

Epidemiology of HIV/AIDS in Sonoma County

Annual Report

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Copies of this report are available online at <http://www.sonoma-county.org/health/ph/hiv/data.htm>

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OVERVIEW

The number of persons living with HIV and AIDS in Sonoma County continues to increase. As of June 30, 2004, there are 759 reported cases of persons living with AIDS. For persons living with HIV, there are 393 reported cases as of December 31, 2003. Similar to the state and national epidemics, the demographics of persons newly affected by HIV and AIDS continue to change. Recent trends in the epidemic include:

For AIDS only:

- An increase in the annual number of new cases of persons diagnosed with AIDS over the past four years.
- In the past four years, there has been an increase in the proportion of new AIDS cases among women, rising from 2.7% in 2000 to 14% in 2003.
- An increase in the proportion of new cases reporting Hispanic ethnicity, rising from 4% in 1993 to 24% in 2003.
- A decrease in the proportion of new cases reporting White race, falling from 94% in 1993 to 64% in 2003.

For both HIV and AIDS:

- A decrease in the proportion of new male cases, reporting having sex with another man as a primary exposure (AIDS, 75% in 1999 to 60% in 2003; HIV, 77% in 1999 to 45% in 2003).
- An increase in the proportion of new cases, reporting heterosexual sex as a primary exposure (AIDS, 5.6% in 1999 to 18% in 2003; HIV, 9% in 1999 to 24% in 2003).

Sonoma County continues to have a high incidence of AIDS and HIV. Compared to other counties in California, Sonoma has the sixth highest cumulative incidence of AIDS and the fifth highest cumulative incidence of HIV.

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TECHNICAL NOTES

The HIV and AIDS case information in this report reflects data from the HIV/AIDS Reporting System. This database only includes HIV and AIDS cases that were diagnosed in Sonoma County. Those people living with HIV/AIDS that currently live in Sonoma County but were diagnosed with HIV or AIDS in another county are not included in the tables and graphs in this report.

Rates were calculated using 2000 U.S. Census population data unless otherwise noted. The zip code data in this report should not be confused with the residence data (city or town). In many cases, one zip code boundary includes multiple towns or cities.

Year Reported is the year an HIV or AIDS case is reported to the Sonoma County HIV/AIDS Reporting System.

Year of Diagnosis is the year an individual was diagnosed with HIV or AIDS.

Cumulative Cases is the total number of HIV or AIDS cases reported as of June 30, 2004.

Cumulative Number of Persons Living with AIDS and HIV is the total number of individuals with AIDS and HIV who were diagnosed and reported in Sonoma County and alive as of June 30, 2004.

Exposure Category is the classification that describes how a person was infected with HIV. A hierarchical index following CDC guidelines is used to describe how each person tested for HIV or diagnosed as an HIV or AIDS case acquired the virus. The CDC index is as follows:

Adult/adolescent exposure category

Men who have sex with men (MSM)

Injecting drug use (IDU)

Men who have sex with men and inject drugs (MSM/IDU)

Hemophilia/coagulation disorder (HEM)

Heterosexual contact (HET)

Sex with injecting drug user

Sex with bisexual male

Sex with person with hemophilia

Sex with transfusion recipient with HIV infection

Sex with HIV-infected person, risk not specified

Receipt of blood transfusion, blood components, or tissue (XFUS)

Other/risk not reported or identified (RNS)

Pediatric (<13 years old) exposure category

Hemophilia/coagulation disorder

Mother with/at risk for HIV infection:

Injecting drug use

Sex with injecting drug user

Sex with bisexual male

Sex with person with hemophilia

Sex with transfusion recipient with HIV infection

Sex with HIV-infected person, risk not specified

Receipt of blood transfusion, blood components, or tissue

Has HIV infection, risk not specified

Receipt of blood transfusion, blood components, or tissue

Other/risk not reported or identified

Each individual is counted only once in the hierarchy of exposure categories. Persons with more than one reported mode of exposure to HIV are classified in the exposure category listed first in the hierarchy, except for men with both a history of sexual contact with other men and

injecting drug use. They make up a separate exposure category¹. Also, men who reported having sex with a man even once between 1977 and their first HIV-positive test are categorized either as “men who have sex with men” or “men who have sex with men and inject drugs.”

Cumulative Incidence Rate (CIR) is a measure of the probability or risk of illness in a population over a period of time. The cumulative incidence rates were calculated using the number of newly diagnosed HIV or AIDS cases from 1981 through June 2004 in a particular group (i.e., race/ ethnic group, living in a particular city or town, age group, etc.) and population projections from the California Department of Finance or the 2000 U.S. Census (referenced in the body of the report).

Case Fatality Rate (CFR) is the proportion of people in the AIDS case registry who have died. In California, the case fatality rate can be calculated for AIDS only because California did not report on those living with HIV prior to July 1, 2002.

Confidence Intervals include a high and low value around a rate to indicate how much variability is included in that rate. In this report, 95% Confidence intervals are used to describe variability of cumulative incidence rates. When comparing rates between two groups, if the confidence intervals for the two rates overlap, then the difference between the two rates is not statistically significant at the 95% confidence level, meaning that the difference between the rates may be due to random variation.

¹ Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2001; 13 (No. 1): technical notes.

INTRODUCTION

The following report summarizes data from HIV and AIDS Confidential Case Report Forms submitted to the County of Sonoma Department of Health Services by health care providers. This information allows examination of disease trends and helps determine how and to whom services should be targeted. The data presented in this report include only persons who were Sonoma County residents at the time of diagnosis with HIV or AIDS. The number of newly reported AIDS cases per year is becoming less reflective of the true burden of the HIV/AIDS epidemic in Sonoma County for the following reasons:

1. No system currently exists to track migration of individuals following an HIV or AIDS diagnosis. Migration may result in a different number of persons with HIV or AIDS residing and requiring services in Sonoma County than are represented in this report.
2. Some HIV and AIDS deaths may have occurred but have not yet been reported to the county health department (e.g., if a person with AIDS dies outside Sonoma County or California).
3. Until 1999, the number of new AIDS cases had been decreasing due to treatment improvements that slow the progression of HIV to AIDS. California instituted a non-name, unique identifier HIV reporting system on July 1, 2002. This HIV reporting system serves as a HIV surveillance system, enabling the tracking of HIV while assuring the confidentiality of people living with HIV. HIV surveillance in combination with AIDS surveillance is likely to provide a more accurate reflection of the true HIV/AIDS burden.
4. Because many who are living with HIV have not yet been tested and therefore do not know their status the figures in this report underestimate the true scope of HIV disease in Sonoma County.

