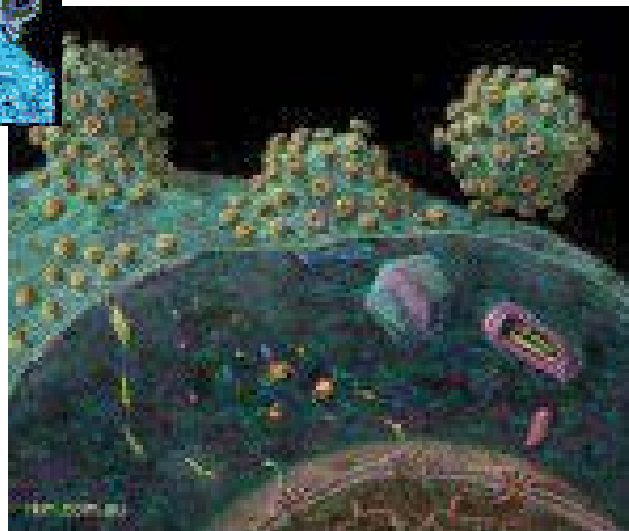
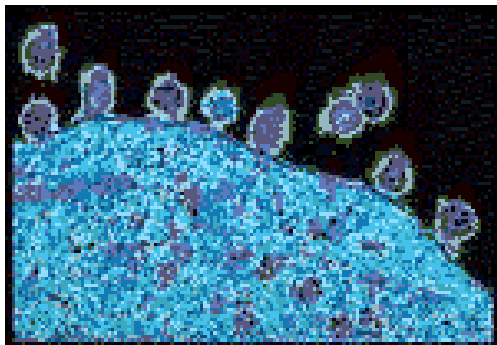
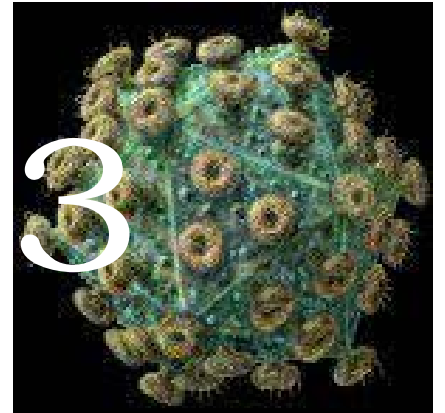




County of
San Diego

HIV/AIDS Epidemiology Report

2003



Health and Human
Services Agency

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HIV/AIDS Epidemiology Report

2003

COUNTY OF SAN DIEGO
Health and Human Services Agency
Public Health Services



An Annual Report

To obtain a free copy of this report or for more information, contact:

Community Epidemiology
HIV/AIDS Epidemiology
1700 Pacific Highway, P511C-A
San Diego, CA 92101

(619) 515-6620
(619) 515-6675

Rodger G. Lum, Ph.D., Director
Nancy Bowen, M.D., Public Health Officer
Michele Ginsberg, M.D., Chief
 Division of Community Epidemiology
Michael Bursaw, M.P.H., (619) 515-6672
Tabatha Aboumrad, M.P.H., (619) 515-6763
Lyn Cardoza, (619) 515-6675
Lorri Freitas, M.P.H, (619) 515-6764
Norman Jackson, (619) 515-6757
Minda Johnson, (619) 515-6762
Francisco McGann, (619) 515-6763
Joy Van Meter, (619) 515-6625

Table of Contents

I. Executive Summary	5
II. AIDS in San Diego County	7
1.0 Overall AIDS Case Data	7
2.0 Demographic Variables	7
2.1 Gender	8
2.2 Race/Ethnicity Group	8
2.3 Age	10
2.4 Children and AIDS	12
2.5 Place of Residence	12
2.6 Place of Origin	15
3.0 Mode of Transmission	16
4.0 Health Outcomes	19
4.1 Opportunistic Infections	20
4.2 Mortality Status	22
5.0 AIDS Summary	24
III. HIV in San Diego County	25
1.0 HIV Reporting	25
2.0 HIV and Local Data	25
3.0 HIV Data and Demographics	26
3.1 Gender	27
3.2 Race/Ethnicity	29
3.3 Age	29
3.4 Youth	30
3.5 Geographic Areas	31
4.0 Risk Groups	31
5.0 MSM Group	33
5.1 Young MSM	34
6.0 HIV Summary	35
IV. Appendices	39

List of Figures and Tables

FIGURE 1	7
AIDS Cases by Year of Diagnosis, San Diego County	
TABLE 1	8
AIDS Diagnosis Among Ages 13 and Older by Gender and Area of Residence	
FIGURE 2	9
Comparison of Cases by Race/Ethnicity, Location and Time Period of Diagnosis	
FIGURE 3	9
Number of New AIDS Cases in a Time Period and Percentage Attributed to Persons of Color, San Diego County	
FIGURE 4	10
Rate of AIDS Cases by Race/Ethnicity, San Diego County	
FIGURE 5	11
AIDS Cases by Age Group at Diagnosis During Different Time Periods, San Diego County	
TABLE 2	11
AIDS Cases by Age-Related Measurements and Race/Ethnicity Over Time, San Diego County	
FIGURE 6	12
AIDS Case Distribution by HHSA Region, based on Zipcode at Time of Diagnosis, San Diego County	
TABLE 3	13
AIDS Case Distribution by Race/Ethnicity and HHSA Region, San Diego County	
TABLE 4	13
AIDS Case Distribution by HHSA Region Over Time, San Diego County	
TABLE 5	14
AIDS Case Distribution by Race/Ethnicity and HHSA Region Over Time, San Diego County	
TABLE 6	14
AIDS Case Distribution of Females in HHSA Regions Over Time, San Diego County	
TABLE 7	15
Hispanic AIDS Cases by Gender and Place of Birth by Time Period, San Diego County	
FIGURE 7	16
AIDS Case Distribution by Mode of Transmission, San Diego County	
FIGURE 8	17
Mode of Transmission for Men Diagnosed with AIDS, San Diego County, (n=10,706)	
TABLE 8	17
AIDS Cases by Gender, Transmission and Time, San Diego County	
FIGURE 9	17
Mode of Transmission for Women Diagnosed with AIDS, San Diego County, (n=823)	
TABLE 9	18
Adolescent/Adult Male AIDS Cases by Mode of Transmission, Race/Ethnicity and by Time Period, San Diego County	
TABLE 10	19
Adolescent/Adult Female AIDS Cases by Mode of Transmission, Race/Ethnicity and by Time Period, San Diego County	
TABLE 11	20
Frequency of Indicator Diseases* Among Reported Pediatric AIDS Cases**, San Diego County	
TABLE 12	21
Frequency of Indicator Diseases* Among Reported Adolescent/Adult AIDS Cases**, San Diego County	

FIGURE 10.....22
 AIDS Cases by Year of Diagnosis and Status, San Diego County, (n=11,529)

FIGURE 11.....22
 Number of Persons Diagnosed and Living with AIDS, San Diego County

TABLE 1323
 AIDS Cases, Deaths and Fatality Rate Over Time, San Diego County

TABLE 1423
 Current Age of Individuals Living with AIDS, San Diego County

FIGURE 12..... 26
 Rate per 100 Testing HIV+ Anonymous HCT, San Diego County, 1990-2002

FIGURE 13..... 27
 Rate per 100 Testing HIV+ by Gender, Anonymous HCT, San Diego County, 1990-2002

FIGURE 14.....28
 HIV-1 Seroprevalence by Gender in a Sample of STD Clinic Attendees Percent HIV-1 Positive by Gender, San Diego County, 1990-2002

FIGURE 15.....29
 Rate per 100 Testing HIV+ by Race/Ethnicity, Anonymous HCT, San Diego County, 1998-2002

FIGURE 16.....30
 Rate per 100 Testing HIV+ by Age Group, Anonymous HCT, San Diego County, 1998-2002

FIGURE 17.....30
 Rate per 100 Testing HIV+ Ages 13-24 and Overall Anonymous HCT, San Diego County, 1990-2002

FIGURE 18.....31
 Rate per 100 Testing HIV+ by HHS Region, Anonymous HCT, San Diego County, 1998-2002

FIGURE 19.....32
 Rate per 100 Testing HIV+ by Risk Group, Anonymous HCT, San Diego County, 1990-2002

FIGURE 20.....33
 Rate per 100 Testing HIV+, MSM Group, Anonymous HCT, San Diego County, 1990-2002

FIGURE 21.....34
 Rate per 100 Testing HIV+, MSM Group by Age Group, Anonymous HCT, San Diego County, 1998-2002

FIGURE 22.....34
 Rate per 100 Testing HIV+, MSM Group by Race/Ethnicity, Anonymous HCT, San Diego County, 1998-2002

FIGURE 23.....35
 Rate per 100 Testing HIV+, MSM Group by HHS Region, Anonymous HCT, San Diego County, 1998-2002

FIGURE 24.....35
 Rate per 100 Testing HIV+, MSM Ages 13-24, Anonymous HCT, Two Yr. Averages, San Diego County, 91/92-01/02

TABLE 1544
 Rates of AIDS Among Different Race/Ethnic Groups by Year of Diagnosis

TABLE 16 45
 Expanded Origin of Hispanic Cases

TABLE 17..... 45
 Expanded Origin of Asian/Pacific Islander Cases

FIGURE 19..... 46
 HHS Regions of San Diego County

TABLE 19..... 47
 Community of Residence at Time of AIDS Diagnosis

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 11,529 AIDS cases reported in San Diego County as of December 31, 2002. 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; 52% 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.
- Women constitute 7% of total cases and 10% of cases diagnosed since 1998. Small numbers of cases make it difficult to ascertain if the upward trend experienced nationally is occurring in San Diego County.
- Among men, "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

- While there has been a decline in Human Immunodeficiency Virus (HIV) infection rates among HCT (HIV Counseling and Testing) testers since 1985, the overall rate increased in 2001 and 2002.
- Male HCT testers had an increase in HIV infection rates in 2001 and 2002. Women testers had a decline in rates in 2001 with a slight increase in 2002.
- African Americans generally have the highest HIV infection rates among HCT testers and Hispanics usually have the next highest rate. Although HIV infection rates for whites are usually considerably lower than African American or Hispanic testers, in 2002 rates increased for whites, surpassing that of Hispanics.
- The HIV infection rate increased among HCT testers ages 35-49, surpassing the rate for those ages 25-34, traditionally the age group with the highest rate.
- HCT testers from the Central region of San Diego have consistently had higher HIV infection rates than other regions and the increase in rates in 2001 were sustained in 2002.
- Among HCT testers, men who have male sexual partners - the MSM group, continue to have a higher HIV infection rate than other risk groups and their rates have been increasing since 2001.

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II. AIDS in San Diego County

1.0 Overall AIDS Case Data

As of December 2002, California has the second highest number of AIDS cases reported in the United States. By December 31, 2002, there were 128,196 Acquired Immunodeficiency Syndrome (AIDS) cases reported in California. A total of 11,529 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 seventy-two (472) of the 11,529 cases were reported in 2002, three hundred twenty-five (325) of which were also diagnosed in 2002. The additional 147 cases reported were diagnosed years earlier but due to delays in reporting did not show up in the database until 2002. Additional AIDS cases diagnosed in 2002 are expected to be reported throughout 2003 and into 2004. 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 in reporting.

The first cases of AIDS in residents of San Diego County (2) were diagnosed in 1981. During 1993,

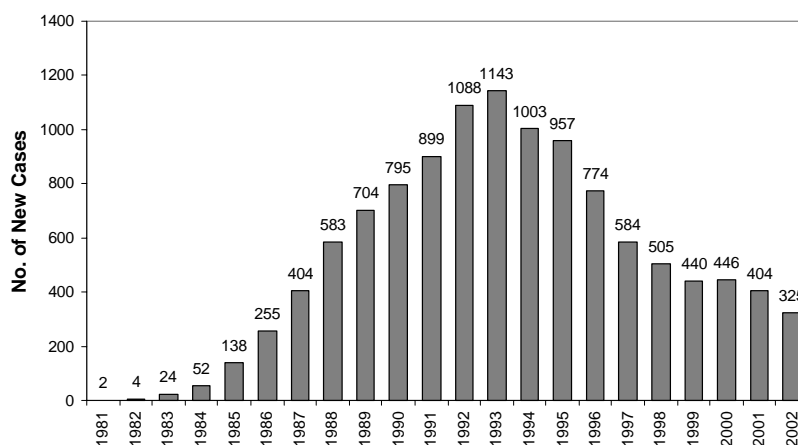
1,143 cases were diagnosed among residents of the County (*Figure 1*). With the implementation of the expanded AIDS Surveillance Case Definition in 1993, reported cases now reflect conditions that occur earlier in Human Immunodeficiency Virus (HIV) infection. The peak in AIDS cases is likely the result of changes in the case definition. Delays in reporting and changes in the AIDS case definition distort observed trends.

