death, San Francisco, 1985-1997**

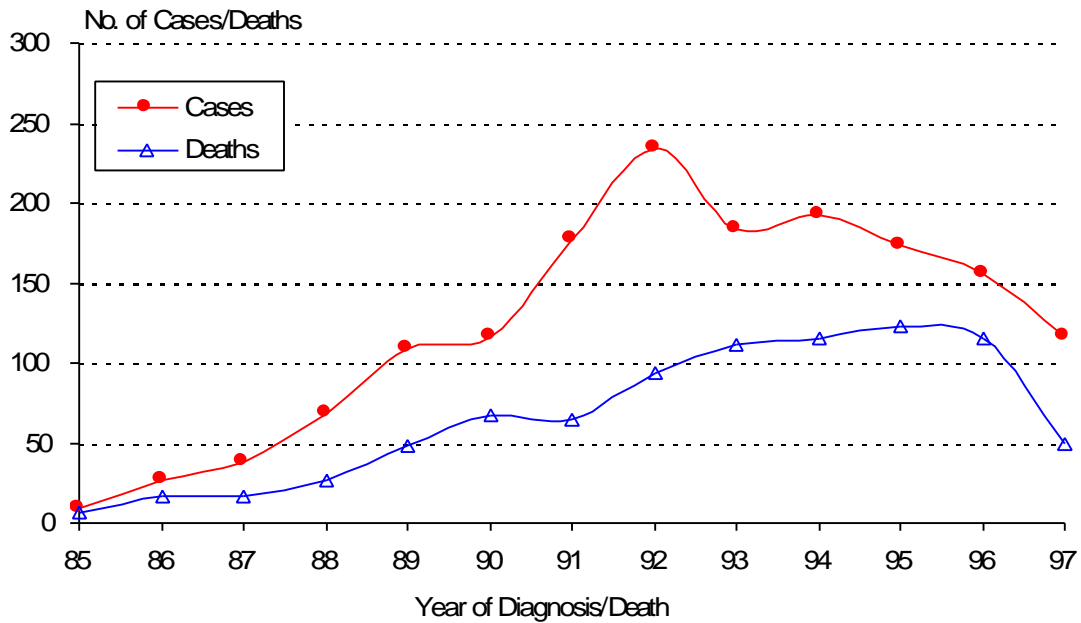


Figure 10. Mortality Status of AIDS Cases by Year of Diagnosis, and Cumulative Living Cases, San Francisco, 1980-1998

