

HIV/AIDS

Epidemiology Report

January 2002, Volume VI, No. 1

An annual report

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I. Executive Summary

Overall, the state of California has the second highest number of Acquired Immunodeficiency Syndrome (AIDS) cases in the United States and San Diego County has the third highest number of AIDS cases in the state of California. There have been 11,069 AIDS cases reported in San Diego County as of December 31, 2001. Highlights of this report are summarized below:

AIDS

- While white men constitute the largest bulk of new cases, and have so from the beginning of the epidemic, 50% of AIDS cases diagnosed in the last 5 years have been among persons of Hispanic, African American, Asian/Pacific Islander, and Native American heritage.
- Since 1986, the highest rate of AIDS has been in the African American community. The second highest rate of AIDS is in the Hispanic community.
- Females constitute 7% of total cases and 10% of cases diagnosed since 1999. Small numbers of cases make it difficult to ascertain if the upward trend experienced nationally is occurring in San Diego County.
- “Men who have sex with men” (MSM) continues to be the primary mode of transmission for male AIDS cases. There has been an increase in injection drug use (IDU) and heterosexual transmission.
- For women, the primary mode of transmission is heterosexual contact, followed by IDU.

HIV

- Throughout California, health care providers and laboratory staff will begin mandatory HIV reporting July 1, 2002 using a non-name code.
- Persons who seek HIV Counseling and Testing Services are predominately white males, aged 25 to 49 years, and have ‘Multiple Sexual Partners’ as their primary risk for HIV. This is changing as the age at testing includes more teens and those 50+, and the race/ethnic group becomes more diverse. In particular, more Hispanic clients are testing.
- Men who tested at San Diego County Testing facilities had a rate of HIV infection of 2.3% in 2001, up from 1.7% in 2000, while the rate decreased for women from 0.7% to 0.2%.
- While more white individuals may test, a larger percent of the Hispanic and African American testers were HIV positive, 2.4% and 1.8% respectively.
- The most frequent risk group using HIV Counseling and Testing Services was Multiple Sexual Partners but the most frequent risks group testing HIV positive were MSM and Bisexual. Four and a half percent of MSM and 3.7% of Bisexuals who tested were HIV positive compared to an overall HIV infection rate of 1.3% for all men and women who tested. The rate of HIV infection increased for MSM and Bisexual men during 2001.
- There were 174 HIV positive tests at County-run anonymous HIV Counseling and Testing Services in 2001. About 95% were male and 5% were female. Forty-four percent were Hispanic, followed by white (34%), and African American (16%).

II. AIDS in San Diego County

1. Overall AIDS Case Data

As of June 2001, California has the second highest number of AIDS cases reported in the United State. By December 31, 2001, there were 123,819 acquired immunodeficiency syndrome (AIDS) cases reported in California. A total of **11,069** of those cases were reported among San Diego County residents, making San Diego County the 3rd largest contributor of AIDS cases in California, following Los Angeles and San Francisco. **Four hundred forty-six (446)** of the 11,069 cases were reported in 2001. **Three hundred and one (301)** of which were also diagnosed in 2001. The additional 145 cases reported were diagnosed years earlier but due to delays in reporting did not show up in the database until 2001. Additional AIDS cases diagnosed in 2001 are expected to be reported throughout 2002 and into 2003. Refer to Appendix 2 for more information on data sources, reliability and limitations as well as Appendix 3 for what constitutes an AIDS case, how they are reported, and delays on reporting.

The first cases of AIDS in residents of San Diego County (2) were diagnosed in 1981. During 1993, 1141 cases were diagnosed among residents of the County (*Figure 1*). With the implementation of the expanded AIDS Surveillance Case Definition in 1993, reported cases now reflect conditions that occur earlier in Human Immunodeficiency Virus (HIV) disease. The peak in AIDS cases is likely the result of changes in the case definition. **Delays in reporting and changes in the AIDS case definition distort observed trends.**

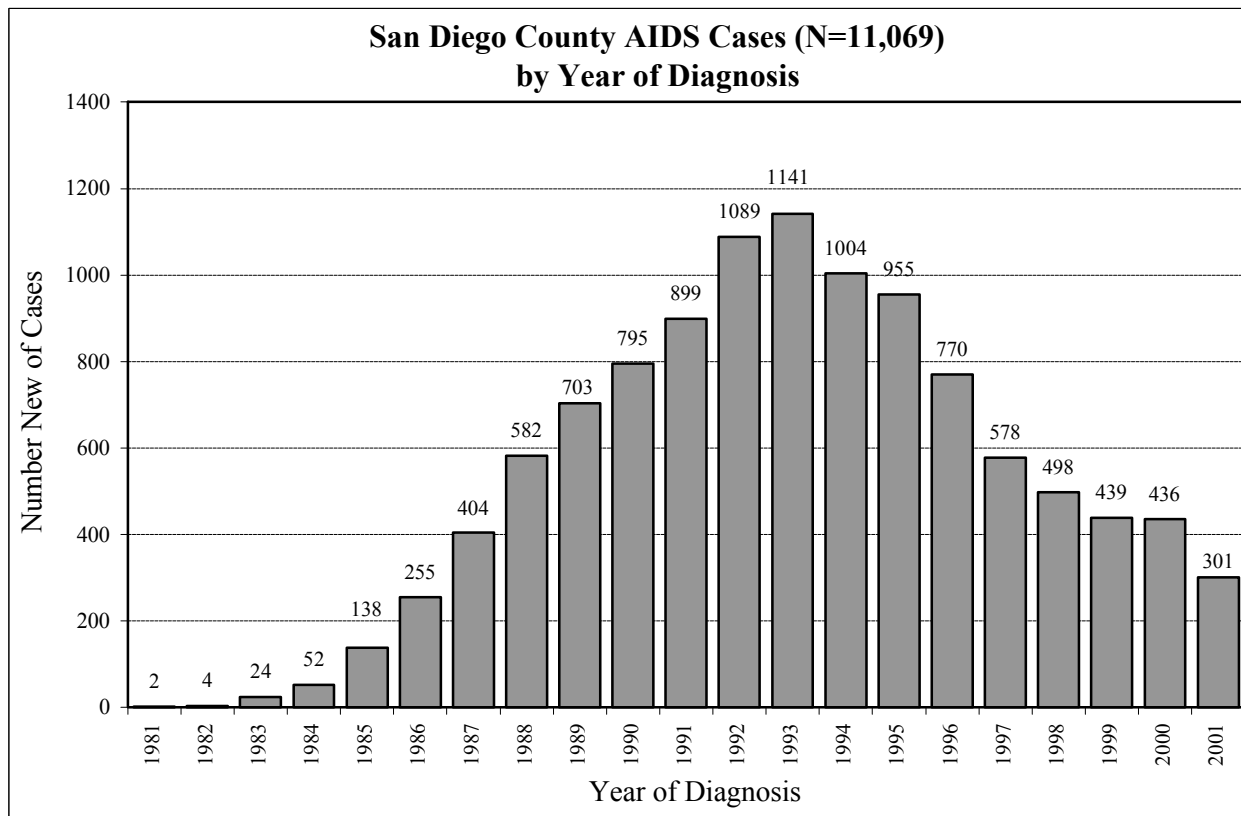


Figure 1

2. Demographic Variables

White men between 30 and 39 years of age who were living in the Central Region continue to be the group most frequently diagnosed with AIDS in San Diego County. The demographics of AIDS in this area are changing slowly. Women are starting to make up larger percentages of the yearly cases, but the numbers are still small for this group. The breakdown of new cases by race/ethnic group show that while the number of new cases in each race/ethnic group continues to decrease, that decrease is most notable among whites. Increasingly larger percentages of new cases are being diagnosed in persons of color. There has been a smaller shift in place of residence at time of diagnosis with the second most frequent region of residence at time of diagnosis moving from the north to the south. As well, there is a gradual increase in average age at time of diagnosis, though it remains in the 30 – 39 year age group.

2.1 Gender

The first female case occurred in 1984. Female cases continue to constitute less than 10% of the cumulative cases. There have been 10,292 (93%) male cases and 777 (7%) female cases as of December 31, 2001. Of the most recent cases, females made up 10% of the total cases reported (years 1999 to 2001). The trend for female cases has not been consistent over time.

There seems to be an increase in the proportion of female cases nationwide, and a more gradual increase statewide; however, the number of female cases in San Diego County is too small to distinguish a trend (*Table 1*).

Comparison of Adolescent/Adult Cases by Gender and Location

Gender	United States		California		San Diego		San Diego	
	Through 6/30/01		Through 12/31/01		Through 12/31/01		1999-2001	
	#	%	#	%	#	%	#	%
Male	649,186	83	113,961	93	10,265	93	1,053	90
Female	134,845	17	9,171	7	749	7	121	10
Total	784,032		123,132		11,014		1,174	

Table 1

2.2 Race/Ethnic Group

Cumulatively (as of 6/30/01), whites made up 42% of all cases in the United States. More locally, 60% of California's cumulative cases and 65% of San Diego County cases were white (as of 12/31/01). Twenty percent of all San Diego County AIDS cases were Hispanic, which is the same proportion statewide and close to the proportion nationally (18%). The proportion of African American cases in San Diego County is 12%, which is smaller than both at the state and national levels. At the state level African Americans constitute 17% of AIDS cases (through 12/31/01) and at the national level, 37% (through 6/30/01) (*Figure 2*). During the most recent year (2001), persons of color comprised 54% of all cases.

Comparison of Cases by Race/Ethnic Group, Location and Time Period of Diagnosis

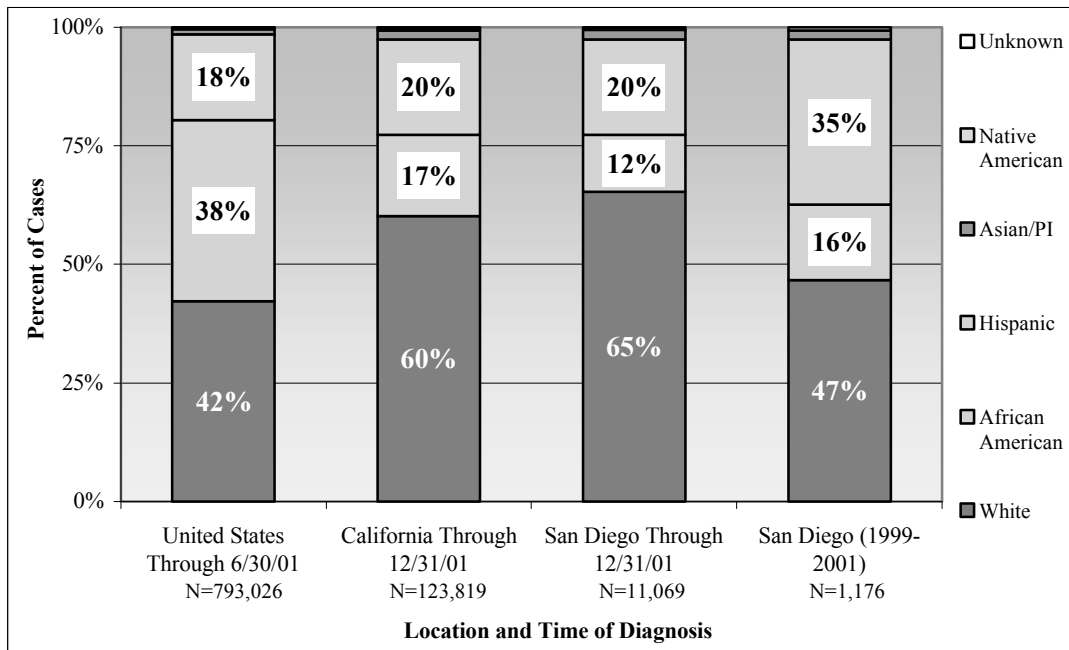
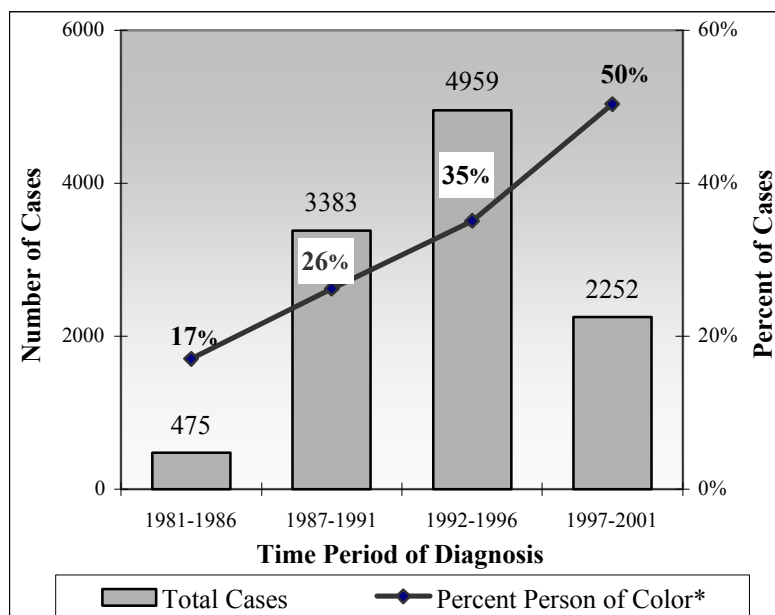


Figure 2

For a more complete breakdown of Hispanic and Asian/Pacific Islander cases, please see Appendix 5.

In contrast to what is seen at the national level, whites continue to make up the largest proportion of local cases. Gradually, however, persons of color, Hispanic and African Americans in particular, are making up increasingly larger proportions of the new cases diagnosed with AIDS (Figure 3).

Number of New Cases in Time Period and Percent Attributed to Persons of Color



*Persons of Color defined as individuals of African, Hispanic, Asian/Pacific Islander, or Native American heritage.

Figure 3

To understand the impact AIDS has on different communities in San Diego, the rates of AIDS in those communities need to be examined separately. In year 2001, San Diego County had a rate of 10 newly diagnosed AIDS cases per 100,000 persons living in the county. This rate is expected to increase as new cases diagnosed in year 2001 are reported and look more like years 2000 and 1999. In 2000 and 1999, the rate of AIDS in San Diego County was 15 per 100,000. Healthy People 2010 estimated that there were 19.5 AIDS cases per 100,000 adolescent and adults in the United States in 1998 and set a goal of 1 new case per 100,000 persons.

Not all communities in San Diego are the same size, so when rates by race/ethnic group are computed, the picture of AIDS in San Diego looks quite different than it does when examining the raw numbers of those same race/ethnic groups. Since 1986, African Americans have had the highest rate of AIDS in San Diego County. In year 2001, the rate for AIDS in the African American community was 28 per 100,000 African American residents of San Diego County. The year before, year 2000, the rate was 43 per 100,000. As new cases diagnosed in year 2001 are reported, the rate of AIDS in this community for that year will increase. The rate of Hispanics surpassed that of whites in 1996 and has remained the second highest rate ever since. Figure 4 displays the rate of AIDS in various race/ethnic groups in San Diego County from 1996 to 2000. Year 2001 data is not included because, as mentioned, it is expected to increase as more cases are reported, so it currently shows a marked decrease where one does not really exist. Asian/Pacific Islanders, and Native Americans have been grouped into the “other” category because of limitations with the population data. For more discussion on calculating rates and more specific rates by year and race/ethnic group, please see Appendix 4.

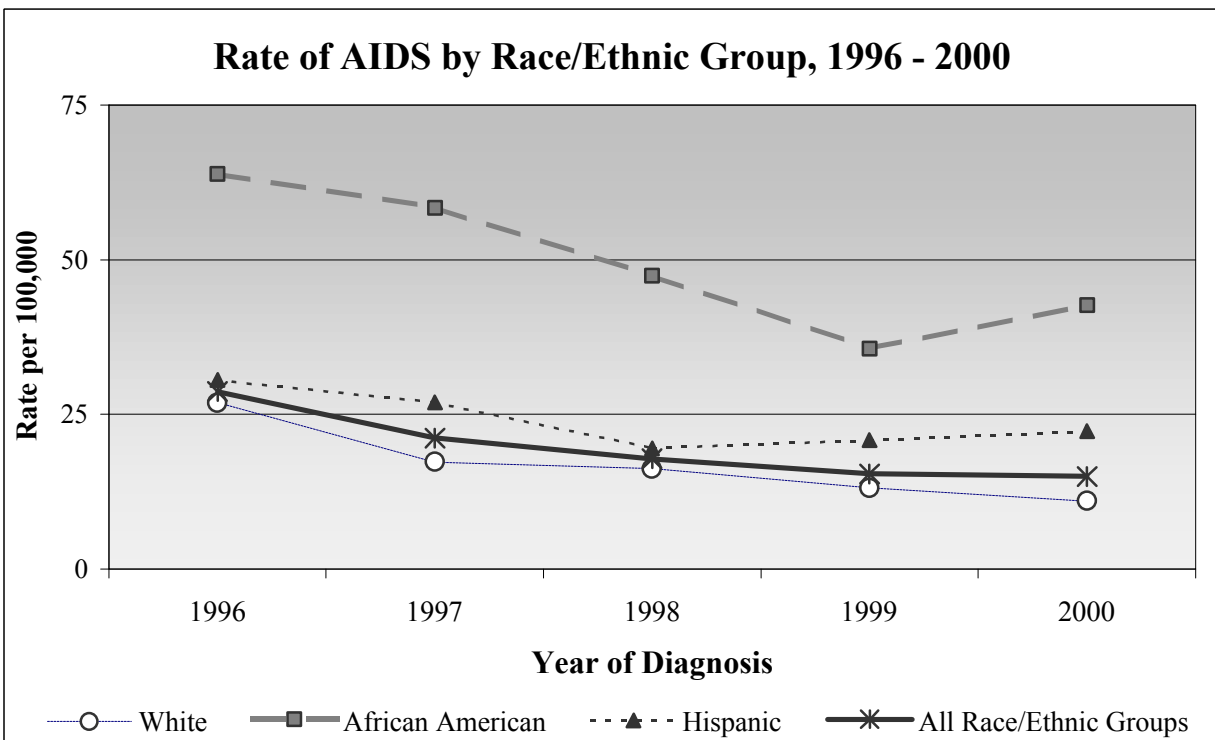


Figure 4

2.3 Age

At the national, state, and local level, the age group most frequently diagnosed with AIDS is the 30-39 year old age group. This group makes up 45% of all cases reported at the national and state level, and 47% of all cases reported in San Diego County. Locally, when the age group 30-39 years is broken down into 2 groups, the frequency among 30-34 year olds is slightly higher than the that of 35-39 year olds. The second most frequent group for all three areas is the 40-49 years followed by 20-29 years.

