



# *Epidemiologic Profile*

HIV/AIDS

*in*

**San Luis Obispo County, CA**



**San Luis Obispo County Public Health Department  
AIDS Program**

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# San Luis Obispo County Public Health Department

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## ***Introduction***

This report is an Epidemiologic Profile of HIV/AIDS in San Luis Obispo County (SLOC), California. It covers the AIDS epidemic in SLOC from its beginning in 1984 through June 2006. The report attempts to describe HIV and AIDS in terms of its occurrence, transmission, and impact. The goal in providing this information is to help community-based organizations, planners, and policy-makers in evaluating and implementing the programs and policies involving HIV/AIDS for the county.

In compiling this report, the SLOC Public Health Department follows guidelines suggested by the Centers for Disease Control and Prevention (CDC) to develop an Epidemiologic Profile for HIV prevention and community planning. The three key components of the profile are:

1. What are the sociodemographic characteristics of the population?
2. What is the impact of HIV/AIDS on the population?
3. Who is at risk for becoming infected with HIV?

Due to the relatively small population of San Luis Obispo County, and the correspondingly small numbers of HIV/AIDS cases throughout the County, geographic distribution of cases will not be discussed.

It is important to understand some key concepts when reporting on HIV/AIDS. Incident cases are those that are newly occurring, in other words, cases just discovered. Prevalent cases are those existing at any given time in the County. For example, there might be 15 incident cases of HIV/AIDS per year in a county, but 200 prevalent cases. The prevalent cases would be a combination of the newly occurring cases, and those already existing within the community. The prevalence of HIV has increased since 1996 with the introduction of Highly Active Anti-retroviral Therapy (HAART). HAART treatment helps halt the replication of the HIV virus in the body and kill existing viruses in the body, thereby decreasing viral load and slowing the progression to AIDS for those with HIV infection. Before 1996, an estimate of newly occurring HIV infection could be made from back-calculation of mortality rates due to AIDS. Since then, the numbers of AIDS cases and AIDS mortality rates have fallen dramatically due to HAART. All estimates of new HIV infection today are less reliable than prior to the introduction of HAART, but the CDC estimates that approximately 40,000 new cases of HIV infection occur per year in the United States. As of July 2002, HIV infection became a reportable condition in California. Previously, only AIDS was reportable. Actual reporting by physicians however, is highly variable. Because HIV has only been reportable for a relatively short period of time, data may be misleading. HIV statistics, although presented in this report, most likely represent an under-reporting of the true burden of HIV morbidity within the County.

## ***Data Sources and Limitations***

When reviewing this report, please keep in mind the following:

1. The data included reflects only those AIDS cases reported to the SLOC Public Health Department AIDS Program, by private physicians, laboratories, and State Institutions. It is not considered reflective of the total number of cases of HIV and/or AIDS, as there are undetected and unreported cases in the community. The data only reflects current reporting practices.
2. As a result of the distinct differences in community vs. institutional reported cases, where possible, the data in this report is separated out into institution vs. community cases. State statistics regarding cumulative AIDS incidence within the County for all cases of AIDS, both institutional and community, use a denominator of the County's population, not incarcerated persons. To remain consistent with the State statistics, the County's population is used when calculating Cumulative Incidence rates, not the County's incarcerated population. Going forward, prevalence will be the measure used to describe the burden of HIV/AIDS within the County.
3. HIV reporting in the State and County is not as representative of the total HIV+ population as is AIDS reporting for the AIDS population. The CDC estimates that at least one-third of persons in the US infected with the HIV virus are unaware of their infection, as they have not been tested.
4. HIV/AIDS cases are counted in the County and State of residence at the time of diagnosis. Therefore, SLOC figures do not reflect HIV/AIDS cases diagnosed out of this County who subsequently moved to SLOC.
5. Due to confidentiality issues, when a category of persons being reported would result in a small number of cases, categories were collapsed to protect confidentiality. For example, some racial categories were collapsed to "Other" in tables. This condensation of data is done to protect confidentiality only, and is not meant to show any greater or lesser significance placed on any demographic or geographic group.
6. The diagnostic criteria for reporting AIDS have changed several times during the course of the epidemic, and as a consequence, trends in reporting have changed over time. Specifically, changes in 1985, 1987 and 1993 led to increases in the number of cases being reported. Thus, increases in AIDS rates subsequent to those years did not necessarily reflect an increase in transmission of the virus, merely diagnosis.

