

Epidemiology of HIV/AIDS in Sonoma County

Annual Report
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Executive Summary

As of June 30, 2007, there are at least 1230 persons living with HIV or AIDS who were diagnosed in Sonoma County (825 AIDS; 405 HIV, non-AIDS). Due to the limitations in data collection, this number is not a true reflection of the local burden of HIV and AIDS, and only represents persons first diagnosed with HIV or AIDS in Sonoma County. It is estimated that at the end of 2005, there were actually between 1,931 and 2,202 persons living with HIV disease in Sonoma County. Similar to the state and national epidemics, the demographics of persons newly affected by HIV and AIDS continue to change. Highlights of this report include:

- The majority of persons currently living with HIV or AIDS report male gender and White race.
- Compared to all AIDS cases ever reported in Sonoma County, those currently living with HIV or AIDS include a higher proportion of persons reporting heterosexual exposure, particularly among females.
- Latinos account for approximately 20% of persons newly diagnosed with HIV or AIDS.
- Among Latinos newly diagnosed with HIV or AIDS, the proportion of Mexican-born cases was 64% between 2004 and 2006.
- While the rate of new diagnoses of HIV or AIDS infection has declined among males, this rate has remained stable for women.

In California, Sonoma County has the seventh highest prevalence of persons living with AIDS of all 58 counties in 2006.

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:

- 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.

- 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).
- Because many who are living with HIV have not yet been tested and therefore do not know their status the figures in this report underrepresent the true scope of HIV disease in Sonoma County.

California instituted a non-name, unique identifier HIV reporting system on July 1, 2002 and changed to name-based reporting in April 2006. During this transition time, the HIV data will reflect reports from both code and name based reporting. Combining both HIV and AIDS data in this report provides a more representative sample of persons affected by the epidemic.

HIV and AIDS in the World, US, and California

The number of persons currently living with HIV or AIDS continues to rise around the world (Table 1). Certain regions, such as East Asia, Eastern Europe, and Central Asia, are experiencing a dramatic increase in newly diagnosed cases¹. Of particular concern is the increasing proportion of women and children affected by HIV and AIDS. In some countries, over fifty percent of persons living with HIV disease are women. In the United States, this proportion is twenty-seven percent and growing larger each year².

Table 1 - Global, national and State HIV/AIDS Estimates (Pediatric and Adult)

People living with HIV/AIDS	
Worldwide ³	39.5 million (34.1-47.1 million)
Adults	37.2 million (32.1-44.5 million)
Women	17.7 million (15.1-20.9 million)
Children under 15 years	2.3 million (1.7-3.5 million)
United States ⁴	1.1 million (1.0-1.2 million)
California ⁵	151,000
New Infections per Year	
Worldwide ⁶	4.3 million (3.6-6.6 million)
United States ⁷	40,000
California ⁸	7,888 (6,788-8,988)

In California, Sonoma County has the seventh highest prevalence of persons living with AIDS of all 58 counties (Table 2).

Table 2 - Leading Prevalence^{9,10} of AIDS Cases by County, California, 1981 -2006

County	Prevalence per 100,000*	Persons living with AIDS
San Francisco	1,108	8,852
Marin	249	632
Los Angeles	213	21,774
San Diego	201	6,159
Alameda	197	2,974
Solano	182	771
Sonoma	171	820
Riverside	148	2,900
Kern	138	1,074
Orange	114	3,517

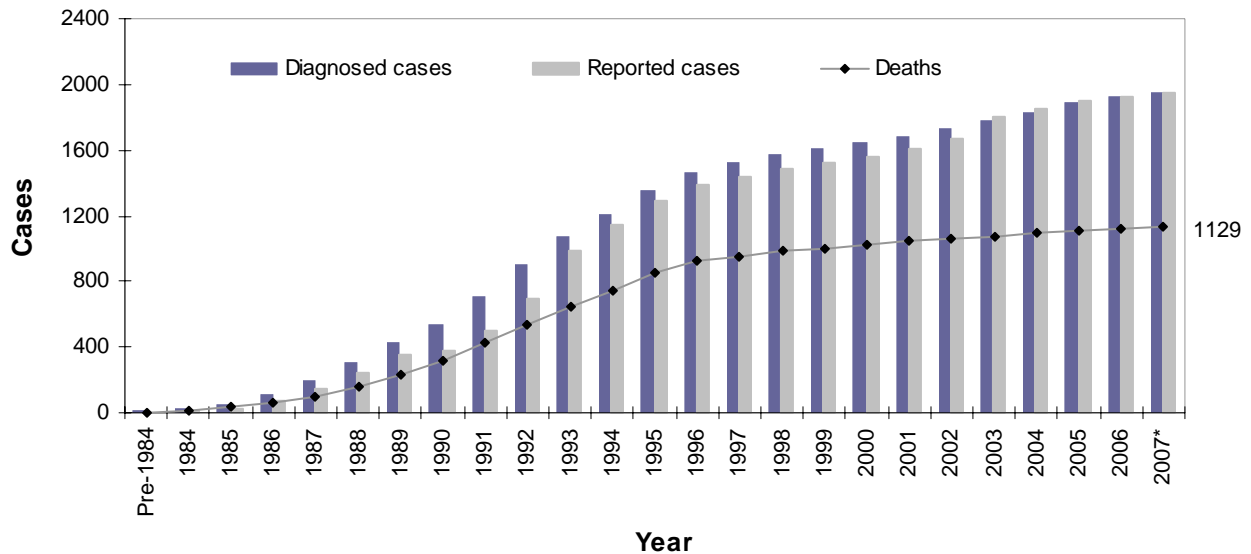
* Prevalence based on county of first diagnosis