The age group, 30-39 years has consistently been the most frequent age group since the beginning of the epidemic. Between the time period 1981-1986 and the time period 1987-1991, the second most frequent age group has gone from 20-29 years to 40-49 years. The percent of cases diagnosed between 20-29 years of age has continued to decrease and the percent of cases diagnosed between 40-49 years has continued to increase. The “Less than 20 years” age group continues to be quite small, representing 1% or less of all cases diagnosed in each time period (Figure 5).

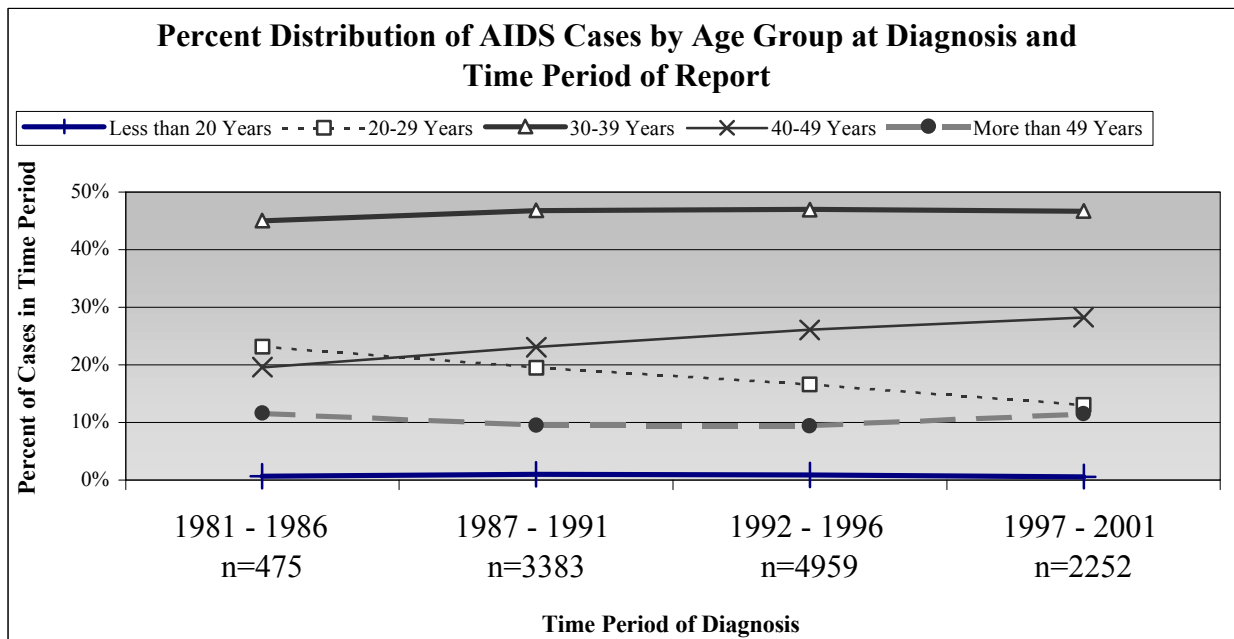


Figure 5

The average age at the time of AIDS diagnosis is 37 years of age. When age at time of diagnosis is broken down by race, Hispanics have had a lower median age at diagnosis than that of the other race/ethnic groups (Table 2). This difference, however, does not seem to be statistically significant.

Age-Related Measurements by Race/Ethnic Group Over Time

Time Period	Age Related Measurement	Race / Ethnic Group*			
		White	African American	Hispanic	Other*
1981 - 1986	Median Age	38	32	31	**
	Range in years	74	29	40	**
	Youngest Case	2	20	22	**
	N	394	32	45	**
1987 - 1991	Median Age	36	34	34	35
	Range in years	88	71	75	36
	Youngest Case	Birth	Birth	Birth	16
	N	2496	343	483	61
1992 - 1996	Median Age	37	35	34	35
	Range in years	78	69	74	69
	Youngest Case	1	Birth	Birth	Birth
	N	3219	594	997	149
1997 - 2001	Median Age	38	38	36	38
	Range in years	59	71	78	53
	Youngest Case	18	Birth	Birth	20
	N	1118	361	717	56
Cumulative	Median Age	37	36	34	35
	Range in years	88	71	78	73
	Youngest Case	Birth	Birth	Birth	Birth
	N	7227	1330	2242	270

* "Other" includes those of Asian, Pacific Islander, and Native American heritage.

** Less than 10 cases in time period

Table 2

2.4 Children and AIDS

A pediatric case is one in which the individual diagnosed with AIDS was 12 years old or younger at the time they met the case definition. Since 1981, there have been 8,994 pediatric cases in the nation. This constitutes 1.1% of all AIDS cases diagnosed nationwide. In the state of California, a smaller percent of cases, 0.34% (687) of the cases are pediatric. At a local level, slightly more cases are diagnosed in this age group than at the state level, with 0.5% (55) of total San Diego cases being pediatric cases. In recent years, the number of cases to children has been very low. There were no individuals less than 12 years of age diagnosed with AIDS in 2001 and only 5 young individuals diagnosed with AIDS since 1997.

2.5 Place of Residence

Keep in mind that the place of residence at the time of AIDS diagnosis does not represent the place of residence at the time of HIV diagnosis or the location of HIV infection. The Health and Human Services Agency (HHSA) geographically divides the County of San Diego into 6 HHSA regions. For more information about the Health Service Areas, please see Appendix 6.

While AIDS cases have been diagnosed in all parts of the county, 59% of individuals diagnosed with AIDS were living in the Central Region at the time of their diagnosis (*Figure 6*). Sixty-one percent of men and 40% of women diagnosed with AIDS were living in the Central Region at the time of their diagnosis. By race/ethnic group, 60% of white cases, 71% of African American cases, 51% of Hispanic cases, 39% of Asian/Pacific Islander cases, and 61% of Native American cases were living in this region at the time of their AIDS diagnosis.

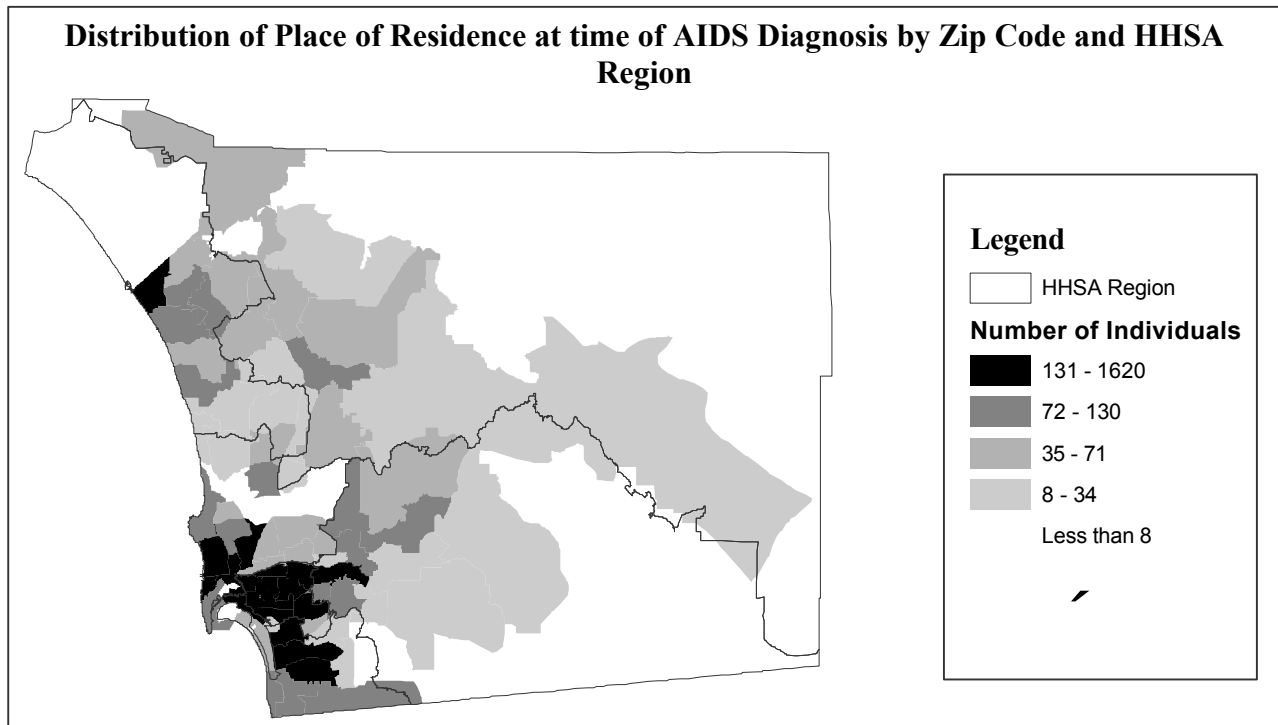


Figure 6

The percentage breakdown of race/ethnic group by region of residence at the time of AIDS diagnosis shows that in general, the largest percent of cases in each region is white with the exception of the South HHS region where the largest proportion of cases is Hispanic. As well, the vast majority of cases in each region are male (86% - 95%). (*Table 3*)

Race / Ethnic Group Breakdown by HHS Region.

Race/Ethnic Group	HHS Region					
	North Coastal	North Central	Central	South	North Inland	East
White	69%	76%	66%	32%	44%	70%
African American	9%	7%	14%	10%	3%	10%
Hispanic	19%	13%	18%	54%	13%	17%
Asian/PI	2%	3%	1%	3%	2%	2%
Native American	<1%	1%	1%	<1%	<1%	1%
Total in Region	805	1502	6545	941	805	772

Note: Percentages may not add up to 100% due to rounding.

Table 3

The majority of cases have been diagnosed in the Central HHS region. In general, the HHS region of residence at the time of diagnosis has been relatively stable with a small decrease in the Central region over the last five years and a shift in the second most frequent region of residence from the North Central region to the South region. (Table 4)

Health Service Area of Residence at Time of Diagnosis by Time Period

HHS Region of San Diego	Time Period				Cumulative Cases
	1981 - 1986	1987 - 1991	1992 - 1996	1997 - 2001	
North Coastal	7%	6%	8%	7%	7%
North Central	20%	15%	13%	11%	14%
Central	59%	61%	59%	56%	59%
South	3%	6%	8%	14%	9%
North Inland	5%	4%	5%	4%	5%
East	6%	8%	6%	7%	7%
Number of Cases	475	3383	4959	2252	11069

Note: Percentages may not add up to 100% due to rounding.

Table 4

Over time, reported AIDS cases in all of the HHS regions have become more diverse in their race/ethnic breakdown. Primarily, this is due to the increase in percent of cases attributed to persons of color. This diversity is primarily displayed as a decrease in white cases and an increase in African American and Hispanic cases. The following table (9) breaks down the six regions by race / ethnic group and compares the second 5-year time period (1987 - 1991) with the most recent years of the epidemic (1997 - 2001). In the first 5 years of the epidemic some of the regions had very small numbers of cases diagnosed in their area.

Comparison of Race/Ethnic Breakdown by HHS Region and Time Period of Diagnosis

Region	Time Period	Race / Ethnic Group				Number in Time Period
		White	African American	Hispanic	Other*	
North Coastal	1987 - 1991	75%	8%	14%	3%	217
	1997 - 2001	61%	13%	23%	4%	165
North Central	1987 - 1991	83%	5%	10%	2%	494
	1997 - 2001	62%	15%	20%	3%	250
Central	1987 - 1991	74%	12%	13%	1%	2047
	1997 - 2001	51%	19%	27%	2%	1286
South	1987 - 1991	42%	10%	45%	3%	219
	1997 - 2001	19%	11%	69%	2%	309
North Inland	1987 - 1991	47%	2%	10%	2%	238
	1997 - 2001	36%	2%	21%	3%	154
East	1987 - 1991	79%	8%	10%	3%	261
	1997 - 2001	57%	15%	24%	4%	165

* Other includes those of Asian, Pacific Islander, and Native American heritage.

Note: Percentages may not add up to 100% due to rounding.

Table 5

While women with AIDS are also most frequently residing in the Central region at the time of their diagnosis (40%), they are more evenly distributed throughout the San Diego County than male cases. There seem to be small shifts toward the Central region and away from the East and North Central regions. Table 10 displays the distribution of female cases throughout San Diego County over time.

Distribution of Female Cases in HHSA Regions over Different Time Periods

HHSA Region of San Diego	Time Period			Cumulative Cases
	1981 – 1991*	1992 - 1996	1997 – 2001	
North Coastal	23 (12%)	46 (13%)	25 (11%)	94 (12%)
North Central	26 (14%)	56 (15%)	28 (12%)	110 (14%)
Central	64 (34%)	143 (40%)	107 (47%)	314 (40%)
South	27 (15%)	46 (12%)	35 (15%)	107 (14%)
North Inland	22 (12%)	38 (10%)	11 (5%)	71 (9%)
East	24 (13%)	34 (9%)	23 (10%)	81 (10%)
Number of Cases	186 (100%)	362 (100%)	229 (100%)	777 (100%)

* In the first years of the epidemic, 1981-1986, there were only 13 female cases, the cases from that time period have been included in the second time period, 1986-1991, so that the distribution of early cases can be examined without the problems of small cell sizes.

Note: Percentages may not add up to 100% due to rounding.

Table 6

Place of residence can be further broken down to city of residence within San Diego County. Cumulative cases by the city of residence in San Diego County at the time of diagnosis are displayed in Appendix 7.

2.6 Place of Origin

The majority of AIDS cases diagnosed in San Diego County were among individuals born in the United States. Of the 11,069 cases diagnosed in San Diego County, 13% of the total cases were born in foreign countries, 1% were born in a United States dependency.

Those born outside of the United States in either a US Dependency or a foreign country account for 54% of the 208 Asian/Pacific Islander cases and 53% of the 2241 Hispanic Cases. There were no Native Americans born outside of the USA and only 2% of white and 4% of African American cases were born outside of the United States. While country of birth is recorded, the length of time a person has resided in the United States is not. Those who arrived in the United States shortly after birth cannot be differentiated from those who are newly arrived.

When foreign-born (US dependency or other country) individuals with AIDS are examined by race, the most frequent group is Hispanic constituting 79% of all foreign and US dependency born persons. While a large percent of Asian/Pacific Islander cases were foreign or US-dependency born, this race/ethnic group represents only 7% of those individuals diagnosed with AIDS born outside of the USA. This is primarily due to their small numbers. Ten percent of white cases and 14% of African American cases were born outside of the USA in either a US-dependency or foreign country.

An analysis of Hispanic cases by time period by country of birth and gender shows that a larger percent of females are foreign-born and that an increasing percent of Hispanics are foreign-born (*Table 7*). Male and female Hispanic cases show a relatively similar pattern for place of birth over time. Asian/Pacific Islander cases show a larger percent of female AIDS cases being foreign-born. Due to small numbers, the percentages shown for Asian/Pacific Islander cases should be interpreted with caution. Most of the foreign-born Hispanics (82%) were born in Mexico and the majority of foreign-born Asian/Pacific Islanders (70%) were born in the Philippines.

Hispanic AIDS Cases by Gender and Place of Birth by Time Period

Gender	Place of Birth	Time Period			Cumulative
		1987 – 1991*	1992 – 1996	1997 - 2001	
Male	US born	55%	51%	36%	47%
	US Dependency born	4%	2%	1%	2%
	Foreign Born	41%	47%	62%	50%
	Number in Time Period	484	908	647	2039
Female	US born	55%	40%	40%	43%
	US Dependency born	5%	4%	<1%	3%
	Foreign Born	41%	55%	60%	54%
	Number in Time Period	44	89	70	203

* Some of the cell sizes for the first time period of the epidemic were small, so the first 2 time periods, 1981-1986 and 1987 to 1991 were combined.

Note: Percentages may not add up to 100% due to rounding.

Table 7

3. Mode of Transmission

Mode of transmission has remained relatively stable over time with “men who have sex with men” (MSM) consistently contributing the largest number of cases. Since 1987, the proportions of cases attributed to Injection Drug Use (IDU), and to a lesser extent Heterosexual transmission, have been growing. In the following figure (*Figure 7*) the distribution of transmission mode is presented by year of diagnosis.

Distribution of Mode of Transmission San Diego County, 1990 - 2001

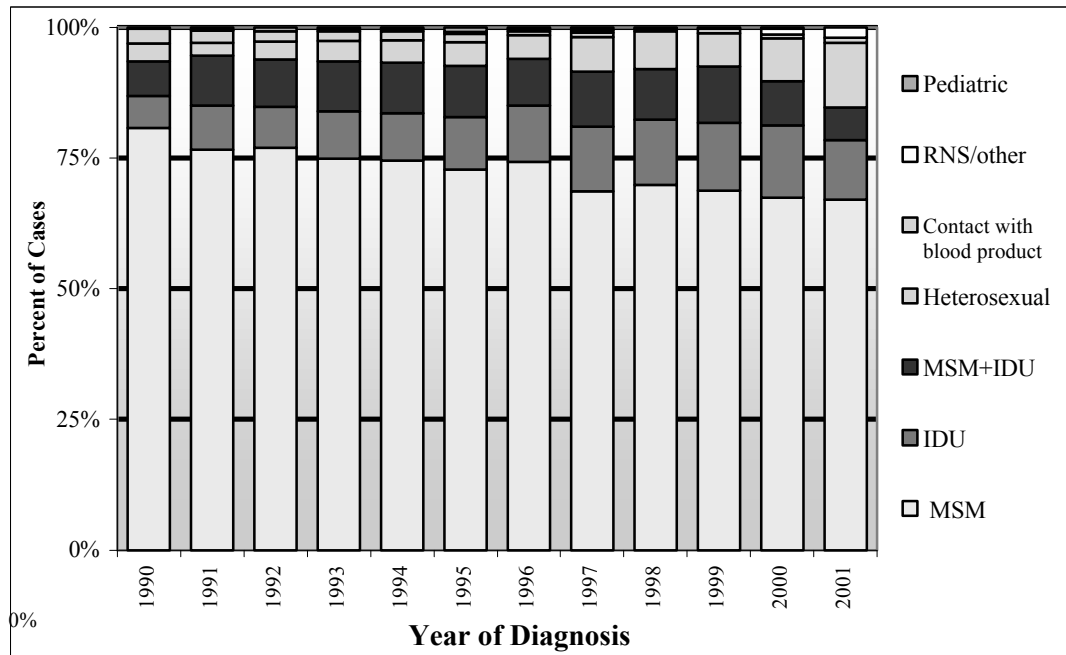


Figure 7

Cumulatively, MSM constitutes 76% of the AIDS cases, followed by both IDU (injection drug use) and the combined category, MSM and IDU at 9% each. There has been a slow decrease in percentage of cases attributed to MSM and a gradual increase of IDU. The percentage of cases attributed to Heterosexual transmission is proportionally highest in 2001.