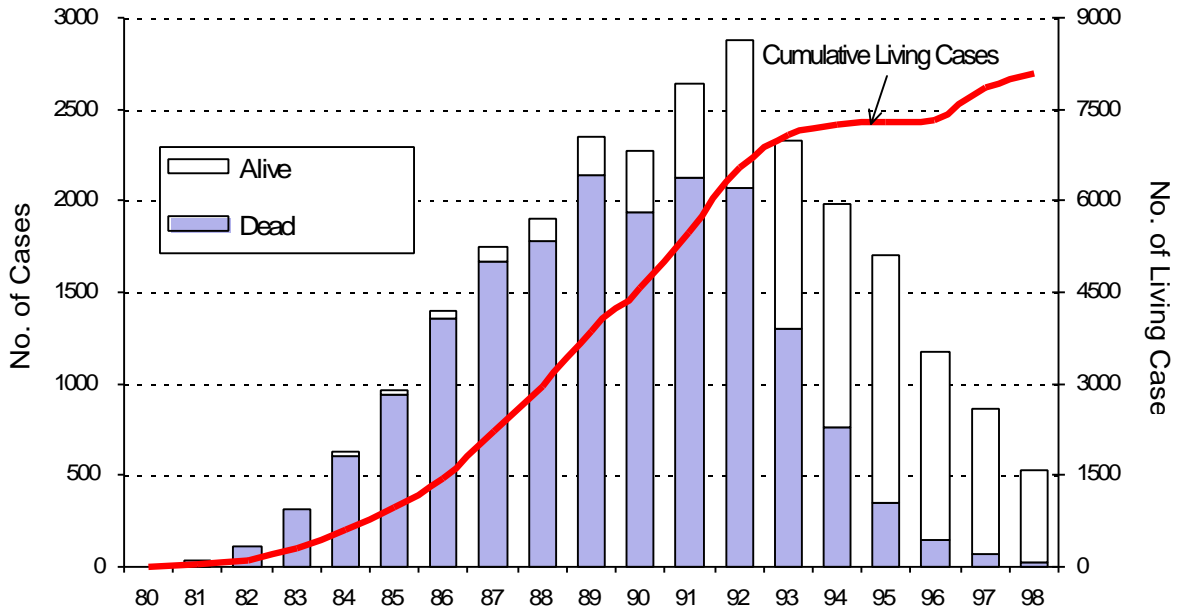


Figure 11. Percent of Persons Living with AIDS by Sex and Year, San Francisco, 1990-1998

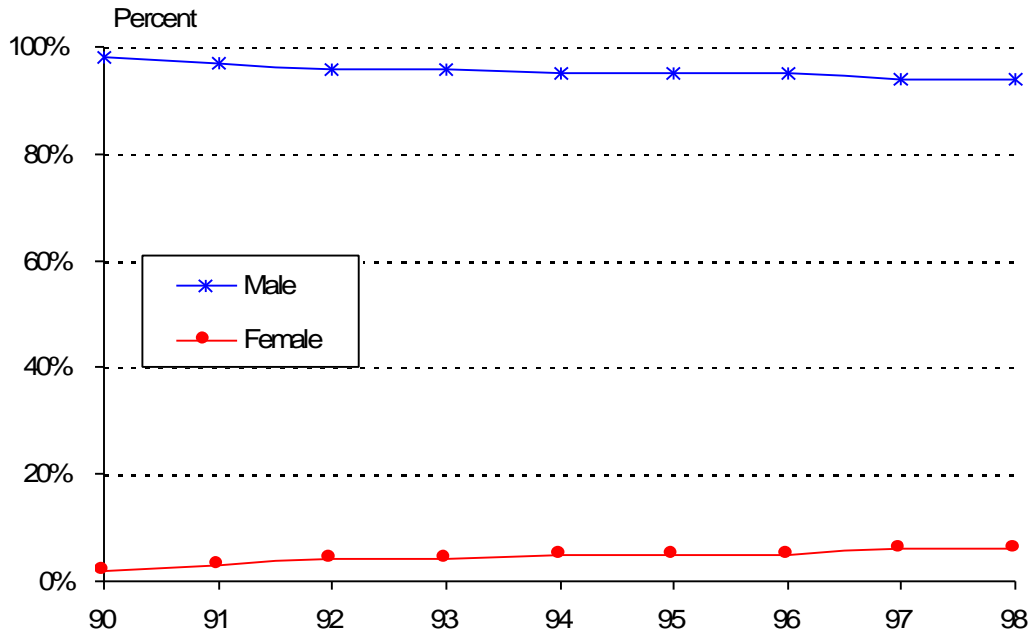


Figure 12. Percent of Persons Living with AIDS by Race/Ethnicity and Year, San Francisco, 1990-1998