AIDS in Sonoma County

The HIV and AIDS case information in this section 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 section.

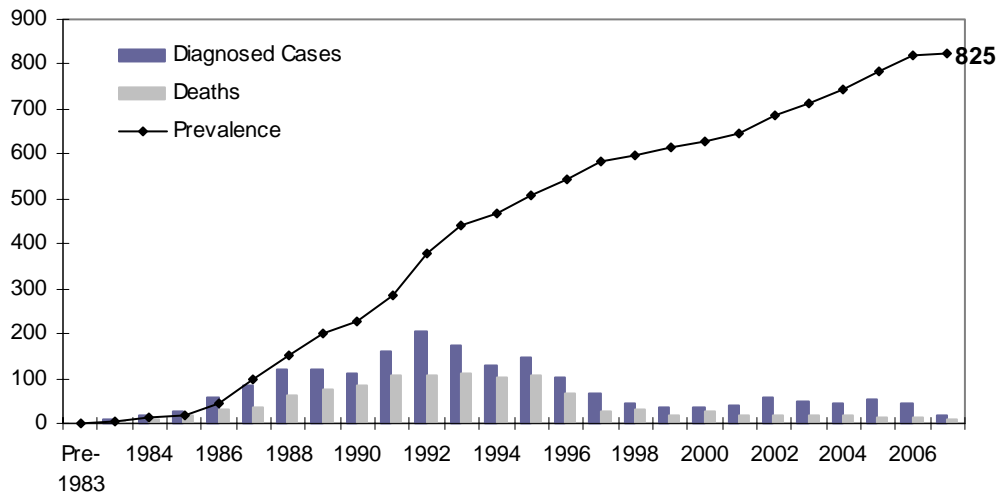
A survey of people living with AIDS sponsored by the Sonoma County Commission on AIDS indicates that the actual number of people living with AIDS in Sonoma County may be greater than the data presented above due to migration to Sonoma County after their diagnosis of AIDS.

Figure 1 - Cumulative AIDS Cases by Year Reported, Year of Diagnosis, and Year of Death Sonoma County, 1981 through June 2007



From January 1, 1981 through June 30, 2007, 1,946 Sonoma County residents have been reported with AIDS (Figure 1). Of these cases, 1,129 have died, resulting in a case fatality ratio of 58.8% over the course of the epidemic. While the number of newly diagnosed cases has declined since 1992, the total number of persons living with AIDS has steadily increased over time (Figure 2). The decline in the number of newly diagnosed AIDS cases is partially due to better management of HIV causing a delay in conversion to AIDS. Currently, there are 825 persons living with AIDS who were diagnosed in Sonoma County.

Figure 2 - AIDS Cases by Year of Diagnosis, Year of Death, and Prevalence
Sonoma County 1981 through June 2007



Race/Ethnicity

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). The Other/Unknown classification of race/ethnicity includes Asian/Pacific Islanders (n=15), American Indian/Alaska Natives (n=14), Multi-Race (n=13) and unknown (n=3). 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.

Table 3 - Cumulative Incidence Rates* of AIDS by Race/ Ethnicity
Sonoma County, 1981 through June 2007

Race/Ethnicity	Cumulative Incidence Rate	95% Confidence Intervals
White	474.7	(452.1, 497.3)
Latino	166.6	(141.1, 192.0)
African American	706.6	(520.5, 892.7)
Other/ Unknown	117.6	(83.2, 151.9)
Total	390.1	(372.8, 407.4)

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

Source: Sonoma County HIV/AIDS Reporting System

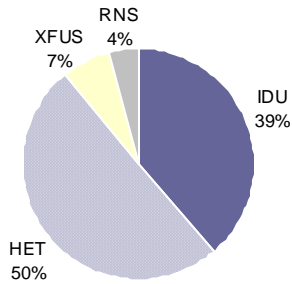
The highest CIR was seen for African Americans, followed by Whites. However, it is important to note that the fewer cases of AIDS in African Americans (n=55) compared to Whites (n=1682) and Latinos (n=164) may result in a less accurate representation of the CIR for African Americans. Latinos and the Other/Unknown groups had a significantly lower CIR than Whites or African Americans.