When the genders are separated, the percent distribution for mode of transmission changes. While IDU (heterosexual and MSM) and heterosexual contact combined constitute less than 20% of male cases, those two risk groups combined are attributed to 89% of the female cases. While heterosexual contact make up a larger proportion of female cases than injection drug use, the primary risk factor for heterosexual cases is sexual contact to an injection drug user. See figures 8 and 9 for a breakdown of mode of transmission for each gender.

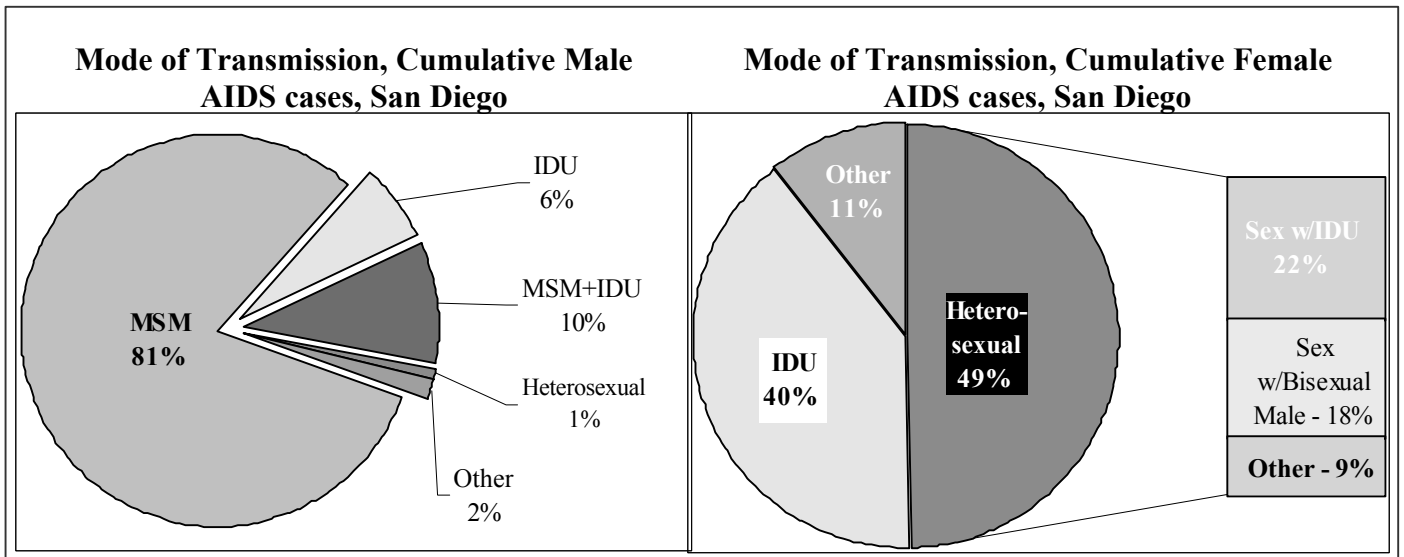


Figure 8

Figure 9

When Mode of Transmission is broken down into 5-year time periods by gender (Table 8), the decrease in percentage of male cases attributed to MSM can be seen. This decrease, however, is not statistically significant. There has also been a gradual increase of IDU transmission modes for men, with a significant increase between the years 1981-1986 and 1987-1991 (first and second time periods) and well as a significant increase between the years 1987-1991 and 1992-1996 (second and third time periods). While IDU is not significantly higher in the last 5-years from the preceding 5-year time period, it is significantly higher than the first 6 years of the epidemic. Heterosexual contact still makes up a small percentage of HIV transmission in men each year. This transmission mode, however, is significantly higher in the last 5 years than any preceding time period.

For women, heterosexual transmission continues to be the most frequent risk factor for HIV transmission. While the percent of cases attributed to heterosexual transmission per time period seems to be increasing, these increases are not statistically significant. The same is true with IDU risk factor for women. The percentage of cases that are attributed to IDU continues to increase but the numbers are too small to tell if the increase is statistically significant. What has been significant for women is a drop in cases related to exposure to contaminated blood and/or blood products. In each of the last 2 time-periods a significantly smaller proportion of female cases can be linked to this route of HIV exposure.

There have been 28 female pediatric AIDS cases. This constitutes 4% of all female cases. While this age group is proportionately larger for females than it is for males, the actual number of cases is not very different. There have been 27 male pediatric cases.

AIDS Cases by Gender, Mode of Transmission, and Time Period of Diagnosis

Gender	Mode of Transmission	Time period				Cumulative
		1981 - 1986	1987 - 1991	1992 - 1996	1997 - 2001	
Male	Adolescent/Adult:					
	Homosexual / Bisexual (MSM)	86%	83%	81%	76%	81%
	Injection Drug Use (IDU)	2%	5%*	7%*	9%	6%
	MSM + IDU	8%	9%	10%	10%	10%
	Heterosexual	<1%	<1%	<1%	3%*	1%
	Transfusion/Transplant/Hemophiliac	4%	2%	1%	<1%	1%
	Risk Not Specified/Other	<1%	<1%	<1%	<1%	<1%
	Pediatric (0 - 12 years):					
All modes of transmission	<1%	<1%	<1%	<1%	<1%	
	Number in Group	462	3210	4597	2023	10292
Female	Adolescent/Adult:					
	Injection Drug Use (IDU)	15%	36%	39%	41%	38%
	Heterosexual	31%	38%	49%	54%	48%
	Transfusion/Transplant/Hemophiliac	31%	20%	7%*	1%*	9%
	Risk Not Specified/Other	<1%	<1%	1%	3%	2%
	Pediatric (0 - 12 years):					
All modes of transmission	23%	6%	3%	1%	4%	
	Number in Group	13	173	362	229	777

*Significantly different from preceding time period

Note: Percentages may not add up to 100% due to rounding.

Table 8

Mode of transmission for male adult or adolescent cases by race/ethnic group and time period show a similar trend among groups (Table 9). Men who have sex with men is the biggest risk factor in all race/ethnic groups and in all time periods. MSM in the African American community is attributed to a significantly smaller percent of white and total cases in the earlier time period, and remains a significantly smaller proportion compared to the white cases in the second time period (1997-2002). MSM in the African American male population is not significantly lower than this transmission mode in the Hispanic community. In each race/ethnic group, the percent of cases attributed to this transmission mode has slightly decreased from the first time period that is examined in the table.

IDU is the second most frequent transmission mode among adult/adolescent males. For white men, MSM who are also IDU are more frequent than heterosexual IDU. This is the reversed in African American and Hispanic men, where a larger proportion of cases are among heterosexual IDUs and less among MSM+IDU. When contrasting the time period 1987-1991 with 1997-2001, the proportion of cases attributed to heterosexual IDU is up significantly among combined race/ethnic groups as well as among African American and whites. MSM+IDU has increased in proportion among each race/ethnic group but the increase is not statistically significant.

Unlike males, heterosexual contact is the primary mode of transmission for adult/adolescent women in general, followed by Injection Drug Use. When race/ethnic groups are broken out, heterosexual contact remains the primary mode of transmission for African American and Hispanic women diagnosed since 1997 while the primary mode of transmission for white women is Injection Drug Use (Table 10). The proportion of cases attributed to heterosexual contact between the time periods, 1978-1991 and 1997-2001 has increased, with whites being the exception. Between these two time periods, this risk factor in white women decreased by 1%. The proportion of cases attributed to injection drug use has decreased among African American and Hispanic women but has increased in white women and women in general. The most dramatic change between the two time periods is the large decrease in cases attributed to contaminated blood and/or blood products. Due to the small number of cases, statistical differences were found only in the decrease of cases attributed to contaminated blood / blood products. Other differences between race/ethnic groups and/or time periods were not found to be significant due to small cell sizes.

Adolescent/Adult Male AIDS Cases by Mode of Transmission, Race/Ethnic Group and Time Period

Mode of Transmission	Race / Ethnic Group						All Race / Ethnic Groups	
	White		African American		Hispanic		1987-1991	1997-2001
	1987-1991	1997-2001	1987-1991	1997-2001	1987-1991	1997-2001		
MSM	86%	78%	65%	63%	80%	79%	84%	76%
IDU	2%	8%	16%	18%	13%	9%	5%	9%
MSM +IDU	9%	12%	14%	15%	12%	8%	9%	10%
Heterosexual	<1%	1%	3%	6%	4%	3%	1%	3%
Not Specified / Other	2%	<1%	2%	2%	3%	2%	2%	1%
Number in Group and Time period	2406	1040	299	288	437	646	3198	2021

Table 9

Adolescent/Adult Female AIDS Cases by Mode of Transmission, Race/Ethnic Group and Time Period

Mode of Transmission	Race / Ethnic Group						All Race / Ethnic Groups	
	White		African American		Hispanic		1987-1991	1997-2001
	1987-1991	1997-2001	1987-1991	1997-2001	1987-1991	1997-2001		
IDU	33%	58%	57%	39%	32%	26%	38%	41%
Heterosexual	41%	40%	40%	56%	35%	69%	40%	55%
Contaminated blood*	24%	<1%	2%	3%	32%	1%	21%	1%
Not Specified/ Other	1%	3%	<1%	1%	<1%	3%	0.6%	3%
Number in Group	82	78	42	71	34	68	163	226

*Contaminated Blood and/or blood products

Note: Percentages may not add up to 100% due to rounding.

Table 10

4. Health Outcomes

To have an AIDS diagnosis, it is not enough to be HIV infected. An infected person must also have one of a number of other conditions defined by the Centers for Disease Control and Prevention (CDC) to be considered an AIDS case. (Refer to Appendix 3, Reporting AIDS Cases, for more information about the CDC's case definition of AIDS and how cases are reported.) Individuals with AIDS in San Diego have experienced a number of different infections, the most common AIDS-defining infection for adolescent and adult cases is *Pneumocystis carinii pneumonia*, which was one of the original AIDS defining conditions.

In recent years, individuals with AIDS are living not only healthier lives, but living longer. With the introduction of new medications, many opportunistic infections that were commonplace at the beginning of the epidemic are less frequent in recent years. The case fatality rate, computed by dividing the number of people with AIDS who have died by the total number of people with AIDS, has also been decreasing over time.

4.1 Opportunistic Infections

The following two tables show the different indicator diseases experienced by San Diego residents that met the AIDS case definition, as defined by the CDC. There are some differences in how an adolescent and adult case (*Table 11*) or pediatric case (*Table 12*) can meet the definition.

Since one individual can have multiple health events, the total may exceed the number of cases.

Frequency of Indicator Diseases* Among Reported Adolescent/Adult AIDS Cases in San Diego**

Indicator Disease	Frequency	Percent
<i>Pneumocystis carinii pneumonia</i>	3270	30%
CD4 count <200 $\mu\text{L}/\text{mm}^3$ or <14%***	3139	29%
Wasting syndrome	1792	16%
Kaposi's Sarcoma	1494	14%
<i>Mycobacterium avium</i> complex or <i>M. kansasii</i>	1050	10%
Esophageal candidiasis	884	8%
HIV encephalopathy	776	7%
Cytomegalovirus	686	6%
Cytomegalovirus retinitis	597	5%
Cryptococcosis	568	5%
Cryptosporidiosis	451	4%
Immunoblastic lymphoma	388	4%
<i>M. tuberculosis</i> , pulmonary	325	3%
Toxoplasmosis of the brain	278	3%
Herpes simplex, invasive or chronic	283	3%
<i>M. tuberculosis</i> , disseminated or extrapulmonary	215	2%
Lymphoma, primary in brain	180	2%
Progressive multifocal leukoencephalopathy	159	1%

Pneumonia, recurrent in 12 month period	92	1%
Pulmonary candidiasis	65	1%
Mycobacterium, of other species or unidentified species	62	1%
Histoplasmosis	48	0%
Coccidioidomycosis	48	0%
Burkitt's lymphoma	35	0%
Salmonella septicemia, recurrent	25	0%
Isosporiasis	24	0%
Carcinoma, invasive cervical	1	0%

* This list may not be a complete accounting of all the indicator conditions experienced as there is limited time to track additional opportunistic infections as disease progresses.

** The sum of percentages is greater than 100 because some patients are reported with more than one AIDS indicator disease or condition.

*** Defined as a CD4+ T-lymphocyte of less than 200 mL/mm^3 or a percentage less than 14% in adult/adolescents who meet the AIDS surveillance case definition.

Table 11

Frequency of Indicator Diseases* Among Reported Pediatric AIDS Cases in San Diego**

Indicator Disease	Frequency	Percent
Wasting syndrome	25	45%
Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia	18	33%
<i>Pneumocystis carinii</i> pneumonia	18	33%
HIV encephalopathy	17	31%
Esophageal candidiasis	14	25%
Cytomegalovirus	11	20%
<i>Mycobacterium avium</i> complex or <i>M. kansasii</i>	11	20%
Pulmonary candidiasis	6	11%
Cytomegalovirus retinitis	4	7%
Cryptosporidiosis	4	7%
Immunoblastic lymphoma	4	7%
Recurrent/multiple bacterial infections	5	9%
<i>M. tuberculosis</i> , disseminated or extrapulmonary	2	4%
Progressive multifocal leukoencephalopathy	2	4%
Herpes simplex, invasive or chronic	1	2%
Lymphoma, primary in brain	1	2%
<i>Mycobacterium</i> , of other species or unidentified species	1	2%

* This list may not be a complete accounting of all the indicator conditions experienced as there is limited time to track additional opportunistic infections as disease progresses.

** The sum of percentages is greater than 100 because some patients are reported with more than one AIDS indicator disease or condition. A CD4+ T-lymphocyte of less than 200 mL/mm^3 or a percentage less than 14% in a pediatric patient does not meet the CDC AIDS case definition.

Table 12

4.2 Mortality Status

In 1993, a change in the definition of AIDS created a spike in the number of AIDS cases reported. Since this time, the number of new cases per year has been steadily dropping (*Figure 10*). There were 13% fewer cases diagnosed in 1999 than 1998. Between 1999 however and 2000, there was a decrease of only 1% (*Table 13*). Year 2001 numbers are still tentative and will increase as more cases diagnosed in 2001 are reported in 2002.

The number of AIDS deaths has also been dropping thus the case fatality rate decreases every year. (*Table 13*). As of December 31, 2001, a total of 6,259 deaths have been reported with an overall case fatality rate of 57%. As people with AIDS begin to live longer, healthier lives, the age group of persons with AIDS begins to get older. The average age at AIDS diagnosis is 37 years. The average age of persons currently living with a diagnosis of AIDS is 42 years. While it's easy to imagine persons with HIV or AIDS as being middle aged or slightly younger, 175 of the persons diagnosed with AIDS in San Diego County are 60 years of age or older. As well, 15 of the young children diagnosed with AIDS are still less than 13 years old – and 12 individuals are growing out of childhood into the teen and young adult years (*Table 14*).

New cases and a decline in the case fatality rate means that each year more individuals are living with AIDS in San Diego County (*Figure 11*). In 2001, 4,810 persons were living with AIDS, compared to 2,504 in 1993.