Also, due to the relatively recent adoption of HIV reporting not all HIV cases that were diagnosed in Sonoma County in the years previous to 2002 have been reported to the state Department of Health Services as yet; they are therefore not reflected in the data in this report. The Health Department continues to do validation studies to identify these previously diagnosed HIV cases.

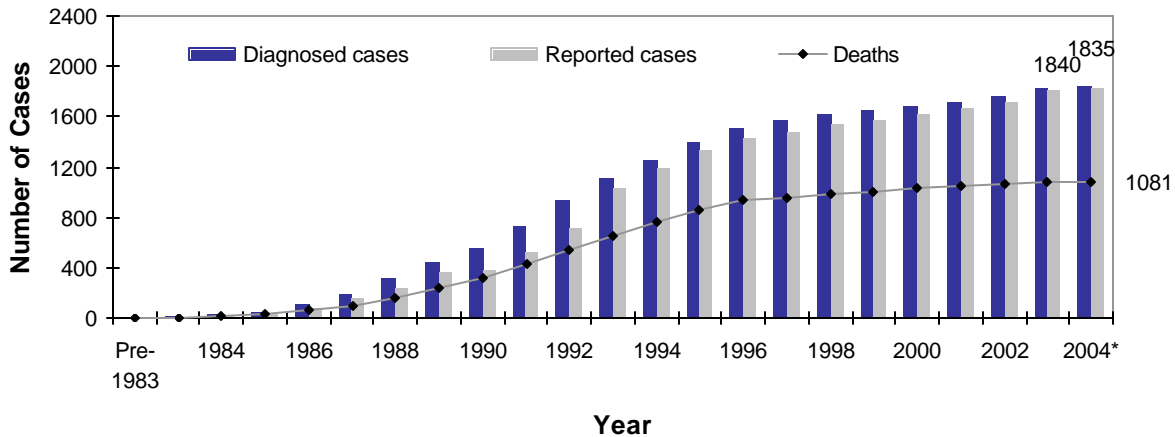
AIDS in Sonoma County

The following data represent cases that meet AIDS reporting standards developed by the Centers for Disease Control and Prevention (CDC). Revised in 1993, the standards define AIDS cases by the presence of one of several opportunistic infections commonly associated with advanced HIV disease, or a CD4 T-lymphocyte count of 200 or less per uL, or a total CD4 percentage of total lymphocytes of less than 14.

From January 1, 1981 through June 30, 2004, 1,840 Sonoma County residents were reported with AIDS (Figure 1). Of these cases, 1,081 have died. This results in a case fatality rate of 58.8%.

AIDS CASES BY YEAR

Figure 1 - Cumulative AIDS Cases by Year Reported, Year of Diagnosis, and Year of Death in Sonoma County, 1981 through June, 2004

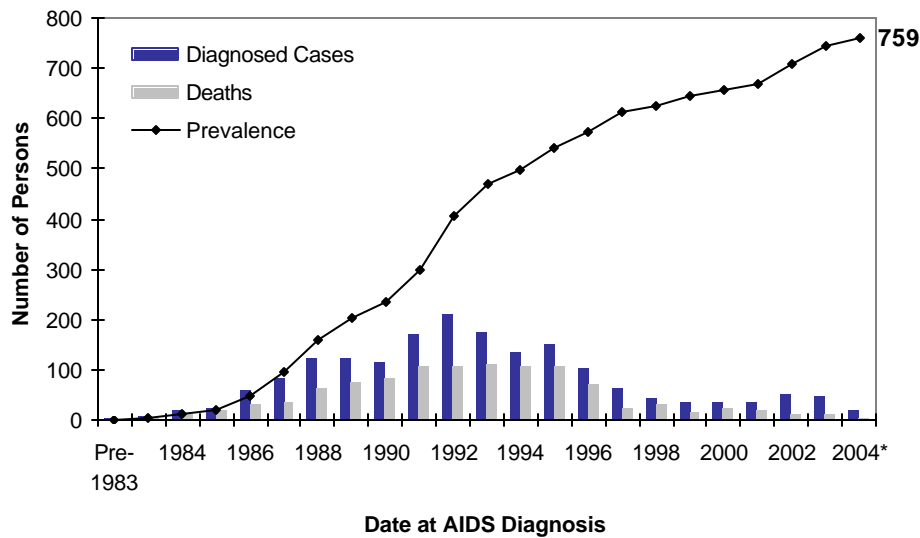


*Through June 30, 2004

Note: See Appendix A, Table A1: Cumulative AIDS Cases by Report Year and Diagnosis Year, and Year of Death for Sonoma County, 1981 through June 2004, for a detailed table of data represented in this graph.

Trends in AIDS cases are presented here by year of report and year of diagnosis. The report date can lag behind the diagnosis date by days to months due to delays in completing case report forms, mailing and processing time, and other factors. Report date is the official date used for surveillance purposes by the California Department of Health Services, Office of AIDS. The number of cases attributed to diagnosis year in 2004 and previous years will increase as the rest of the year unfolds and as reports are received in early 2005.

Figure 2 – AIDS Cases by Year of Diagnosis, and Year of Death and Prevalence for Sonoma County 1981 through June 2004



* Through June 30, 2004

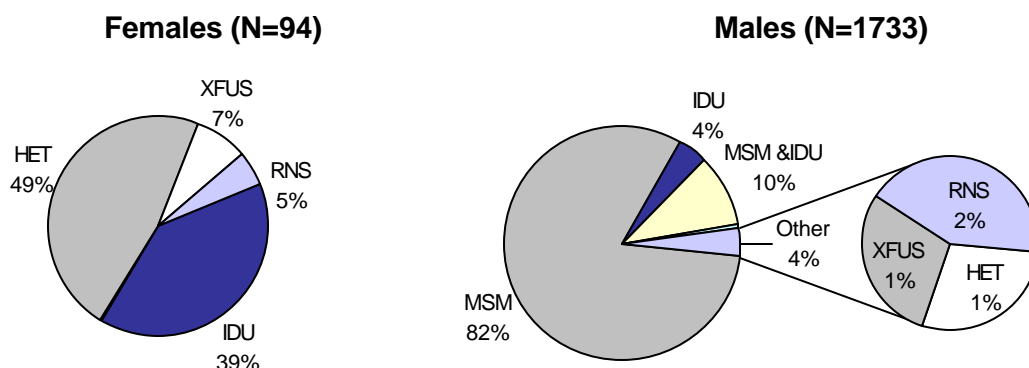
Note: See Appendix A, Table A2: *AIDS Cases by Year of Diagnosis, Year of Death, and prevalence by Year for Sonoma County, 1981 through June 2004* for a detailed table of the data represented in this graph.