2.0 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/ethnicity show that while the number of new cases in each racial 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

New AIDS Cases

FIGURE 1
AIDS Cases by Year of
Diagnosis, San Diego County



to the south. While there has been a gradual increase in average age at time of diagnosis, it remains in the 30 – 39 year age group.

2.1 Gender

The first female diagnosed with AIDS in San Diego County occurred in 1984. Females continue to constitute less than 10% of the cumulative cases. There have been 10,706 (93%) male cases and 823 (7%) female cases as of December 31, 2002. Of the most recent cases, females made up 10% of the total cases reported (years 2000 to 2002). The percent of cases diagnosed in females had been steadily climbing from 1984 to 1997. Since 1997, the percent per year has remained about 10%, fluctuating from 9-11%.

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*).

2.2 Race/Ethnicity Group

Cumulatively (as of 12/31/02), whites made up 42% of all cases in the United States. In California,

this group makes up 59% of the cumulative cases and locally, 64% (as of 12/31/02). Twenty-one 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 lower than the state and national levels. At the state level African Americans constitute 18% of AIDS cases (through 12/31/02) and at the national level, 38% (through 12/31/01) (*Figure 2*). During the most recent year (2002), persons of color comprised 55% of San Diego County's AIDS cases.

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 cumulative 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*). Recent cases more closely resemble the national proportions in regard to race/ethnicity except that the second most frequent groups are reversed. At a national level, African American

AIDS Cases by Gender

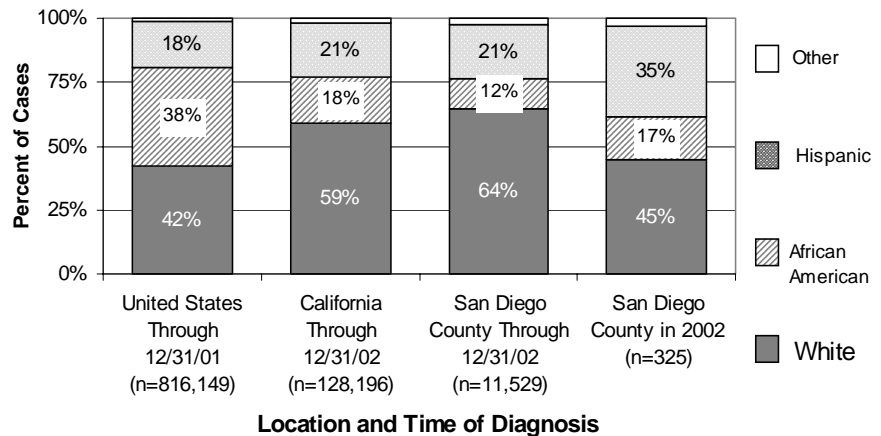
TABLE 1

AIDS Diagnosis Among Ages 13 and Older by Gender and Area of Residence

Gender	United States Through 12/31/01		California Through 12/31/02		San Diego Through 12/31/02		San Diego 2000-2002	
	#	%	#	%	#	%	#	%
Male	666,026	83	117,747	92	10,679	93	1,050	90
Female	141,048	17	9,740	8	794	7	123	10
Total	807,074		127,487		11,473		1,173	

AIDS Cases by Race

FIGURE 2
Comparison of Cases by Race/Ethnicity, Location and Time Period of Diagnosis



individuals make up the second most frequent group followed by Hispanic individuals. Locally, Hispanic individuals make up the second most frequent group followed by African American individuals.

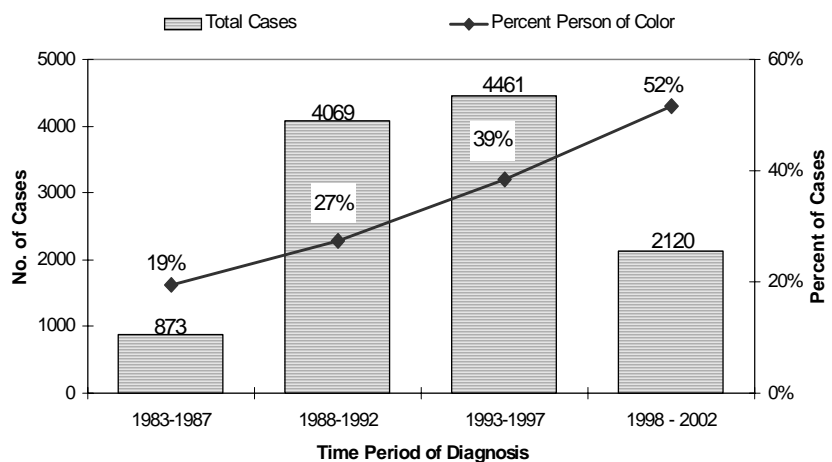
To understand the impact AIDS has on different communities in San Diego, the rates of AIDS in those communities need to be examined separately. In year 2002, San Diego County had a rate of 11 newly diagnosed AIDS cases per 100,000 persons living in the county. This rate is based on current estimates of population size as calculated by the San Diego Association of Governments (SANDAG) through the 1990s and 2000s. A revision of estimates based on

the 2000 census will impact the rates. As well, the number of new cases diagnosed in year 2002 is expected to increase as more cases diagnosed in 2002 are reported through 2003 and into 2004. This will also change the rate. In 2000 and 2001, the rate of AIDS in San Diego County was 15 and 14 per 100,000, respectively. Healthy People 2010 estimated that there were 19.5 AIDS cases per 100,000 adolescents 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/ethnicity are computed, the picture of AIDS in San Diego looks quite different than it does when examining the raw numbers of those

AIDS and Persons of Color

FIGURE 3
Number of New AIDS Cases in a Time Period and Percentage Attributed to Persons of Color, San Diego County



same racial ethnic groups. Since 1986, African Americans have had the highest rate of AIDS in San Diego County. In year 2002, the rate for AIDS in the African American community was tentatively 31 per 100,000. The year before, 2001, the rate was 36 per 100,000. Again, as new cases diagnosed in year 2002 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/ethnicity groups in San Diego County from 1997 to 2001. Year 2002 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/ethnicity, please see Appendix 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 44% of all cases reported at the national, 45% at the state

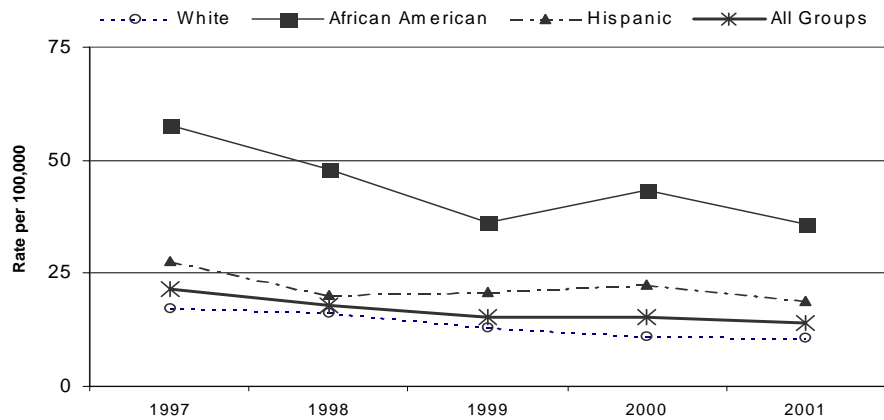
level, and 46% in San Diego County. The second largest group for all three areas is the 40-49 years followed by 20-29 years.

The age group, 30-39 years has consistently been the most frequent age group since the beginning of the epidemic. In the time period 1983-1987, the second most frequent age group was 20-29 years and the third most frequent was 40-49 years. Since then, those two age groups have switched in relative frequency with 40-49 years the second most frequent and 20-29 years the third. The percentage of cases diagnosed between 20-29 years of age has continued to decrease while the percentage of cases diagnosed between 40-49 years of age 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*).

The average age at the time of AIDS diagnosis is 38 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 racial/ethnic groups (*Table 2*). This difference, however, is not statistically significant ($p < .05$).

AIDS Rates by Race/Ethnicity

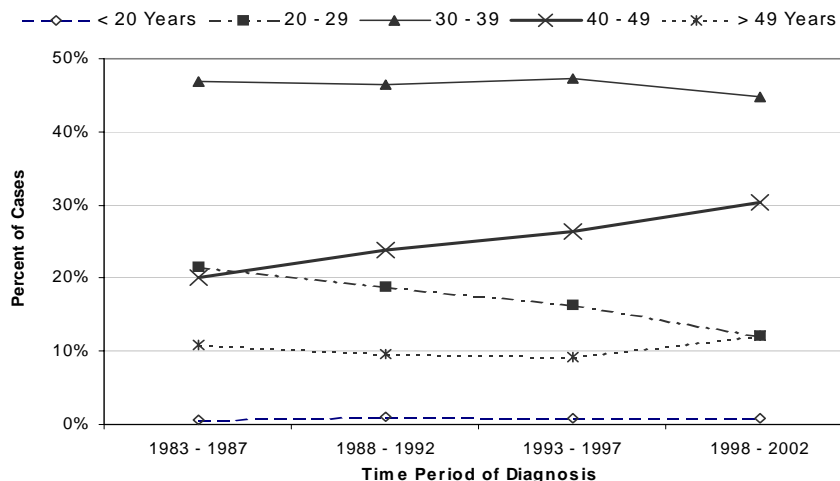
FIGURE 4
Rate of AIDS Cases
by Race/Ethnicity,
San Diego County



AIDS Cases by Age Group

FIGURE 5

**AIDS Cases by Age Group
at Diagnosis During
Different Time Periods,
San Diego County**



AIDS Cases by Age and Race/Ethnicity

TABLE 2

AIDS Cases by Age-Related Measurements and Race/Ethnicity Over Time, San Diego County

Time Period	Age Related Measurement	Race / Ethnicity			
		White	African American	Hispanic	Other*
1983 - 1987	Median Age	36	33	32	34.5
	Range in years	79	49	40	20
	Youngest Case	2	1	22	28
	N	703	71	89	10
1988 - 1992	Median Age	36	35	34	36
	Range in years	88	71	75	53
	Youngest Case	Birth	Birth	Birth	16
	N	2952	431	611	75
1993 - 1997	Median Age	37	36	34	34
	Range in years	77	71	75	67
	Youngest Case	1	Birth	Birth	Birth
	N	2742	564	1008	147
1998 - 2002	Median Age	39	39	36	38
	Range in years	59	68	78	20
	Youngest Case	18	Birth	Birth	53
	N	1027	334	696	63
Cumulative**	Median Age	37	36	34	35
	Range in years	88	71	78	73
	Youngest Case	Birth	Birth	Birth	Birth
	N	7430	1400	2404	295

