HIV/AIDS

Acquired Immune Deficiency Syndrome (AIDS) is a specific group of diseases or conditions related to infection by the human immunodeficiency virus (HIV). HIV causes severe weakening of the body's immune system.[1] A person who is infected with HIV is referred to as being HIV-infected or "HIV-positive," and may or may not have AIDS. Since the epidemic began in 1981, deaths from AIDS increased annually, and by 1994 became the leading cause of death for younger adults in the U.S.

HIV is spread through sexual contact with an infected person, by needle-sharing among injecting drug users, or, very rarely through transfusions of infected blood or blood clotting factors. Infants born to HIV-infected women may become infected before or during birth, or through breast-feeding after birth. Currently in California, reporting of AIDS cases is mandatory, and reporting of HIV is not.[2]

Adolescents (both within and out of school) and young adults are considered to be at "high-risk" for HIV infection since many of them engage in behaviors that increase the likelihood of acquiring and transmitting AIDS.[3] As part of the normal developmental process, youth experience rapid physical, cognitive, and sexual changes that can be confusing. This developmental process often involves substance use and exploration of sexuality which may be greatly influenced by peer pressure. Young people may also experience feelings of isolation, anger, and low self-esteem that lead to risk-taking. These issues are particularly relevant in certain San Francisco youth populations, namely young men having sex with men (gay/bisexual youth), youth who exchange sex for money or drugs, injection drug users, and new immigrants.[4]

Currently, there is no treatment available to cure AIDS, although new and promising drug treatments have extended survival among those who are HIV-infected and have resulted in dramatic reductions in both new cases of AIDS and deaths due to AIDS. Because of the long latency period between HIV infection and the development of AIDS, it is likely that people who are diagnosed with AIDS between the ages of 20 and 29 were infected when they were teenagers. We therefore cover in this section the occurrence of HIV and AIDS among people up to the age of 29.

HIV

Unlike AIDS, HIV infection is currently not a reportable condition in California. Therefore, HIV prevalence in the state and county can only be estimated. In May 1997, the San Francisco Department of Public Health convened a panel of local experts in HIV and AIDS research to arrive at a consensus on HIV prevalence and incidence in San Francisco.[5] The meeting resulted in an estimate that 15,249

[1] The definition for AIDS is established by the federal Centers for Disease Control. The definition for adolescents and adults was expanded in 1993 to include new laboratory test criteria and indicator diseases. Pediatric AIDS cases were not affected by the new criteria.

[2] AIDS must reported in the U.S.; HIV infection is not reportable uniformly throughout the U.S. The reported number of AIDS cases does not include those who are HIV-infected, but have not yet progressed to AIDS.

[3] U.S. Department of Health and Human Services, Healthy People 2000 [original book]

[4] Givertz, Daniel and Mitchell Katz. San Francisco Department of Public Health, AIDS Office and Special Programs for Youth, Youth and HIV Disease in San Francisco, May 1993

[5] The prevalence of HIV was defined as the proportion of the total risk population infected with HIV in 1997. The incidence of HIV was defined as the proportion of the susceptible (uninfected) population acquiring HIV infection in 1997.

persons were living with HIV in San Francisco, representing 2% of the City's population.[6] The majority of HIV infections (86%) were among men who have sex with men, the population which continues to be the most severely affected by the epidemic in San Francisco (MSM), followed by injecting drug users (IDUs) (10%), and heterosexual men and women (3%). The panel estimated that 500 new HIV infections will occur in 1998, mainly among MSM (67%) and IDUs (24%).[7]

The consensus panel developed estimates of HIV infection for selected risk populations, including MSM Non-IDU age 29 and under and infants and children age 13 and under. HIV prevalence (number of HIV-infected individuals in a population) among MSM Non-IDU age 29 and under was estimated at 15% (945 persons) or about half the rate of older (age 30 and above) MSM (33%) (10,755). HIV incidence (number of new cases of HIV infection) among MSM Non-IDU age 29 and under was estimated at 1.2% per year (64 persons) slightly higher than the incidence for MSM Non-IDU age 30 and above of 1.0% (53 persons).