Earlier in the AIDS epidemic, the diagnosis dates gave a more accurate representation of the disease trend at the time. Figure 2 represents AIDS cases of all ages and indicates an increasing number of people living with AIDS over time. However, please note that this graph does not take into consideration the people living with AIDS who have migrated to Sonoma County (and receive services in Sonoma County), but were diagnosed in another county. Currently, no epidemiological mechanism exists to accurately enumerate this population. Starting in 1999, there appears to be an increase in the number of new AIDS cases diagnosed per year, continuing through 2003. Although there has been an increase in the numbers of diagnosed AIDS cases reported annually from 1999-2003, statistical analysis does not yet establish this to be a significant trend.

EXPOSURE CATEGORY

A hierarchical index following CDC guidelines is used to describe how each AIDS patient acquired the virus. If a patient has more than one possible infection route (exposure category), the response closest to the top of the hierarchy is selected. In the following graph, each AIDS patient is represented by one response even though the patient may have reported multiple modes of exposure.

Figure 3 - Percent of Adult/Adolescent AIDS Cases by Exposure Category and Gender for Sonoma County 1981 through June 2004



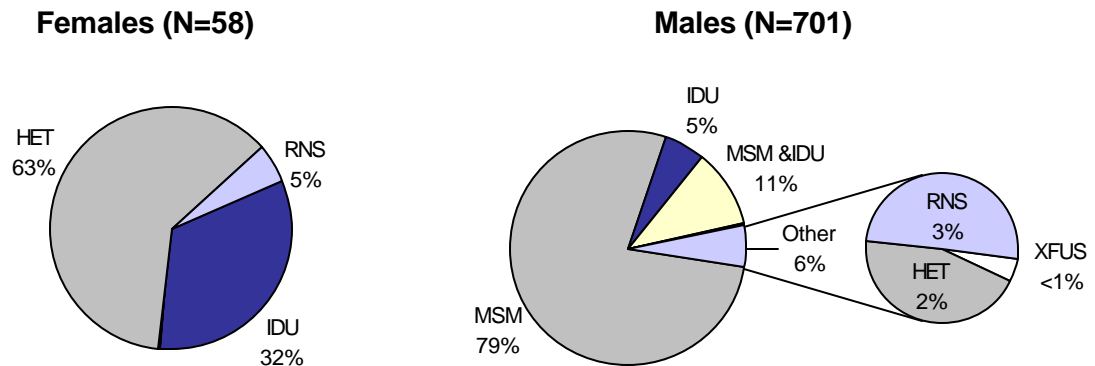
Note: See Appendix A, Table A3: Exposure categories for adult/adolescent (>12 years) AIDS cases by gender in Sonoma County, 1981 through June 2004, for a detailed table of the data represented in this graph.

The majority of male AIDS cases were in the men who have sex with men (MSM) exposure category (82%, Figure 3). Note that if a man with AIDS reported ever having sex with a man between 1977 and his first HIV-positive test, he was placed in this category regardless of his sexual orientation. Females were mainly in either the heterosexual contact (HET, 49%) or injecting drug use (IDU, 39%) categories. In California, the majority (74%) of male AIDS cases were also in the MSM exposure category and, among females, 44% were in the heterosexual contact exposure category and 36% in the IDU exposure category.

The number of Sonoma County residents who were older than 12 years at the time of AIDS diagnosis and who had no reported date of death as of June 30, 2004 was used to calculate the number of adults/adolescents living with AIDS. Some deaths may not have been reported (and not included in this data) especially if the person with AIDS died outside the county.

Additionally, a survey of people living with AIDS sponsored by the Sonoma County Commission on AIDS indicates that the actual number of people living with AIDS in Sonoma County may be greater than the data presented above due to migration to Sonoma County after their diagnosis of AIDS. Individuals diagnosed with AIDS in another county, would not be included in the above table.

Figure 4 - Percent of Adults/ Adolescents Living with AIDS by Exposure Category by Gender for Sonoma County, 1981 through June 2004



Note: See Appendix A, Table A4: Adults/adolescents (>12 years) living with AIDS by exposure category and gender for Sonoma County, 1981 through June 2004, for a detailed table of the data represented in this graph.

Figure 4 depicts the exposure category reported by all persons currently living with AIDS in Sonoma County. Compared to all persons who have had AIDS, females living with AIDS more frequently report heterosexual exposure (49% vs. 63% respectively). Males living with AIDS report exposures at a similar frequency compared to males over all in the epidemic.

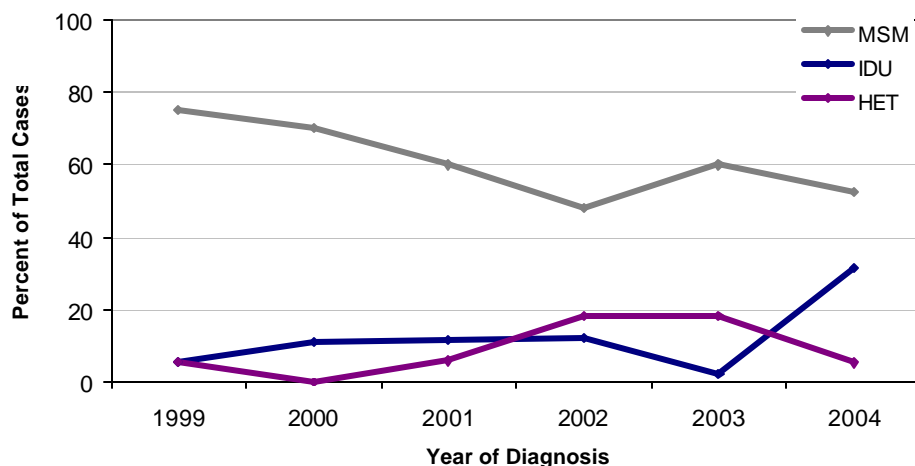
Table 1 - Exposure Category for Pediatric (<13 years) AIDS Cases by Gender in Sonoma County, 1981 through June 2004

Exposure	Male	(%)	Female	(%)	Total	(%)
Mother with, or at risk for HIV infection	2	(66.7)	5	(83.3)	7	(77.8)
Receipt of blood, blood components, or tissue	0	(0.0)	1	(16.7)	1	(11.1)
Hemophilia/coagulation disorder	1	(33.37)	0	(0.0)	1	(11.1)
Total	3	(100)	6	(100)	9	(100)

The majority of the pediatric AIDS cases reported in Sonoma County from 1981-2004 were from a mother with or at risk for HIV infection (Table 1). There have been no new pediatric AIDS cases reported in Sonoma County since 1994.

The following graph gives a picture of more recent changes in exposure categories among AIDS cases in Sonoma County. Exposure categories are presented for the past 5 years, 1999-2004.