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

** Includes those 6 cases diagnosed in 1981 and 1982.

2.4 Children and AIDS

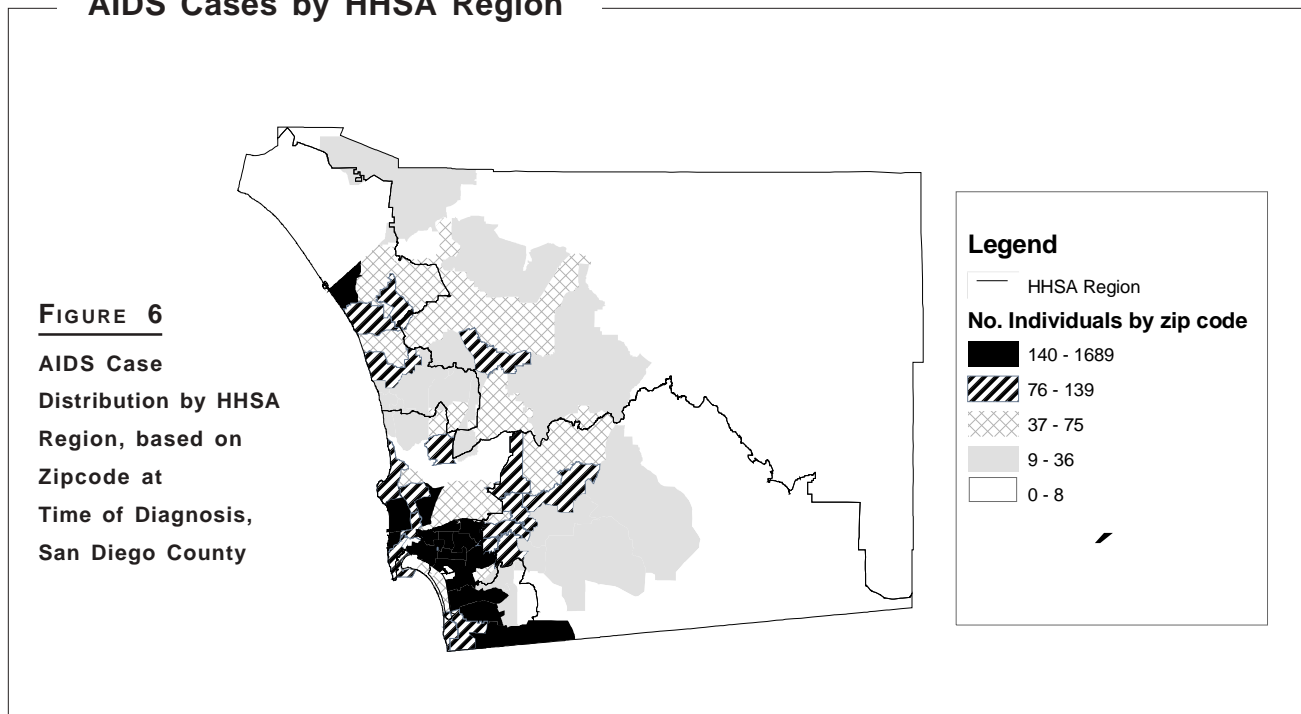
A pediatric case is one in which the individual diagnosed with AIDS was 12 years old or younger at the time they met the case definition. As of 12/31/02, there have been 9,074 pediatric cases in the nation. This constitutes 1.1% of all AIDS cases diagnosed nationwide. In the state of California, a smaller percent of cases, 0.49% (624) of the 128,196 cases are pediatric. At a local level, the percent of cases diagnosed in this age group is identical. There have been 56 pediatric cases, or about 0.49% of total San Diego cases. In recent years, the number of pediatric cases has been very low. For the last 3 years, only 1 person per year and in the last 5 years, a total of 8 people who are 12 or younger have been diagnosed with AIDS. There has never been more than 8 young individuals per year that have been diagnosed with AIDS.

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/exposure, or place of current residence. 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 percent of men and 40% of women diagnosed with AIDS were living in the Central Region at the time of their diagnosis. By race/ethnicity, 60% of white cases, 71% of African American cases, 50% of Hispanic cases, 41% of Asian/

AIDS Cases by HHSA Region



Race by HHS Region

TABLE 3

AIDS Case Distribution by Race/Ethnicity and HHS Region, San Diego County

Race/ethnicity Group	HHS Region					
	Central	North Central	South	North Coastal	East	North Inland
White	65%	76%	31%	68%	69%	69%
African American	15%	7%	10%	10%	10%	5%
Hispanic	18%	13%	55%	19%	18%	21%
Asian/PI	1%	3%	3%	2%	2%	4%
Native American	1%	1%	<1%	1%	1%	1%
Total in Region	6771	1554	1030	841	802	531

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

Pacific Islander cases, and 62% of Native American cases were living in this region at the time of their AIDS diagnosis.

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

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*).

Over time, reported AIDS cases in all of the HHS regions have become more diverse in their racial/ethnic breakdown. Primarily, this is due to a more

AIDS Trends by HHS Region

TABLE 4

AIDS Case Distribution by HHS Region Over Time, San Diego County

HHS Region of San Diego	Time Period of Diagnosis				Cumulative Cases
	1983 - 1987	1988 - 1992	1993 - 1997	1998 - 2002	
Central	62%	60%	58%	55%	59%
North Central	17%	15%	13%	11%	13%
South	4%	7%	9%	15%	9%
North Coastal	7%	6%	8%	7%	7%
East	7%	8%	6%	7%	7%
North Inland	3%	5%	5%	5%	5%
Number of Cases	873	4069	4461	2120	11529

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

AIDS Trends by Race/Ethnicity and HHS Region

TABLE 5

AIDS Case Distribution by Race/Ethnicity and HHS Region Over Time, San Diego County

HHS Region	Time Period	Race/Ethnicity				Number in Time Period
		White	African American	Hispanic	Other*	
Central	1983 – 1987	79%	10%	10%	1%	545
	1998 - 2002	50%	19%	28%	3%	1166
North Central	1983 – 1987	89%	3%	7%	1%	148
	1998 - 2002	65%	12%	19%	3%	236
South	1983 – 1987	61%	11%	25%	3%	36
	1998 - 2002	18%	9%	70%	4%	314
North Coastal	1983 – 1987	86%	9%	5%	0%	57
	1998 - 2002	62%	15%	20%	3%	157
East	1983 – 1987	79%	7%	9%	5%	57
	1998 - 2002	56%	14%	27%	5%	148
North Inland	1983 – 1987	80%	0%	20%	0%	30
	1998 - 2002	52%	7%	36%	3%	99

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

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

dramatic decrease in number of white cases than any other racial/ethnic group in each region. This diversity is primarily displayed as a proportional decrease in white cases and increases in African American and Hispanic cases. The above table (5) breaks down the six regions by race/ethnicity and compares an early time in the epidemic (1983 – 1997) with the most recent 5 years of the epidemic (1998 – 2002). The first 2 years of the epidemic had very small numbers so they were skipped and the early time period starts in 1983.

Like men, women with AIDS are most frequently residing in the Central region at the time of their diagnosis. However, women tend to be more evenly distributed throughout San Diego County than men. There is more variability among female cases per region in each time period. In general, the North Inland region has the largest percent of its cases in women (14%) but it alternates with the East region during the 5-year time periods. Table 6 displays the proportion of female cases in the different HHS regions over time.

Female Cases by HHS Region

TABLE 6

AIDS Case Distribution of Females in HHS Regions Over Time, San Diego County

HHS Region of San Diego	Time Period of Diagnosis				Cumulative Cases
	1983 - 1987	1988 - 1992	1993 - 1997	1998 - 2002	
Central	9 (2%)	84 (3%)	142 (5%)	95 (8%)	330 (5%)
North Central	6 (4%)	27 (5%)	61 (11%)	20 (8%)	114 (7%)
South	2 (6%)	31 (12%)	49 (12%)	35 (11%)	117 (11%)
North Coastal	4 (7%)	23 (9%)	50 (14%)	24 (15%)	101 (12%)
East	8 (14%)	23 (7%)	30 (11%)	25 (17%)	86 (11%)
North Inland	3 (10%)	25 (14%)	34 (16%)	13 (13%)	75 (14%)
Number of Cases	32 (4%)	213 (5%)	366 (8%)	212 (10%)	823 (7%)

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

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 11,529 cases diagnosed in San Diego County, 14% were born in foreign countries, and 1% were born in a United States Dependency (such as Puerto Rico or Guam).

Those born outside of the United States in either a US Dependency or a foreign country account for 56% of the 227 Asian/Pacific Islander cases and 55% of the 2404 Hispanic Cases. Only 1% of the 68 Native Americans, 2% of the 7,430 whites and 4% of the 1,400 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 the 1,662 individuals with AIDS who were born outside the United States (US Dependency or other country) are examined by race, the most frequent group is Hispanic, constituting 79% of all foreign and US Dependency born persons. While more than half of Asian/Pacific Islanders were born outside of the United States, this group makes up only 8% of the 'foreign born' group. White individuals make up 10% and African Americans constitute 8% of those born in either a US Dependency or foreign country.

An analysis of Hispanic cases by time period, place of birth, and gender shows that an increasing proportion of Hispanics are foreign-born and that a slightly larger proportion of females 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

Hispanic Cases by Place of Birth

TABLE 7

Hispanic AIDS Cases by Gender and Place of Birth by Time Period, San Diego County

Gender	Place of Birth	Time Period of Diagnosis				Cumulative
		1983 - 1987	1988 - 1992	1993 - 1997	1998 - 2002	
Male	US born	52%	53%	51%	31%	46%
	US Dependency born	7%	3%	2%	1%	2%
	Foreign Born	40%	44%	47%	68%	52%
	Unknown	<1%	<1%	<1%	<1%	<1%
	Number in Time Period	84	563	907	624	2178
Female	US born	*	50%	41%	33%	40%
	US Dependency born	*	4%	3%	<1%	3%
	Foreign Born	*	46%	56%	67%	57%
	Number in Time Period	5	48	101	72	226

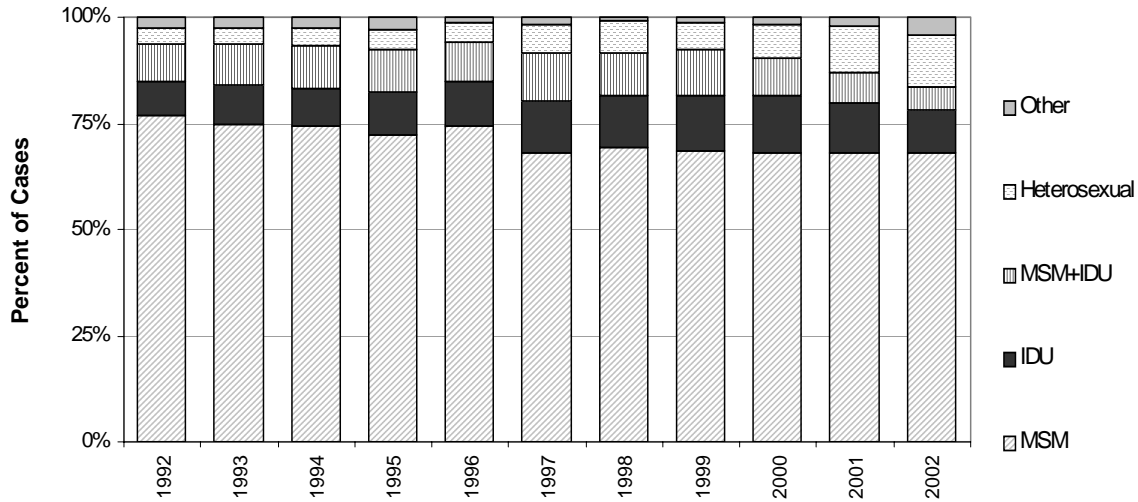
* Too few cases to break down.

Note: Percentages may not add up to 100% due to rounding. There were no Hispanic individuals diagnosed with AIDS prior

AIDS by Mode of Transmission

FIGURE 7

AIDS Cases Distribution by Mode of Transmission, San Diego County



Islander cases should be interpreted with caution. Most of the foreign-born Hispanics (87%) were born in Mexico, and the majority of foreign-born Asian/Pacific Islanders (63%) were born in the Philippines.

3.0 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 (75% of all cases). Since 1997, the proportion of cases attributed to injection drug use (IDU) and, to a lesser extent, heterosexual transmission have been growing. In the above figure (Figure 7), the distribution of transmission mode is presented by year of diagnosis.

Cumulatively, MSM constitutes 75% of the AIDS cases, followed by both IDU 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 2002.

When the genders are separated, the percent distribution for mode of transmission changes (Figures 8-9). In men, all risk categories other than MSM make up less than 20% of the cases – with most of that going to MSM+IDU (10%) and IDU (7%). The proportion of men attributed to heterosexual contact and IDU decrease (5% to 1% and 9% to 7%, respectively) while the proportion to MSM jumps up (75% to 81%). In women, a different picture is seen. About 86% of all women are diagnosed in either heterosexual contact (49%) or IDU (37%). There have been 25 girls (3% of female cases) diagnosed with AIDS due to maternally transmitted HIV. This is similar to the number of boys infected with HIV and diagnosed with AIDS through maternal transmission, 21 boys or 0.2% of male cases.