San Diego County AIDS Cases by Year of Diagnosis and Status (N=11,069)

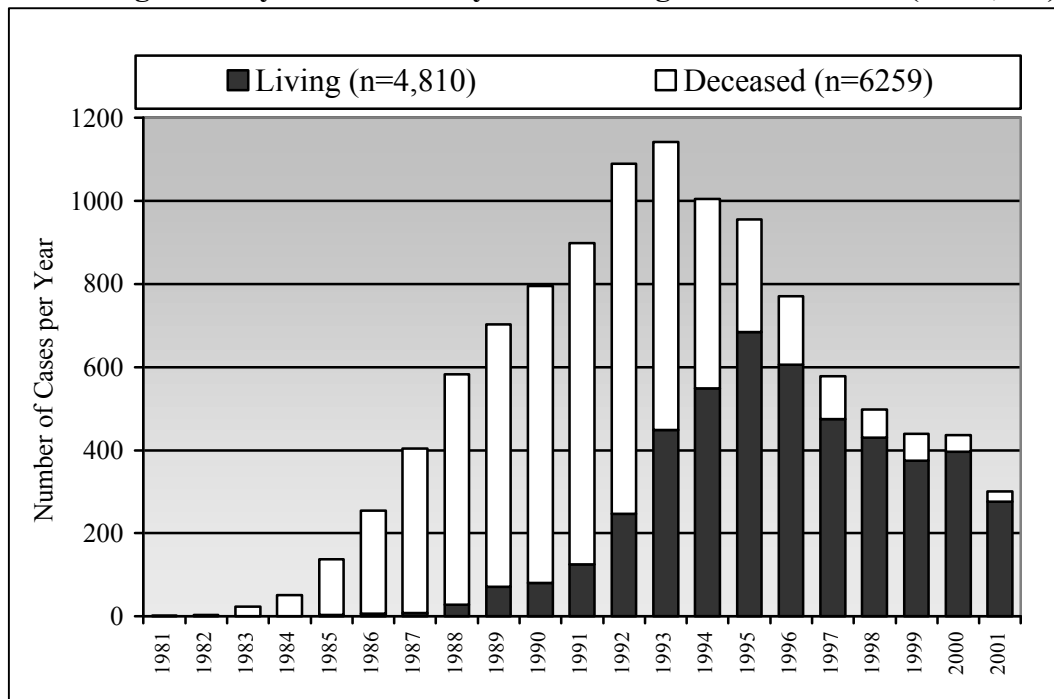


Figure 10

Number of Persons Diagnosed and Living with AIDS in San Diego County, 1981 - 2001

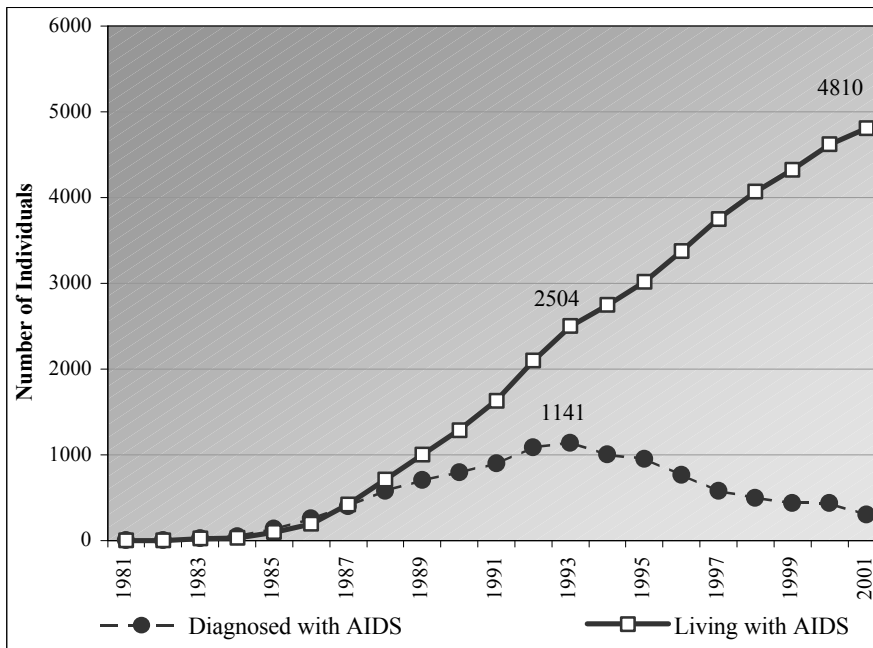


Figure 11

San Diego County AIDS Cases, Deaths, and Fatality Rate over Time

Number of Cases, Deaths and Fatality Rate	Time Period				
	Prior to 1997	1997	1998	1999	2000
New Cases	8817	578	498	439	436
Percent Change	**	-33%***	-16%	-13%	-1%
Number of Deaths	5958	104	68	64	40
Percent Change	**	-58%***	-53%	-6%	-60%
Cumulative Cases	8817	9395	9893	10332	10768
Cumulative Deaths	5958	6062	6130	6194	6234
Case Fatality Rate	68%	18%	14%	15%	9%

* Year 2001 data is still considered preliminary.

** Cumulative Data

*** Compared to 1996 data

Table 13

Current Age of Individuals Living with AIDS in San Diego

Age Group in Years	Frequency	Percent	Cumulative Percent
Less than 13	15	0.3%	0.3%
13-19	12	0.2%	0.6%
20-29	200	4%	4.7%
30-39	1814	38%	42.4%
40-49	1879	39%	81.5%
50-59	715	15%	96.4%
60-69	143	3%	99.3%
More than 69	32	0.7%	100.0%
Total	4810	100%	

Table 14

5. AIDS Summary

There have been 11,069 individuals diagnosed with AIDS in San Diego County since the beginning of the epidemic. The number of new cases per year has been decreasing since the definition change in 1993. The effect of the definition change was that individuals with HIV were diagnosed with AIDS earlier in their illness. Concurrent medical advances resulted in an increased time from HIV to AIDS. Between 1998 and 2000, the number of new cases diagnosed per year has been in the 400s. It is expected that cases already diagnosed in 2001 will be reported in 2002, bringing the number of 2001 cases also into the 400s.

Individuals diagnosed with AIDS in San Diego County are most commonly white, male, between 30 to 39 years of age, and have male sexual partners. Over the years, this has been slowly changing with larger percentages of people diagnosed being of African or Hispanic race/ethnic group, in their 40s or older, and having used injection drugs.

While the number of AIDS cases has decreased, this decrease has not been uniform. The largest decrease has been in the white community shifting the proportional burden from whites to persons of color. The African American community has had the highest rate of AIDS since the mid-1980s and their annual rate of AIDS is two to three times the rate in the white community. The Hispanic community has the second highest rate of AIDS, twice the rate of AIDS in the white and less than half the rate of the African American communities.

The average age at the time of diagnosis has been slowly increasing over the years regardless of race/ethnic group. The average age at the time of diagnosis from 1997 to 2001 is 38 years of age with Hispanics having a slightly younger age (36 years). Examining AIDS data alone cannot tell us if this age increase is due to later age at HIV infection or successful medications which allow an HIV infected individual to live healthier and increase the time until they meet the case definition for AIDS.

The most frequent place of residence at the time of AIDS diagnosis is the Central HHS region. Sixty-one percent of the men and 40% of the women diagnosed with AIDS were living in the Central Region at the time of their diagnosis. The second most frequent place of residence since 1997 is the South Region. The cases diagnosed in the South are predominately Hispanic (54%) and white (32%).

For men, the predominate mode of transmission is MSM followed by MSM+IDU. Over the years, IDU has become a more frequent mode of transmission in men. In women, IDU is a very important risk factor. Directly being an IDU accounts for 40% of the female cases and having a male sexual partner who is an IDU accounts for another 22% of female cases. Heterosexual contact is the most frequent mode of transmission for women.

While AIDS was once considered a quickly fatal illness, the advances in medicine and medical treatment have allowed individuals with AIDS to live longer, healthier lives. Although the number of individuals newly diagnosed with AIDS has been decreasing, the number of individuals living with an AIDS diagnosis continues to increase. To date, there are approximately 4,810 individuals who were diagnosed with AIDS in San Diego County currently alive.

III. HIV in San Diego County

1. HIV Reporting

Advances in medical treatment of HIV have dramatically improved the lives of those infected and increased the time from infection to the point at which an individual meets the criteria for an AIDS diagnosis. Since all of the information on trends, demographics and risk behavior of HIV-infected individuals is based on AIDS data, not as much is known about the newly HIV positive population.

To increase our understanding of HIV in California, the State of California will implement HIV reporting regulations in July 2002 in addition to current AIDS reporting. Unlike AIDS, no patient name or address is reported. Instead, the regulations require health care providers and laboratories to report using a non-name code. The non-name code is composed of the Soundex (an alphanumeric representation of the last name generated by the laboratory), gender, date of birth and last 4 digits of the social security number. As with 18 other communicable diseases, this is a dual reporting process in which both health care providers and laboratories report. This code will balance the need for good quality data (minimizing duplication) with the protection of individual identity.

Anonymous HIV testing will not be reported for two reasons: to help ensure that clients are not discouraged from testing due to fears regarding reporting and because not enough information is collected at an anonymous test to complete reporting. See Appendix 9.

2. HIV and Local Data

Given that there is no general reporting of HIV, there are several sources of data which give us some idea of the basic demographics of the HIV-positive community. Each source has unique limitations. Keep in mind that most of the data sources described here do not contain an identifier, such as a name or social security number, in order to protect confidentiality and thus may contain duplicate records.

Counseling and Testing Data

Local HIV counseling and testing data (HCT), most of which is conducted by the California Department of Health Services through contracts with the County of San Diego, can give us some information about those aged 12 and older who voluntarily seek HIV testing. In recent years, the County provides between 15,000 and 18,000 counseling and testing services each year. These tests have been provided at no cost, either anonymously (no name is ever given) or confidentially (a name is given, but the name is not entered into any database). Since inception of the program, the rate of HIV infection among the tests declined sharply each year to 1992 and have leveled off since that time (*Figure 12*).

HIV Counseling and Testing, Percent Testing HIV Positive San Diego County, 1985-2001

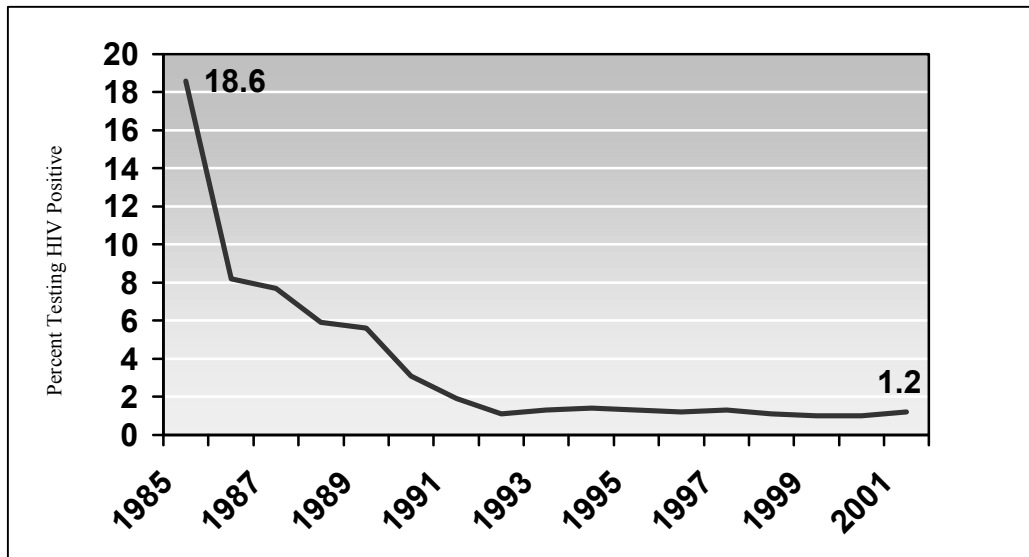


Figure 12

One limitation of this data source is that each case may not be unique since many individuals test repeatedly within a year. Therefore, when discussing this data we refer to ‘testers’ not individuals – since we assume that some of the ‘testers’ are the same person. Also, those who voluntarily seek testing probably differ in important ways from those who don’t. Because testing data is not required to be reported, HIV tests performed at private clinics or hospitals are not included in this database. In addition, analysis of HCT data in this report has been limited to anonymous tests only since it is likely to be more representative of those who seek HIV testing. Most confidential tests are offered at STD (sexually transmitted disease) clinics in which the client comes in for an STD other than HIV).

Seroprevalence Data

Seroprevalence data generally refers to studies or programs that regularly collect blood for various tests. Sometimes the specific aim is an HIV test, while other times individuals come in for another test requiring a blood sample and after the samples are stripped of all identifiers, they are tested for HIV. For example, all blood and plasma donations are tested for HIV and all military and Job Corps applicants are tested for HIV. Alternatively, one month a year at local health department STD clinics, serum from individuals testing for any STD other than HIV are stripped of identifiers and tested for HIV as a way of estimating the prevalence of HIV in that population. Again, this seroprevalence data is not without limitations. Individuals attending an STD clinic are likely to be at higher risk for HIV than the general population. Conversely, blood and plasma centers employ a protocol intended to screen out individuals thought to be at high risk for HIV or HIV-positive, so one would expect very low rates of positivity. Those who are aware they are HIV infected, or suspect it, may also be more aware that programs such as the military screen applicants for HIV, and may be less likely to apply as a result. Also, all of the participants in these programs are

self-selected and are likely to be different from the population as a whole. Much of this data is not currently available by gender, race/ethnicity, or age at the county level.

3. HIV Data and Demographics

While not much is known about HIV infected individuals locally, even less is known about certain subgroups such as women, youth, children and some race/ethnic groups. Sometimes demographic data is not collected and where there is data on these groups, often there are small numbers. Small numbers make it difficult to distinguish between random variation and real differences between groups or over time. Also, small numbers can mean some groups may not be represented in the data at all. This is especially true for some race/ethnicities, age groups, and transgender populations.

Certain parameters are used here to define gender, race/ethnicity, youth and children. Women are defined as those who self-report as female or pregnant female, men as those who self-report as male (transgender male to female and transgender female to male are rare in local data and have been excluded from most analysis here). Race/ethnicity is generally self-reported but also reflects the available methods and categories used by organizations to collect the data. Youth are those aged 13-24 and children are those under 13 years of age.

3.1 Gender

Counseling and Testing Data

The majority of individuals seeking anonymous HIV counseling and testing services in San Diego County are men: about 66% male and 34% female in the year 2001. Similarly, men have traditionally had a much higher positivity rate compared to women (2.3% versus 0.2% in 2001), although up until 2001, the rate for men appeared to be decreasing (*Figure 13*). In general, men coming in for services are less racially diverse and older than women in any particular year but this is changing. More Hispanic and African American men are testing and fewer white men, with a general trend towards younger (15-19) and older testers (50+). Like men, the trend for women who seek testing has been an increase in younger and older age groups and a growth in the proportion of Hispanic and African American clients.

Of all the men coming in for anonymous services, 74% had tested at least once before according to year 2001 data. In year 2001, 174 anonymous tests were confirmed HIV positive; 165 (95%) of these were to men. Most of these tests were among men who had already tested before. Of the repeat male testers, 2.6% were HIV infected. In contrast, 1.7% of the first-time male testers were positive.

Like men, the majority of female testers were repeat testers: 63% of women in 2001 had tested at least once before. Of the 174 HIV positive tests in 2001, 6 were to women. None of the first time female testers were positive compared to 0.3% of the repeat female. The remaining three positive HIV tests were to male to female transgender individuals.

**Percent HIV Positive by Gender
Anonymous HIV Counseling & Testing
San Diego County, 1990-2001**

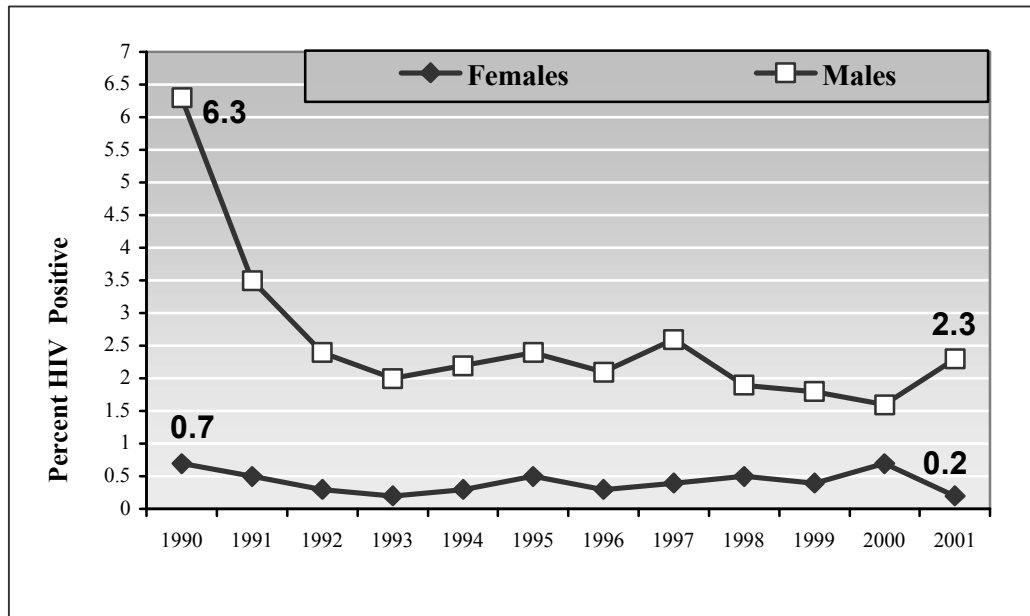


Figure 13

Between 70 and 150 pregnant women (self-reported) seek HIV counseling and testing services each year and most of these women are ages 20-29 (includes anonymous and confidential tests). Because the numbers are small, the percent of pregnant testers by race/ethnicity fluctuates from year to year. However, in all years pregnant Hispanic women are the majority race/ethnic group, representing between 36% and 57% of all pregnant testers. Between 1995 and 2001, only 1 pregnant woman tested positive for HIV. Also, in that same time period, fewer pregnant testers are first-time testers. In 1995, 55% of the women were first-time testers, but in 2001 only 34% were first-time testers.

Seroprevalence Data

At this time there is very little current data by gender for seroprevalence. The California Department of Health Service's Survey of Childbearing Women (SCBW) began in 1988 and was discontinued in 1996, then replicated again in 1998. During those years, unlinked testing was conducted on blood samples taken from hospital live births for the third quarter of each year or between 9,000 and 12,000 births per year in San Diego County. The rate of HIV seropositivity in the county ranged from .3 to .9 per 1,000 births (or .03% to .09%), having about the same levels as the state. For the county, this rate translates to between 4 and 11 HIV infected mothers, numbers too small to further analyze by race/ethnicity or age.

Another serosurveillance project, the survey of adults attending STD (sexually transmitted disease) clinics, has been conducted at 12 California health departments, including San Diego County, since 1989. To be included, a client must be visiting for a STD (other than HIV) that requires a blood sample. Eligible clients are consecutively sampled during one

month, up to 500 samples, that are then stripped of identifiers and tested for HIV. The seroprevalence for women attending STD clinics in San Diego County during 2002 was 0% (0 HIV infected woman out of 110 tested), but over time it has ranged from 0.0% to .7%. This compares to a seroprevalence of 8.1% (31 men out of 383 tested) for men during 2002, with a range of 3.0% to 8.1%. From 1990 to 2002, the trend is not clear (*Figure 14*). For example, the difference between the 3.0% in 1996 for men and the 8.1% in 2002 looks alarming but it is not statistically significant because the rates are based on such small numbers.