Figure 5 - Five-Year Summary for Exposure Categories² in Adult/Adolescent AIDS Cases by Diagnosis Year in Sonoma County, 1999 through June 2004



Note: See Appendix A, Table A5: Five year summary of exposure categories for adult/ adolescent (>12 years) AIDS cases by diagnosis year in Sonoma County, 1999 through June 2004, for a detailed table of the data represented in this graph.

Over the past 5 years, the MSM exposure category has continued to be the main exposure category for the majority of AIDS cases in Sonoma County. However, when looking from year to year, the proportion of AIDS cases in the MSM category has been decreasing while other risk categories, particularly heterosexual transmission have been increasing in proportion or varying greatly from year to year (Figure 5). The high percentage of 2004 cases in the IDU category may be an artifact of the small number of cases diagnosed through June 2004 (Table A5, page 24). Also, this trend is not mirrored in the recently diagnosed HIV non-AIDS populations. Large fluctuations from year to year may similarly be the result of the small number of cases in some of the risk categories.

GENDER

Table 2 - AIDS Cases Reported by Gender and Diagnosis Year in Sonoma County, 2000 through June 2004

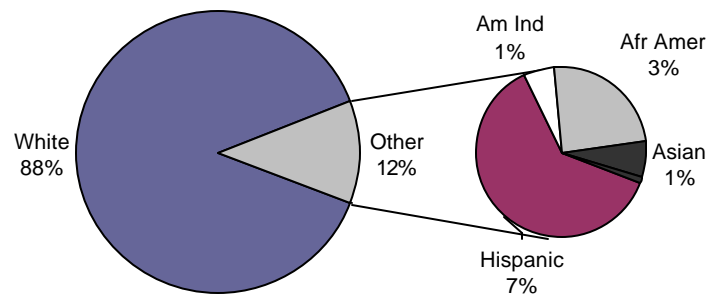
Gender	2000		2001		2002		2003		2004		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male	36	(97.3)	35	(100.0)	42	(84.0)	43	(86.0)	15	(78.9)	171	(89.5)
Female	1	(2.7)	0	(0.0)	8	(16.0)	7	(14.0)	4	(21.1)	20	(10.1)
Total	37	(100.0)	35	(100.0)	50	(100.0)	50	(100.0)	19	(100.0)	191	(100.0)

² The categories of MSM/IDU and RNS have been left off of this figure for clarity. The proportion of both groups has remained constant over this time period.

The majority of AIDS cases diagnosed from 2000 through June 2004 were among males. The number of women diagnosed with AIDS rose significantly in 2002; a trend that appears to be continuing through 2003 and 2004. However, because the numbers are very small it is difficult to draw meaningful conclusions.

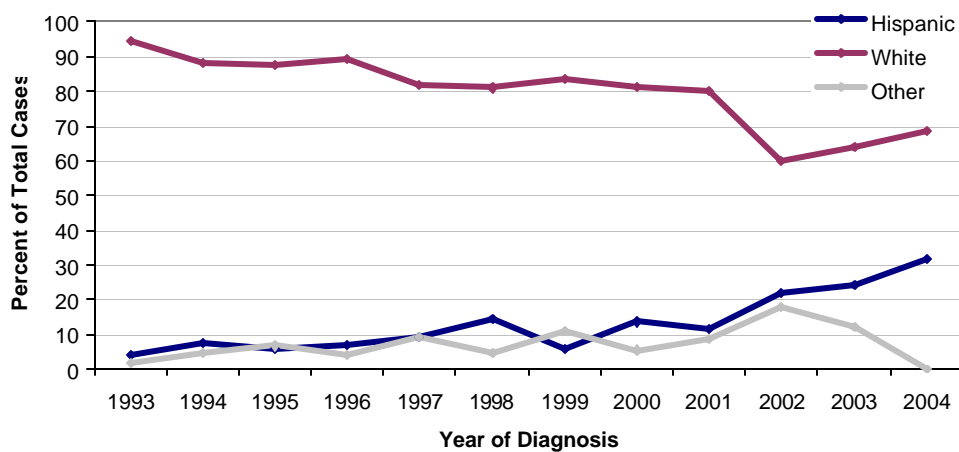
RACE/ETHNICITY

Figure 6 - Cumulative Racial/Ethnic Distribution of AIDS Cases for Sonoma County 1982 through June 2004



Depicted in Figure 6, the majority of AIDS cases reported in Sonoma County are among White, non-Hispanic persons (88%). The second most commonly reported race or ethnicity is Hispanic (7%) followed by African American (3%).

Figure 7 - Race/Ethnic Distribution of AIDS Cases by Diagnosis Year for Sonoma County 1993 through June 2004



Note: See Appendix A, Table A6: Race/ ethnicity of AIDS cases by year of diagnosis for Sonoma County, 1981 through June 2004, for a detailed table of the data represented in this graph.

Over time, among persons newly diagnosed with AIDS, the proportional distribution of race and ethnicity has been changing. Since 1993, the percent of new AIDS cases reporting White race has steadily decreased from 94% in 1993 to 64% in 2003. In contrast, the proportion of persons reporting Hispanic ethnicity has steadily increased from 4% in 1993 to 24% in 2003 (Figure 7).

Table 3 - Cumulative Incidence Rates* of AIDS by Race/ Ethnicity for Sonoma County, 1981 through June 2004

<i>Race/Ethnicity</i>	<i>Cumulative Incidence Rate</i>	<i>95% Confidence Intervals</i>
White	475.6	(452.5, 498.7)
Hispanic	168.5	(140.0, 197.0)
African American	850.2	(620.1, 1080.3)
Other/ Unknown	95.8	(61.6, 130.1)
Total	401.4	(383.1, 419.7)

*Rates per 100,000 population and not age-adjusted

The cumulative incidence rate (CIR) by race/ethnicity estimates the rate at which a particular race or ethnic group is being diagnosed with AIDS (Table 3). These CIRs were calculated using 2000 U.S. Census data³. The “Other/unknown” classification of race/ethnicity includes Asian/Pacific Islanders (n=15), American Indian/ Alaska Natives (n=13), and unknown (n=2). These groups were combined into one category because the number of cases for any one of these groups alone was too small to calculate a statistically reliable CIR.

The highest CIR was seen for African Americans, followed by whites. However, it is important to note that the fewer cases of AIDS in African Americans (n=52) compared to Whites (n=1625) and Hispanics (n=134) may result in a less accurate representation of the CIR for African Americans. Hispanics and the “other/unknown” groups had a significantly lower CIR than whites or African Americans.