Transmission by Gender

FIGURE 8

Mode of Transmission for Men Diagnosed with AIDS, San Diego County, (n=10,706)

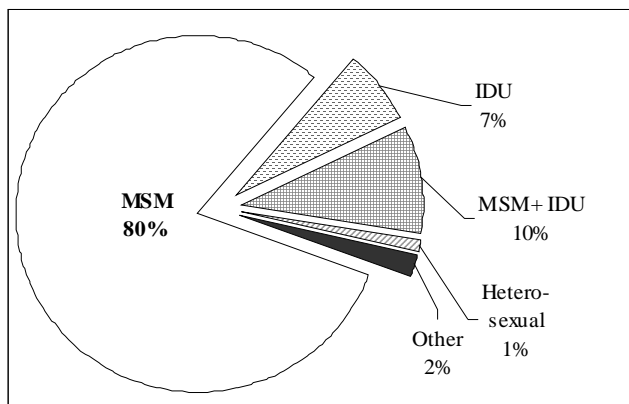
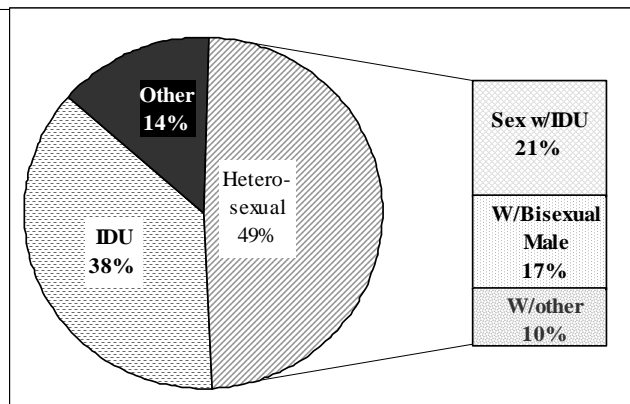


FIGURE 9

Mode of Transmission for Women Diagnosed with AIDS, San Diego County, (n=823)



When Mode of Transmission is broken down into 5-year time periods by gender (Table 8), a decrease in percentage of male cases attributed to MSM can be seen (83% to 76%). The decrease from the time period 1993-1997 to 1998-2002 is not statistically significant. There has also been a gradual increase of IDU transmission modes for men. While the percent of cases is still low, the increase has been significant

between each time period. Heterosexual contact still makes up a very 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 by Gender and Time

TABLE 8

AIDS Cases by Gender, Transmission and Time, San Diego County

Gender	Mode of Transmission	Time period of Diagnosis				Cumulative
		1983 - 1987	1988 - 1992	1993 - 1997	1998 - 2002	
Male	Adolescent/Adult:					
	Homosexual / Bisexual (MSM)	83%	83%	80%	76%	81%
	Injection Drug Use (IDU)	2%	5%	7%	10%	7%
	MSM + IDU	11%	9%	11%	10%	10%
	Heterosexual	<1%	1%	1%	3%	1%
	Transfusion/Transplant/Hemophiliac	3%	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		841	3856	4095	1908	10706
Female	Adolescent/Adult:					
	Injection Drug Use (IDU)	28%	37%	39%	36%	37%
	Heterosexual	38%	41%	49%	58%	49%
	Transfusion/Transplant/Hemophiliac	25%	16%	6%	1%	8%
	Risk Not Specified/Other	<1%	<1%	2%	5%	2%
	Pediatric (0 - 12 years):					
All modes of transmission	9%	6%	4%	<1%	4%	
Number in Group		32	213	366	212	823

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

transmission. While the proportion of cases attributed to heterosexual transmission per time period of diagnosis seems to be increasing, these increases are not statistically significant. When IDU as a risk factor for women is examined, the proportion of cases seems to be hovering in the mid to high 30 percent range. While the percent increased slightly between the second and third time period of diagnosis, and decreased again in the fourth time period of diagnosis, these changes are not 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 of diagnosis a significantly smaller proportion of female cases can be linked to this route of HIV exposure.

There have been 29 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.

Mode of transmission for adult/adolescent male cases by race/ethnicity and time period of diagnosis

show a similar trend among groups (Table 9). MSM is the biggest risk factor in all racial/ethnic groups and in all time periods. In Hispanic men, the proportion of cases attributed to MSM slightly increased but in white, African American, and "all race/ethnicities", the proportion decreased between the two time periods. The African American community has a smaller proportion of cases attributed to MSM than in any other male group.

IDU is the second most frequent transmission mode among adult/adolescent males. Unlike Hispanic and African American men, white MSM who are also IDU (MSM+IDU) are more frequent than heterosexual IDU in both time periods. In African American and Hispanic men, a larger proportion of cases are among heterosexual IDUs and less among MSM+IDU. When comparing the two time periods in the table, the proportion of cases attributed to heterosexual IDU is up significantly among combined racial/ethnic groups and whites. In Hispanic men, the proportion has slightly decreased. The proportion to MSM+IDU has decreased among Hispanic and African American men.

Transmission Among Men by Race/Ethnicity

TABLE 9

Adolescent/Adult Male AIDS Cases by Mode of Transmission, Race/Ethnicity and by Time Period, San Diego County

Mode of Transmission	Race / Ethnic Group						All Race / Ethnicities	
	White		African American		Hispanic		1988-1992	1998-2002
	1988-1992	1998-2002	1988-1992	1998-2002	1988-1992	1998-2002		
MSM	87%	78%	65%	63%	78%	79%	83%	76%
IDU	3%	8%	17%	18%	10%	8%	5%	10%
MSM +IDU	8%	11%	13%	11%	9%	7%	9%	10%
Heterosexual	<1%	2%	3%	7%	1%	4%	1%	3%
Not Specified / Other	2%	1%	2%	1%	2%	1%	2%	1%
Number in Group and Time Period	2837	953	380	277	555	623	3840	1906

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

Heterosexual transmission represents about 3% of all adult/adolescent male cases, up from 1% in the earlier time period. This varies widely by race/ethnicity. In all racial/ethnic groups, the proportion of cases attributed to heterosexual has increased. The smallest increase is in white men where heterosexual contact has gone from less than 1% to 2%. The largest increase is in African American men, from 3% to 7%, followed by Hispanic men, 1% to 4%.

Unlike males, heterosexual contact is the primary mode of transmission for adult/adolescent women in general, followed by IDU. When mode of transmission is examined for each racial/ethnic group, heterosexual contact remains the primary mode of transmission in recent years in all groups except white women. The primary mode of transmission for white women is IDU (*Table 10*). The proportion of cases attributed to heterosexual contact between the table's two time periods has increased in all racial/ethnic groups. The most dramatic increase is seen in African American females, 45% to 66%, followed by Hispanic women, 44% to 63%. The proportion of cases attributed to IDU has also been

increasing among all racial/ethnic groups except African American women. The increase is as small as 2% among Hispanic women or as large as 10% among white women. The proportional decrease in African American women is rather large (45%). The most dramatic change between the two time periods is the large decrease in cases attributed to contaminated blood and/or blood products.

4.0 Health Outcomes

HIV infection alone does not meet the criteria of an AIDS diagnosis. An HIV-infected person must also have one of a number of 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.

Transmission Among Women by Race/Ethnicity

TABLE 10

Adolescent/Adult Female AIDS Cases by Mode of Transmission, Race/Ethnicity and by Time Period, San Diego County

Mode of Transmission	Race / Ethnic Group						All Race / Ethnic Groups	
	White		African American		Hispanic		1988-1992	1998-2002
	1988-1992	1998-2002	1988-1992	1998-2002	1988-1992	1998-2002		
IDU	40%	50%	55%	30%	26%	28%	39%	36%
Heterosexual	42%	46%	45%	66%	44%	63%	43%	58%
Contaminated blood*	18%	<1%	<1%	2%	31%	1%	17%	1%
Not Specified/ Other	1%	4%	<1%	2%	<1%	7%	<1%	5%
Number in Group and Time Period	108	74	47	56	39	71	201	211

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

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 a pediatric case (*Table 11*) or adolescent and adult case (*Table 12*) can meet the definition.

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

Opportunistic Infections Among Pediatrics

TABLE 11

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

Indicator Disease	Frequency	Percent
Wasting syndrome	26	46%
Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia	18	32%
<i>Pneumocystis carinii</i> pneumonia	18	32%
HIV encephalopathy	18	32%
Esophageal candidiasis	14	25%
Cytomegalovirus	11	20%
<i>Mycobacterium avium</i> complex or <i>M. kansasii</i>	11	20%
Pulmonary candidiasis	6	11%
Recurrent/multiple bacterial infections	5	9%
Cytomegalovirus retinitis	4	7%
Cryptosporidiosis	4	7%
Immunoblastic lymphoma	4	7%
<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/mm³ or a percentage less than 14% in a pediatric patient does not meet the CDC AIDS case definition.

Opportunistic Infections Among Adults

TABLE 12

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

Indicator Disease	Frequency	Percent
CD4 count <200 mL/mm ³ or <14%***	3377	29%
<i>Pneumocystis carinii</i> pneumonia	3335	29%
Wasting syndrome	1839	16%
Kaposi's Sarcoma	1519	13%
<i>Mycobacterium avium</i> complex or <i>M. kansasii</i>	1059	9%
Esophageal candidiasis	918	8%
HIV encephalopathy	784	7%
Cytomegalovirus	700	6%
Cytomegalovirus retinitis	607	5%
Cryptococcosis	582	5%
Cryptosporidiosis	465	4%
Immunoblastic lymphoma	396	3%
<i>M. tuberculosis</i> , pulmonary	340	3%
Herpes simplex, invasive or chronic	286	2%
Toxoplasmosis of the brain	283	2%
<i>M. tuberculosis</i> , disseminated or extrapulmonary	219	2%
Lymphoma, primary in brain	181	2%
Progressive multifocal leukoencephalopathy	163	1%
Pneumonia, recurrent in 12-month period	97	1%
Pulmonary candidiasis	70	1%
<i>Mycobacterium</i> , of other species or unidentified species	62	1%
Coccidioidomycosis	51	<1%
Histoplasmosis	48	<1%
Burkitt's lymphoma	36	<1%
Isosporiasis	26	<1%
Salmonella septicemia, recurrent	25	<1%
Carcinoma, invasive cervical	2	<1%

* 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.

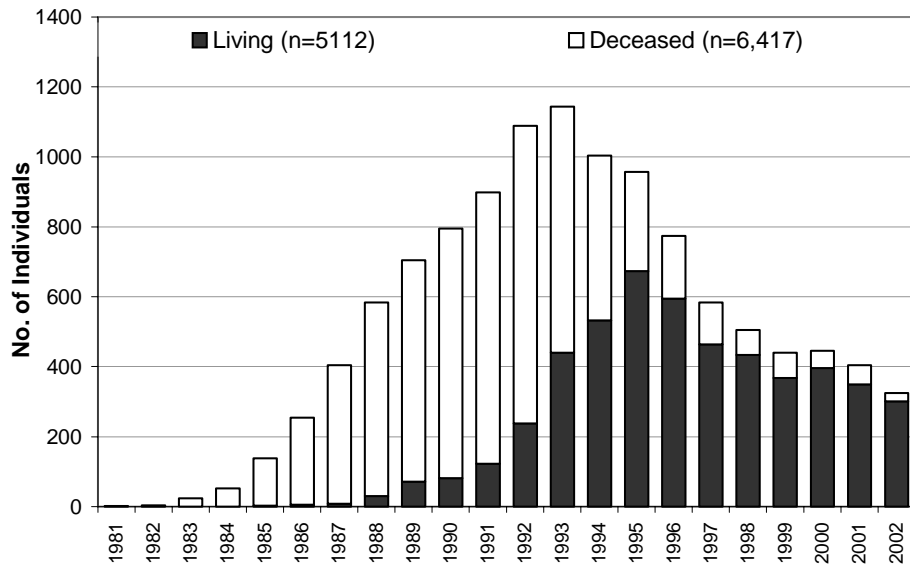
** The sum of percentages is greater than 100 because some patients are reported with more than one AIDS indicator disease or condition.

*** Defined as a CD4+ T-lymphocyte of less than 200 mL/mm³ or a percentage less than 14% in adult/adolescents who meet the AIDS surveillance case definition.