Exposure Category

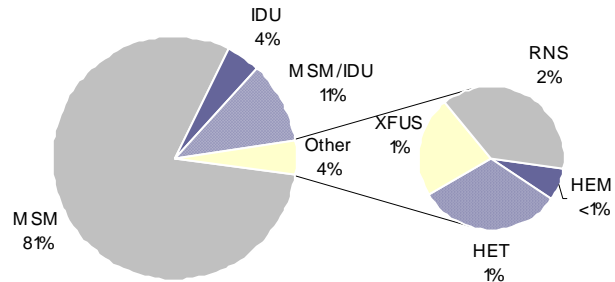
A hierarchical index following The Centers for Disease Control and Prevention guidelines is used to describe how each AIDS patient acquired the virus. If a patient has more than one possible exposure category, excepting men who have sex with men and use injection drugs, the response closest to the top 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 AIDS Cases by Exposure Category and Gender
Sonoma County 1981 through June 2007

Females (N=119)



Males (N=1825)



MSM - Men who have sex with men
IDU - Injecting drug use
HET - Heterosexual contact

HEM - Hemophilia
XFUS - Blood transfusion, blood components or tissue
RNS - Risk not reported

The majority of male AIDS cases reported sex with another man (MSM) as the primary exposure category (81%, 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. The majority of females reported heterosexual contact (HET, 50%) or injecting drug use (IDU, 39%) as primary exposures. These proportions are similar to all of California, where the majority (74%) of male AIDS cases were also in the report IDU exposure¹¹.

Age at Diagnosis

When diagnosed with AIDS, women are significantly younger than men (38 vs. 41 years, p=0.03 T-test with unequal variances). Among males, the largest proportion is diagnosed with AIDS between ages 30 and 39 (39%), followed by 40-49 (35%, Table 4). In comparison, among females, the largest proportion is diagnosed between ages 30 and 39 (42%), followed by ages 40 to 49 (22%, Table 4).

Table 4 - Age at Diagnosis for Adult and Adolescent AIDS Cases
Sonoma County 1981 through June 2007

	Males		Females	
	N	%	N	%
13-19	2	<1	1	1
20-29	182	10	24	20
30-39	712	39	50	42
40-49	647	35	26	22
50-59	219	12	10	8
60+	66	4	8	7
Total	1828		119	

Persons Living with AIDS and HIV

As of June 30, 2006, there are at least 1230 persons living with HIV disease in Sonoma County (825 AIDS, 405 HIV, non-AIDS). Due to the limitations in data collection, this number is not a true reflection of the local burden of HIV and AIDS, and only represents persons diagnosed with HIV or AIDS in Sonoma County. Additionally, an unknown number are unaware of their HIV status and are not reflected in the data. It is estimated that at the end of 2004, there were likely between 1,931 and 2,202 persons living with HIV disease in Sonoma County. This figure is based on a national estimate that assumes that 24-27% of persons who are HIV positive are unaware of their infection¹².

The number of Sonoma County residents who were older than 12 years at the time of AIDS or HIV diagnosis and who had no reported date of death as of June 30, 2007 was used to calculate the number of adults/adolescents living with HIV or AIDS. Some deaths may not have been reported (and not included in this data) especially if the person died outside the county. The data in this section includes persons with both AIDS and HIV non-AIDS.

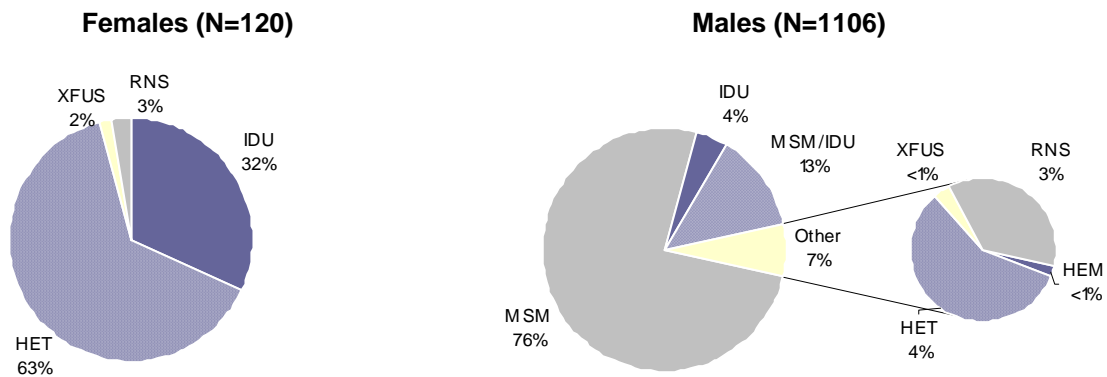
Table 5 - Demographic Characteristics of Adults living with HIV or AIDS
Sonoma County - June 30, 2007

	Persons living with HIV/AIDS		Sonoma County Population >12	
	N	%	N	%
Diagnosis				
HIV	405	33	--	--
AIDS	825	67	--	--
Gender				
Male	1,109	90	247,708	50
Female	121	10	251,160	50

Race/Ethnicity				
White	983	80	354,342	71
Latino	149	12	98,461	20
Asian/Pacific Isld	18	2	20,732	4
African American	47	4	7,784	2
Amer Ind/Alaska Nat	11	1	6,282	1
Multi-Race	8	1	11,267	2
Unknown	2	<1	--	--
Current Age (as of 12/31/05)				
13-19	5	<1	49,153	10
20-29	54	4	69,242	14
30-39	187	15	58,427	12
40-49	506	41	73,924	15
50-59	355	29	76,613	15
60+	123	10	96,307	19

The majority of persons currently living with HIV or AIDS is male and report White race. Compared to the Sonoma County population, males overall and White and African American persons represent a larger proportion of cases of HIV and AIDS (Table 5).