³ United States Census, 2000, SF-1, www.census.gov

AGE

Table 4 - Cumulative Incidence Rates* of AIDS Cases by Age at Diagnosis for Sonoma County, 1981 through June 2004

<i>Age Group (years)</i>	<i>Total Cases</i>	<i>Cumulative Incidence Rates</i>	<i>95% Confidence Intervals</i>
0-19	10	8.0	(3.0, 13.0)
20-29	187	338.8	(290.3, 387.2)
30-39	738	1088.2	(1010.2, 1166.2)
40-49	640	827.0	(736.2, 890.9)
50-59	196	333.2	(286.7, 379.8)
60-89	69	92.7	(70.8, 114.5)
Total	1840	401.4	(383.1, 419.7)

*Rates per 100,000 population

The majority of AIDS cases from 1981 through June 2004 were diagnosed between ages 30 and 49 years (Table 4). The CIR by age group estimates the rate at which a particular age group is being diagnosed with AIDS. The CIRs are calculated using U.S. Census 2000 figures⁴. Those younger than 13 years and 13-19 years were grouped together in one age group (0-19 years) to improve the accuracy of the CIR calculated for these ages. The age group 30-39 years has a significantly higher CIR than any of the other age groups.

COUNTY COMPARISON

Table 5 - Leading Cumulative Incidence Rates of AIDS Cases by County in California, 1981 through June 2004

<i>County</i>	<i>Cumulative Incidence Rate</i>	<i>Number of AIDS Cases</i>
San Francisco	3,365.76	26,143
Marin	634.08	1,568
Los Angeles	510.27	48,574
Alameda	462.48	6,677
San Diego	436.13	12,272
Sonoma	399.46	1,832
Solano	349.77	1,380
Riverside	323.41	4,998
San Mateo	295.83	2,092
Sacramento	268.98	3,291
California	401.46	135,982

Source: California Department of Health Services, Office of AIDS. *AIDS Reporting Registry Surveillance Report for California – June 30, 2004*. These rates use 2000 U.S. Census figures to calculate the cumulative incidence rate.

The CIR by county is the rate at which people from a particular county of residence were diagnosed with AIDS. Sonoma County has the sixth highest CIR of AIDS cases of 58 counties in California (Table 5). Sonoma County's rank has decreased since 1990 when it had the 3rd highest CIR in the State of California.

⁴ See footnote 3.

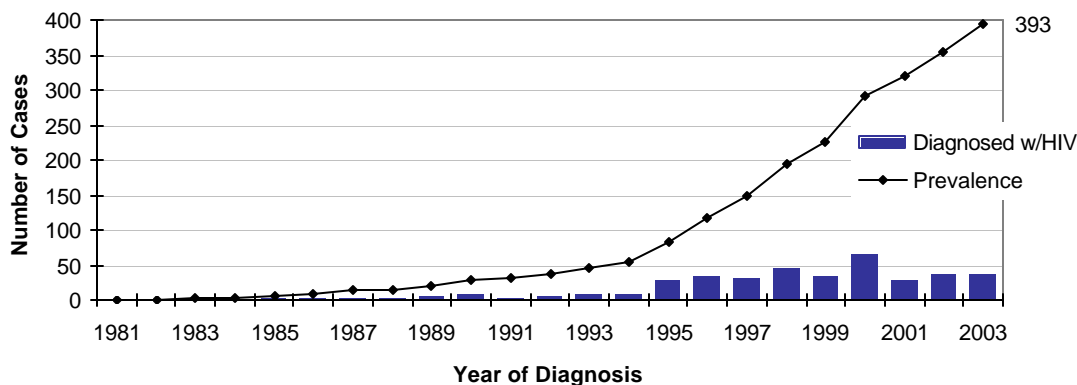
HIV in Sonoma County

California instituted a non-name, unique identifier HIV reporting system on July 1, 2002. This HIV reporting system serves as a HIV surveillance system, enabling the tracking of HIV. The data in these reports reflects non-AIDS HIV cases. That is, cases that have an HIV positive diagnosis but do not meet federal AIDS case reporting guidelines (described previously in this report). Sonoma County continues to both monitor new HIV cases as well as conduct validation studies to identify previously diagnosed HIV cases.

Sonoma County reported 99 cases of HIV in 2002 – that is, in the six months following the institution of the new reporting system. In 2003, the County reported 260 cases of HIV and in the first six months of 2004, 39 cases, for a total of 398 HIV case reports. Many of these reports were for cases that had been diagnosed in the years previous to the institution of the reporting system, and do not reflect the number of cases diagnosed in the same period. The prevalence of 393 accounts for 5 deaths among the 398 reported HIV cases.

HIV CASES BY YEAR

Figure 8 - HIV Cases by Year of Diagnosis and Prevalence for Sonoma County 1981 through 2003



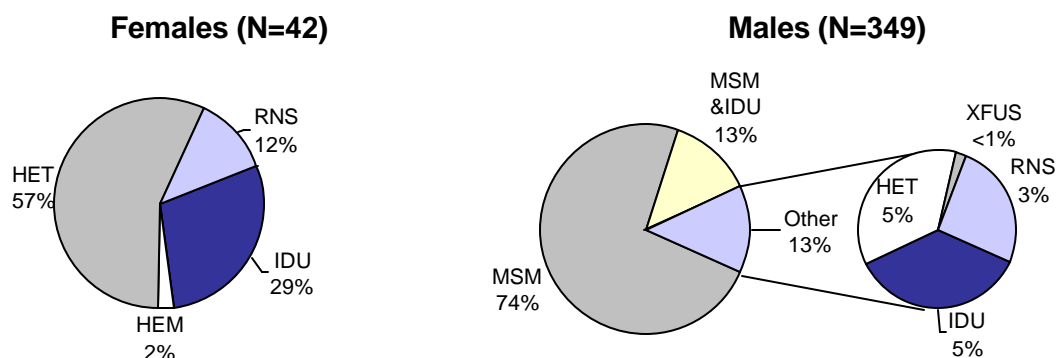
Note: See Appendix A, Table A7: HIV Cases by Year of Diagnosis, and Year of Death and Prevalence for Sonoma County, 1981 through 2003, for a detailed table of the data represented in this graph.

The number of persons living with HIV has continued to increase over time (Figure 8). The number of new cases identified each year has remained fairly constant since 1995, with an average of 38 new cases diagnosed per year (range 28-65 cases).

Of the 398 cases diagnosed since 1981, there have been five deaths. However, an unknown number of people with HIV moved here after they had been diagnosed elsewhere, and since HIV results are reported in the county in which they were diagnosed these residents are not reflected in county reporting data. Additionally, there is an unknown number who are unaware of their HIV status and are not reflected in the data.