Mortality Status by Diagnosis Year

FIGURE 10

AIDS Cases by Year of Diagnosis and Status, San Diego County, (n=11,529)



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*) and the number of individuals living with AIDS has been dramatically increasing (*Figure 11*). Between 1994 and 1999 there was an average annual decrease of 13% in number of new AIDS cases. In year 2000, there were 6 more

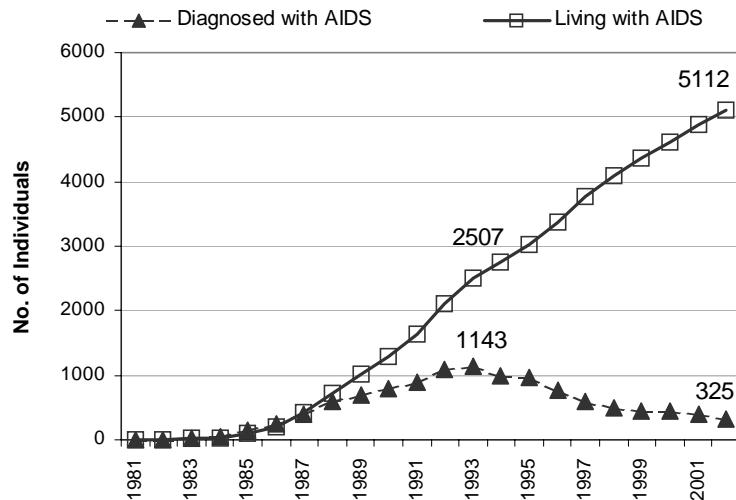
cases than in 1999, the first increase since 1993. Since about 1999, the number of cases has been in the 400s and when more cases diagnosed in 2002 are reported in 2003, it is likely that there will be at least 400 cases in 2002.

The number of AIDS deaths has also been dropping, thus the case fatality rate decreases every year (*Table 13*). As of December 31, 2002, a total of 6,417 deaths have been reported with an overall case

Mortality Status by Diagnosis Year

FIGURE 11

Number of Persons Diagnosed and Living with AIDS, San Diego County



Changes in Mortality

TABLE 13

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

Number of Cases, Deaths and Fatality Rate	Time Period of Diagnosis				
	Prior to 1998	1998	1999	2000	2001
New Cases	9409	505	440	446	404
Percent Change	*	-16%**	-13%	1%	-9%
Number of Deaths	5642	180	180	176	132
Percent Change	*	-12%**	0%	-2%	-25%
Case Fatality Rate	60%	36%	41%	39%	33%

Note: Year 2002 data is still considered preliminary.

* Cumulative Data

** Compared to 1997 data

fatality rate of 56%. 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 38 years. The average age at the end of 2002 of the 5,112 individuals currently living with a diagnosis of AIDS is 43 years. While it's easy to imagine persons with HIV or AIDS as being middle aged or slightly younger, 29 individuals living with AIDS are less than 18 years old and 225 individuals living with AIDS are 60 years of age or older. As well, 25 individuals diagnosed before the age of 13

are still living. Eleven of them are still less than 13 years old – and 14 individuals are growing out of childhood into the teen and young adult years (*Table 14*).

Current Age

TABLE 14

Current Age of Individuals Living with AIDS, San Diego County

Age Group in Years	Frequency	Percent	Cumulative Percent
Less than 13	11	0.2%	0.2%
13-19	20	0.4%	0.6%
20-29	172	3%	4%
30-39	1608	31%	35%
40-49	2225	44%	79%
50-59	851	17%	96%
More than 59	225	4%	100%
Total	5112	100%	

5.0 AIDS Summary

There have been 11,529 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 1993. Concurrent medical advances resulted in an increased time from HIV to AIDS. Between 1999 and 2001, the number of new cases diagnosed per year has been in the 400s. It is expected that cases diagnosed in 2002 will be reported in 2003, bringing the number of 2002 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 African American or Hispanic, 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 racial/ethnic group. The average age at the time of diagnosis from 1998 to 2002 is 39 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 HHSA region. Sixty 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 1995 is the South Region. The cases diagnosed in the South are predominately Hispanic (55%) and white (31%).

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, heterosexual contact is the primary mode of transmission (49%) followed by IDU (37%). These modes have some overlap because women whose transmission route was heterosexual contact often have had a sexual partner who was an IDU. Sexual partner to an IDU accounts for 21% of all female cases.

While AIDS was once considered a fatal illness, the advances in medicine and medical treatment have enabled individuals with AIDS to live longer, healthier lives. As 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, approximately 5,112 of the individuals diagnosed with AIDS in San Diego County are currently alive.

III. HIV in San Diego County

1.0 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 may meet 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 in July 2002 initiated HIV reporting in addition to current AIDS reporting. Unlike AIDS, no patient name or address is reported; instead, for HIV, 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), date of birth, gender, 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 non-name code will balance the need for good quality data (minimizing duplication) with the protection of individual privacy. See Appendix 8 for more information on HIV reporting.

2.0 HIV and Local Data

Given that general reporting of HIV has just been initiated and cannot provide us with data yet, there are several other sources of data that 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 (HCT) data, 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). At the inception of the program in 1985, when the data did not distinguish between anonymous and confidential tests, the rate of HIV infection among the testers started at 18.6% decreasing sharply to 1.1% in 1992.

One limitation of this data source is that each case may not be unique since an unknown quantity of 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. 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. This is primarily due to the fact that most confidential tests are offered at STD (sexually transmitted disease) clinics in which the

client comes in for an STD other than HIV. Thus, testers at confidential sites don't come in specifically for an HIV test and many choose not to test. Like the trend among all tests, HIV infection rates among anonymous tests declined between 1990 and 1992, with a recent increase from 1.3% in 2000 to 1.9% in 2002 (Figure 12).

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

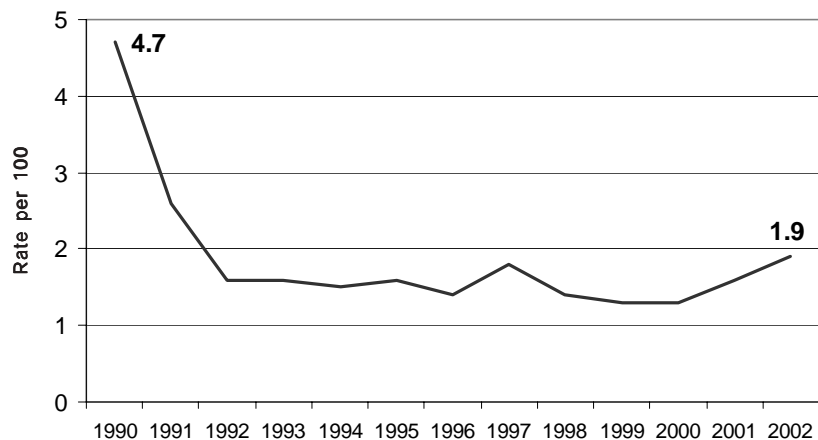
centers employ a protocol intended to screen out individuals thought to be at high risk for HIV or HIV-positive, so one would expect very low rates of positivity. Those who are aware they are HIV infected, or suspect it, may also be more aware that programs such as the military screen applicants for HIV, and as a result, may be less likely to apply. 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.

3.0 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 racial/ethnic groups, age groups, and transgender populations.

HCT Trends Overall

FIGURE 12
Rate per 100 Testing HIV+,
Anonymous HCT,
San Diego County, 1990-2002



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 64% male and 35% female in the year 2002 (the remaining 1% are missing or transgender). Similarly, men have traditionally had a much higher positivity rate compared to women (2.6% versus 0.5% in 2002); 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; however, 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 2002 data. In year 2002, 183 anonymous tests were confirmed HIV positive; 165 (90%) of these were to men. Most of these positive tests were among men who had previously tested. Of the repeat male testers, 3.0% were HIV infected. In contrast, 1.5% of the first-time male testers were positive.

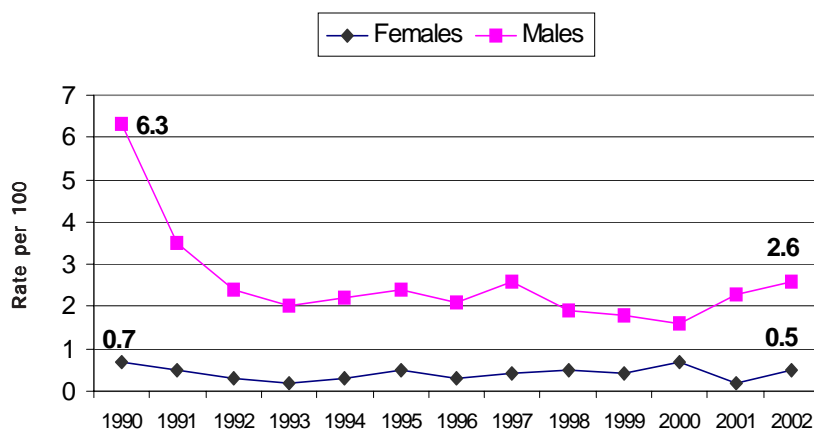
Like men, the majority of female testers were repeat testers: 61% of women in 2002 had tested at least once before. Of the 183 HIV positive tests in 2002, 16 were to women. Rates for first time and repeat tests to females were similar: 0.6% and 0.4% respectively. The remaining two positive HIV tests were to male to female transgender and a test with no gender reported.

In recent years fewer than 100 tests were to pregnant women (self-reported). Most of these women are ages 25-34. Because the numbers are

HCT Trends by Gender

FIGURE 13

Rate per 100 Testing HIV+
by Gender, Anonymous
HCT, San Diego County,
1990-2002



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 2002, only 1 pregnant woman tested positive for HIV. Also, in that same time period, fewer pregnant testers were first-time testers. In 1995, 55% of the women were first-time testers, but in 2002 only 38% 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.

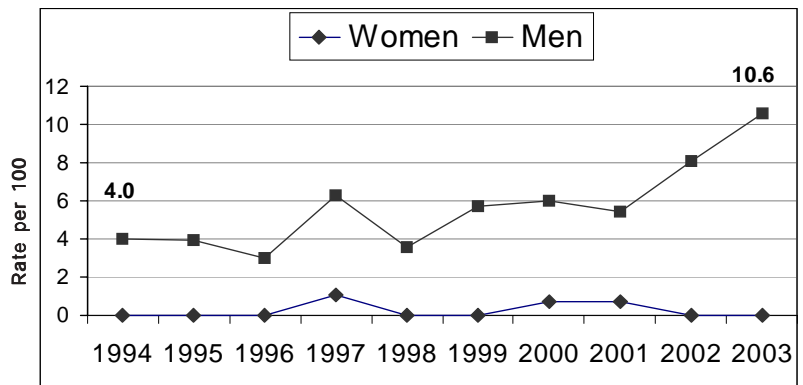
Another serosurveillance project, the survey of adults attending STD (Sexually Transmitted Disease) clinics, has been conducted at 12 California health departments, including San Diego County, since 1989. To be included, a client must be visiting for a STD (other than HIV) that requires a blood sample. Eligible clients are consecutively sampled during one month, up to 500 samples. The samples are then stripped of identifiers and tested for HIV. The seroprevalence for women attending STD clinics in San Diego County during 2003 was 0% (0 HIV infected woman out of 111 tested), but over time it has ranged from 0% to 0.7%. This compares to a seroprevalence of 10.6% for men (41 men out of 387 tested) during 2003, with a range of 3.0% to 10.6%. From 1993 to 2003, the trend has been an increase in the seroprevalence rate for men (*Figure 14*). The difference between the 3.0% in 1996 for men and the 10.6% in 2003 is statistically significant.

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: 0 out of 59,178 units of blood tested (0%) and 2 out of 79,459 units of plasma tested (.003%) in the first half of 2002. Military applicant screening does include data on gender and again, the numbers are

STD Seroprevalence Trends by Gender

FIGURE 14

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



very small. In year 2001, 3,891 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 largest group of testers self-report as white, about 46% in 2002; however, there are proportionately more tests to persons of color each year.

In 2001, the largest share of HIV positive tests was to Hispanics (44%) compared to 35% for whites and 16% for African Americans. Up until 2001, the largest share has always been among whites and this is again the case in 2002, where whites accounted for 50% of positive tests, Hispanics 31%, African Americans 13% and Asian/PI 4%. Proportions do not take into account the size of a specific group coming in for tests; rates do. Tests to African Americans and Hispanics historically have the highest HIV infection rates; 2.6% and 1.7% in 2002. In 2002 for the first time HIV infection rates among white testers were higher than Hispanic testers at 2.0% (*Figure 15*).