HIV-1 Seroprevalence by Gender in a Sample of STD* Clinic Attendees
Percent HIV-1 Positive by Gender
San Diego County, 1990-2002

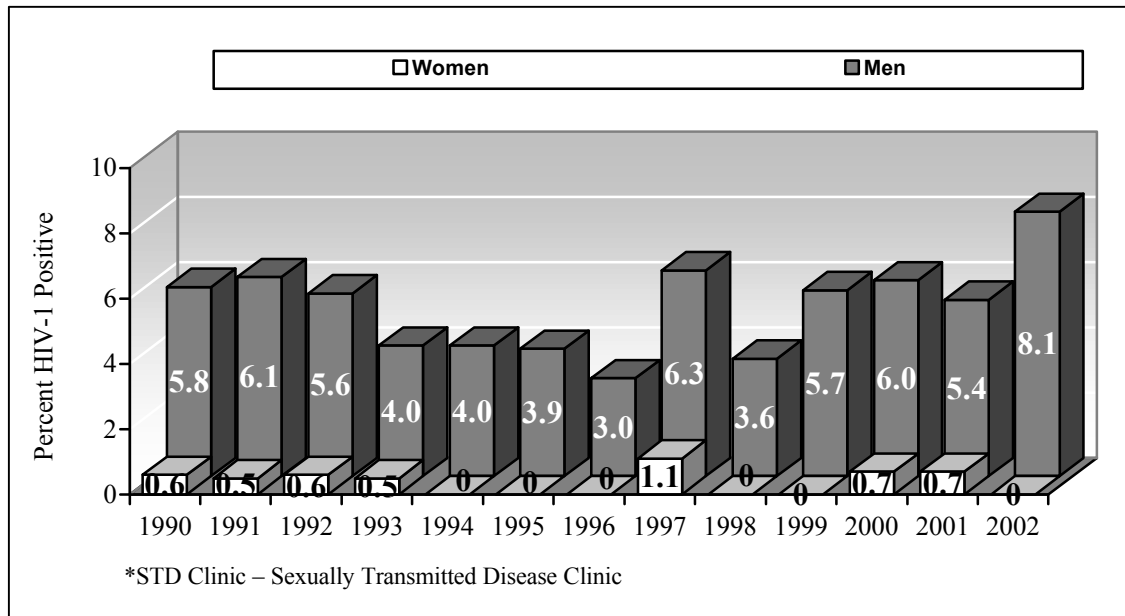


Figure 14

Blood and plasma donation data does not consistently include gender at the county level, and even if it did, the number HIV infected is very small: 2 out of 114,042 units of blood tested in 2000 (.002%), and 4 out of 142,859 units of plasma tested in 2000 (.003%). Military applicant screening does include data on gender but again the numbers are very small. In year 2000, 3,910 civilians applied for military service in San Diego and were screened for HIV. Of that number 2 persons tested positive for HIV, resulting in a prevalence rate of .05% overall. Job Corps also tests applicants for HIV, however, there are concerns about the quality of the data for recent years so it is not included here.

3.2 Race/Ethnicity

Counseling and Testing Data

Through the last half of 1997, clients of HIV counseling and testing services had 6 mutually exclusive race/ethnic categories to choose from: African American, American Indian/Alaskan Native, Asian/Pacific Islander, Hispanic, white, and other. Beginning in fiscal year 97/98,

clients had the same categories but could choose two different race/ethnicities if they desired. Since then, between 2% and 3% of testers choose more than one race/ethnicity. For purposes of analysis, only the first race chosen is used to assign race/ethnicity. The majority of testers self-report as white, about 48% in 2001; however, there are proportionately more African Americans and Hispanics receiving services each year. In 2001, the largest share of positive tests is to Hispanics (44%) compared to 35% for whites and 16% for African Americans. Up until 2001, the largest share has always been among whites. African Americans have traditionally had the highest HIV infection rates of those testing but in 2001, the rate of HIV infection in Hispanics testing was slightly higher (Figure 15).

**Percent Testing HIV Positive by Race/Ethnic Group
Anonymous HIV Counseling & Testing
San Diego County, 1990-2001**

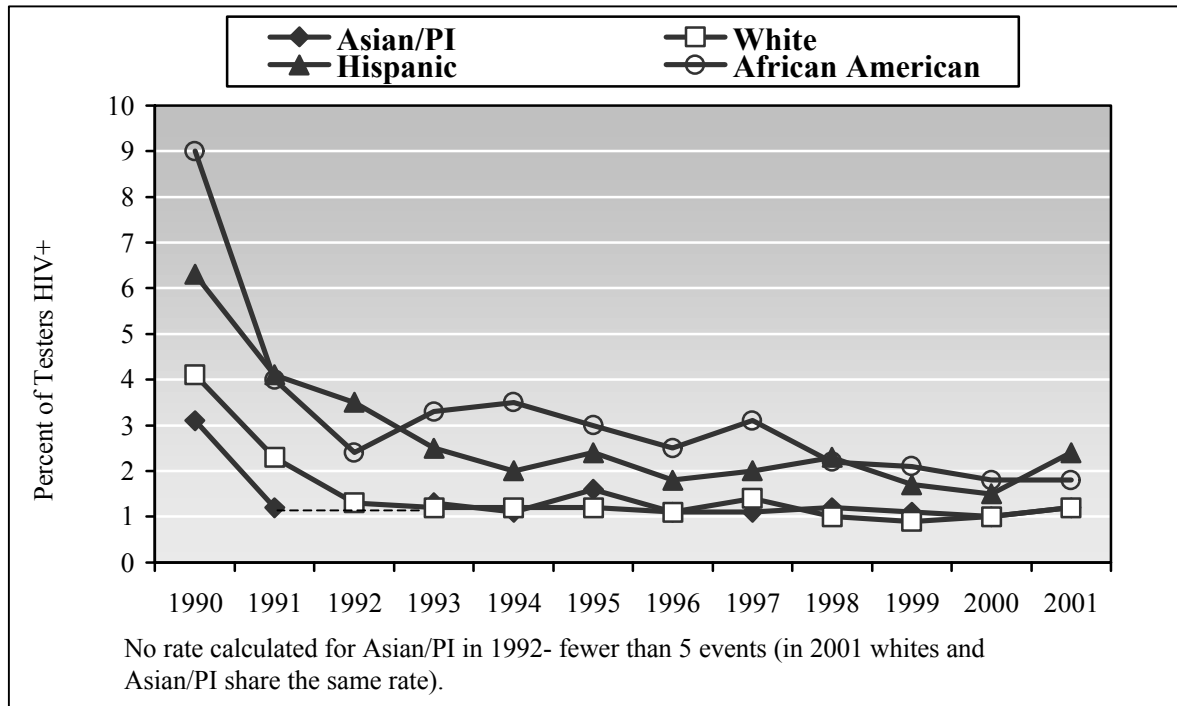


Figure 15

3.3 Age

Counseling and Testing Data

Since 1990, the distribution of testers by age group has changed slightly. More 15-19 year olds and 50+ are coming in for testing, and fewer of those ages 25-34.

Historically, the age group with the highest HIV infection rates are in the 25-34 age group, 2.9% in 2001, with the next highest rate in 35-49 year olds (1.5%). The HIV infection rates for 20-24 year olds (1.2%) and 50+ (0.5%) fluctuate from year to year but generally remain lower than the county average rate (Figure 16). In 2001 many more cases were missing a value for age than in previous years (5%). A possible explanation is that the counselor

information form changed in 2001, and counselors asked for date of birth rather than age. More clients may have refused to give this information since date of birth may be considered more sensitive than age.

Percent Testing HIV Positive by Age Group*
Anonymous HIV Counseling & Testing
San Diego County, 1990-2001

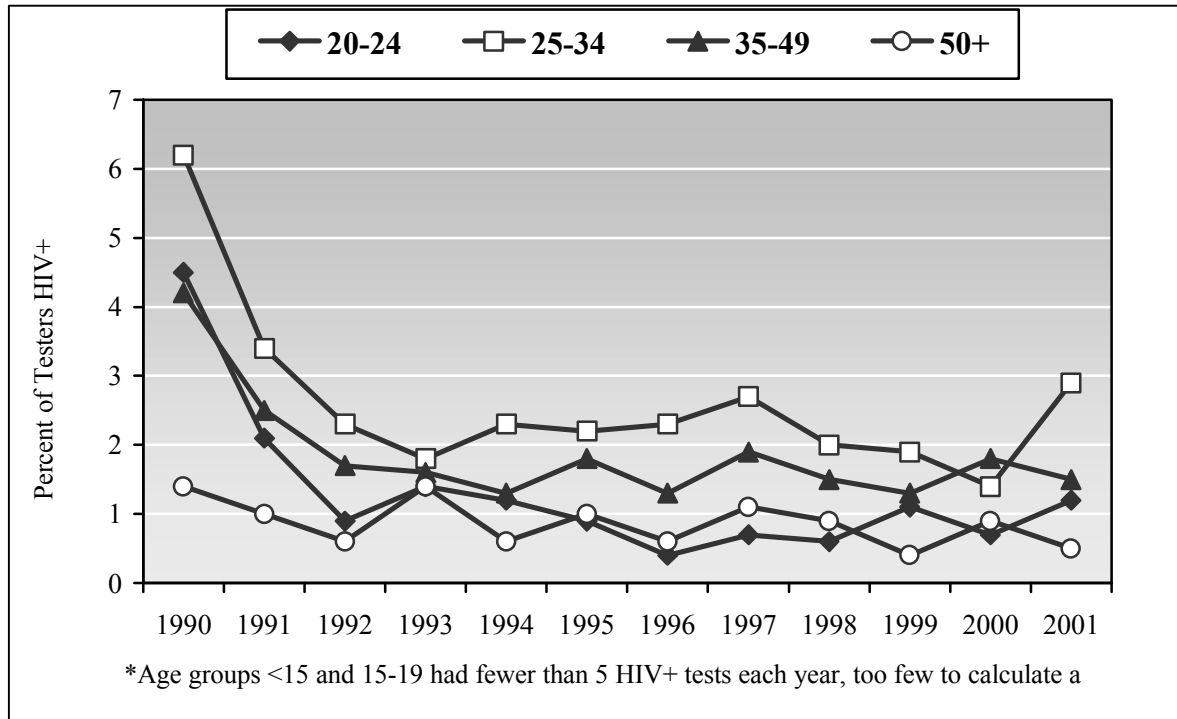


Figure 16

3.4 Youth

Counseling and Testing Data

Each year 2,000-3,000 youth aged 13-24 come in for anonymous HIV testing, and each year since 1997 has seen an increase in the number of youth tested. Of those aged 13-24 who tested in 2001, about 58% were male and 42% were female. This appears to be a gradual change from 1997 when the majority of youth testers were female. When compared by race/ethnic makeup, youth have more Hispanics and fewer whites seeking HIV testing than adults.

The rate of HIV infection in youth testers 13-24 years of age is much lower than the overall rate, about 0.8% or 21 testers out of 2,586 in 2001. Since 1990, the percent of youth testers who are HIV infected has fluctuated from a low of 0.4% to a high of 3.2% (Figure 17). This is statistically different, but fluctuations in the rate since 1992 are a result of small numbers and random variation rather than actual differences between years. Similarly, the small number of youth testing positive each year precludes further analysis by race/ethnicity.

**Percent of Testing HIV Positive Among Overall and Youth
Anonymous HIV Counseling and Testing
San Diego County, 1990-2001**

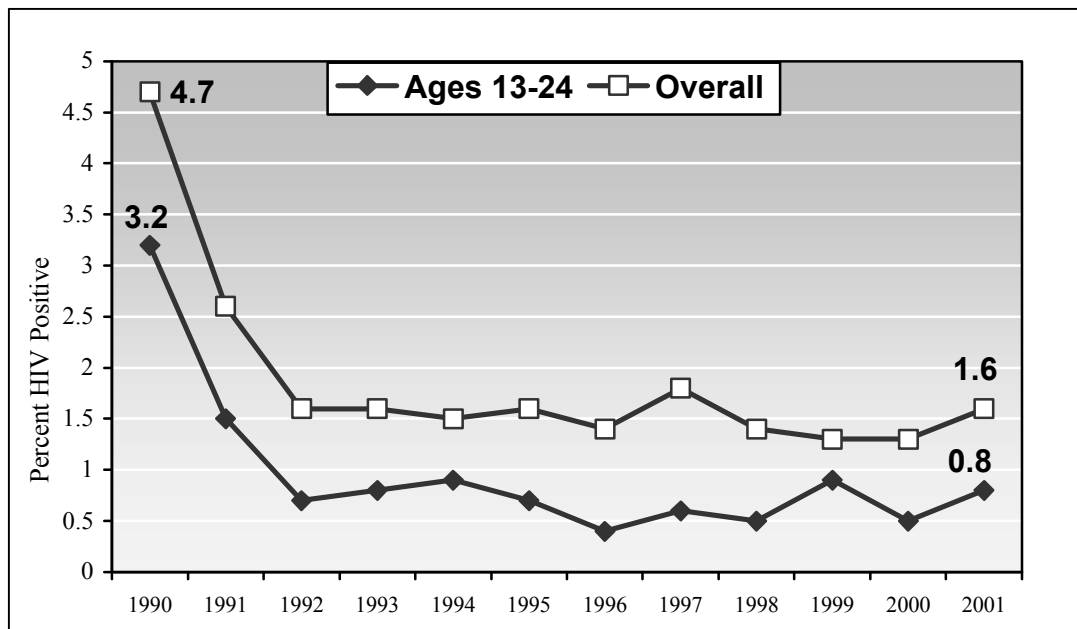


Figure 17

The vast majority of youth seeking HIV testing fall into the Multiple Partners risk group, although few in this risk group test positive for HIV (none in 2001). In 1997 and dramatically in 2001 the second most frequent risk category was No Reported Risk (no HIV positives in 2001). Partners with Multiple Partners was either the second or third most frequent risk group before 2001 (not a risk group in 2001). MSM has been either the 3rd or 4th most common risk group seeking testing since 1997, and has the largest share of HIV positives (19 of the 21 positives). With that in mind, the rate of HIV infection for MSM youth in 2001 would be 5.0%, an increase from 3.6% in 2000. In 1997, 1998, and again in 2001, IDU Partner was the 5th most frequent risk group for youth (no HIV positives in 2001). Since 1999, bisexuality has been a more predominant risk factor than any IDU-related one, with 2 out of the 21 HIV positives in 2001. Unlike adults, about 66% of youth had never tested before.

3.5 Geographic Areas

Counseling and Testing Data

The County of San Diego's Health and Human Services Agency (HHSA) divides San Diego County into six zip code based geographic regions: North Coastal, North Inland, North Central, Central, East and South (see Appendix 6 for more information.) When analyzed by the HHSA regions, HIV counseling and testing data clearly shows that the largest share of clients come from the Central Region, 46% in 2001 (*Table 15*). The Central region also shows the highest HIV infection rate (2.3%) as well as the largest share of HIV positive

tests (67%). Not including those whose zip codes were not valid or from out of the county, the South region is next, with an HIV infection rate of 1.3%, and 13% of the total HIV positive tests. While this data may reflect a higher risk by region, it may also be the result of testing locations, outreach programs or access to healthcare. Some regions had fewer than 5 HIV positive tests, therefore, no percents were calculated.

**Test Result by HHS Region
Anonymous HIV Counseling and Testing
San Diego County, 2001**

HHS Region		Test Result			Total in Area
		Positive	Negative	Inconclusive	
North Coastal Region	Number	7	545	0	552
	Row percent	1.3	98.7	*	100.0
	Column percent	4.0	5.1	*	5.1
North Inland Region	Number	1	360	0	361
	Row percent	*	99.7	*	100.0
	Column percent	*	3.4	*	3.4
North Central Region	Number	15	1,892	2	1,909
	Row percent	0.8	99.1	0.1	100.0
	Column percent	8.6	17.9	16.7	17.7
Central Region	Number	116	4,878	5	4,999
	Row percent	2.3	97.6	0.1	100.0
	Column percent	66.7	46.1	41.7	46.4
East Region	Number	7	822	2	831
	Row percent	0.8	98.9	*	100.0
	Column percent	4.0	7.8	*	7.7
South Region	Number	22	1,705	3	1,730
	Row percent	1.3	98.6	*	100.0
	Column percent	12.6	16.1	*	16.1
Missing	Number	6	384	0	390
	Row percent	1.5	98.5	*	100.0
	Column percent	3.4	3.6	*	3.6
All San Diego County	Number	174	10,586	12	10,772
	Row percent	1.6	98.3	0.1	100.0
	Column percent	100.0	100.0	100.0	100.0

Table 15

4. Risk Groups

Counseling and Testing Data

When a client comes in for HIV testing, a counselor asks about specific risk behaviors. The State Office of AIDS calculates a hierarchy of risk based on those behaviors and on the risk of HIV transmission. The 15 (14 in 2001) mutually exclusive risk groups in order of highest to lowest risk for HIV transmission are: Men who have sex with Men (MSM), Bisexual, Intravenous Drug Users (IDU), Gay/Bi IDU (men only), HIV+ Partner, Partner Bisexual, IDU Partner, Sex for Drugs/Money, Blood Transfusion <1985, Multiple Partners (heterosexual only), Partners with Multiple Partners (heterosexual only, dropped in 2001), Occupational Exposure, Child at Risk (perinatal transmission), No Reported Risk, and Unknown. For a more in-depth description of this hierarchy, please see Appendix 10.

The largest share of those who come in for testing fall into the Multiple Partners risk group (35% in 2001). The distribution of testers by risk group has stayed relatively stable over the last 4 years. Partners with Multiple Partners is no longer calculated as a risk group. A few of the larger changes include an increase in the number of testers who fall into the following risk groups: MSM, Multiple Partners, and No Reported Risk and a large decrease in IDU and Gay/Bi IDU. During the year 2001, 93% of HIV positive tests fell into one of 4 groups: MSM (64%), Multiple Partners (10%), Bisexual (10%) and No Reported Risk (9%). Over time the distribution of HIV positive tests has changed. MSM continues have the largest share of HIV positive tests. The number of HIV positive tests to Gay/Bi IDU testers has decreased while the number in the 'Multiple Partners' groups has increased. In 2001, No Reported Risk group also has a large number of positive tests.