EXPOSURE CATEGORY

Figure 9 - Percent of Adult/Adolescent HIV Cases by Exposure Category and Gender for Sonoma County 1981 through 2003

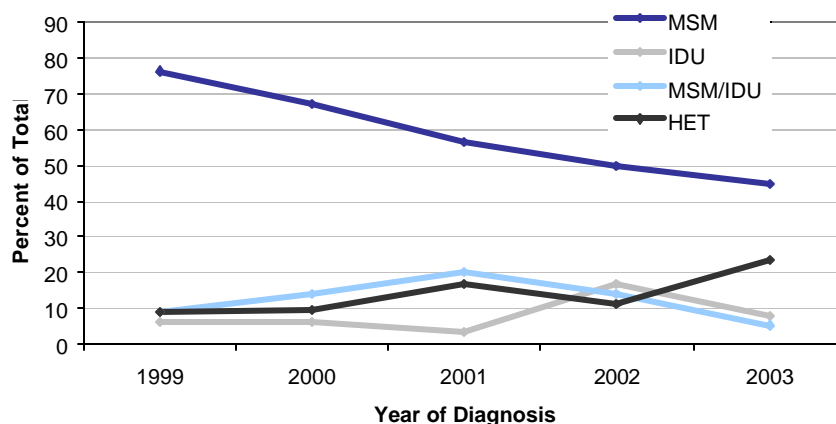


Note: See Appendix A, Table A8: Exposure Category by Year of Diagnosis for Cumulative HIV Cases – Sonoma County, 1995 through 2003, for a detailed table of the data represented in this graph.

Depicted in Figure 9, the largest proportion of new HIV cases has occurred in the Men who have sex with men category (MSM, 74%), distantly followed by MSMs who also use injection drugs (MSM&IDU, 13%). In females, their most frequently reported exposure is heterosexual (HET, 57%), followed by injection drug use (IDU, 29%).

Compared to males living with AIDS, males living with HIV more frequently report heterosexual exposure (5% vs. 2%) and MSM/IDU exposure (13% vs. 11%). Females living with HIV report similar exposures to females living with AIDS.

Figure 10 - Five-Year Summary for Exposure Categories in Adult/Adolescent HIV Cases by Diagnosis Year in Sonoma County, 1999 through 2003



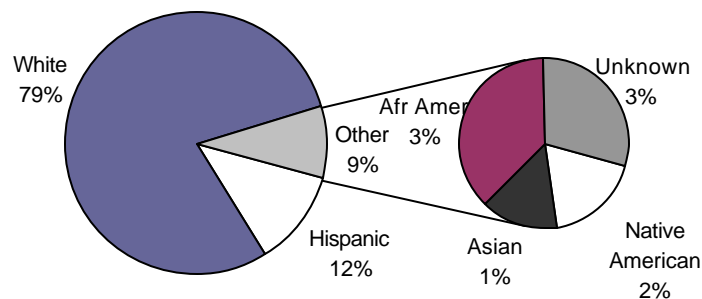
Note: See Appendix A, Table A9: Exposure Category by Year of Diagnosis for Cumulative HIV Cases – Sonoma County, 1999 through 2003, for a detailed table of the data represented in this graph.

Over time, the proportional distribution of exposure categories has been changing among persons newly diagnosed with HIV. Since 1999, the percent of new HIV cases reporting MSM exposure has steadily decreased from 77% in 1999 to 44% in 2003. In contrast, the proportion of persons reporting heterosexual exposure has steadily increased from 9% in 1999 to 24% in 2003 (Figure 10).

All of the pediatric HIV cases reported in Sonoma County from 1981-2003 were in the exposure category of a mother with or at risk for HIV infection (N=7). There have been no new pediatric HIV cases reported in Sonoma County since 2000.

RACE/ETHNICITY

Figure 11 - Race/Ethnicity of Cumulative HIV Cases for Sonoma County, 1981 through 2003



Note: See Appendix A, Table A10: Race/ethnicity of HIV cases by year of diagnosis for Sonoma County, 1981 through 2003, for a detailed table of the data represented in this graph.

Depicted in Figure 11, the majority of HIV cases diagnosed to date in Sonoma County are among Whites (79%), followed by Hispanics (12%). This is a trend that has remained consistent over time. Compared to persons with AIDS, a much larger proportion of persons with HIV report Hispanic ethnicity (12% vs. 7%).

GENDER

Table 6 - HIV Cases Reported by Gender and Diagnosis Year in Sonoma County, 2000 through 2003

Gender	2000		2001		2002		2003		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male	60	(92.3)	26	(83.8)	28	(80.0)	31	(81.6)	145	(85.8)
Female	5	(7.7)	5	(16.2)	7	(20.0)	7	(18.4)	24	(14.2)
Total	65	(100)	31	(100.0)	35	(100.0)	38	(100.0)	169	(100.0)

The majority of new HIV cases in Sonoma County are among males, with females comprising a very small proportion (Table 6).

AGE

Table 7 - Cumulative Incidence Rates* of HIV Cases by Age at Diagnosis for Sonoma County, 1981 through 2003

<i>Age Group (years)</i>	<i>Total Cases</i>	<i>Cumulative Incidence Rates</i>	<i>95% Confidence Intervals</i>
0-19	11	8.8	(3.6, 14.0)
20-29	58	105.1	(78.0, 132.1)
30-39	149	219.4	(184.2, 254.6)
40-49	126	162.8	(134.4, 191.2)
50-59	48	81.6	(58.5, 104.7)
60-89	6	8.1	(1.6, 14.5)
Total	398	86.8	(78.3, 95.3)

*Rates per 100,000 populations

The highest cumulative HIV incidence rates are seen in the 30-39 and 40-49 age groups.

COUNTY COMPARISON

Table 8 - Leading Cumulative Incidence Rates of HIV Cases by County in California, 1981 through 2003

<i>County</i>	<i>Cumulative Incidence Rate*</i>	<i>Number of HIV Cases</i>
San Francisco	515.73	4065
Marin	142.34	356
San Diego	139.92	4120
Solano	94.51	389
Sonoma	82.01	386
Los Angeles	80.75	7986
Alpine	80.65	1
Madera	77.22	100
Alameda	69.56	1035
Riverside	67.22	1131
California	79.39	28055

Source: California Department of Health Services, Office of AIDS. *HIV Reporting Registry Surveillance Report for California – December 31, 2003.*

*These rates use California Department of Finance, 2003 County estimates to calculate the cumulative incidence rate.

The CIR by county is the rate at which people from a particular county of residence were diagnosed with AIDS. Sonoma County has the fifth highest CIR of HIV cases of 58 counties in California (Table 8). It should be noted that local health jurisdictions are at varying rates of “completeness” in their surveillance. For instance, San Diego was a pilot county to test the new HIV surveillance system and started collecting reports 12 months before the reporting law came into effect. It is expected to take at least 12 more months before all counties are sufficiently current with their HIV reports. Once all jurisdictions have reached comparable levels of “completeness” comparisons between them will be more accurate.

COMPARING HIV AND AIDS

Notable differences appear when comparing persons living with AIDS and persons living with HIV. It is possible that persons living with HIV represent more recent infections and thereby can be used as a marker for evaluating population shifts in the epidemic.