3.3 Age

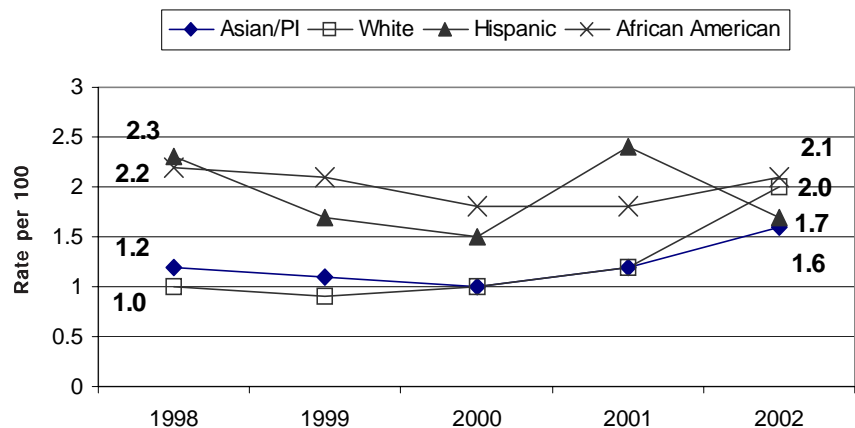
Counseling and Testing Data

Since 1990, the distribution of testers by age group has changed slightly. In general, more 15-19 year olds and 50+ are coming in for testing, and fewer of those ages 25-34. Conversely in 2002, slightly fewer tests were to teens aged 15-19 and more were to ages 35-49.

Historically, the age group with the highest HIV infection rates are in the 25-34 age group, with the

HCT Trends by Race/Ethnicity

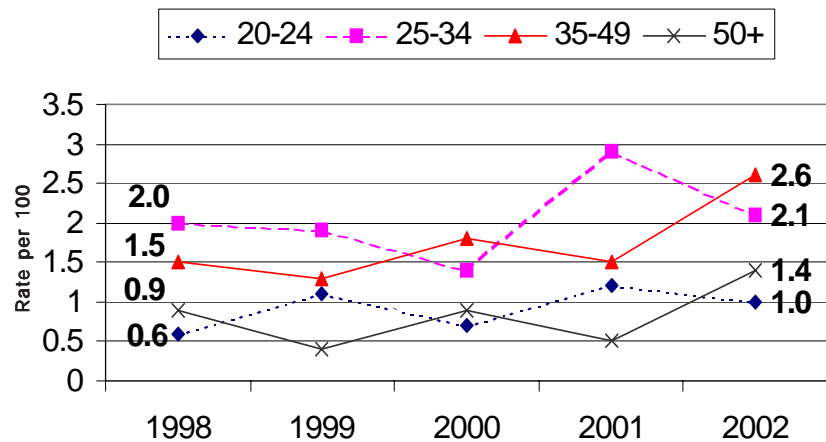
FIGURE 15
Rate per 100 Testing HIV+ by Race/Ethnicity, Anonymous HCT, San Diego County, 1998-2002



HCT Trends by Age Group

FIGURE 16

Rate per 100 Testing HIV+ by Age Group, Anonymous HCT, San Diego County, 1998-2002



next highest rate in 35-49 year olds. In 2002, however, rates were highest among tests in the 35-49 year old age group at 2.6%. The HIV infection rates for 20-24 year olds and 50+ fluctuate from year to year but generally remain lower than the county average rate (*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 with the exception of 2002, each year since 1997 has seen an increase in the number of youth tested. Of those aged 13-24 who tested in 2002, about 56% were male and 43%

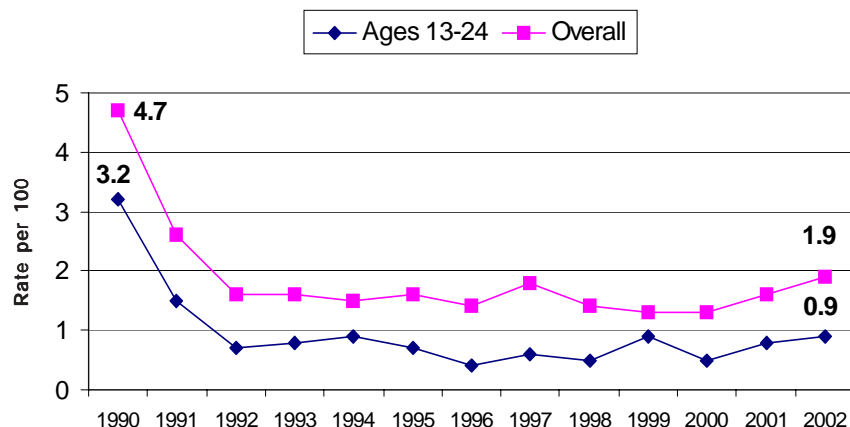
were female. This appears to be a gradual change from 1997 when the majority of youth testers were female. When compared by race/ethnic makeup, youth have more Hispanics and fewer whites seeking HIV testing than adults.

The rate of HIV infection in youth testers 13-24 years of age is much lower than the overall rate, about 0.9% or 19 tests out of 2,160 in 2002. 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

HCT Trends for Youth

FIGURE 17

Rate per 100 Testing HIV+ Ages 13-24 and Overall Anonymous HCT, San Diego County, 1990-2002



number of youth testing positive each year precludes further analysis by race/ethnicity.

Like adults who test, youth are asked about risk behaviors for assignment to a risk group. For more information on this process see section 4.0 Risk Groups or Appendix 9. 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 (3 in 2002). In 1997 and dramatically in 2002 the second most frequent risk category was No Reported Risk (1 HIV positive in 2002). Partners with Multiple Partners was either the second or third most frequent risk group before 2001 (not a risk group as of 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 (15 of the 19 positives). With that in mind, the rate of HIV infection for MSM youth in 2002 would be 4.5%, an increase from 3.6% in 2000. In 1997, 1998, 2001 and again in 2002, IDU Partner was the 5th most frequent risk group for youth (no HIV positives in 2001). Since 1999, bisexuality has often been a more predominant risk factor than any IDU-related one, with 2 out of the 21 HIV positives in 2001, although there were no HIV positive tests to bisexual youth in 2002. Unlike adults, about 51% of youth had never tested before.

3.5 Geographic Areas

Counseling and Testing Data

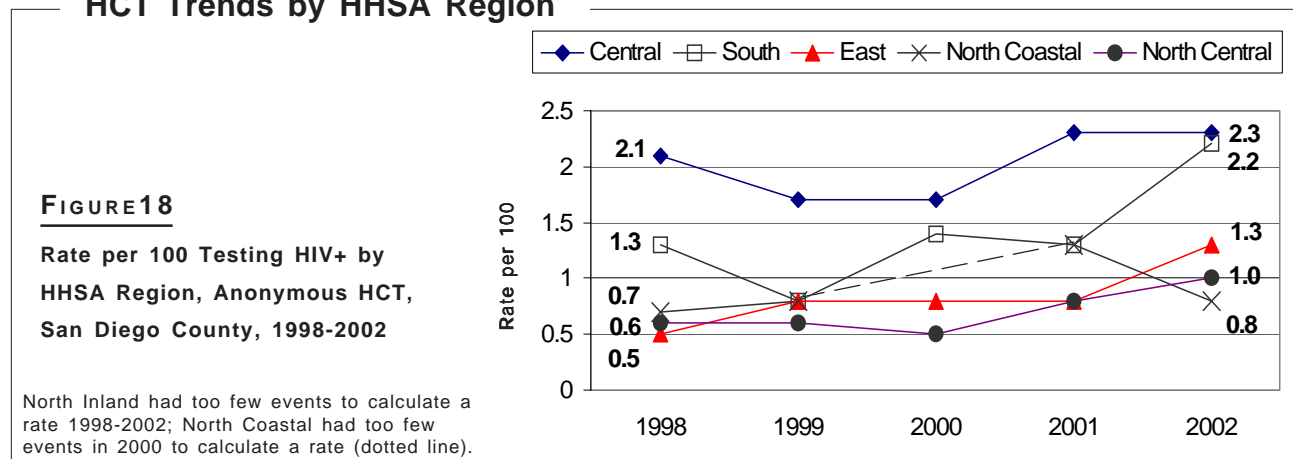
The County of San Diego’s Health and Human Services Agency (HHSA) divides San Diego County into six zip code based geographic regions: North Coastal, North Inland, North Central, Central, East and South (see Appendix 6 for more information.) When analyzed by the HHSA regions, HCT data clearly show that the largest share of clients come from the Central Region, 45% in 2001 (*Figure 18*). The Central region also shows the highest overall HIV infection rate (2.3%) as well as the largest share of HIV positive tests (55%). 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 2.2%, and 22% 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 in a given year; therefore, no rates were calculated.

4.0 Risk Groups

Counseling and Testing Data

When a client comes in for HIV testing, a counselor asks about specific risk behaviors. The

HCT Trends by HHSA Region



State Office of AIDS calculates a hierarchy of risk based on those behaviors and on the risk of HIV transmission. The 14 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, Occupational Exposure, Child at Risk (perinatal transmission), No Reported Risk, and Unknown. Heterosexual risk categories include IDU, HIV+ Partner, IDU Partner, Sex for Drugs/Money, Multiple Partners, and Partners with Multiple Partners. For a more in-depth description of this hierarchy, please see Appendix 9.

The largest share of those who come in for testing fall into the Multiple Partners risk group (33% in 2002). The distribution of testers by risk group has stayed relatively stable over the last 4 years. 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 2002, 93% of HIV positive tests fell into one of 4 groups: MSM (62%), Multiple Partners (10%), No Reported Risk (14%) and Bisexual (7%). Over time the distribution of HIV positive tests has changed, although MSM continues to have the largest share of

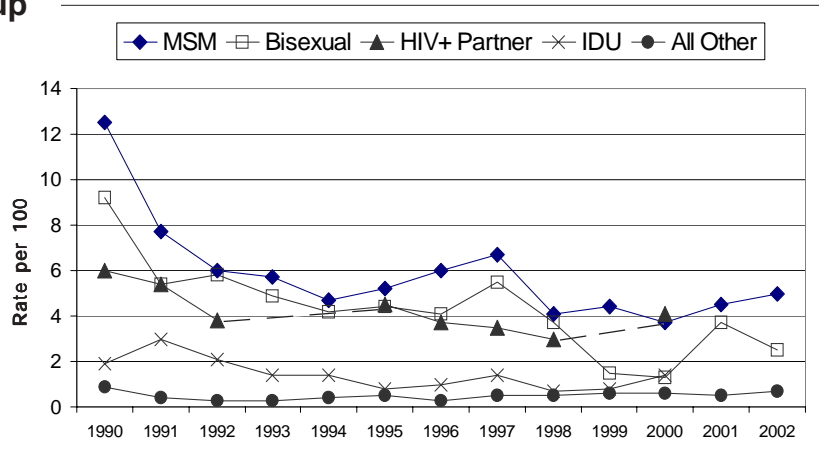
HIV positive tests. The number of HIV positive tests to Gay/Bi IDU testers has decreased while the number in the 'Multiple Partners' groups has increased. In 2001 and 2002, the No Reported Risk group also had a large number of positive tests.

The highest rate of HIV infection has been among Gay/Bi IDU; however no rate can be calculated in recent years so MSM and Bisexual have the highest rates (5.0% and 2.5% respectively in 2002). Since 1990, many of the highest risk groups have experienced a decrease in the HIV infection rate, including MSM and Bisexual (*Figure 19*) through 1992 with fairly level rates until 2001. Rates increased for MSM in both 2001 and 2002 (4.5%, 5.0%) while rates increased for Bisexual in 2001 to 3.7% and then decreased to 2.5% in 2002. IDU has had a decrease in number testing HIV positive as well as a corresponding drop in the 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.

HCT Trends by Risk Group

FIGURE 19

Rate per 100 Testing HIV+ by Risk Group, Anonymous HCT, San Diego County, 1990-2002



HIV+ Partner had too few events to calculate a rate 93-94, 99 & 01-02 (dotted lines); IDU had too few events to calculate a rate 2001-02.

Among men seeking anonymous HIV testing services in 2002, 85% fell into one of three risk groups: MSM (36%), Multiple Partners (31%), and No Reported Risk (18%). For men, the highest rate of HIV infection was among MSM and bisexual men (5.0% and 2.7% respectively). Other risk groups for men had rates of infection at or below the average for 2002 or had too few positives to calculate a rate.

During 2002, 45% of women seeking testing had No Reported Risk, and 36% were categorized in Multiple Partners. Between 1997 and 2000, Partners with Multiple Partners constituted the second largest proportion of female 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. Few women seeking testing were IDU in 2001 but about 6% reported an IDU Partner. Bisexual women represented 3% of those seeking testing, and about 2% reported having a bisexual partner in 2001. Except for Multiple Partners (0.4%), women had too few HIV positive tests to calculate rates by risk group.