Figure 4 - Percent of Adults Living with HIV Disease by Exposure Category and Gender Sonoma County, 1981 through June 2007*



*Four adults (3 males, 1 female) who acquired HIV via maternal transmission were excluded from the figure.

The majority of males living with HIV or AIDS report sex with a man with or without intravenous drug use as their primary exposure, whereas females report heterosexual sex or intravenous drug use as the primary exposure (Figure 4). Compared to all AIDS cases, persons currently living with HIV or AIDS include a higher proportion of heterosexual exposures, particularly females (63%, Figure 4 vs. 50%, Figure 3).

Persons Recently Diagnosed with HIV or AIDS

Cases over Time

Since 1992, the peak of the AIDS epidemic in Sonoma County with 203 cases, the number of newly diagnosed AIDS cases by year has dropped dramatically. Between 1998 and 2006, an average of 45 AIDS cases were diagnosed each year (range 36 in 1999; 56 in 2002).

In 2006 there were 46 new AIDS cases and 29 new HIV cases reported to Sonoma County Public Health. Of the 46 AIDS cases, 32 were conversions (prior diagnosis of HIV to AIDS) and the remaining 14 were first reported as simultaneous diagnoses of HIV and AIDS. Since January 1, 2007, 17 new AIDS cases and 12 new HIV cases have been reported. Of the new AIDS cases, 13 were conversions and the remaining 4 were co-diagnoses of HIV and AIDS.

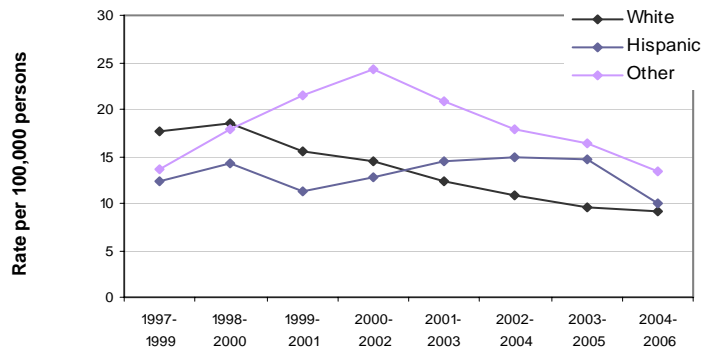
To evaluate trends over time, incident cases are evaluated by date of first positive HIV test, regardless of current AIDS status.

Race/Ethnicity

The rate of new diagnoses of HIV or AIDS varies by race and ethnicity (Figure 5). In 2002, the rate of new HIV or AIDS diagnosis among Latinos surpassed the rate among White, non-Latinos and has remained higher through 2006. Since 2000, however, the highest rate of new HIV/AIDS cases has been among non-White, non-Latino persons.

Prior to 2000, White, non-Latinos accounted for over eighty percent of all new diagnoses of HIV or AIDS. Since 2000, this has decreased to an average of seventy percent of new cases, with the Latinos accounting for approximately twenty percent of new diagnoses and other non-Latino non-Whites accounting for the remaining ten percent.

Figure 5 – Rate of HIV Diagnosis by Race/Ethnicity and Year of First Positive Test
Sonoma County 1997 – 2006

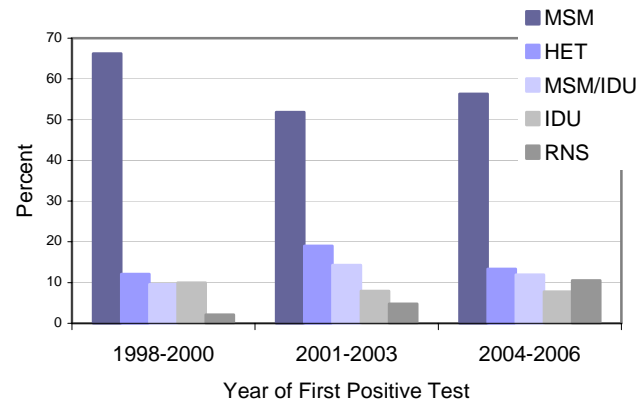


Mode of Exposure

Heterosexual sex as a primary risk factor accounts for a larger proportion of persons recently diagnosed with HIV or AIDS, increasing from 11% of all new diagnoses in 1998-00 to as high as 19% of new diagnoses in 2001-03 (Figure 6).