Table 9 – Risk Factor Comparison by Gender, HIV and AIDS, 1981 through 2003

	MALES		FEMALES	
	HIV N (%)	AIDS N (%)	HIV N (%)	AIDS N (%)
Injecting Drug Use	16 (5)	32 (5)	12 (28)	16 (30)
Heterosexual Contact	17 (5)	15 (2)	24 (58)	34 (64)
Transfusion/Hemophilia	1 (<1)	4 (<1)	1 (2)	0 (0)
Risk Not Specified	11 (3)	18 (3)	5 (12)	3 (6)
Men who have sex with Men	255 (74)	535 (79)		
MSM/IDU	44 (13)	77 (11)		
TOTAL	344 (85)	681 (93)	42 (15)	53 (7)

For males, persons with HIV more frequently report heterosexual exposure and men who have sex with men and also inject drugs when compared to persons living with AIDS (Table 9). For females, the comparison is less clear since 12% of females have an unknown risk factor. When comparing gender regardless of risk factor, persons with HIV are more often female than persons living with AIDS.

Table 10 – Race/Ethnicity Comparison, HIV and AIDS, 1981 through 2003

	HIV N (%)	AIDS N (%)
White	310 (80)	613 (83)
Hispanic	44 (11)	75 (10)
African American	12 (3)	33 (5)
Asian	5 (1)	10 (1)
Native American	6 (2)	7 (1)
Unknown	9 (2)	0 (0)
TOTAL	386 (100)	738 (100)

When comparing Race and Ethnicity (Table 10), persons with HIV are more often Hispanic (11 % vs. 10% respectively) when compared to persons living with AIDS.

HIV AND AIDS FROM THE STATE, NATIONAL, AND GLOBAL PERSPECTIVE

Table 11 - Global, National, and State HIV/AIDS Estimates (Pediatric and Adults)

<i>Number of People Living with HIV/AIDS</i>	<i>Number</i>
Worldwide ¹	37.8 million (34.6 – 42.3 million)
Adults	35.7 million (32.7 – 39.8 million)
Children under 15 years	2.1 million (1.9 – 2.5 million)
U.S. (through 2002) ²	384,906
California ³	56,138
<i>Total Deaths due to HIV/AIDS</i>	
U.S. AIDS only ²	501,669
California AIDS only ³	79,844

¹ WHO/UNAIDS. AIDS Epidemic Update, July 2004; <http://www.unaids.org/en/resources/epidemiology/epicorejuly2004.asp>

² CDC. Divisions of HIV/AIDS Prevention, Basic Statistics. <http://www.cdc.gov/hiv/stats.htm#cumaids>

³ California Department of Health Services, Office on AIDS. AIDS Reporting System Surveillance Report for California - June 30, 2004.

APPENDIX A - Detailed Tables

This section contains detailed tables containing data depicted in graphs or otherwise discussed in this report. Please include this section when duplicating this report.

Table A1: Cumulative AIDS Cases by Report Year, Diagnosis Year, and Year of Death for Sonoma County, 1981 through June 2004

<i>Year</i>	<i>Diagnosed Cases</i>	<i>Reported Cases</i>	<i>Deaths</i>
Pre-1983	2	0	1
1983	9	3	5
1984	29	15	16
1985	54	29	34
1986	112	77	66
1987	197	152	100
1988	320	245	162
1989	443	358	239
1990	558	384	322
1991	728	521	429
1992	940	716	535
1993	1115	1028	647
1994	1252	1193	755
1995	1403	1342	862
1996	1507	1433	933
1997	1572	1486	958
1998	1614	1543	989
1999	1650	1580	1006
2000	1687	1616	1031
2001	1722	1663	1052
2002	1772	1714	1065
2003	1821	1813	1077
2004	1840	1835	1081

Table A2: AIDS Cases by Year of Diagnosis, and Year of Death and Prevalence for Sonoma County, 1981 through June 2004

<i>Year</i>	<i>Diagnosed Cases</i>	<i>Deaths</i>	<i>Prevalence</i>
Pre-1983	2	1	1
1983	7	4	4
1984	20	11	13
1985	25	18	20
1986	58	32	46
1987	85	34	97
1988	123	62	158
1989	123	77	204
1990	115	83	236
1991	170	107	299
1992	212	106	405
1993	175	112	468
1994	137	108	497
1995	151	107	541
1996	104	71	574
1997	65	25	614
1998	42	31	625
1999	36	17	644
2000	37	25	656
2001	35	21	670
2002	50	13	707
2003	49	12	744
2004	19	4	759
Total	1840	1081	759

APPENDIX A - Detailed Tables (con't)

Table A3: Exposure Categories for Adult/ Adolescent (>12 years) AIDS Cases by Gender in Sonoma County, 1981 through June, 2004

<i>Exposure Category</i>	<i>Male</i>	<i>(%)</i>	<i>Female</i>	<i>(%)</i>	<i>Total</i>	<i>(%)</i>
Men who have sex with Men (MSM)	1409	(81.3)	N/A		1409	(77.1)
Injecting drug use (IDU)	76	(4.4)	37	(39.4)	113	(6.2)
MSM & IDU	177	(10.2)	N/A		177	(9.7)
Adult hemophilia (HEM)	6	(0.3)	0	(0.0)	6	(0.3)
Heterosexual contact (HET)	18	(1.0)	45	(47.9)	63	(3.4)
Transfusion recipient (XFUS)	19	(1.1)	7	(7.4)	26	(1.4)
Risk not specified (RNS)	28	(1.6)	5	(5.3)	33	(1.8)
Total	1733	(100.0)	94	(100.0)	1827	(100.0)

Table A4: Adult/ Adolescent (>12 years) Living with AIDS by Exposure Category and Gender for Sonoma County, 1981 through June 2004

<i>Exposure Category</i>	<i>Male</i>	<i>(%)</i>	<i>Female</i>	<i>(%)</i>	<i>Total</i>	<i>(%)</i>
Men who have sex with Men (MSM)	549	(79.3)	N/A		549	(73.9)
Injecting drug use (IDU)	36	(5.0)	18	(34.0)	54	(7.0)
MSM & IDU	79	(10.9)	N/A		79	(10.1)
Adult hemophilia (HEM)	2	(0.3)	0	(0.0)	2	(0.3)
Heterosexual contact (HET)	17	(1.6)	35	(55.3)	52	(5.2)
Transfusion recipient (XFUS)	2	(0.3)	0	(0.0)	2	(0.3)
Risk not specified (RNS)	16	(2.6)	5	(10.6)	21	(3.2)
Total	701	(100.0)	58	(100.0)	759	(100.0)

APPENDIX A - Detailed Tables (con't)