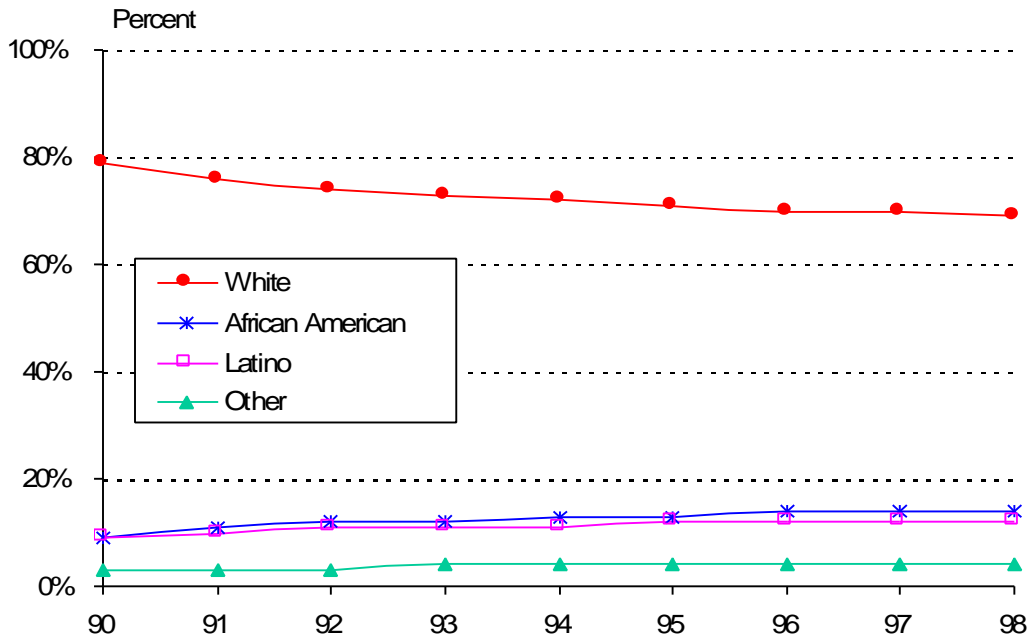


Figure 13. Percent of Persons Living with AIDS by Risk and Year, San Francisco, 1990-1998

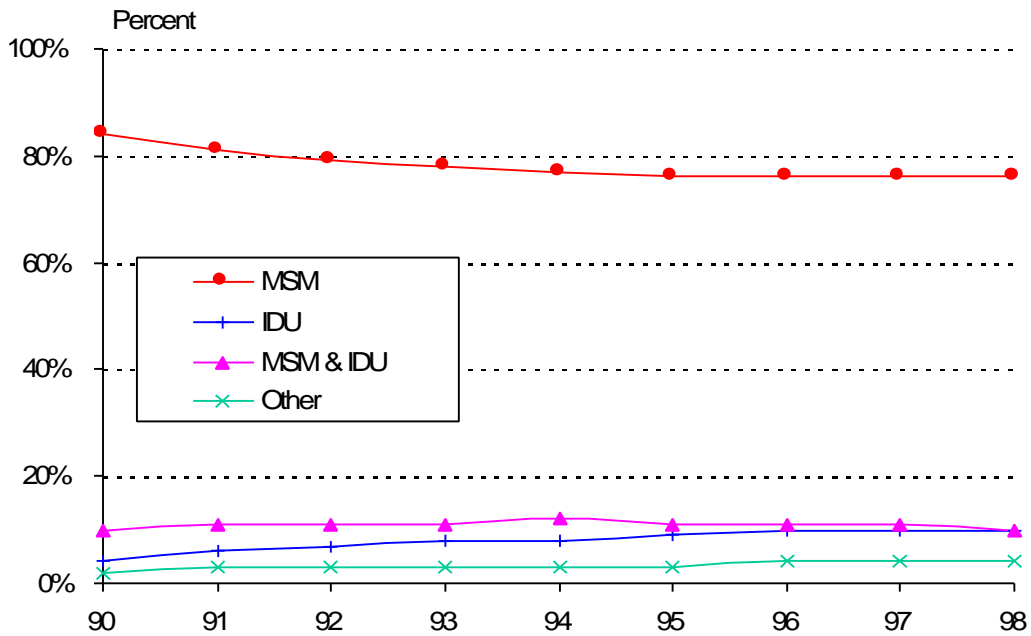


Table B. Number of AIDS Opportunistic Illnesses* Diagnosed Between 1993 and 1997, San Francisco