Overall, the highest rate of HIV infection was among MSM and Bisexual (4.5% and 3.7% respectively in 2001). Since 1990, many of the highest risk groups have experienced a decrease in the HIV infection rate, including MSM, Bisexual, and Gay/Bi IDU (*Figure 18*), although Bisexual has recently shown an increase from 1.3% to 3.7% (2000-2001). IDU has had a decrease in number testing HIV positive as well as a corresponding drop in number coming in for HIV testing and counseling services. A possible reason for this is that in 2001 the counselor information form changed and clients were asked if they had injected nonprescription drugs since their last test or in the last two years rather than if they had ever injected nonprescription drugs (this would also affect Gay/Bi IDU). The other groups have remained fairly stable or have such small numbers that trends aren't clear.

Among men seeking anonymous HIV testing services in 2001, 87% fell into one of three risk groups: MSM (35%), Multiple Partners (33%), and No Reported Risk (19%). For men, the highest rate of HIV infection was among Bisexual men and MSM (4.8% and 4.5% respectively). Other risk groups for men had rates of infection at or below the average for 2001 or had too few positives to calculate a rate.

During 2001, 42% of women seeking testing had No Reported Risk, and 39% were categorized in Multiple Partners. Between 1997 and 2000, Partners with Multiple Partners constituted the second largest proportion of testers. In that time period, the 4th and 5th risk factors pertained to the use of injection drugs either directly by the woman, or indirectly through her sexual partner. The percent of cases attributed to No Reportable Risk increased

dramatically in 2001. Responses to counselor's questions are voluntary and those who opt not to divulge risk behavior information are lumped in with those who do not appear to have a traditional high risk behavior. Since Partner with Multiple Partners is no longer one of the calculated risk factors, many have been reclassified into the No Reported Risk category. Few women seeking testing were IDU in 2001 but about 6% reported an IDU Partner. Bisexual women represented 4% of those seeking testing, with about 2% having a bisexual partner in 2001. No rate could be calculated for any of the risk groups for women since there were only 6 HIV positives total and fewer than 5 in any group.

**Percent Testing HIV Positive by Risk Group
Anonymous HIV Counseling & Testing
San Diego County, 1990-2001**

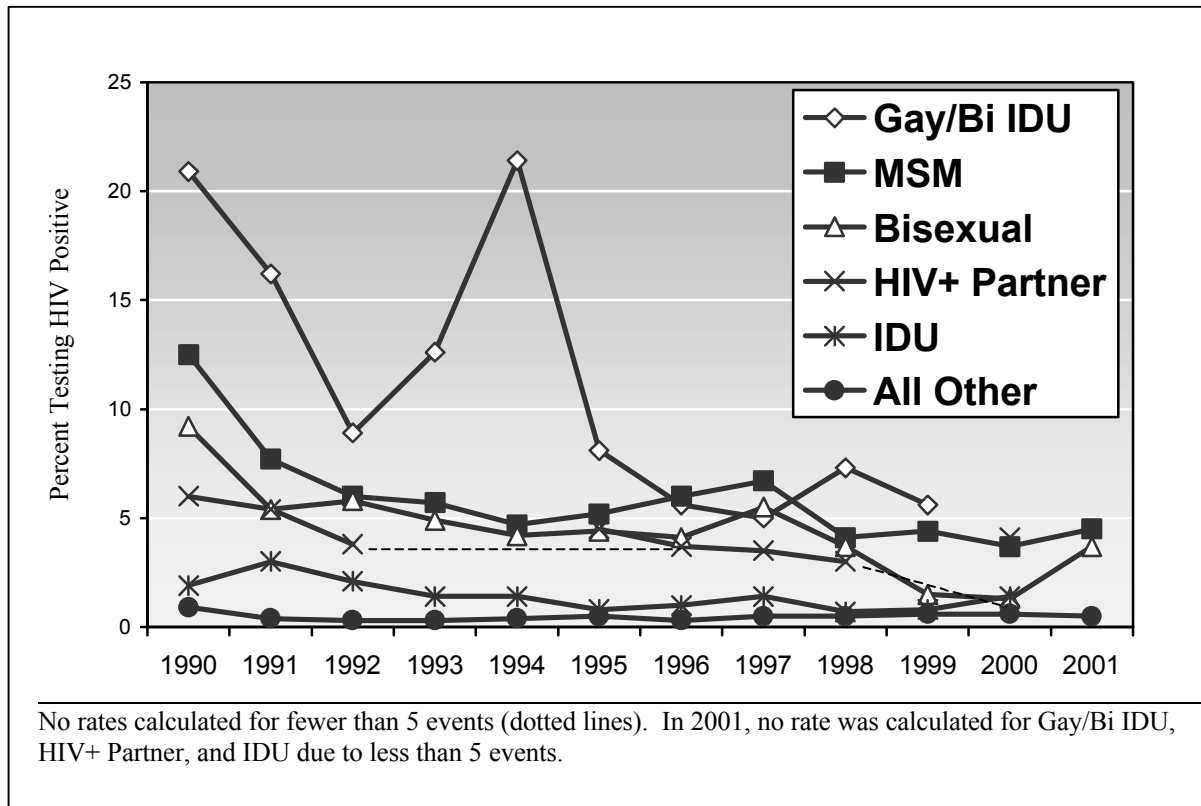


Figure 18

5. MSM Group

High Risk Groups

Certain risk groups have historically had much higher rates of HIV infection than others in San Diego County. Three HIV Counseling and Testing (HCT) risk groups, having in common both the highest rates and the behavior of men who have had sex with men, were combined to form the MSM group: Gay/Bi IDU, MSM, and Bisexual men. A special study of the MSM group was conducted in 2001 for the Office of AIDS Coordination.

Overall, rates of HIV infection have fallen for the MSM group between 1990 and 2001, from 12.3% to 4.3% (*Figure 19*). Of note is the increase in the HIV infection rate from 3.0% in 2000 to 4.3% in 2001. To allow for detailed analyses, the MSM group was averaged over 5 years: 1996-2000 (n=11,409). Demographic and geographic analyses are presented below.

**Percent Testing HIV Positive, MSM Group
Anonymous HIV Counseling and Testing
San Diego County, 1990-2001**

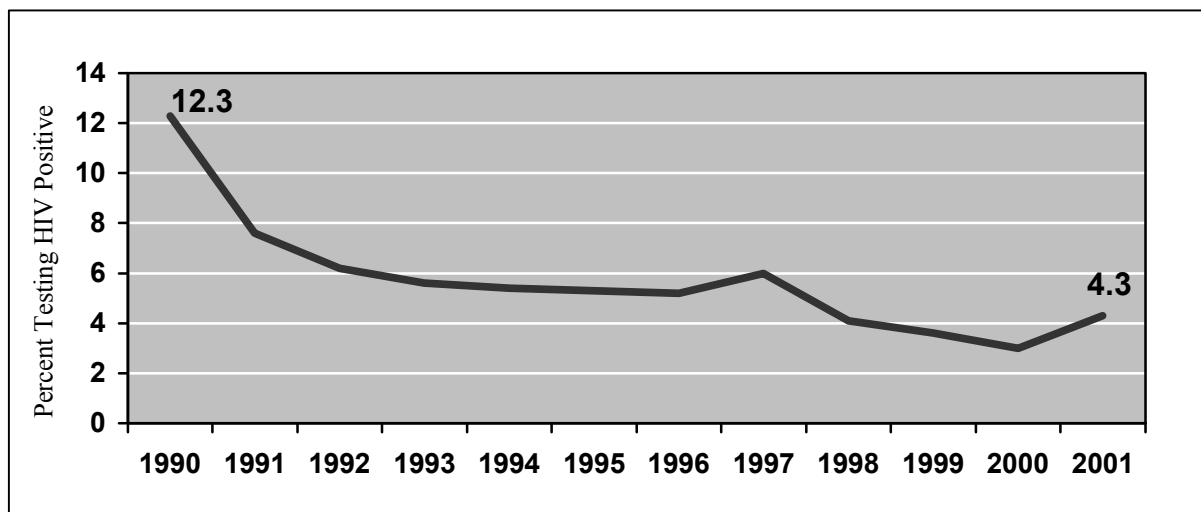


Figure 19

Age Group

The age groups with the highest HIV infection rates are 25-34 and 35-49, 6.1% and 5.1% respectively (*Figure 20*). Youth under the age of 15 had no positive tests during this time period.

Race/Ethnicity

African Americans in this group had an HIV infection rate over 3 times that of all other race/ethnicities except Hispanics (*Figure 21*). The rate of infection for Hispanics was just under 2 times that of whites, Asian/Pacific Islanders or Other. American Indian/Alaskan Natives had too few positive tests to calculate rates (2 positives in 5 years).

**Percent Testing HIV Positive, MSM Group by Age Group
Anonymous HIV Counseling and Testing
San Diego County, 1996-2000 Average**

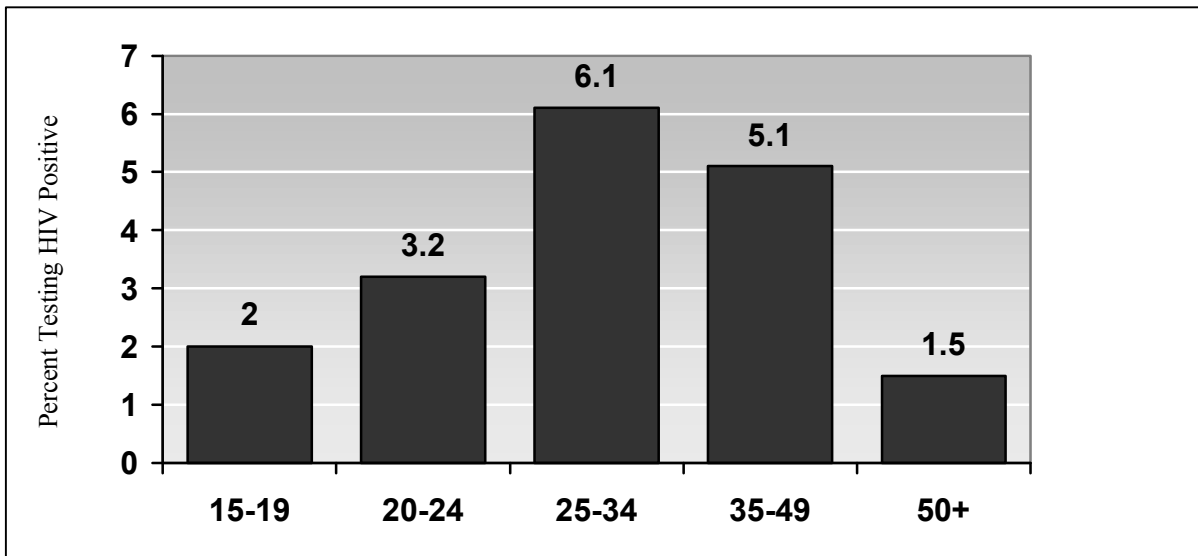


Figure 20

**Percent Testing HIV Positive, MSM Group by Race/Ethnicity
Anonymous HIV Counseling and Testing
San Diego County, 1996-2000 Average**

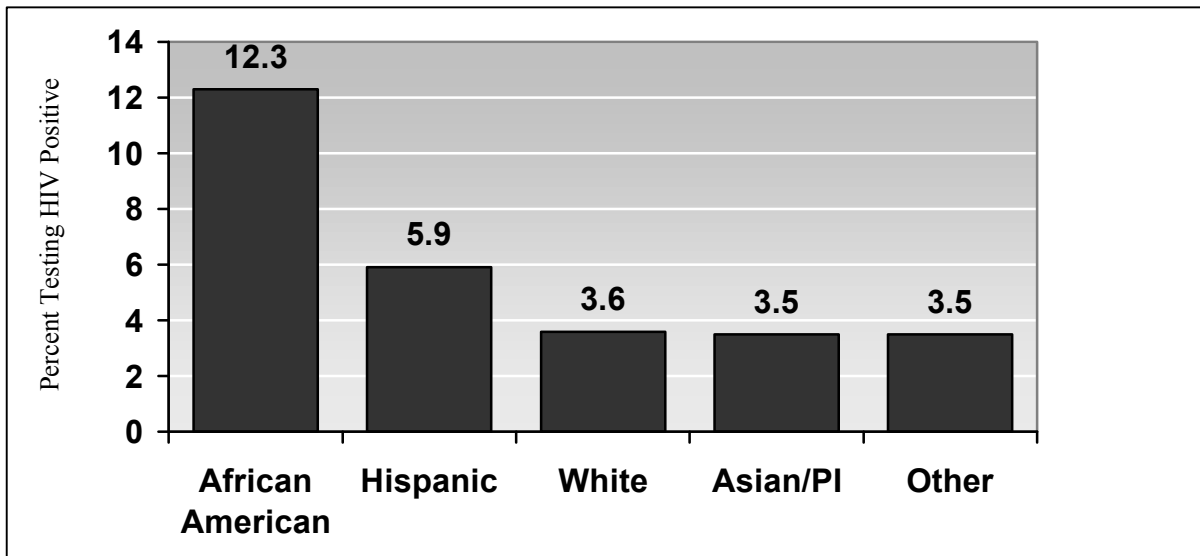


Figure 21

Geographic Area

The Central region of San Diego County, at 5.6%, had the highest rate of HIV infection, with other regions falling below the County average of 4.7%. Data are regionalized by zip code and the rate for those who could not be regionalized due to an unknown zip code was 8.4% (29 HIV+ out of 344 testers). The majority of those testing without a valid zip code

were Hispanic, with an HIV infection rate of 12.9%. Frequently, the zip code entered was 99999, which is often used for zip codes outside the country.

Multiple Demographics

When analyzing the MSM group by both race/ethnicity and age group, most often the 25-34 age group had the highest HIV infection rates, with two exceptions. Among Asian/Pacific Islanders the 35-49 age group had the highest rates, and for Hispanics the 25-34 and 35-49 age groups both had the same rates. The two youngest age groups, <15 and 15-19 had too few positives to calculate a rate. African Americans also had high rates for the age groups 20-24 (8.1%) and 35-49 (11.5%).

Where rates could be calculated, the race/ethnicity with the highest rates of HIV infection in a region were African American and Hispanic in North Central region; African American, Hispanic and Other in the Central region; Hispanic in the East region; Hispanic in the South region; and Hispanic in the unknown/invalid zip code.

5.1 Young MSM

Alarming increases in HIV infection rates for young MSM have been discovered recently in some large metropolitan areas of the U.S. To investigate this locally, HCT data for young MSM (including Gay/Bi IDU and bisexual) ages 13-24 were examined.

The trend for young MSM in San Diego County who tested is a decline from 90/91 to 96/97, with a slight increase since that year (*Figure 22*). In recent years, just less than 400 young MSM test through the HCT each year and of those an average of 15 will test positive, resulting in considerable annual variation in the rate.

**Percent Testing HIV Positive, Young MSM Group
Anonymous HIV Counseling and Testing
San Diego County, 1990-2001 (Two year Averages)**

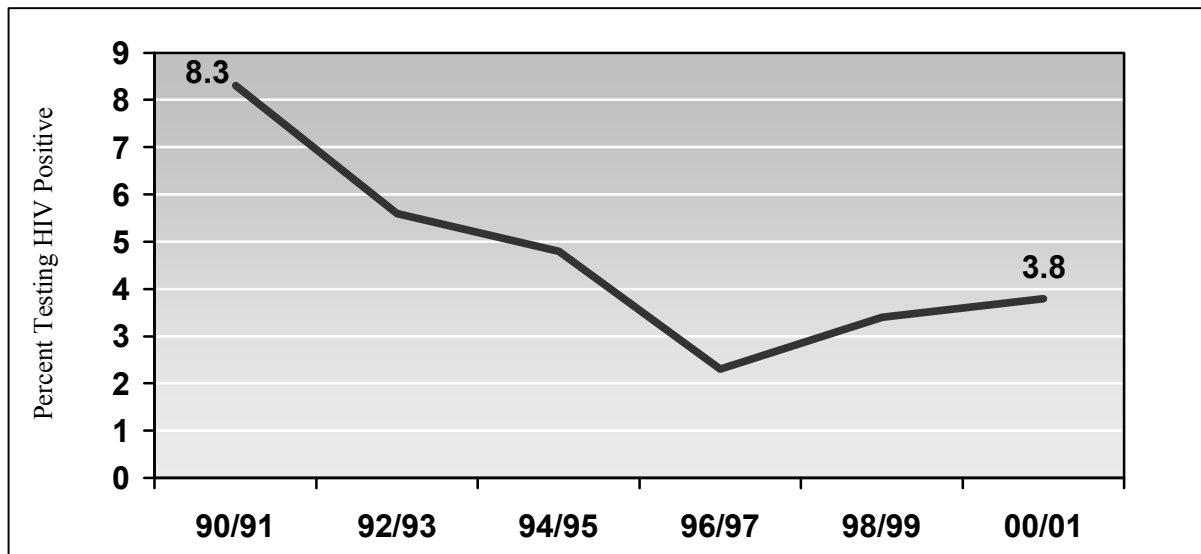


Figure 22

Five years of data, 1996-2000, were averaged for the young MSM group to facilitate more detailed analysis (n=1,753). The results follow.

Race/Ethnicity

Of the young MSM group, African American had the highest HIV infection rate, with Hispanic and white following (*Figure 23*). Like their adult counterparts, young African American MSM had rates that were many times more than other race/ethnicities. American Indian/Alaskan Native and Asian/Pacific Islander had too few positive tests to calculate rates.