Table A5: Five Year Summary of Exposure Categories for Adult/Adolescent (>12 years) AIDS Cases by Diagnosis Year in Sonoma County, 2000 through June, 2004

Exposure Category	2000		2001		2002		2003		2004		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Men who have sex with Men (MSM)	26	(70.3)	21	(60.0)	24	(48.0)	30	(60.0)	10	(52.6)	111	(58.1)
Injecting drug use (IDU)	4	(10.8)	4	(11.4)	6	(12.0)	1	(2.0)	6	(31.6)	21	(11.0)
MSM & IDU	4	(10.8)	4	(11.4)	6	(12.0)	5	(10.0)	0	(0.0)	19	(9.9)
Adult hemophilia (HEM)	0	(0.0)	1	(2.9)	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.5)
Heterosexual contact (HET)	0	(0.0)	2	(5.7)	9	(18.0)	9	(18.0)	1	(5.3)	21	(11.0)
Transfusion recipient (XFUS)	0	(0.0)	1	(2.9)	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.5)
Risk not specified (RNS)	3	(8.1)	2	(5.7)	5	(10.0)	5	(10.0)	2	(10.5)	17	(8.9)
Total	37	(100.0)	35	(100.0)	50	(100.0)	50	(100.0)	19	(100.0)	191	(100.0)

Table A6: Race/Ethnicity of AIDS Cases by Year of Diagnosis for Sonoma County, 1981 through June 2004

Year	Race/Ethnicity			
	White	Hispanic	African American	Other/unknown
Pre-1983	2	0	0	0
1983	7	0	0	0
1984	19	1	0	0
1985	24	1	0	0
1986	56	1	1	1
1987	82	1	1	1
1988	113	8	2	0
1989	113	6	3	1
1990	107	6	2	0
1991	158	7	3	2
1992	184	18	5	5
1993	165	7	3	0
1994	120	10	3	2
1995	131	9	6	4
1996	93	7	2	2
1997	54	6	5	1
1998	34	6	1	1
1999	30	2	3	1
2000	30	5	1	1
2001	28	4	1	2
2002	30	11	5	4
2003	32	12	5	1
2004	13	6	0	0
Total	1625	134	52	29

APPENDIX A - Detailed Tables (con't)

Table A7: HIV Cases by Year of Diagnosis, and Year of Death and Prevalence for Sonoma County, 1981 through 2003

<i>Year</i>	<i>Diagnosed Cases</i>	<i>Deaths</i>	<i>Prevalence</i>
Pre-1983	1	0	1
1983	2	0	3
1984	1	0	4
1985	3	0	7
1986	3	0	10
1987	3	0	13
1988	2	0	15
1989	5	0	20
1990	8	1	28
1991	4	0	31
1992	6	0	37
1993	10	0	47
1994	8	0	55
1995	28	0	83
1996	34	0	117
1997	32	0	149
1998	45	1	193
1999	34	0	227
2000	65	1	291
2001	30	1	320
2002	36	1	355
2003	38	0	393
Total	398	5	393

Table A8: Adult/ Adolescent (>12 years) Living with HIV by Exposure Category and Gender for Sonoma County, 1981 through 2003

<i>Exposure Category</i>	<i>Male (%)</i>	<i>Female (%)</i>	<i>Total (%)</i>
Men who have sex with Men (MSM)	257 (73.6)	--	257 (65.7)
Injecting drug use (IDU)	17 (4.9)	12 (28.6)	29 (7.4)
MSM & IDU	45 (12.9)	--	45 (11.5)
Heterosexual contact (HET)	17 (4.9)	24 (57.1)	41 (10.5)
Hemophilia (HEM)	0 (0.0)	1 (2.4)	1 (0.3)
Transfusion recipient (XFUS)	1 (0.3)	0 (0.0)	1 (0.3)
Risk not specified (RNS)	12 (3.4)	5 (11.9)	17 (4.3)
Total	349 (100.0)	42 (100.0)	391 (100.0)

APPENDIX A - Detailed Tables (con't)

Table A9: Five-Year Summary of Exposure Categories for Adult/Adolescent (>12 years) HIV Cases by Diagnosis Year in Sonoma County, 1999 through 2003

Exposure Category	1999		2000		2001		2002		2003		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Men who have sex with Men (MSM)	26	(76.5)	43	(67.2)	17	(54.8)	18	(50.0)	17	(44.7)	121	(59.6)
Injecting drug use (IDU)	2	(5.9)	4	(6.3)	1	(3.2)	6	(16.7)	3	(7.9)	16	(7.9)
MSM & IDU	3	(8.8)	9	(14.1)	6	(19.4)	5	(13.9)	2	(5.3)	25	(12.3)
Adult hemophilia (HEM)	0	(0.0)	0	(0.0)	0	(0.0)	1	(2.8)	0	(0.0)	1	(0.5)
Heterosexual contact (HET)	3	(8.8)	6	(9.4)	5	(16.1)	4	(11.1)	9	(23.7)	27	(13.3)
Transfusion recipient (XFUS)	0	(0.0)	0	(0.0)	1	(3.2)	0	(0.0)	0	(0.0)	1	(0.5)
Risk not specified (RNS)	0	(0.0)	2	(3.1)	1	(3.2)	2	(5.6)	7	(18.4)	12	(5.9)
Total	34	(100.0)	64	(100.0)	31	(100.0)	36	(100.0)	38	(100.0)	203	(100.0)

Table A10: Race/Ethnicity of HIV Cases by Year of Diagnosis for Sonoma County, 1983 through 2003

Year	Race/Ethnicity			
	White	Hispanic	African American	Other/unknown
1983	3	0	0	0
1984	1	0	0	0
1985	3	0	0	0
1986	3	0	0	0
1987	3	0	0	0
1988	2	0	0	0
1989	4	0	1	0
1990	7	0	0	1
1991	4	0	0	0
1992	5	0	0	1
1993	9	1	0	0
1994	7	0	1	0
1995	22	4	0	2
1996	30	3	0	1
1997	26	4	1	1
1998	37	7	1	0
1999	29	5	0	0
2000	51	7	4	3
2001	23	2	1	4
2002	28	5	2	1
2003	19	9	3	7
Total	316	47	14	21

APPENDIX B – Sonoma County Contacts

Anonymous and confidential HIV Testing AIDS Helpline:	(707) 565-4620
HIV/AIDS Programs or Policy: Patricia Kuta, MPH	(707) 565-7379
Case Reporting: Christine Daleiden, PHN	(707) 565-4580
HIV/AIDS Prevention Programs: Ellen Swedburg	(707) 565-6683
Center for Treatment and Care of HIV:	(707) 565-7400
HIV/AIDS Program Website	www.sonoma-county.org/aids