In contrast, the proportion of men reporting sex with another man as a primary risk factor has decreased. In addition to the proportion, the yearly number of newly diagnosed MSM has decreased by half from 59 cases in 2000 to 28 cases in 2006.

Figure 6 –HIV/AIDS cases by Mode of Exposure and Year of First Positive Test
Sonoma County, 1998 – 2006



Special Concern: Late Entry to Care

Persons are considered to have late entry to care if their AIDS diagnosis occurred at the same time or within three months as their first HIV diagnosis. It is possible that these persons were aware of their previous diagnosis of HIV, but were not reported to the County until their AIDS diagnosis. Further study is needed to evaluate whether these persons are truly late entry.

Forty-three percent of persons diagnosed with AIDS since January of 2003 appear to have late entry to care. These cases are primarily White (58%) and Latino (32%), and the majority is male (82%). Latinos are nearly one and a half times more often late entry to care compared to non-Latinos, although this association is not statistically significant (RR 1.4, 95%CI [0.05, 1.95]). The reported risk factors for all cases are men who have sex with men (47%), heterosexual sex (20%), and intravenous drug use (18%, IDU and MSM/IDU combined).

Special Concern: Latinos and Mexican-born Persons

The Latino population in Sonoma County is increasing, currently representing 20% of the total 2007 population, compared to 14% in 1995^{13,14}. Half of Sonoma County Latinos are foreign born, the majority of these born in Mexico¹⁵. As a group, Latinos face significant challenges to receiving medical care; approximately 20% are uninsured and 30% are living in poverty (0-99% FPL)¹⁶.

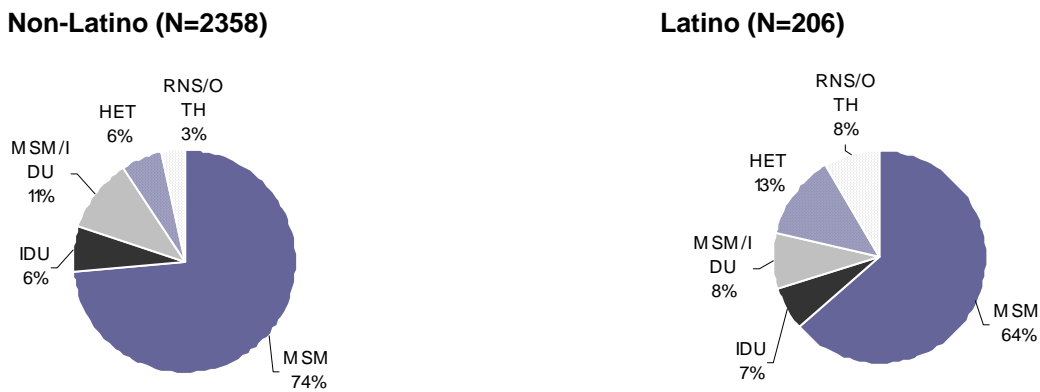
Latinos continue to be disproportionately affected by the HIV/AIDS epidemic. While 14% of the US population is Latino, Latinos account for approximately 19% of newly diagnosed AIDS cases nationwide in 2005¹⁷. A sub-group of concern is recent immigrants from Mexico. These individuals are a particularly vulnerable population, and may be at increased risk for HIV infection while facing multi-factorial barriers to social services and health care¹⁸.

Since 1981, 210 Latinos have been diagnosed with AIDS or HIV in Sonoma County. While the total number of new cases per year has declined overall, the number of new Latino cases has

remained relatively constant, averaging about 11 cases per year since 2001. This represents approximately 20% of all new diagnoses of HIV and AIDS.

The most commonly reported mode of exposure for persons with HIV or AIDS is men having sex with men (MSM), followed by MSM who also inject drugs (MSM/IDU), intravenous drug use (IDU) only, and heterosexual exposure (HET). For Latinos, MSM remains the most common exposure; however, the proportion of MSM is lower than that in non-Latinos (64% vs. 74%, respectively, Figure 7). Other risk factors, notably heterosexual sex and unknown other exposure (RNS), account for a larger proportion of Latino cases than that of non-Latino cases (Figure 7).

Figure 7 - Percent of Adults* Diagnosed with HIV or AIDS by Exposure Category and Ethnicity
Sonoma County, 1981 through June 2007



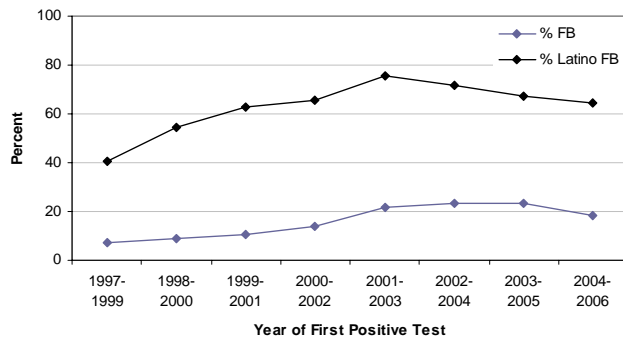
*Fourteen pediatric cases were excluded from these figures.