**Percent Testing HIV Positive, Young MSM Group by Race/Ethnicity
Anonymous HIV Counseling and Testing
San Diego County, 1996-2000 Average**

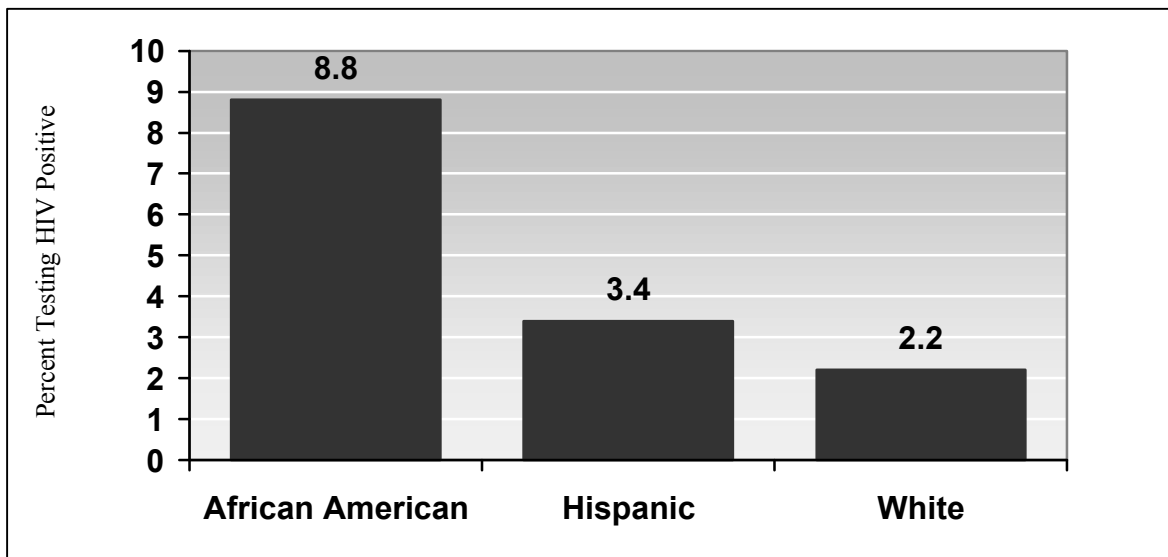


Figure 23

Geographic Area

As with the adult MSM group, the Central region showed the highest HIV infection rates (3.5%), with the South (2.7%) and East (2.5%) regions following. The remaining regions had too few positive tests to calculate a rate.

Multiple Demographics

The smaller sample size (51 positive tests out of 1,753 testers) makes detailed analysis challenging. Regional analysis was restricted to the Central region for this reason. Young African American MSM in the Central region had the highest HIV infection rate, 10%; Hispanic was second at 3.0% and whites at 2.9%.

More information on the MSM group and young MSM are contained in the report “HIV Trends and the Status of High Risk Groups in San Diego County” and copies may be obtained by calling (619) 515-6764.

6. HIV Summary

HCT data in San Diego County suggest a decline in HIV infection rates among an increasingly diverse group of testers from 1985 to 1992 and fairly level rates to 2001. The slight overall increase in HIV infection rate from 1.3% in 2000 to 1.6% in 2001 was not statistically significant ($p < .05$). However, significant increases in HIV infection rates were seen for some subgroups. For example, the change in rates for men, from 1.6% in 2000 to 2.3% in 2001 was statistically significant. Women, on the other hand, showed a statistically significant decline in their HIV infection rate, from 0.7% in 2000 to 0.2% in 2001. Seroprevalence data also support the gender disparity, with men having much higher rates of infection than women.

In all years for which HCT data by race exists, African American and Hispanic testers have higher HIV infection rates than other race groups although the gap has decreased over time. Generally, these are statistically significant differences. This was also the case for the difference in rates for Hispanics (2.4%) and whites (1.2%) in 2001.

Testers ages 25-34 have always had the highest HIV infection rates, with the exception of 1997. In 2001, the rate of HIV infection for testers ages 25-34, increased to 2.9% from 1.4% in 2000, a statistically significant change.

Many other HIV infection rates for subgroups had small numbers resulting in little power to detect significant differences. Youth ages 13-24 showed an increase from 0.5% in 2000 to 0.8% in their HIV infection rate and the rate of HIV infection for MSM youth increased from 3.6 in 2000 to 5.0% in 2001 but differences were not statistically significant. Similarly, although the rates increased for 'MSM' and 'Bisexual' from 2000 to 2001, the differences were not significant.

Testers who reside in the Central region of San Diego County have always had higher HIV infection rates than those from other regions. The rate of HIV infection for the Central region increased from 1.7% in 2000 to 2.3% in 2001, and this was statistically significant.

Men classified in the risk groups 'MSM', 'Gay/Bi IDU' and 'Bisexual' have shown a decline in HIV infection rates over time, however, they continue to have the highest rates among the risk groups. When combined, the MSM group has shown a decline in rates over time, except in 1997 and 2001. The increase in the HIV infection rate for MSM from 3.0% in 2000 to 4.3% in 2001 was not statistically significant but was very close to significance. The Young MSM group likewise showed an increase in their HIV infection rate since 1997, yet small numbers result in no statistical difference.

Sources:

San Diego County HIV Counseling and Testing Data
State of California, Department of Health Services, Office of AIDS

Epidemiology Profile and Projections of HIV/AIDS in San Diego County, 1998, County of San Diego, HHSA, Community Epidemiology

California HIV Counseling and Testing Annual Reports, State of California, Department of Health Services, Office of AIDS, HIV Prevention Research and Evaluation

California HIV Seroprevalence Annual Reports, State of California, Department of Health Services, Office of AIDS, HIV/AIDS Epidemiology Branch

Division of HIV/AIDS Prevention, Centers for Disease Control and Prevention (Military and Job Corps data)

Results of HIV-1 and HIV-2 Testing in California Blood Banks and Plasma Centers, Semi-annual reports, State of California, Department of Health Services, Office of AIDS, HIV/AIDS Epidemiology Branch.

IX. Conclusion

During the 20 years of this epidemic, 11,069 residents of San Diego County have become infected with HIV and have gone on to develop AIDS. Every community in San County is represented in the AIDS cases – young, old, minorities, whites, men, women, children, heterosexual, homosexual, the list goes on.

In the early 1980s, it was primarily young, gay, white males who were diagnosed with AIDS. In recent years, however, persons of color contribute larger percentages of cases. Indeed, African Americans have the highest rate of AIDS in San Diego, followed by Hispanics. ‘Men who have sex with men’ is still the most frequent mode of transmission for men, but the percent of cases with this risk factor has been slowly decreasing and the percent of cases from injection drug use and, to a lesser extent, heterosexual contact has been increasing. For women diagnosed with AIDS, heterosexual contact followed by injection drug use are the primary sources of infection. A large percent of those whose risk factor is heterosexual contact were partnered with an injection drug use. While female cases are still low, they are consistently reported and, with them, a few pediatric cases. In the nation, and to a lesser degree the state, the proportion of female cases has definitely increased but it is unclear at this time if San Diego is experiencing the same trend. What is clear is that the number of female cases drives the number of pediatric cases. Advances in treatment during pregnancy have drastically decreased transmission to the infant resulting in few pediatric cases.

When HIV reporting is in place in California, it will be easier to understand the differences in race/ethnic group breakdown, gender, and mode of transmission between those who have been HIV infected for a number of years and have gone on to be diagnosed with AIDS, and those who have recently learned about their infection. Current data sources give us windows to look at the early HIV diagnosis but do not show the whole picture.

What has been learned from the HIV Counseling and Testing Services is that where enough data exists to examine trends, the rate of HIV infection has decreased over time, especially among the highest risk groups. Of concern are recent increases in rates for MSM, and Bisexual men, that while not statistically significant, may signify a change in the trend. Disparities continue in HIV infection rates by gender and race/ethnicity. The gap has diminished over time but recently has increased for gender: men showed a significant increase in rates in 2001 while women showed a significant decrease. Low rates of HIV infection exist among heterosexual risk groups, women, youth and children; however, the rates among some of these groups have shown no decline. Finally, current data sources are not appropriate for describing prevalence among the general population.

X. Appendices

Appendix 1 Glossary

The following are summary definitions and explanations of a number of terms which you may encounter in this report. Terms may be added for clarification in subsequent reports.

Acquired Immune Deficiency Syndrome – End stage HIV disease where the immunological system is severely disabled by HIV, resulting in an increased susceptibility to opportunistic infections and rare cancers. To be considered an AIDS case, one must be HIV+ and have one of a number of specific conditions (for example, Kaposi Sarcoma).

Adult/Adolescent Cases – AIDS cases who were at least 13 years of age at time of diagnosis.

AIDS – See Acquired Immune Deficiency Syndrome.

Bisexual - HIV risk group used in HIV Counseling and Testing but not for AIDS data. Used to describe men and women who report having both a male and female partner. See appendix 10 for details.

Case Definition – A set of standard criteria for deciding whether a person has a particular disease or health-related condition. In the case of AIDS, the Centers for Disease Control lists specific conditions (opportunistic infection or a level of immunosuppression) a person must have in order to be classified as an AIDS case.

Case Fatality Rate – The proportion of individuals with a specific disease who die within a certain period of time.

Centers for Disease Control and Prevention (CDC) - The lead federal agency for protecting the health and safety of people - at home and abroad, providing credible information to enhance health decisions, and promoting health through strong partnerships.

CDC – See Centers for Disease Control.

Epidemic – The spread of an infectious disease through a population or geographic area.

Epidemiology – The study of factors associated with health and disease and their distribution in the population.

Health and Human Services Agency (HHS) Regional Services Areas - Service areas defined by zip codes. See Appendix IV for a breakdown of the zip codes for the 6 areas.

HHS – See Health and Human Services Agency Regional Services Areas

Heterosexual transmission – Transmission of HIV via sexual contact sex with any member of the opposite sex. This category can be further broken down to investigate the behavior of the sexual partner, such as sex with an intravenous/injection drug user, bisexual male (for females only), person with hemophilia/coagulation disorder, transfusion/transplant recipient with documented HIV infection, or a person with AIDS or documented HIV infection.

HIV – See Human Immunodeficiency Virus.

Human Immunodeficiency Virus (HIV) - A retrovirus that destroys the immune system eventually causing AIDS.

IDU – See Injection Drug User.

Injection Drug User (IDU) – Someone who at some time has injected non-prescription drugs.

Incidence – The total number of new cases of a disease occurring within a specified period of time.

Incidence Rate – The number of cases of a disease per specified time period divided by the population at risk, often expressed per 100,000 population. Incidence rates are useful for comparison of selected factors to demonstrate the severity of the epidemic among individuals of different ages, gender and race/ethnic group.

Mode of Transmission – The way in which a disease was passed from one person to another. In describing HIV/AIDS cases, identifies how an individual may have been exposed to HIV, such as injecting drug use, men who have sex with men, and heterosexual contact. (Also known as **exposure categories**)

Men having Sex with Men (MSM) – In AIDS case data, MSM is the mode of HIV transmission for men who have same sex contact (bisexual or homosexual). For HIV Counseling and Testing purposes, MSM are those men who only have sex with men and are not bisexual. See appendix 10 for details.

MSM - See Men having Sex with Men.

NIR - See No Identified Risk.

No Identified Risk (NIR) – An AIDS case that lacks mode of transmission information to determine the person's risk for acquiring HIV infection.

Pediatric Cases – AIDS cases who were newborns to children 12 years of age at time of diagnosis.

Public Health Surveillance – An ongoing, systematic collection, analysis, and use of data regarding specific health conditions and diseases, in order to monitor these health problems, such as the Centers for Disease Control and Prevention surveillance system for AIDS cases.

Risk Group – Used in HIV Counseling and Testing to assign clients risk of HIV transmission based on their behavior. See Appendix 10 for detail.

Risk not Specified (RNS) - An AIDS case that lack mode of transmission information to determine the person's risk for acquiring HIV infection.

RNS - See Risk not Specified.

Year of Diagnosis – The year in which a case met the CDC criteria for AIDS and was diagnosed with AIDS.

Year of Report – The year in which an AIDS case is reported to the Department of Health Services.

Appendix 2. Data Sources, Reliability and Limitations

AIDS cases are required to be reported to the Health and Human Services Agency (HHSA) pursuant to California Code of Regulations, Health & Safety Statutes, Title 17, Section 2500. Reports come from physicians, health care providers, hospitals and clinics via confidential morbidity reports. A San Diego County AIDS case is an individual diagnosed with AIDS, while residing in San Diego County. **HIV infection, without an AIDS defining condition, is NOT reportable in California.**

Active verification of cases and internal tests of the data increase the reliability of the data.

The AIDS data used to generate reports have several limitations as listed below:

1. Under-reporting of cases - The number of diagnosed AIDS cases for which notification of the Office of Public Health does not occur is called “under-reporting”. Delays in reporting are graphically obvious in recent (2000 and 2001) years. It is likely that cases diagnosed in 2001 will continue to be reported in 2002.

2. Diagnosis date versus report date - Reporting delays impact the available data. Those cases **diagnosed** in 1995, for example, may not be **reported** to the Health and Human Services Agency until 1997 or later. See *glossary* for the definition of Date of Diagnosis and Date of Report.

3. Collection tools - While information on a variety of variables is collected, it is still limited. Data on an individual income or specific drug of choice is **not** collected, for example. The data collected is limited and reflects of the quality of data submitted by the reporting facility.

4. Non-resident AIDS cases - Persons with AIDS diagnosed elsewhere and relocating to San Diego County after diagnosis, are NOT represented in AIDS case data for the county. Persons receiving medical care or other services in San Diego County while residing outside the county, are not reflected in this data in any way.

5. Asian/Other Category - Available population estimates combines Asian/Pacific Islander and Native American racial/ethnic groups into one category: **Asian/Other**.

6. Confidentiality - Charts and graphics with small cell sizes (under 3) may not be described in detail where identification of persons may occur.

7. Changes in CDC Criteria for AIDS Case Definition - Since 1981, the Centers for Disease Control and Prevention (CDC) have changed the AIDS Case definition to include more diagnostic criteria. These changes in definition distort observed trends. The peak in AIDS cases is likely the result of the 1993 change in the case definition.

Appendix 3. Reporting AIDS Cases

Who is responsible for reporting AIDS cases?

AIDS is a condition listed in California's disease reporting regulations. (California Code of Regulations, Health & Safety Statutes, Title 17, Section 2500). The statute reads: "Every health care provider knowing of or in attendance on a case or suspected case of a disease/condition in Section 2500 is required to make a report. Health care facilities or other settings where more than one health care provider may be caring for a case should establish administrative procedures to assure that reports are made to the local health department without duplication. When a health care provider is not in attendance on a case, any individual having knowledge of a person with one of the reportable diseases or conditions is required to notify the local health department."

When is AIDS Reported?

When an individual is diagnosed with one or more of the AIDS defining conditions listed below, their HIV care providers are required to report the case to the local health department within 7 days of the diagnosis: (For HIV infected individuals, definitive or presumptive)

- * CD4+ T-lymphocyte count <200 $\mu\text{L}/\text{mm}^3$ or <14% of total T-lymphocytes
- * Candidiasis of the bronchi, trachea, or lungs
- * Candidiasis, esophageal
- * Cervical cancer, invasive
- * Coccidioidomycosis, disseminated or extra-pulmonary
- * Cryptococcosis, extra-pulmonary
- * Cryptosporidiosis, chronic intestinal
- * Cytomegalovirus disease
- * Cytomegalovirus retinitis
- * Encephalopathy, HIV-related

- * Herpes simplex: chronic ulcers or bronchitis pneumonitis or esophagitis
- * Histoplasmosis, disseminated or extrapulmonary
- * Isosporiasis, chronic intestinal
- * Kaposi's Sarcoma
- * Lymphoma, Burkitt's
- * Lymphoma, immunoblastic
- * Lymphoma, primary in the brain
- * Mycobacterium avium complex or M kansasii, disseminated or extrapulmonary
- * Mycobacterium tuberculosis, any site
- * Pneumocystis carinii pneumonia
- * Pneumonia, recurrent
- * Progressive multifocal Leukoencephalopathy
- * Salmonella septicemia, recurrent
- * Toxoplasmosis of the brain
- * Wasting syndrome due to HIV

The pediatric AIDS case definition (for HIV infected children <13 years of age) includes all of the above mentioned indicator diseases **with the exception** of pulmonary Mycobacterium tuberculosis, cervical cancer and CD4+ T-lymphocyte counts <200 $\mu\text{L}/\text{mm}^3$ or <14% of total T-lymphocytes.

In addition, recurrent bacterial infections (at least two episodes within a two year period) and lymphoid interstitial pneumonia/pulmonary lymphoid hyperplasia (LIP/PHL) are AIDS defining conditions for HIV infected children.

The original case definition of AIDS was established by the Centers for Disease Control (CDC) in 1981. Additional conditions and diseases were added in 1985, 1987 and 1993. All case definitions and revisions are published in the CDC's publication entitled 'Morbidity and Mortality Weekly Report' (MMWR).

What information is required to be reported?

Reports of AIDS cases to the local health department shall include, but are not limited to, name, address, phone, ethnic group, gender, date of birth, transmission information, diagnosis and date of diagnosis and the name, address and phone of the person or facility making the report.

The AIDS Epidemiology Unit is required by law to protect the privacy of any individual reported with AIDS. HIV infected individuals, without a diagnosis of AIDS, are not required, at this time, to be reported in the State of California.

How should a report be made?

Providers can submit a confidential case report form available from County of San Diego, Health and Human Services Agency. Forms can be sent to:

Lyn Cardoza
Health and Human Services Agency
Community Epidemiology
P.O. Box 85222
San Diego, CA 92186-5222

Providers also have the option of reporting cases by phone. For a reporting kit or any additional information, call the AIDS Epidemiology Unit @ **(619) 515-6675**.

Why is reporting necessary?

Law requires reporting of diagnosed AIDS cases. California's disease reporting regulations not only specify what, when, where and how to report cases, but also include descriptions of monetary penalties to be imposed for failure to comply with these laws.

Timely and accurate AIDS case reports provide this county with a better understanding of our local epidemic. Epidemiologists can monitor trends in populations being effected by HIV infection, project future numbers of AIDS cases and provide information for those responsible for planning for future health care needs and prevention and educational activities.

Failure to report in a timely manner may have an impact on current and projected funding needs. Funding formulas using data which represents under-reporting of AIDS cases may translate into under funded programs and services for those with HIV infection.

A summary of legislation related to the case reporting, confidentiality, penalties and surveillance activities supported in the California Code of Regulations is available by calling the AIDS Epidemiology Unit @ (619)515-6675.

Appendix 4. Computing Rates and Rate by Ethnicity.