AIDS Indicator Condition	1993		1994		1995		1996		1997	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Candidiasis, bronchi, trachea, or lungs	6	(0.2)	7	(0.2)	5	(0.1)	6	(0.3)	2	(0.2)
Candidiasis, esophageal	177	(4.5)	204	(5.0)	170	(4.8)	133	(6.5)	52	(6.2)
Cervical cancer	1	(0.0)	1	(0.0)	0	(0.0)	1	(0.0)	1	(0.1)
Coccidioidomycosis, disseminated or extrapulmonary	6	(0.2)	4	(0.1)	5	(0.1)	3	(0.1)	1	(0.1)
Cryptococcosis, extrapulmonary	117	(3.0)	165	(4.0)	137	(3.9)	83	(4.0)	54	(6.4)
Cryptosporidiosis, chronic intestinal	149	(3.8)	156	(3.8)	120	(3.4)	68	(3.3)	36	(4.3)
Cytomegalovirus disease	243	(6.1)	285	(6.9)	262	(7.5)	115	(5.6)	52	(6.2)
Cytomegalovirus retinitis	292	(7.4)	265	(6.4)	255	(7.3)	136	(6.6)	28	(3.3)
HIV encephalopathy	233	(5.9)	267	(6.5)	211	(6.0)	106	(5.2)	42	(5.0)
Herpes simplex	26	(0.7)	29	(0.7)	22	(0.6)	21	(1.0)	4	(0.5)
Histoplasmosis, disseminated or extrapulmonary	17	(0.4)	22	(0.5)	15	(0.4)	13	(0.6)	3	(0.4)
Isosporiasis, chronic intestinal	8	(0.2)	7	(0.2)	2	(0.1)	3	(0.1)	1	(0.1)
Kaposi's sarcoma	456	(11.5)	493	(12.0)	386	(11.0)	232	(11.3)	93	(11.0)
Lymphoma, Burkitt's	54	(1.4)	48	(1.2)	57	(1.6)	21	(1.0)	11	(1.3)
Lymphoma, immunoblastic	60	(1.5)	68	(1.7)	78	(2.2)	66	(3.2)	43	(5.1)
Lymphoma, primary in brain	33	(0.8)	52	(1.3)	40	(1.1)	34	(1.7)	9	(1.1)
Mycobacterium avium complex	561	(14.2)	541	(13.1)	469	(13.4)	212	(10.3)	68	(8.1)
Mycobacterium tuberculosis, disseminated or extrapulmonary	37	(0.9)	22	(0.5)	16	(0.5)	23	(1.1)	3	(0.4)
Mycobacterium tuberculosis, pulmonary	69	(1.7)	68	(1.7)	53	(1.5)	32	(1.6)	14	(1.7)
Mycobacterium, other species	48	(1.2)	32	(0.8)	17	(0.5)	16	(0.8)	2	(0.2)
Pneumocystis carinii pneumonia	801	(20.3)	704	(17.1)	521	(14.8)	324	(15.8)	165	(19.6)
Pneumonia, recurrent	80	(2.0)	77	(1.9)	73	(2.1)	74	(3.6)	45	(5.3)
Progressive multifocal leukoencephalopathy	16	(0.4)	45	(1.1)	51	(1.5)	26	(1.3)	7	(0.8)
Salmonella sepsis, recurrent	0	(0.0)	4	(0.1)	3	(0.1)	2	(0.1)	0	(0.0)
Toxoplasmosis of brain	85	(2.2)	103	(2.5)	53	(1.5)	36	(1.8)	13	(1.5)
Wasting syndrome	377	(9.5)	449	(10.9)	488	(13.9)	270	(13.1)	94	(11.2)
Total	3952	(100)	4118	(100)	3509	(100)	2056	(100)	843	(100)

* A person may have more than one opportunistic illness diagnosed during the same or different year.

Note: The number of AIDS opportunistic illnesses diagnosed each year has declined substantially in recent years. The decline was observed among all the opportunistic illnesses. The proportion of each opportunistic illness diagnosed between 1993 and 1997 remained relatively stable for most of the conditions listed here. There was a notable decrease in the proportion of CMVretinitis and *Mycobacterium avium* complex (MAC) diagnoses. The decrease in CMVretinitis is most likely due to use of protease inhibitors while the decrease in MAC may be the result of wider use of MAC prophylaxis.