A contributing factor to the proportion of heterosexual exposure as a risk factor among Latinos may be the larger proportion of female cases. Eleven percent of all Latino HIV/AIDS cases are female, compared to only seven percent of non-Latino cases.

Foreign-born Cases

Persons born in other countries comprise a significant proportion of persons newly diagnosed with HIV or AIDS. Since 1997, the proportion of new HIV or AIDS diagnoses reporting a foreign birth country has increased over time (Figure 8). This is even more pronounced among Latinos where over 60% of new diagnoses report a non-US birth country (Mexico 91%, Central or South America 9%). This proportion has also increased over time from 40% in 1997-99 to 64% in 2004-06

Figure 8 - Percent of Foreign-born Cases among New Diagnoses of HIV/AIDS, All Cases and Latinos
Sonoma County 1997 - 2006



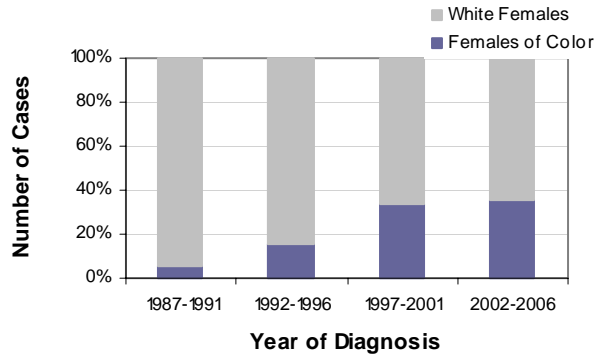
Mexican-born males are more likely to report MSM and MSM/IDU exposure compared to Latinos not born in Mexico (76% vs. 84%, respectively). Mexican-born women are less likely to report IDU as a primary risk factor compared to Latinos not born in Mexico (11% vs. 20% respectively).

Special Concern: Women

Since 1981, 170 women have been diagnosed with HIV or AIDS in Sonoma County (125 AIDS, 45 HIV). Of these, 124 are currently living with HIV disease. The proportion of women among persons newly diagnosed with HIV or AIDS averages about 13% of new cases per year (range, 6% 2005, 22%, 2004). The primary reported risk factors for women living with HIV or AIDS are heterosexual sex (62%), followed by injection drug use (31%).

Factors affecting HIV rates among women include increased risk of transmission during vaginal intercourse and lack of awareness of their male partners' past or current risk behavior¹⁹. While the overall numbers of women diagnosed with AIDS continues to decline, women of color account for an increasing proportion of these cases, 33% between 2002 and 2006 (Figure 9).

Figure 9 - Female AIDS cases by Race/Ethnicity
Sonoma County, 1987-2006



AIDS affects women of all ages (Table 6). Compared to all women with AIDS, women recently diagnosed with HIV or AIDS more frequently report heterosexual exposure (70% vs. 50%). A growing segment of newly diagnosed cases are heterosexual women over 45 years of age. The proportion of new cases diagnosed among women over 45 has steadily increased from 8% in 1998-2000 to 29% in 2001-03 to 47% in 2004-06.

Table 6 - Female AIDS cases by Mode of Infection and Age Group
Sonoma County, Jan 1985 - Jun 2007

	<13	13-19	20-29	30-39	40-49	50-59	60+	Total
HET	0	1	14	20	14	8	3	60
IDU	0	0	8	27	10	1	0	46
Transfusion/Blood disorder	0	0	0	2	0	1	5	8
Maternal Exposure	5	0	0	0	0	0	0	6
Pediatric Transfusion	1	0	0	0	0	0	0	1
Risk not Specified	0	0	2	1	2	0	0	5
Total	6	1	24	50	26	10	8	125

Special Concern: Pediatric Cases

The majority of the pediatric AIDS cases reported in Sonoma County from 1981-2005 were children of mothers with or at risk for HIV infection. No new pediatric AIDS cases have been reported in Sonoma County since 1994.

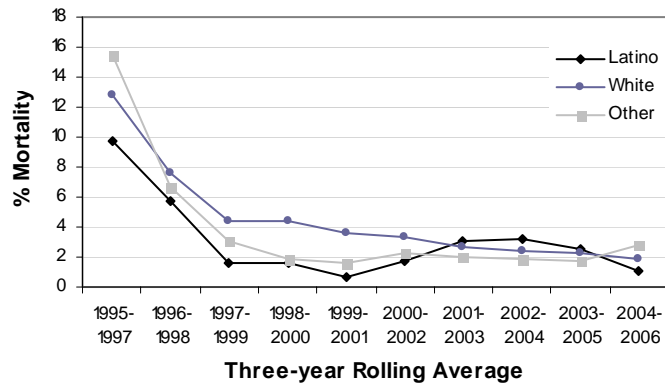
All of the pediatric HIV cases reported in Sonoma County from 1981-2005 were in the exposure category of a mother with or at risk for HIV infection (N=4). There have been no new pediatric HIV cases reported in Sonoma County since 2000.