The percent of all tests attributed to No Reportable Risk increased dramatically in 2001 and remained high in 2002. Responses to counselor's questions are voluntary and those who opt not to

divulge risk behavior information are combined with those who do not appear to have a traditional high risk behavior. Recent changes in the form likely have a unquantified impact on the increase in No Reported Risk. Partner with Multiple Partners is no longer one of the calculated risk factors, so many who would have been in that risk group would be reclassified into the No Reported Risk category, as would IDU with no recent injection drug use.

5.0 MSM Group

High Risk Groups

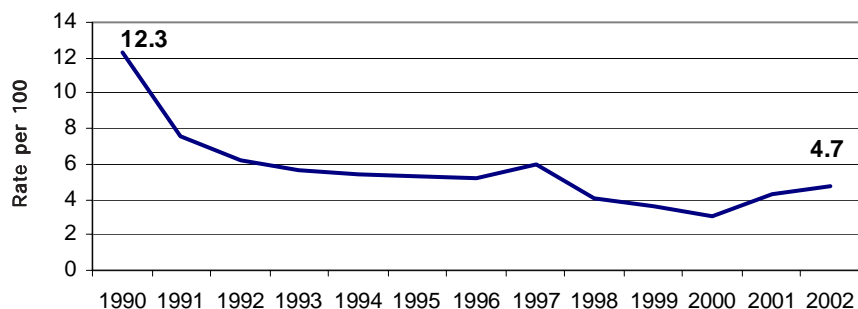
Certain risk groups have historically had much higher rates of HIV infection than others in San Diego County. Three HCT risk groups, having in common both the highest rates and the behavior of men who have had sex with men, were combined to form the MSM group: Gay/Bi IDU, MSM, and Bisexual men. MSM made up the largest proportion of testers in the MSM group, 85%, with Bisexual next, 14%, and Gay/Bi IDU at 1%. In 2002, the MSM group had 2,683 tests, 127 of which were HIV positive.

Overall, rates of HIV infection have fallen for the MSM group between 1990 and 2002, from 12.3% to 4.7% (*Figure 20*). Of note is the increase in the HIV infection rate from 3.0% in 2000 to 4.7% in 2002.

HCT Trends for MSM Group

FIGURE 20

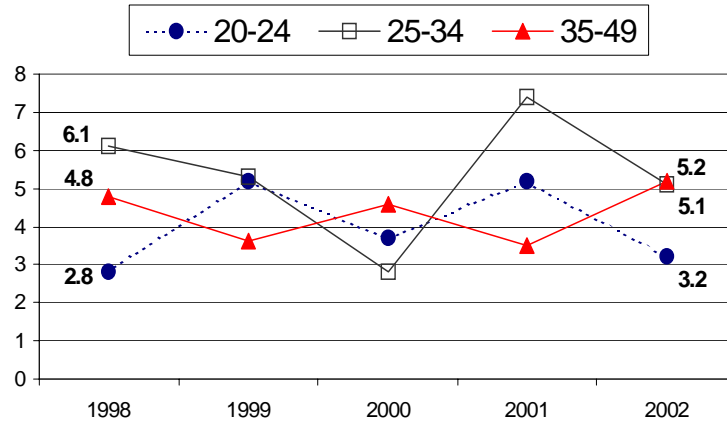
Rate per 100 Testing HIV+,
MSM Group, Anonymous HCT,
San Diego County, 1990-2002



HCT Trends for MSM Group by Age

FIGURE 21

Rate per 100 Testing HIV+, MSM Group by Age Group, Anonymous HCT, San Diego County, 1998-2002



Age Group

Where rate could be calculated for the MSM group in 2002, the age groups with the highest HIV infection rates are 35-49 and 25-34, 5.2% and 5.1% respectively (Figure 21). Youth under the age of 15 had no positive tests during this time period, and the age groups of 15-19 and 50+ had too few positive tests to calculate a rate in most years. Small numbers result in considerable annual variation in rates.

Race/Ethnicity

African Americans in the MSM group had the highest HIV infection rate (8.4%) in 2002, with Hispanics next at 5.9 (Figure 22). Asian/Pacific Islanders had a rate of 5.1% with whites at 4.2%. American Indian/Alaskan Natives had no positive tests in 2002. The same pattern is seen in the last five

years, although Asian/Pacific Islanders have very small numbers and often a rate cannot be calculated.

Geographic Area

Figure 23 shows that during 2002, the South region of San Diego County, at 11.3%, had the highest rate of HIV infection in the MSM group, with East and Central following (4.7% and 4.6%). HIV infection rates were highest in the Central region until 2000, when the East region surpassed Central. The South region has had the highest rates for the last two years.

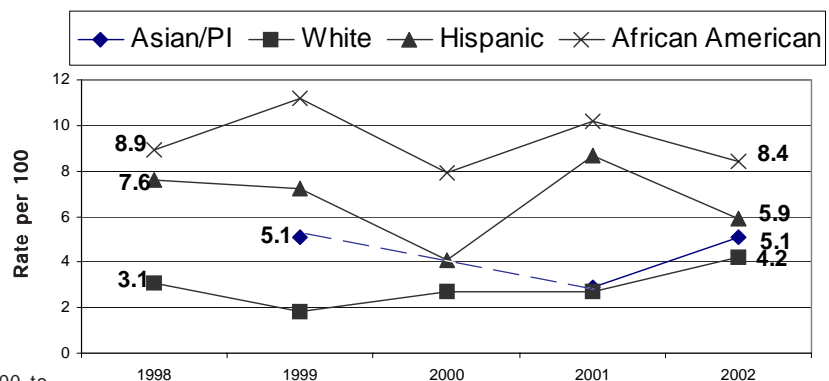
5.1 Young MSM

Increases in HIV infection rates for young MSM have been revealed recently in some large

HCT Trends for MSM Group by Race

FIGURE 22

Rate per 100 Testing HIV+, MSM Group by Race/Ethnicity, Anonymous HCT, San Diego County, 1998-2002

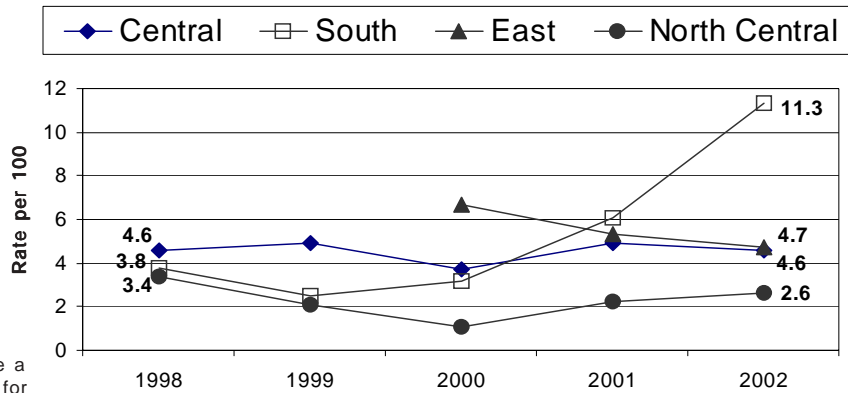


Asian/PI had too few events in 1998 and 2000 to calculate a rate (dotted line).

HCT Trends for MSM Group by Region

FIGURE 23

Rate per 100 Testing HIV+, MSM Group by HHS Region, Anonymous HCT, San Diego County, 1998-2002



East region had too few events to calculate a rate 1998-99; no rates could be calculated for North Coastal & North Inland 1998-2002.

metropolitan areas of the U.S. Approximately 400 of HCT tests are to young MSM (including Gay/Bi IDU and bisexual) ages 13-24, of which about 10-20 are HIV positive. Because of the small numbers, rates are calculated in two-year averages.

The trend for young MSM in San Diego County who tested is a decline from 91/92 to 97/98, with a slight increase since that year (*Figure 24*). 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. The change in rate from 2.9% in 97/98 to 4.1% in 01/02 is not statistically significant.

6.0 HIV Summary

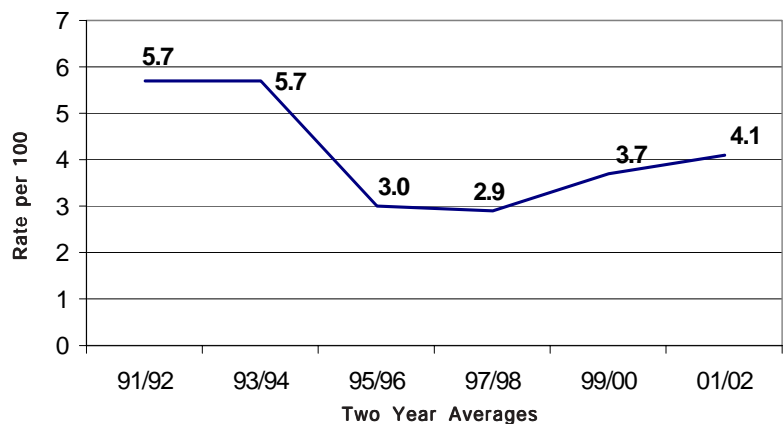
HCT data in San Diego County suggest a decline in HIV infection rates among an increasingly diverse group of testers from 1985 to 1992, fairly level rates to 2000 and an increase in 2001 and 2002. While the slight overall increase in HIV infection rate from 1.3% in 2000 to 1.6% in 2001 was not statistically significant, the increase from 1.3% to 1.9% in 2002 was statistically significant ($p < .05$).

Significant increases in HIV infection rates were seen for some subgroups in the last two years. For

HCT Trends for Young MSM

FIGURE 24

Rate per 100 Testing HIV+, MSM Ages 13-24, Anonymous HCT, Two Yr. Averages, San Diego County, 91/92-01/02



example in 2001, 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. Rates did not change significantly by gender between 2001 and 2002 although the direction of the rate changed for women (increase) and continued upward for men.

With the exception of 2002, 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. From 2001 to 2002, rates for whites increased (statistically significant; $p < .05$) from 1.2% to 2.0%, surpassing the rate for Hispanics. Rates are up slightly for African Americans but the difference is not statistically significant.

Testers ages 25-34 have traditionally had the highest HIV infection rates, with the exception of 1997 and 2002. 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. In contrast, rates increased significantly for ages 35-49, from 1.5% in 2001 to 2.6% in 2002, surpassing the rate for those ages 25-34 (2.1%) in 2002.

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 0.9% in their HIV infection rate and the rate of HIV infection for young MSM increased from 2.9% in 1997/1998 to 4.1% in 2001/2002 but differences were not statistically significant. Similarly, although the rate increased for ages 50+ from 2001 to 2002, the difference was not statistically 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 (statistically significant), and the rate remained at 2.3% in 2002. Although the rate increased in the South region from 2001 to 2002 (1.3%, 2.2%), the change was not 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 1999, 2001 and 2002. The increase in the HIV infection rate for the MSM group from 3.0% in 2000 to 4.7% in 2002 was statistically significant. This is primarily due to the statistically significant increase over the same time period in the rates of MSM alone. Young MSM have shown an increase in their HIV infection rate since 1997, yet small numbers result in no statistical difference in the rates over time.

HIV Data 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,
HHS, 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

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IV. 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 Immunodeficiency 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, Karposi Sarcoma).

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

AIDS - See Acquired Immunodeficiency 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.

HIV Counseling and Testing (HCT) - refers to state-funded HIV counseling and testing programs.

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/ethnicity 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, 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 lacks 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. AIDS 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, became reportable using a non-name code in California in July of 2002. Since this data is still in the preliminary stages of data collection, it cannot be released at this time.

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 (2001 and 2002) years. It is likely that cases diagnosed in 2002 will continue to be reported in 2003.
2. Diagnosis date versus report date - Reporting delays impact the available data. Those cases diagnosed in 1995, for example, may not have been 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 also 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. 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 mL/mm³ 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 mL/mm³ 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, mode of 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 also required to be reported in the State of California but those cases are reported using a non-name code instead of a patient's name.

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 affected 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 at (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 446 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 2,911,468. When the number of cases (446) is divided by the population size (2,911,468) and multiplied by 100,000, the result is:

$$(446/2,911,468) \times 100,000 = 15 \text{ AIDS cases per } 100,000 \text{ residents of San Diego County.}$$

Rates by race/ethnicity were computed by dividing the number of individuals with AIDS from a particular race/ethnicity by the number of that same race/ethnicity in the population at large. The population size for each racial/ethnicity in San Diego 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/ethnicity over the last 5 years.