Estimated HIV Incidence and Prevalence, Selected Risk Groups, San Francisco, 1997

	Population	Prevalence		Incidence	
Risk Group	Size	#	%	#	%
MSM < = Age 29	6,300	945	15%	64	1.2%
Infants/Children <= Age 13	10,500	66	0.06%	1	0.001%

Source: San Francisco Department of Public Health, HIV Seroepidemiology Unit, 1997 HIV Consensus Report on HIV Prevalence and Incidence in San Francisco

The consensus estimate for the number of infants and children living with HIV in San Francisco in 1997 was 66 (0.06%). Approximately ten HIV-positive pregnant women give birth in San Francisco each year. Considering the known rate of mother-to-child transmission combined with the availability of treatment to interrupt transmission, the consensus group estimated that one infant born in San Francisco each year (0.001%) will become HIV-infected out of approximately 8,000 to 9,000 births.

[6] Shafer, Kimberly Page, William McFarland, and Mitchell H. Katz, San Francisco Department of Public Health, HIV Seroepidemiology Unit, 1997 HIV Consensus Report on HIV Prevalence and Incidence in San Francisco

[7] Healthy People 2000 objective 18.2 is to slow the rise in prevalence of HIV infection to 400,000 per 100,000, with total U.S. case targets for MSM, IDUs, and females giving birth to live-born infants.

By Race/Ethnicity. The largest proportion (67.6%) of MSM (non-IDU) under age 30 were white (639), followed by 12.0% Latino (113), 9.5% African American (90), 9.5% Asian/Pacific Islander (90), and 1.4% "other" (13). A larger proportion of MSM (non IDU) under age 30 were non-white (32.4%) compared to older MSM (non-IDU) (age 30 and over) (23.0%).

Estimated HIV Prevalence, Selected Risk Groups, By Race/Ethnicity, San Francisco, 1997

	MSM < Age 30		Infants/Children <= Age 13	
	#	%	#	%
White	639	67.6%	28	42.4%
African-American	90	9.5%	23	34.8%
Latino	113	12.0%	8	12.1%
Asian/PI	90	9.5%	3	4.5%
Other	13	1.4%	4	6.1%
Total	945	100.0%	66	100.0%

Source: San Francisco Department of Public Health, HIV Seroepidemiology Unit, 1997 HIV Consensus Report on HIV Prevalence and Incidence in San Francisco

Whites comprise the largest proportion of infants and children age 13 and under with HIV infection at 42.5% (28), followed by African American 35% (23), Latino 12.5% (8%), Asian/Pacific Islander 5% (3), and "other" 5% (3).

AIDS

Only a portion of individuals with HIV infection are diagnosed with AIDS. As previously noted, AIDS is a reportable condition in California and the definition of AIDS is established by the federal Centers for Disease Control.

AIDS in San Francisco, All Ages. San Francisco has a large number of residents who are diagnosed with AIDS relative to the total population. The average of 2,959 cases per 100,000 residents is the highest rate in the state and 4th among U.S. metropolitan areas with populations of 500,000 or more. San Francisco is second to Los Angeles County in the total reported AIDS cases and total deaths due to AIDS. San Francisco's 22,460 reported cases represents 21% of the state's total. As of March 1998, 15,413 San Franciscans have died of AIDS. The high incidence of AIDS in San Francisco and throughout California greatly exceeds the national Healthy People 2000 goal of 43 AIDS cases per 100,000 people.[8] (Refer to the Appendix for detailed data.) As of June 1997, California was the

[8] Healthy People 2000 objective 18.1, referring to AIDS case rates, does not include subobjectives referring to the children and youth population. Additional objectives specifically for adolescents include risk reduction objectives (e.g. reduction in sexual intercourse) and services and protection objectives (e.g. HIV prevention education in schools).

fourth highest ranking state in the U.S. in the number of cases of AIDS among children less than 13 years old (549).[9]

The populations most severely affected by AIDS in San Francisco differ greatly from the U.S. as a whole. Most cases of AIDS in San Francisco, which has a large gay population, are among men who have sex with men (MSM) (80%), compared to 49% in the U.S. as a whole. In San Francisco, MSM who also inject drugs (MSM+IDU) is the second largest transmission group (10%), followed by heterosexual IDUs (6.5%) (through March 1998). This compares to the U.S. overall in which MSM+IDU account for 6% of AIDS cases and heterosexual IDUs account for 26% of AIDS cases. AIDS transmission through heterosexual contact accounts for 9% of U.S. cases and only 2% of San Francisco cases (through June 1997).