Mortality

The mortality rate for AIDS has decreased significantly over time (Figure 10). Although all groups have less than four percent mortality, Latinos and other non-Whites have had a slightly higher rate in recent years.

The primary reason for the decrease in mortality is successful disease management using highly active anti-retroviral therapy²⁰. The higher mortality rate in Latinos may reflect late entry to care or difficulty accessing adequate medical resources.

Figure 10 - Crude Mortality Rate* by Race and Ethnicity
Sonoma County, 1995 -2006



*Percent per year, Annual deaths per 100 person-years

Indicators of Risk for HIV Infection

Special Concern: Increase in STD Rates

Sexually transmitted diseases (STDs) continue to be a problem in Sonoma County. Current rates of nearly all STDs are increasing in Sonoma County. In addition to complications from the diseases themselves, STDs can increase the risk of HIV transmission.

The rate of Chlamydia has been steadily increasing from a rate of 81.7 new cases per 100,000 population in 1999 to 163 new cases per 100,000 population in 2006. In 2006, women 20-24 years old had the highest incidence rate of Chlamydia. People of color, particularly Latinos and African Americans, are disproportionately affected by Chlamydia.

The upward trend in the rate of Gonorrhea infections began in 1999, increasing to a rate of 26 cases per 100,000 persons in 2006. Women 20-24 and men 24-29 years old have the highest incidence rates of Gonorrhea

In Sonoma County, the increase in primary and secondary syphilis cases has primarily been in males. This trend is similar to California, where outbreaks of syphilis have occurred among MSM²¹. All cases reported since 2003 were in males.

Special Concern: Methamphetamine Use

The use of methamphetamines contributes to risky sexual behavior that facilitates the transmission of sexually transmitted diseases, including HIV. A recent study of non-IDU MSM in San Francisco found that nearly one quarter of those recently infected reported amphetamine use in the past twelve months²². Overall, researchers estimated that the annual incidence of HIV infection among MSM who use amphetamines was three times higher than nonusers²³.

In addition to the affect methamphetamines have on behavior, there are numerous negative health consequences. For persons already infected with HIV, methamphetamine use may decrease the effectiveness of antiretroviral therapy²⁴ causing the individual's viral load to increase, which in turn causes both a worsening of disease and increased likelihood of transmission.

In California's publicly monitored drug-treatment programs, the percent of individual clients reporting a primary methamphetamine problem has increased from 26.2 in FY 2001-02 to 34.0 in FY 2004-05²⁵. Among Californians who enter public treatment, methamphetamine has recently surpassed heroin and alcohol as the most commonly reported primary drug of choice²⁶. In Sonoma County, methamphetamine as a primary drug of choice is even more common, and overall treatment admissions for methamphetamine use have increased by 85% between 2000 and 2004²⁷. This increase is partially due to a California law, passed in 2001, that allows persons convicted of drug possession to enter treatment programs in lieu of incarceration. In FY 2003-04, methamphetamine was listed as the primary drug of choice for 41% of persons entering publicly monitored treatment, an increase of 2% from FY 2001-02²⁸. For persons between 18 and 30, this proportion is even greater, with 43% of men and 64% of women reporting methamphetamine as their primary drug of choice²⁹.

Care Patterns

In Sonoma County, two publicly funded clinics provide the majority of HIV medical care. The first is the Center for HIV Prevention and Care (The Center), which has provided HIV services in Sonoma County since 1986 and is located in Santa Rosa. The second is West County Health Centers, located in Occidental and Guerneville. Both are multi-disciplinary settings, providing services to over 700 positive individuals and their families. Approximately 450 additional positive persons receive care at other sites, including Kaiser Permanente (~300, the second largest provider of HIV care in Sonoma County), San Francisco Clinics (~100), and local private providers (~50).

Table 7 - Demographic Characteristics of Adults Attending Publicly Funded Clinics
Sonoma County, 2006