Calculating a rate of AIDS is a better indication of the burden of disease by a given population than just looking at the raw numbers. Not all population sizes are the same so the same number of cases in different populations may not reflect the proportion of that population which experiences a given disease. A rate normalizes the number and allows populations with dissimilar sizes to be compared.

The rate of AIDS is calculated by putting the number of individuals newly diagnosed with AIDS in a given time period in the numerator and dividing that by the population size. The rate of AIDS is then multiplied by 100,000 to give the rate per 100,000 of AIDS. For example, in year 2000, there were 436 individuals diagnosed with AIDS. In that time period, the number of people living in San Diego was estimated by SanDag (San Diego's Regional Planning Agency) to be 2911468. When the number of cases (436) is divided by the population size (2911468) and multiplied by 100,000, the result is:

$$(436/2911468)*100,000 = 15 \text{ AIDS cases per } 100,000 \text{ residents of San Diego County.}$$

Rates by race/ethnic group were computed by dividing the number of individuals with AIDS from a particular race/ethnic group by the number of those people in the population at large. The population size for each racial/ethnic group in San Diego is varies and calculating a rate per ethnic group allows those differently sized groups to be compared. The following table will display the different rates by race/ethnic group over the last 5 years.

Rates of AIDS Among Different Race/Ethnic Groups by Year of Diagnosis

Race /Ethnic Group	Description of Rows	Year of Diagnosis					
		1996	1997	1998	1999	2000	2001*
White	Number of AIDS cases	447	290	275	225	191	137
	Population Size	1663037	1675222	1698529	1718858	1738664	1738664
	Rate per 100,000	27	17	16	13	11	8
African American	Number of AIDS cases	105	97	80	61	74	49
	Population Size	164326	165897	168613	171096	173551	173551
	Rate per 100,000	64	58	47	36	43	28
Hispanic	Number of AIDS cases	189	173	131	145	161	107
	Population Size	618802	642474	670761	696468	722377	722377
	Rate per 100,000	31	27	20	21	22	15
Other**	Number of AIDS cases	29	18	12	8	10	8
	Population Size	235928	245461	256882	266836	276876	276876
	Rate per 100,000	12	7	5	3	4	3
All Race/Ethnic Groups	Number of AIDS cases	770	578	498	439	436	301
	Population Size	2682093	2729054	2794785	2853258	2911468	2911468
	Rate per 100,000	29	21	18	15	15	10

* Population data from year 2000 was used to compute year 2001 rates because year 2001 population estimates by race from SanDag have not yet been made available.

** (Asian, Pacific Islanders, and Native Americans)

Table 16

Appendix 5 Expanded Ethnic Origin of Hispanic and Asian/Pacific Islander Cases**Expanded Origin of Hispanic Cases**

Ethnic Origin	Frequency	Percent
Mexican	1828	81.5%
Hispanic, non-specific	180	8.0%
Puerto Rican	91	4.1%
Central American	42	1.9%
South American	41	1.8%
Cuban	30	1.3%
Spain / Portugal	26	1.2%
Dominican	4	0.2%
Total Hispanic Cases	2242	100.0%

Table 17

Expanded Origin of Asian/Pacific Islander Cases

Ethnic Origin	Frequency	Percent
Filipino	112	53.8%
Japanese	18	8.7%
Chinese	16	7.7%
Vietnamese	12	5.8%
Guamanian Islander	11	5.3%
Hawaiian	8	3.8%
Asian, non-specific	9	4.3%
Loatian	6	2.9%
Samoan	4	1.9%
Thai	3	1.4%
Cambodian	2	1.0%
East Indian	2	1.0%
Korean	1	0.5%
Fijian	1	0.5%
Mongolian	1	0.5%
Singaporean	1	0.5%
Taiwanese	1	0.5%
Tongan	1	0.5%
Total Asian/Pacific Islander Cases	208	100%

Table 18

Appendix 6 - Health and Human Services Agency (HHS) Regions of San Diego

San Diego County is broken down into 6 Health and Human Services Agency regions by zip code. The following list shows the breakdown of each area by the zip codes contained therein. The population estimates in each of the zip codes uses SANDAG's estimates, available to the public in their web site (see Appendix 10).

Breakdown of HHS Regions of San Diego County

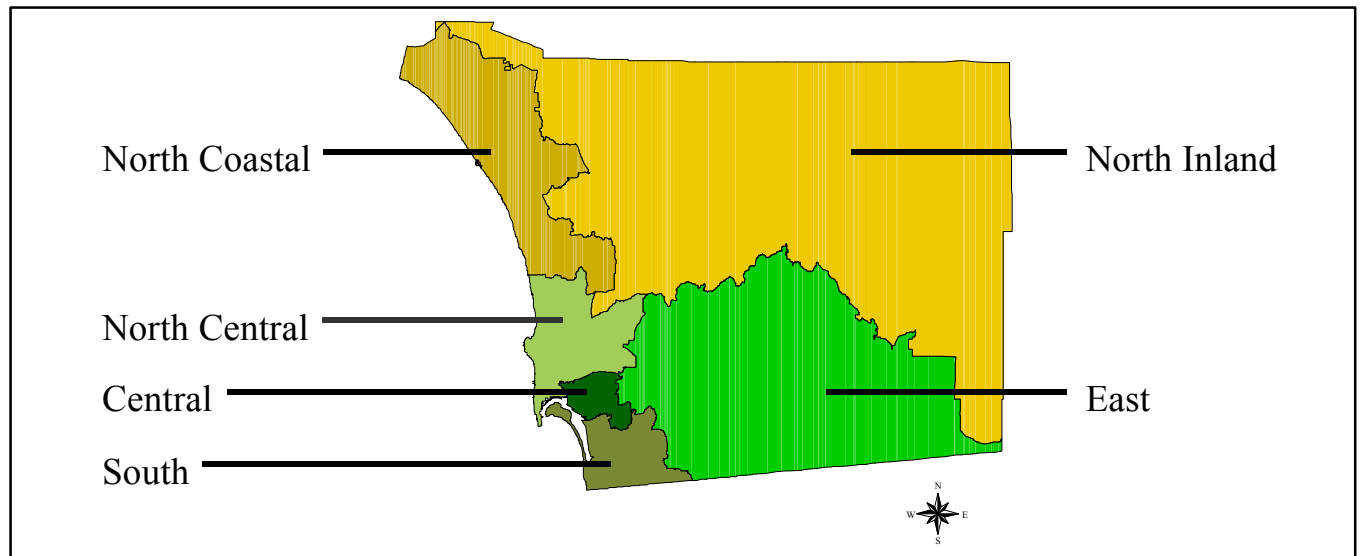


Figure 19

Central Area

Zip codes 92101, 92102, 92103, 92104, 92105, 92113, 92114, 92115, 92116, 92134, 92136, 92139, 92112, 92162, 92163, 92164, 92165, 92170, 92175, and 92176.

East Area

Zip codes 91901, 91905, 91906, 91916, 91917, 91931, 91934, 91935, 91941, 91942, 91945, 91948, 91962, 91963, 91977, 91978, 91980, 92019, 92020, 92021, 92040, 92071, 91944, and 91946.

South

Zip codes 91902, 91910, 91911, 91913, 91914, 91915, 91932, 91950, 92118, 92135, 92154, 92155, 92173, 92179, 91909, 91912, 92143, 91951, 91933, and 92158.

North Coastal

Zip codes 92007, 92008, 92009, 92014, 92024, 92052, 92054, 92055, 92056, 92057, 92067, 92068, 92075, 92083, 92084, 92672, 92093, 92169, 92161, 92038, and 92137.

North Inland

Zip codes 92003, 92004, 92025, 92026, 92027, 92028, 92029, 92036, 92059, 92060, 92061, 92064, 92065, 92066, 92069, 92070, 92082, 92086, 92127, 92128, 92129, 92259, 92390, 92536, 92592, 92046, and 92198.

North Central

Zip codes 92037, 92106, 92107, 92108, 92109, 92110, 92111, 92117, 92119, 92120, 92121, 92122, 92123, 92124, 92126, 92130, 92131, 92133, 92140, 92145, 92138, 92147, 92166, 92168, 92171, 91990, 92193, and 92196.

Appendix 7 City of Residence at Time of AIDS Diagnosis

City of residence at Time of AIDS diagnosis		
City of Residence	Cases	Percent
San Diego	8261	74.6%
Chula Vista	334	3.0%
Oceanside	317	2.9%
El Cajon	217	2.0%
Escondido	210	1.9%
La Mesa	171	1.5%
National City	145	1.3%
Spring Valley	142	1.3%
Vista	142	1.3%
La Jolla	127	1.1%
Carlsbad	118	1.1%
San Ysidro	115	1.0%
Encinitas	81	0.7%
Lemon Grove	79	0.7%
Santee	78	0.7%
Imperial Beach	76	0.7%
San Marcos	62	0.6%
Poway	44	0.4%
Lakeside	40	0.4%
Coronado	36	0.3%
Del Mar	34	0.3%
Fallbrook	36	0.3%
Bonita	26	0.2%
Ramona	24	0.2%
Cardiff by the Sea	19	0.2%
Leudcadia	19	0.2%
Alpine	16	0.1%
Solana Beach	16	0.1%
Valley Center	16	0.1%
Rancho Santa Fe	13	0.1%
Jamul	10	0.1%
Other*	45	0.4%
Total	11069	100%

* The following cities had 9 or less cases: Bonstall, Boulevard, Borrego Springs, Camp Pendleton, Campo, Descanso, Dulzura, Julian, Mount Laguna, Pauma Valley, Pine Valley, Ranchita, San Luis Rey, and Santa Ysabel

Note: Percentages may not add up to 100% due to rounding.

Table 19

Appendix 8 San Diego County AIDS Cumulative Cases Reported through December 31, 2001

Appendix 9. HIV Reporting Regulations: What Providers Need to Know

The State of California will implement HIV reporting regulations by July, 2002 in addition to current AIDS reporting. Unlike AIDS, no patient name or address is reported. Instead, the regulations require health care providers and laboratories to report using a non-name code. The non-name code is composed of the Soundex (an alphanumeric representation of the last name generated by the laboratory), gender, date of birth and last 4 digits of the social security number. As with other communicable diseases, this is a dual reporting process in which both health care providers and laboratories report.

When to Report

Report a case when a patient has a test result indicative of HIV infection. This includes:

- Confirmed positive HIV antibody test
- Any viral load test
- P24 antigen test
- Viral isolation test

Providers report a patient once when a test result is indicative of HIV infection and once again if the individual meets the AIDS case definition. To unduplicate reporting and provide a way to get missing information, health care providers are required to keep a log of patients that have been reported. Always report a case even if you think the patient may have been reported by another provider. This helps ensure complete case capture, which is critical for local prevention and treatment funding.

Who Reports

Health care providers and laboratory directors or their designees are required to report all patients with a test indicative of HIV to the local health department (LHD). When a laboratory has a test indicative of HIV infection, they report a limited amount of information to the LHD and send the results along with the Soundex to the provider. The provider then forwards a completed case report form to the LHD.

How to Report

The regulations require providers to use the California Department of Health Services Adult or Pediatric HIV/AIDS Confidential Report form. The forms ask for the elements that are used to construct the non-name code as well as information on other demographics, patient history and treatment. HIV case reports should be sent to the County of San Diego, HHSA, Community Epidemiology unit by mail (1700 Pacific Hwy, P511C-A, San Diego, CA 92101) or FAX (619) 515-6765.

Training is Available

Community Epidemiology staff are currently available to provide an orientation of the pending HIV reporting regulations. The seminar includes a 15-minute slide presentation as well as time to answer your questions.

Training staff to achieve timely and accurate HIV reporting can be accomplished by scheduling an on-site in-service for your facility. Training session length, format and tools were designed in response to survey findings conducted with laboratories and health care providers.

Community Epidemiology staff has developed two types of training sessions designed to familiarize designated reporters with the process of reporting cases of HIV infection. Specialized training is available for laboratory staff lasting one hour. Another session is available specifically for health care

providers and their designated staff lasting 1.5 hours. All trainees will be provided a Reference Guide and reporting tools. Call (619) 515-6675 to schedule a training, orientation or for more information.

For a copy of the regulations and more information on HIV reporting go to: www.dhs.ca.gov/AIDS/

Appendix 10. Office of AIDS HIV Counseling and Testing Risk Group Hierarchy

After risk behavior is entered into the database for a client, the computer program ranks the risks and assigns the client to the risk group with the *highest risk*. The following risk groups are mutually exclusive and are presented in order of estimated risk from highest risk to lower risk. As of 2001, behaviors have to have occurred within the last 2 years or since the last test result (whichever is less) to be recorded. Also, some categories may seem to include all of a particular risk group when they do not. For example, Gay/Bi IDU includes some men who have sex with men (MSM) who are also injection drug users (IDU). Below are the current definitions (there have been changes over the years):

Men who have Sex with Men (MSM): men who report having a male sex partner, no female sex partners, and no injection drug use.

Bisexual: men and women who report having both a male and female partner.

Injection Drug Users (IDU): clients who report having injected drugs, except men who have had sex with men but no women (they are placed in Gay/Bi IDU).

Gay Men/Bisexual Men who are Injection Drug Users (Gay/Bi IDU): Men who report having sex with a male, or male and female partner and using injection drugs.

HIV+ Partner: client reports having a partner who is HIV positive.

Partner Bisexual: women only who report having a male partner who has sex with men.

IDU Partner: client reports having a partner who uses injection drugs.

Sex for Drugs/Money: client reports trading sex for drugs or money.

Blood Transfusion <1985: client reports having a blood transfusion prior to 1985 or in a country where the blood is not tested for HIV.

Multiple Partners: men who report >1 female partner and no male partners in that time; women who report >1 male partner and no female partners in that time.

Partners with Multiple Partners: client reports having a partner who has had multiple partners. Dropped as a risk group in 2001 (by default absorbed into No Reported Risk).

Occupational Exposure: client reports on the job blood exposure (either blood to blood exposure or any exposure to known HIV positive blood).

Child at Risk: clients less than 12 years of age and report having an HIV positive mother.

No Reported Risk: client does not fall into one of the above risk categories and reports one or no sexual partners.

Unknown: client reports more than one sexual partner in the last year (or unknown number of sexual partners) and did not report any risk factors (client may have refused to discuss risk factors).

Appendix 11. World Wide Web Addresses for HIV/AIDS Related Information

International

WHO Global HIV/STD Surveillance Fact Sheet www.who.int/emc-hiv/
Contains the most recent country-specific data on HIV/AIDS prevalence and incidence

National

ADAP Monitoring Project www.aidsinfonyc.org/adap/index.html
Up-to-date information on ADAPs providing medications to low income, uninsured or underinsured people with HIV in 52 States and Territories.

AEGIS www.aegis.com
Extensive databases of newspaper and wire reports, community group publications, legal documents, statistics, and patient forums.

AIDS Treatment Information Service www.hivatis.org/
Provides information on Federally and privately approved treatment Guidelines for persons with HIV/AIDS.

AIDS Economics www.iaen.org
Comprehensive information on economic and cost-effectiveness aspects of HIV/AIDS therapy.

AIDS Education Global Information Service www.aegis.com/
Roxane Laboratories, Inc.

AIDS Imaging members.xoom.it/Aidsimaging/contents.htm
Clinical, radiologic, and microscopic images of infectious diseases, AIDS-related conditions and sexually transmitted diseases.

AIDSmeds.com www.aidsmeds.com
AIDSmeds.com contains complete and easy-to-read information on treating HIV and AIDS, including guided treatment lessons, information on drugs, recent news, community forums, great links, and more.

American Foundation for AIDS Research www.amfar.org/
Basic bio-medical & clinical research.

Antiviral Weekly www.newsrx.net
Weekly Antiviral Update information.

CDC National Prevention Information Network www.cdcnpin.org.
Resources and information about education, prevention, Published materials, research funding and related trends.

CDC, Division of AIDS Prevention <http://www.cdc.gov/nchstp/od/nchstp.html>
National Centers for HIV, STD and TB prevention.

Coalition for Positive Sex www.positive.org/home/index.html
Web site has animation demonstrating safer sex techniques.

Gay Men's Health Crisis www.gmhc.org/
New York based, non-profit organization offering support services.

Healthweb www.healthweb.org
A Categorized list of all aspects of HIV/AIDS, selected by health science libraries in the Midwest.

HIV/AIDS Treatment Information Service (ATIS) www.hivatis.org

Provides information in English and Spanish about federally approved treatment guidelines for HIV and AIDS.

Journal of the American Medical Association
HIV/AIDS Information Center www.ama-assn.org/special/hiv/hivhome.htm

National Institute of Health, Office of AIDS Research www.nih.gov/od/oar/index.htm

University of California, San Francisco
Youth orientated website about HIV and AIDS whatudo.org

California

AIDS Project Los Angeles www.apla.org/

California AIDS Clearinghouse
HIV prevention, community planning, educational materials, directory & calendar. www.hivinfo.org/

AIDS Treatment News Archive www.immunet.org/immunet/atn.nsf/homepage

State Office of AIDS www.dhs.ca.gov/AIDS/
The Office of AIDS has lead responsibility for coordinating state programs, services, and activities relating to HIV/AIDS. Up to date state statistics can be accessed.

Project Inform www.projinf.org
Non-profit Community-Based Organization.

The Body: California AIDS Services Organization www.thebody.com/hotlines/calif.html
California AIDS Services Organizations AIDS Resource by Location

San Diego County

Being Alive www.beingalive.org
Non-profit organization delivering quality, compassionate services to people affected by HIV/AIDS

County of San Diego www.co.san-diego.ca.us/cnty/cntydepts/health/services/epidiv aids.html
Listing of AIDS related Services offered by San Diego County's Health Department.

AIDS Research Institute www.ari.ucsd.edu/
University of California, San Diego, dedicated to improving health care for those with HIV.

HIV Consumer Council www.hivconsumercouncil.org/
Provides information regarding events that involve HIV+ people and to encourage participation of the HIV community of San Diego County in the decision making processes that affect them.

SANDAG - San Diego's Regional Planning Agency cart.sandag.org/sdw
Population estimates for San Diego County.