Figure 14. Percent of Homeless AIDS Cases by Year of Diagnosis, San Francisco, 1990-1998

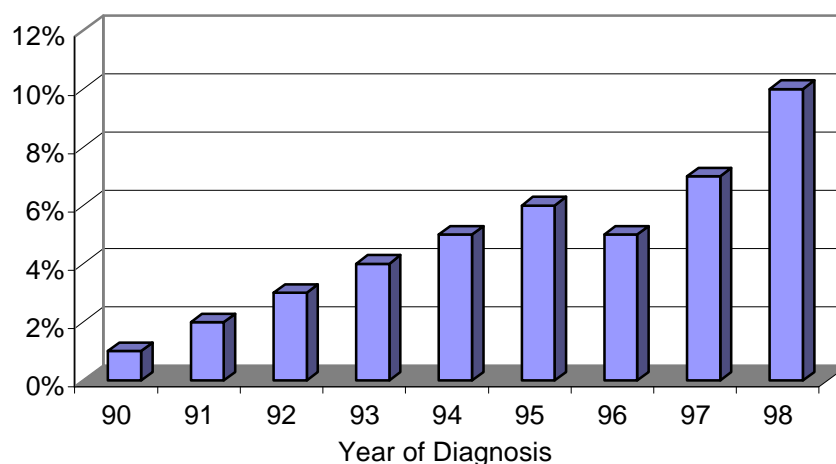


Table C. Characteristics of AIDS Cases, Homeless AIDS Cases, and Homeless Population

	AIDS Cases Diagnosed 1990-1998 (n=16,372)	Homeless AIDS Cases Diagnosed 1990-1998 (n=641)	Estimated Homeless Population* (n=7,000-14,000)
Sex			
Male	95%	87%	82%
Female	5%	13%	18%
Race/Ethnicity			
White	71%	45%	37%
African American	14%	39%	49%
Latino	11%	14%	7%
Asian Pac. Islander	3%	1%	1%
Native American	1%	2%	Not available
Risk			
MSM	88%	52%	18%
Non MSM	12%	48%	82%
IDU	20%	73%	40%
Non IDU	80%	27%	60%
Median Age (years)	38	36	36

* Reference: Zolopa AR, Hahn JA, Gorter R, et al. HIV and tuberculosis infection in San Francisco's homeless adults. Prevalence and risk factors in a representative sample. JAMA. 1994;272:455-61

Note: The percent of AIDS cases among homeless persons has increased steadily since the early 1990s. Compared to other AIDS cases, persons with AIDS who are homeless are more likely to be female, African American, injection drug users, and younger. This group may be less likely to reap the benefits associated with improvements in the medical care of persons with HIV/AIDS.

Table D. Characteristics of AIDS Cases and Transgender AIDS Cases, San Francisco, 1990-1998

	AIDS Cases (n=16,372)	Transgender AIDS Cases* (n=148)
Race/Ethnicity		
White	71%	30%
African American	14%	30%
Latino	11%	29%
Asian Pac. Islander	3%	10%
Native American	1%	1%
Risk		
MSM	88%	95%
Non MSM	12%	5%
IDU	20%	49%
Non IDU	80%	51%
Age		
0 - 19	0.2%	0.0%
20 - 29	11%	24%
30 - 39	45%	50%
40 - 49	32%	22%
50 and over	12%	3%

* Transgender information is obtained from patients' medical records. It includes 143 male-to-female and 5 female-to-male transgender cases.