A total of 858 cases have been reported among females in San Francisco, or 3.4% of the City's total AIDS cases (through March 1998). Nationally, females represent a substantially larger proportion (16%) of AIDS cases (through June 1997). Whites represent less than one-third of the City's population, but represent 75% of the City's AIDS cases (18,983). In San Francisco, AIDS cases up to age 13 represent only 0.2% (42) of all cases to date, compared to 1.3% nationally.

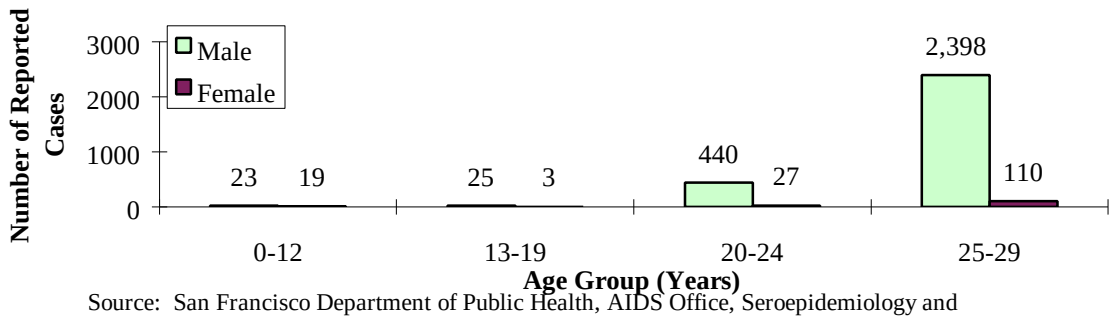
Trends. In San Francisco and throughout the U.S., persons with AIDS are living longer as both the number of new cases and the number of deaths declines. Experts attribute the decline in cases and deaths to the use of new anti-viral drugs, in combination with prevention efforts (behavior modification) which has reduced the infection rate, especially among gay men. However, young gay men continue to have high rates of HIV infection and risk behaviors.

0 to 29 Age Group. As of March 1998, 3,045 children, youth, and young adults in San Francisco up to age 29 were reported to have AIDS. These cases represent 12% of all AIDS cases in the City, a smaller proportion than the U.S. average (19%) for the same age group.[10]

Among those up to 29 years of age, a majority (82%), or 2,508 of cases are concentrated in the 25 to 29 age group, and males (2,886) account for 95% of cases.

[9] Following New York (2,008 cases), Florida (1,270), and New Jersey (693).
[10] Through March 1998 for San Francisco, and through June 1997 for U.S.

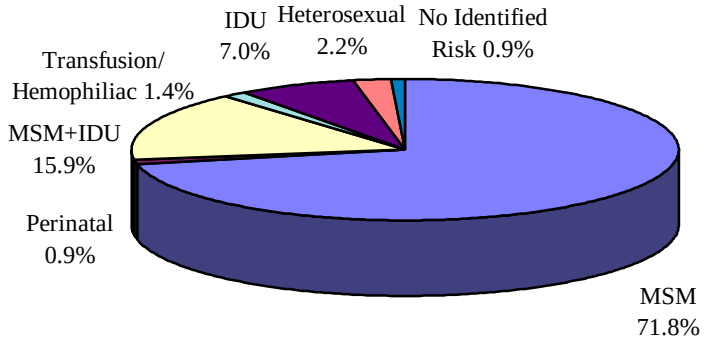
AIDS Reported Cases, By Gender, By Age Groups (0-29), San Francisco, Reported Through March 31, 1998



Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, ~~AIDS Surveillance Report~~, April 1998