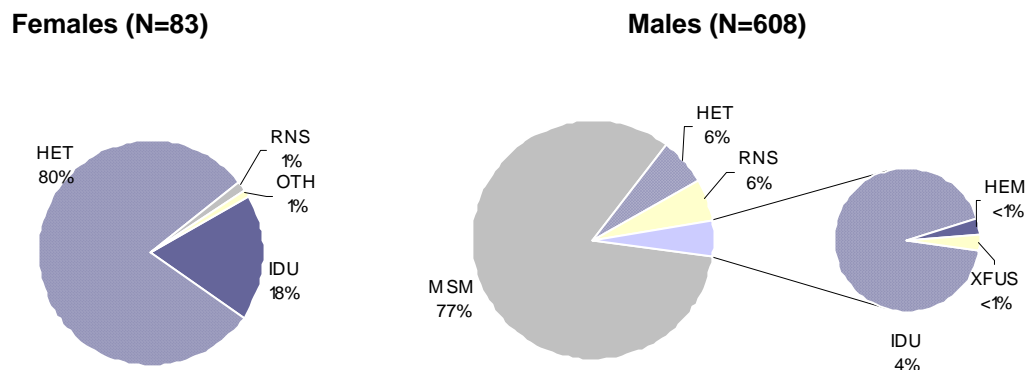
	Clinic Clients with HIV/AIDS (CAREWare Dataset)		Persons living with HIV/AIDS (HARS Dataset)	
	N	%	N	%
Diagnosis				
HIV	212	30	405	33
AIDS	500	70	825	67
Gender				
Male	625	88	1,109	90
Female	86	12	121	10
Transgendered	1	<1	--	--
Race/Ethnicity				
White	537	75	983	80
Latino	106	15	149	12
Asian	15	2	18	2
African American	27	4	47	4
Amer Ind/Alaska Nat	16	2	11	1
Multi-Race	0	0	8	1
Unknown	11	2	2	<1
Current Age (as of 12/31/06)				
13-19	3	<1	5	<1
20-29	32	4	54	4
30-39	104	15	187	15
40-49	267	38	506	41
50-59	217	30	355	29
60+	87	12	123	10

The Center services include comprehensive primary care services, treatment adherence counseling, access to clinical drug trials, outreach, HIV screening, risk reduction education and prevention counseling, anonymous and confidential HIV counseling and testing, nutritional counseling, mental health care, referral services, and case management. The West County Health Centers provide primary medical care, dental care, case management, and mental health care. Both clinics are funded through local, state and federal HIV/AIDS programs.

Compared to persons diagnosed in Sonoma County and living with HIV or AIDS, clinic clients include a larger proportion of Latino or American Indian/Alaska Native persons, and women (Table 7).

Compared to all females living with HIV or AIDS in Sonoma County, clinic clients include a larger proportion of women reporting heterosexual sex as a primary risk factor (80% vs. 63%, Figure 11). Male clinic clients have a similar distribution of risk factors compared to all males living with HIV or AIDS in Sonoma County; however, male clinic clients include slightly more persons reporting heterosexual exposure (6% vs. 4%).

Figure 11 - Percent of Clinic Clients by Exposure Category and Gender
Sonoma County, 2006



County Services

HIV Related Services

There are numerous community-based organizations serving persons affected by HIV or AIDS in Sonoma County. The following represents programs that are funded in part by the Ryan White Care Act or other federal and state programs.

In 2006, the following HIV related services were provided in Sonoma County:

- 3907 meals were delivered to homebound individuals
- 684 persons received over 6418 visits of outpatient medical care
- 837 persons received case management services
- 554 persons received client advocacy services
- 354 persons received housing assistance
- 244 persons received emergency financial assistance
- 90 persons received transportation services
- 61 persons received outpatient substance abuse services

Referrals for HIV Positive Support Services

Persons seeking HIV referral services can contact The Center for HIV Prevention and Care at (707) 565-7400. The Center provides an HIV/AIDS Resource Directory available at <http://www.sonoma-county.org/health/ph/hiv/resourceguide.htm>.

Needle Exchange

In Sonoma County, there is a needle exchange program provided through the Drug Abuse Alternative Center, a private, non-profit, multi-service agency that provides a range of treatment programs for persons affected by substance abuse. SHARP, the weekly needle

exchange program, is located in Santa Rosa, offers mobile exchange at other locations and also includes counseling on prevention, risk reduction, and HIV and Hepatitis C testing and referral services. Information is available at (707) 527-5227.

Testing

For persons concerned about potential exposure to HIV, Sonoma County offers confidential and anonymous oral and blood tests for HIV, and blood tests for Hepatitis C virus. Rapid HIV testing is also available with results within one hour. Drop-ins are welcome, though appointments are preferred and available by calling (707) 565-4620.

HIV Prevention

The Department of Health Services administers HIV prevention funds through a network of community-based agencies to reach the following populations of greatest need:

- Gay/Bisexual men (including young men and substance users)
- Men who have sex with men and women who don't identify as Gay/Bisexual
- Injection drug users (including Gay/Bisexual men, incarcerated individuals, and sex industry workers)
- HIV positive individuals (including Gay/Bisexual men, injection drug users and heterosexuals)
- Latinos/Latinas (including women who are unaware of their risk)

Funded strategies include: community mobilization, social marketing, targeted prevention activities, peer education (Promotores), enhanced outreach and group education. In calendar year 2006, 5,890 contacts with clients were provided to people at risk for HIV in Sonoma County.

TECHNICAL NOTES

AIDS is defined by the standards developed by the Centers for Disease Control and Prevention (CDC). Revised in 1993, and HIV positive person is considered to have AIDS by the presence of one of several opportunistic infections commonly associated with advanced HIV disease, a CD4 T-lymphocyte count of 200 or less per uL, or a total CD4 percentage of total lymphocytes of less than 14.

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 category. 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.

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