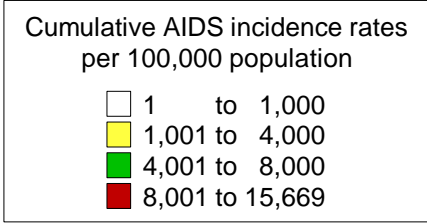
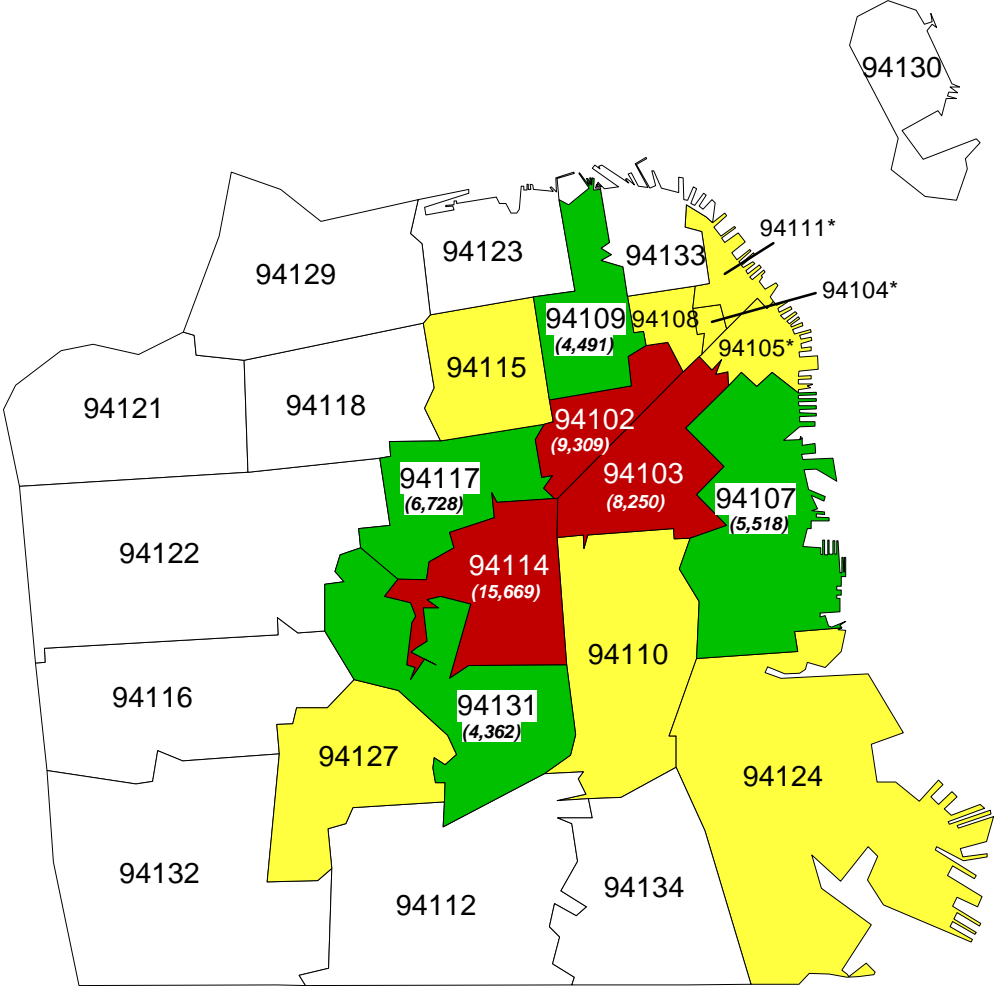
Note: Transgender AIDS are more likely than other AIDS cases to be nonwhite, to have acquired HIV infection either through sex with a man or through injection drug use, and to be younger. Because the information on transgender status is gathered from the medical record, the number of transgender AIDS cases is probably underestimated.

Table E. Cumulative and Living AIDS Cases by Zip Code* , San Francisco, 1980-1998

Zip Code	No. of Cumulative Cases	No. of Living Cases	Zip Code	No. of Cumulative Cases	No. of Living Cases
94102	2505	857	94117	2561	682
94103	1474	471	94118	253	82
94104	61	23	94121	249	68
94105	72	18	94122	341	105
94107	670	170	94123	163	31
94108	255	81	94124	367	160
94109	2227	674	94127	209	67
94110	2052	677	94129	9	<5
94111	40	12	94130	8	<5
94112	460	144	94131	1334	384
94114	4810	1393	94132	165	54
94115	1125	316	94133	183	56
94116	212	66	94134	210	71

* Zip code was determined by a person's residence at time of AIDS diagnosis. Persons diagnosed in San Francisco who resided in other jurisdictions and persons reported with an unknown or a P.O. Box address were excluded.

Cumulative AIDS Incidence Rates per 100,000 Population by Zip Code, San Francisco, 1980-1998



* Zip codes 94104, 94105, and 94111 were grouped together in calculating the case incidence rate because of the small population size.