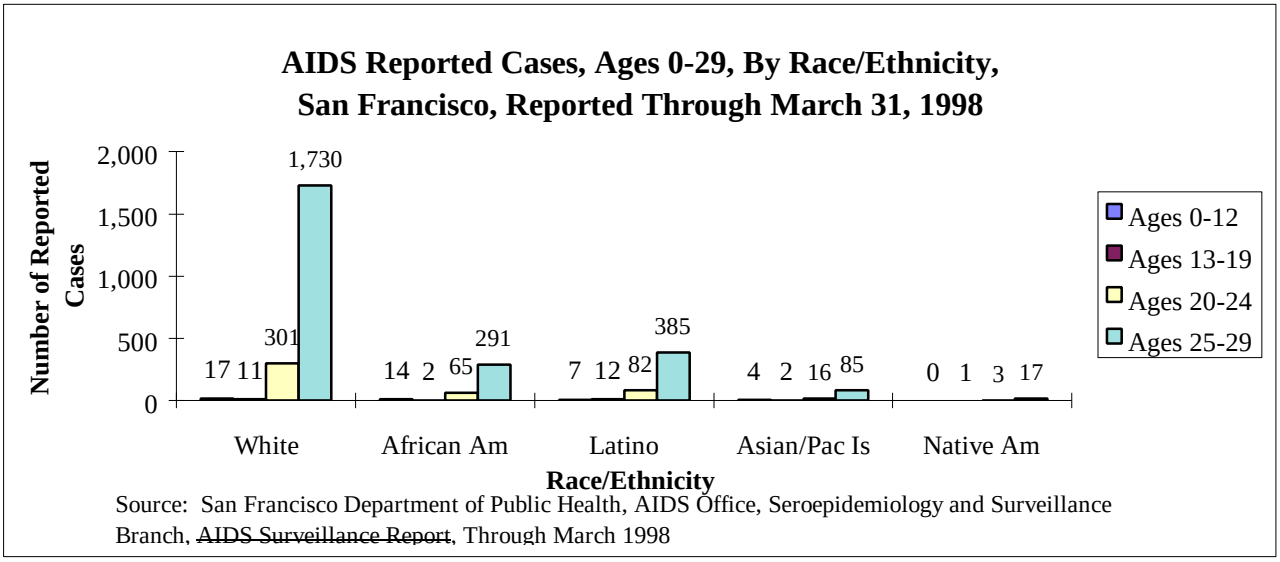
Similar to the citywide pattern of AIDS, most cases (71.8%; 2,185) within the 0 to 29 age group are among men having sex with men (MSM) or combined MSM and IDU (15.9%; 483).

AIDS Reported Cases, Ages 0-29, By Transmission Category, San Francisco, Reported Through March 31, 1998



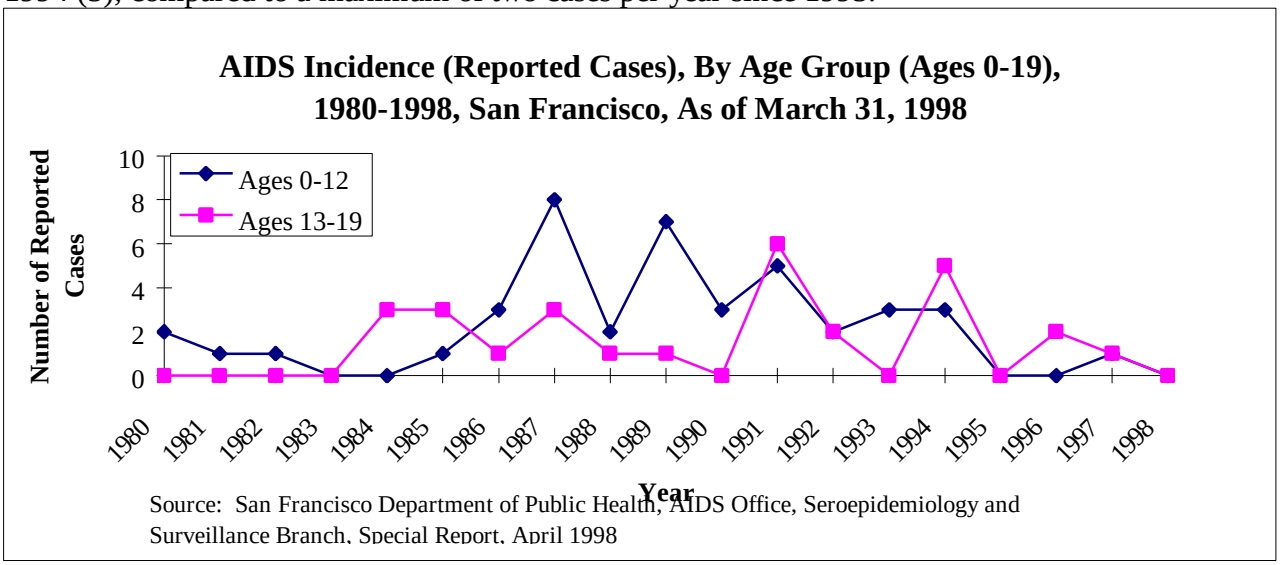
Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, Special Report, April 1998

Whites account for over two-thirds (68%) of all AIDS cases up to age 29 (2,059 cases), and represent the largest number of cases within all age groups. Following whites are Latinos (16%; 486), African Americans (12%; 372), Asian/Pacific Islanders (3%; 104), and American Indian/Alaskan Natives (1%; 21).



Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, ~~AIDS Surveillance Report~~, Through March 1998

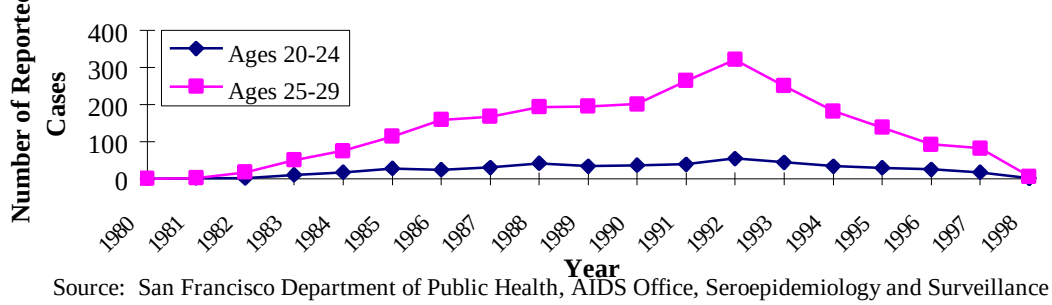
Trends. Similar to the City as a whole, the number of AIDS cases in the 0 to 29 age group is declining, most notably in the 20 to 24 and 25 to 29 age groups. The number of annual new cases of AIDS among children ages 0 to 12 has remained at zero or one since 1995, compared to a high of eight cases in 1987. The number of new cases among children and youth ages 13 to 19 peaked in 1991 (6) and 1994 (5), compared to a maximum of two cases per year since 1995.



Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, Special Report, April 1998

The number of new cases of AIDS among young adults ages 20 to 24 and ages 25 to 25 peaked in 1992 (54 and 321 cases, respectively), and has dropped for five consecutive years, to only 17 and 82 cases (data for 1998 are still incomplete). These are declines of 68% and 75% respectively, since 1992.

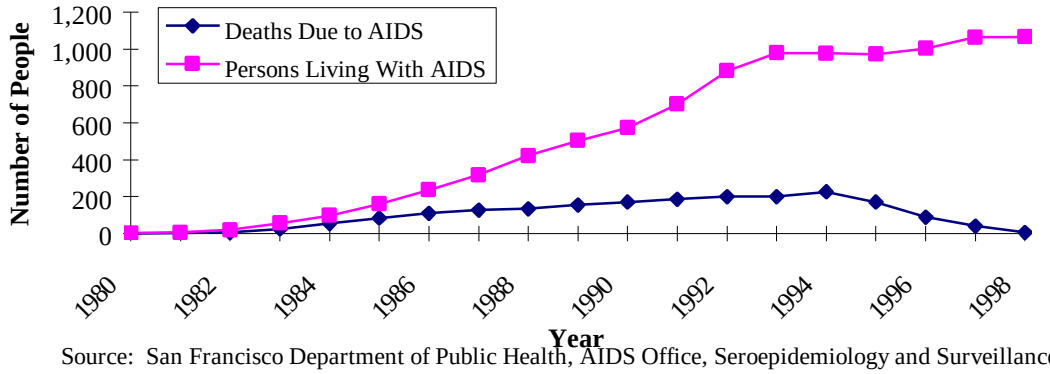
AIDS Incidence (Reported Cases), By Age Groups (Ages 20-29), 1980-1998, San Francisco, As of March 31, 1998



Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, Special Report, April 1998