TABLE 15: Rates of AIDS Among Different Race/Ethnic Groups by Year of Diagnosis

Race /Ethnicity	Description of Rows	Year of Diagnosis					
		1997	1998	1999	2000	2001*	2002*
White	No. of AIDS cases	291	276	224	195	187	145
	Population Size	1,675,222	1,698,529	1,718,858	1,738,664	1,738,664	1,738,664
	Rate per 100,000	17	16	13	11	11	8
African American	No. of AIDS cases	96	81	62	75	62	54
	Population Size	165,897	168,613	171,096	173,551	173,551	173,551
	Rate per 100,000	58	48	36	43	36	31
Hispanic	No. of AIDS cases	179	136	146	162	137	115
	Population Size	642,474	670,761	696,468	722,377	722,377	722,377
	Rate per 100,000	28	20	21	22	19	16
Other**	No. of AIDS cases	18	12	8	14	18	11
	Population Size	245,461	256,882	266,836	276,876	276,876	276,876
	Rate per 100,000	7	5	3	5	7	4
All Race/ Ethnicities	No. of AIDS cases	584	505	440	446	404	325
	Population Size	2,729,054	2,794,785	2,853,258	2,911,468	2,911,468	2,911,468
	Rate per 100,000	21	18	15	15	14	11

* Population data from year 2000 was used to compute year 2001 and 2002 rates because population estimates by race from SANDAG have not yet been made available.

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

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

TABLE 16: Expanded Origin of Hispanic Cases

Ethnic Origin	Frequency	Percent
Mexican	1971	82.0%
Hispanic, non-specific	188	7.8%
Puerto Rican	96	4.0%
South American	44	1.8%
Central American	43	1.8%
Cuban	30	1.2%
Spain / Portugal	27	1.1%
Dominican	5	0.2%
Total Hispanic Cases	2404	100.0%

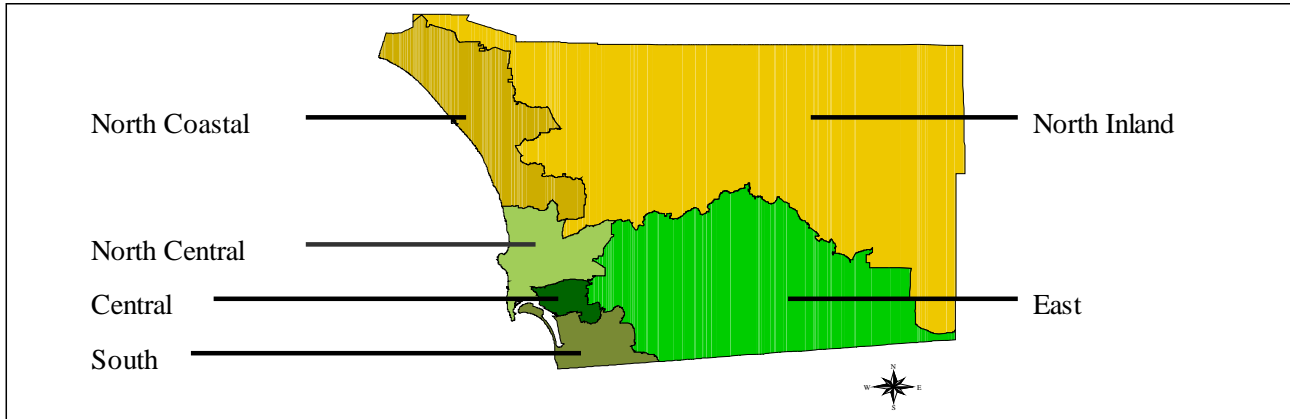
TABLE 17: Expanded Origin of Asian/Pacific Islander Cases

Ethnic Origin	Frequency	Percent
Filipino	124	54.6%
Japanese	18	7.9%
Chinese	17	7.5%
Vietnamese	14	6.2%
Guamanian Islander	11	4.8%
Hawaiian	8	3.5%
Asian, non-specific	8	3.5%
Laotian	6	2.6%
Mongolian	5	2.2%
Samoan	4	1.8%
Thai	3	1.3%
Cambodian	2	0.9%
East Indian	2	0.9%
Korean	2	0.9%
Fijian	1	0.4%
Pacific Islander	1	0.4%
Tongan	1	0.4%
Total Asian/Pacific Islander Cases	208	100.0%

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

San Diego County is divided 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).

FIGURE 19: HHS Regions of San Diego County



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. Community of Residence at Time of AIDS Diagnosis

TABLE 19: Community of Residence at Time of AIDS Diagnosis

Community of Residence	Cases	Percent
San Diego	8590	75%
Chula Vista	361	3.10%
Oceanside	329	2.90%
El Cajon	224	1.90%
Escondido	223	1.90%
La Mesa	179	1.60%
National City	159	1.40%
Vista	150	1.30%
Spring Valley	146	1.30%
La Jolla	130	1.10%
Carlsbad	124	1.10%
San Ysidro	118	1.00%
Santee	85	0.70%
Encinitas	83	0.70%
Lemon Grove	81	0.70%
Imperial Beach	79	0.70%
San Marcos	65	0.60%
Poway	45	0.40%
Lakeside	41	0.40%
Coronado	37	0.30%
Fallbrook	36	0.30%
Del Mar	34	0.30%
Bonita	26	0.20%
Ramona	24	0.20%
Cardiff by the Sea	19	0.20%
Leudcadia	19	0.20%
Valley Center	17	0.10%
Alpine	16	0.10%
Solana Beach	16	0.10%
Rancho Santa Fe	13	0.10%
Jamul	10	0.10%
Other*	50	0.40%
Total	11529	100%

* The following communities had 9 or less cases: Bonsall, 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.

Appendix 8. HIV Reporting Regulations: What Providers Need to Know

The State of California has implemented HIV reporting regulations as of 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
- Positive P24 antigen test
- Positive 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 (P.O. Box 85222, San Diego, CA 92186-5222) or FAX (619) 515-6765.

Training is Available

Community Epidemiology staff are currently available to provide an orientation to the recent 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.

For a copy of the regulations and more information on HIV reporting go to:

www.dhs.ca.gov/AIDS/

Appendix 9. 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: heterosexual client reports having a partner who is HIV positive.

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

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

Sex for Drugs/Money: heterosexual 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: heterosexual men who report >1 female partner and no male partners in that time; heterosexual women who report >1 male partner and no female partners in that time.

Partners with Multiple Partners: heterosexual 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 10. World Wide Web Addresses for HIV/AIDS Related Information

International

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

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.atdn.org/access/adap
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 Information www.aidsinfo.nih.gov
Provides information on Federally and privately approved treatment guidelines for persons with HIV/AIDS.

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 trends.

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

Coalition for Positive Sex www.positive.org
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.

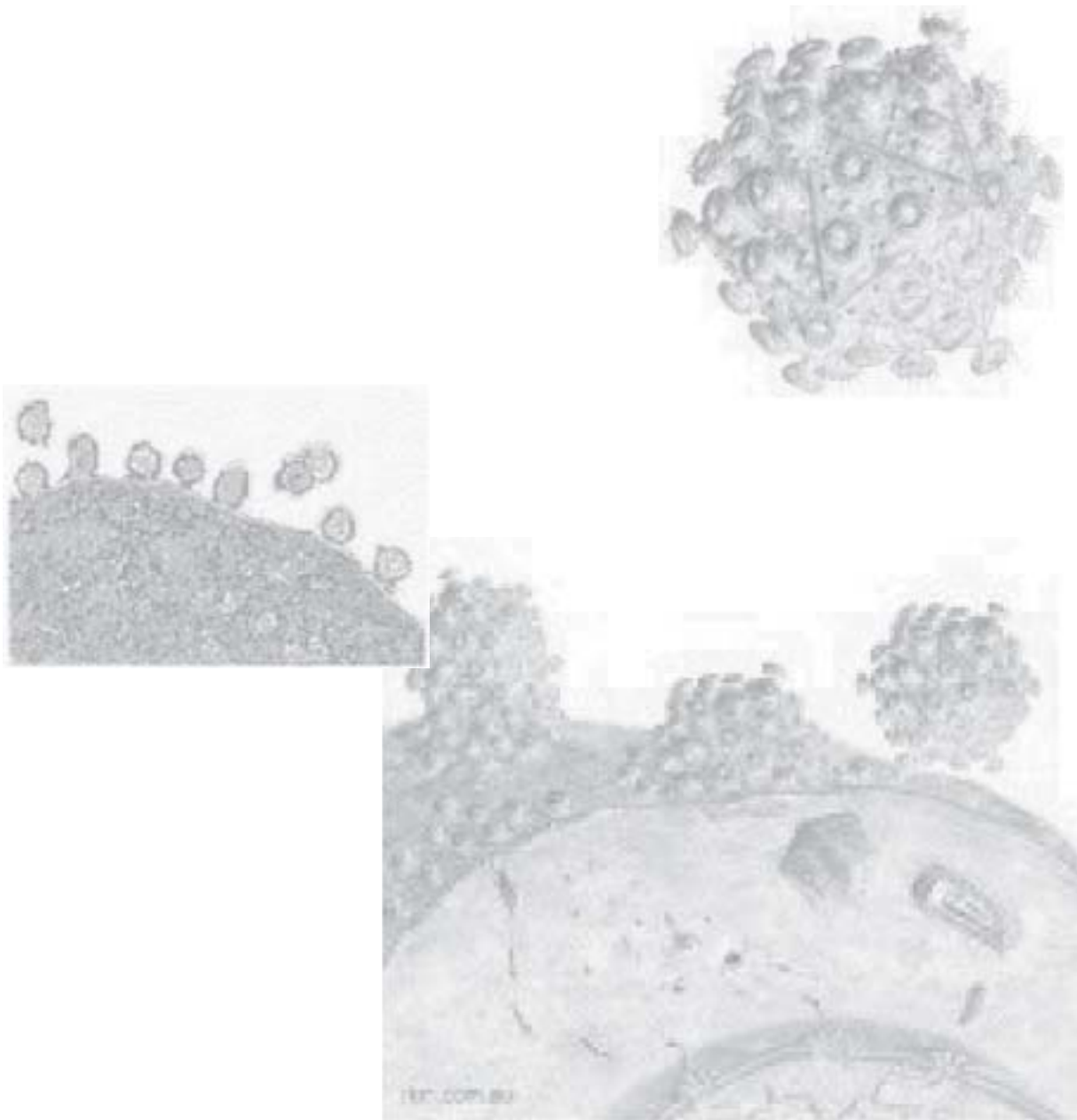
HIV/AIDS Treatment Information Service (ATIS) www.hivatis.org
Provides information in English and Spanish about federally approved treatment guidelines for HIV/AIDS.

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	www.immunet.org/
State Office of 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.	www.dhs.ca.gov/AIDS/
Project Inform Non-profit Community-Based Organization.	www.projinf.org
The Body: California AIDS Services Organization An AIDS and HIV information resource.	www.thebody.com
San Diego County	
Being Alive Non-profit organization delivering quality, compassionate services to people affected by HIV/AIDS. Extensive online resource guidebook (<i>HIV Consumer Guidebook</i>).	www.beingalive.org
The Center A non-profit organization serving the gay, lesbian, bisexual & transgender (GLBT) community. Offer HIV testing, HIV prevention/education, HIV+ support groups, and counseling.	www.thecentersd.org
County of San Diego Listing of AIDS related Services offered by San Diego County's Health Department.	www.co.san-diego.ca.us/cnty/cntydepts / health/services/epidiv aids.html
AIDS Research Institute University of California, San Diego, dedicated to improving health care for those with HIV.	www.ari.ucsd.edu/
HIV Consumer Council 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.	www.hivconsumercouncil.org/
SANDAG - San Diego's Regional Planning Agency Population estimates for San Diego County.	cart.sandag.org/sdw

Appendix 11. Local HIV/AIDS Telephone Numbers

- AIDS Drug Assistance Program (ADAP)** (619) 296-3400 x174
Provides assistance to eligible individuals in obtaining prescription drugs for the treatment of HIV/AIDS.
- HIV Testing Clinics** (619) 296-2120
Free anonymous and confidential testing to anyone ages 12 or older. Available at several sites.
- Office of AIDS Coordination** (619) 296-3400
Provides the planning and administration of HIV prevention funding and Ryan White Care Act funds for San Diego County, as well as AIDS case management and HIV testing.
- STD (Sexually Transmitted Disease) Clinics** (619) 692-8550
Low cost/free confidential testing and treatment of STDs to anyone ages 12 or older. Available at several sites.
- T-Cell Testing Program** (619) 296-2120
A one-time, free confidential T-cell test.

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Community Epidemiology,
HIV/AIDS Epidemiology
P.O. Box 85222
San Diego, CA 92186-5222