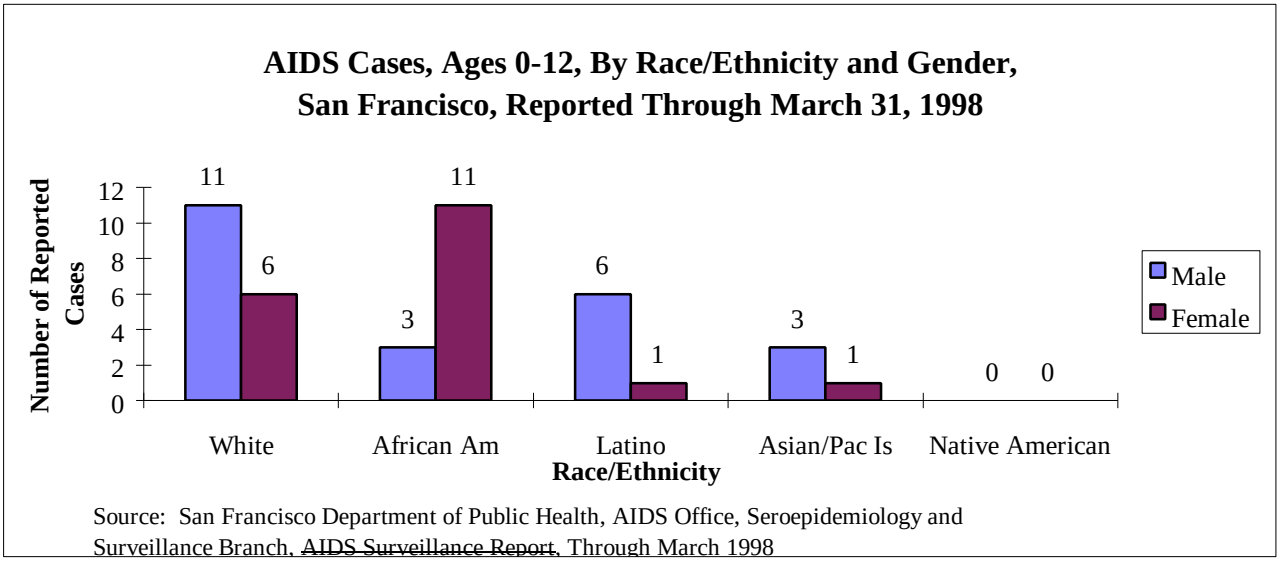
Through March 1998, a total of 1,979 San Franciscans up to age 29 have died of AIDS, representing 11.5% of all AIDS deaths (17,198) in the City. The number of San Franciscans up to age 29 dying of AIDS is also declining, by 82% since 1994 (from 226 deaths in 1994 to 40 in 1997). There is a concurrent rise in the number of persons living with AIDS (1,065 as of March 1998).

AIDS Mortality and Prevalence, Ages 0-29, 1980-1998, San Francisco, As of March 31, 1998



Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, Special Report, April 1998

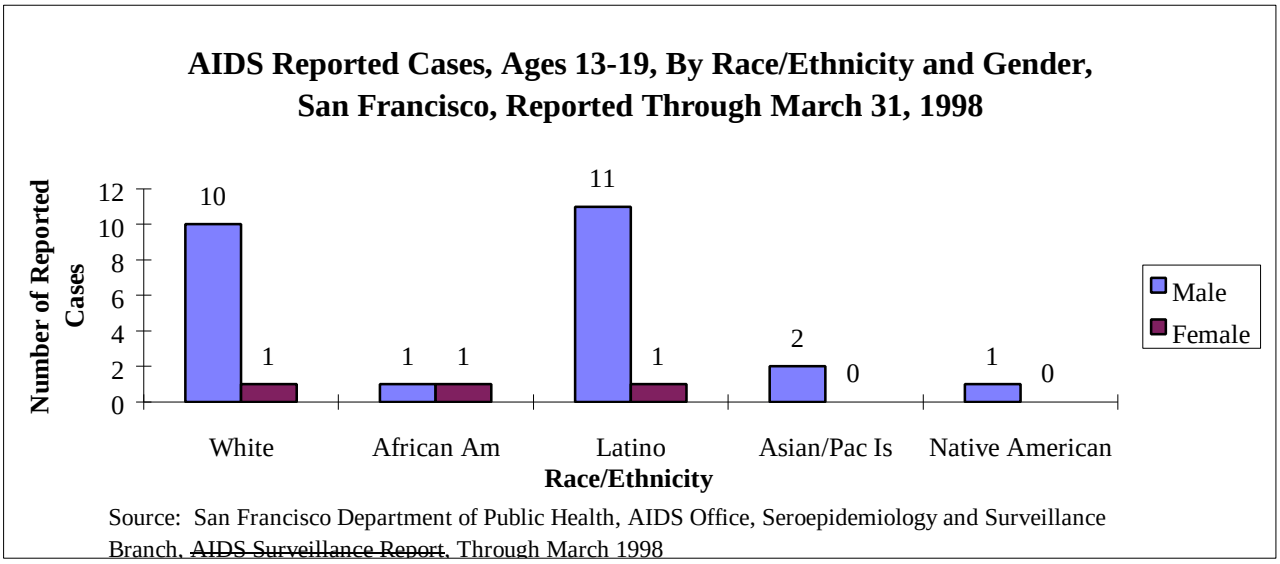
0 to 12 Age Group. Among San Francisco infants and children up to 12 years old, two-thirds of AIDS cases (27 cases) reported from 1980 through March 31, 1998 were contracted through perinatal transmission and one-third (15) were due to transfusion/hemophiliac, for a total of 42 cases in San Francisco for this age group. More males (13 cases) than females (fewer than five cases) contracted AIDS as a result of transfusion/hemophilia; males may have more exposure since certain diseases of the blood requiring blood product transfusions are generally passed on genetically through males.



Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, ~~AIDS Surveillance Report~~, Through March 1998

Whites account for two-thirds (10 of 15 cases) of transfusion/hemophiliac cases. Nearly all cases among females up to age 12 (89%;17 cases) were due to perinatal transmission. Perinatal transmission was most common among African Americans and Latinos, accounting for over 86% of cases within these two racial/ethnic groups.

13 to 19 Age Group. Twenty-eight cases of AIDS have occurred among San Francisco youth 13 to 19 years of age, with nearly all cases (25 of 28 cases) occurring among males, and over half (54%; 15 cases) within the men having sex with men (MSM) category. The second largest risk category within

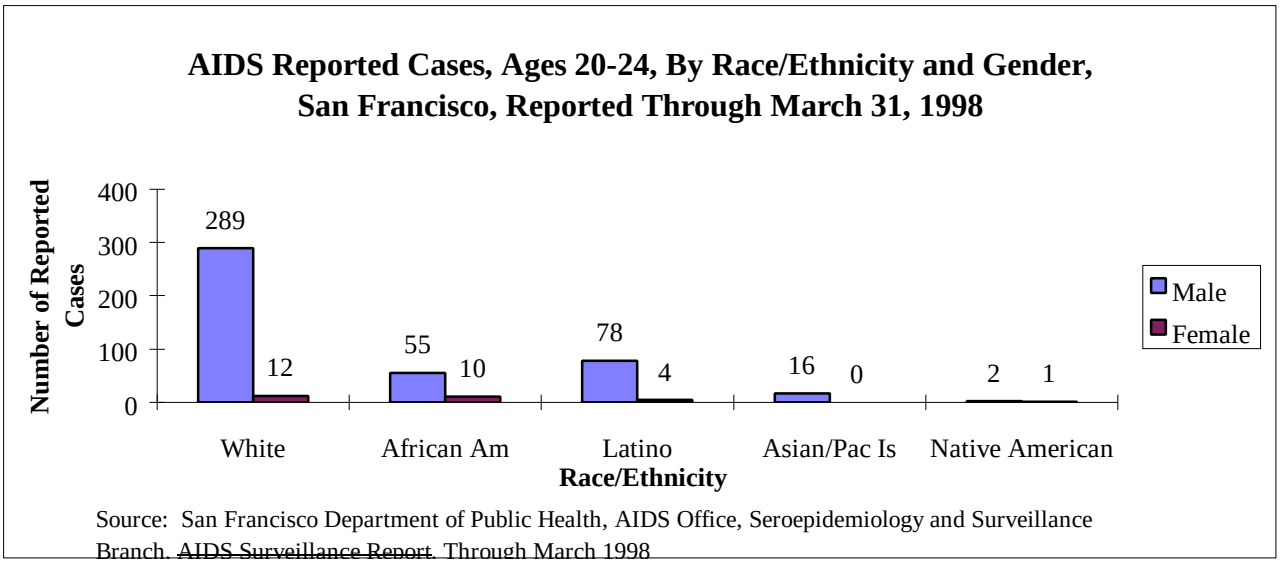


Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, ~~AIDS Surveillance Report~~, Through March 1998

this age group was transfusion/hemophiliac (21%; 6 cases). Most (84%; 21 cases) males ages 13 to 19 were White or Latino.

20 to 24 Age Group. There were 467 AIDS cases in the 20 to 24 year old age group, with MSM transmission accounting for two-thirds (65%; 305 cases) of cases. An additional 29% of cases due to the combined MSM and IDU risk group (94) or injection drug use only (43). Females account for less

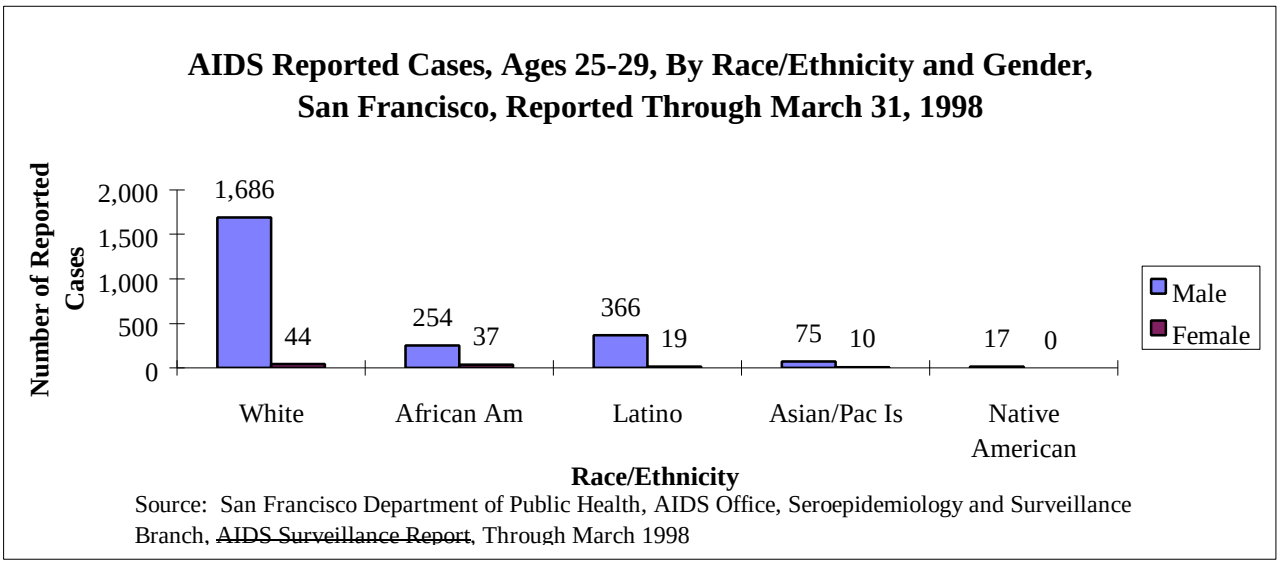
than 6% of cases in this age group (27), with nearly equal occurrence due to IDU (12) and heterosexual contact (13).



Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, ~~AIDS Surveillance Report~~, Through March 1998

Whites account for two-thirds of cases (64%; 301 cases) in this age group, followed by Latinos (17.5%; 82), African Americans (14%; 65), Asian/Pacific Islanders at (3%; 16), and Native Americans (<1%; 3). The MSM risk factor predominates in all ethnic groups, followed by the combined MSM and IDU category, and together accounted for 85% (399) of all cases in this age group.

25 to 29 Age Group. Through March 1998, there were a total of 2,508 reported cases of AIDS among the 25 to 29 age group, with nearly all (97%; 2,398) cases among males. Nearly all cases within this age group are associated with MSM or IDU-related risk factors (74% MSM; 15% MSM and IDU; 7% IDU). IDU is the primary mode of transmission among females, accounting for about half of the 58



Source: San Francisco Department of Public Health, AIDS Office, Seroepidemiology and Surveillance Branch, ~~AIDS Surveillance Report~~, Through March 1998

cases followed by heterosexual contact (41 cases). Whites comprised 69% of cases, followed by Latinos (15%), African Americans (12%), Asian/Pacific Islanders (3%), and American Indian/Alaska Native (0.7%).