7. HIV reporting since July of 2002 is not considered a true reflection of incident cases of HIV. Many of the cases reported since HIV became a reportable condition are reflective of the prevalent cases within the community. Once more data is available, better projections regarding HIV incidence within the County can be made.
8. Some numbers of reported cases and deaths by year have changed since the 2005 edition of this report. These changes are in large part due to a comprehensive review by the State of California of all AIDS cases and deaths by jurisdiction, which has resulted in a re-allocation of some cases and deaths by jurisdiction. The overall changes resulted in fewer than 10 changes by year of cases or deaths by year.
9. California recently passed Senate Bill 699 requiring California health care facilities to begin reporting cases of HIV infection by name. The new reporting system is consistent with the Center for Disease Control and Prevention (CDC) recommendations for using a confidential name-based system. Effective April 2006, statistical information on HIV cases reported before the implementation of the new reporting law is no longer available. Therefore, due to the limited availability of reliable community and institutional data after April 2006, this report only contains HIV cases reported through San Luis Obispo County's Public Health Confidential and Anonymous Test Sites.

## ***Demographic Characteristics of San Luis Obispo County***

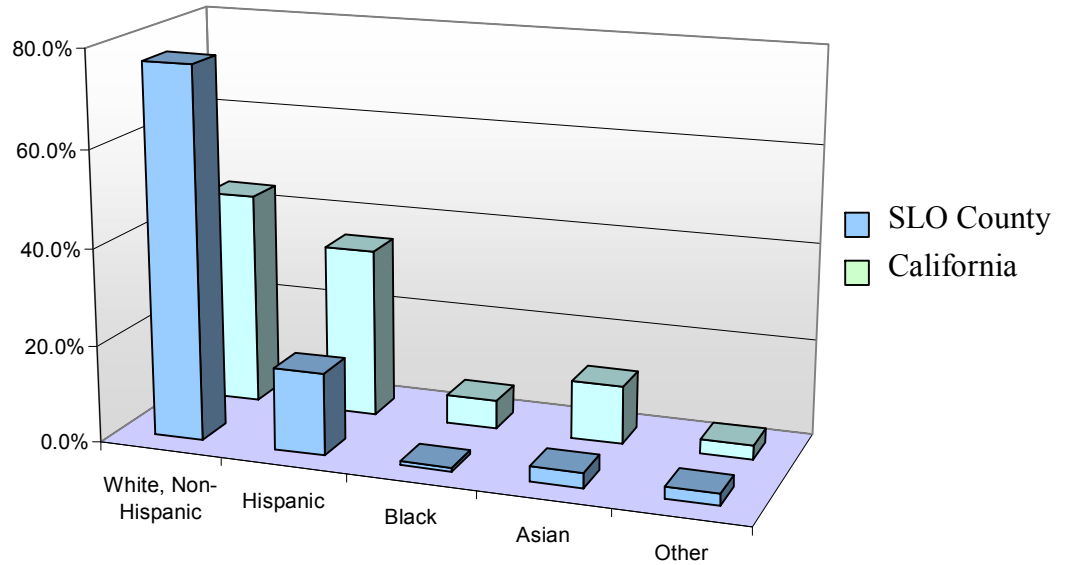
SLOC is located on the Central Coast of California, approximately 230 miles south of San Francisco and 200 miles north of Los Angeles. The County covers 3,316 square miles, and according to the California Department of Finance estimates, has a population of 263,242 as of January 2006, which represents a 0.7% increase from 2005<sup>1</sup>. San Luis Obispo is the 23<sup>rd</sup> largest county in California. That is, 35 counties have smaller populations than SLOC. The population density according to the 2000 Census is 76 persons per square mile, but much of the population is in distinct clusters, primarily along the main north-south highway running through the County (US 101). The population grew approximately 13.6% between 1990 and 2000. The majority of the County is agricultural, with 61.6% of the land area devoted to farming.

According to the 2004 American Community Survey (ACS), SLOC has a population that is 76.7% white, non-Hispanic, 17% Hispanic, 0.8% African-American, 3.2% Asian, and 2.4% comprised of other categories, including Native American, Alaskan Native and Pacific Islander. 14.7% of the population is above the age of 65, while approximately 33% is below the age of 24. The median family income is \$61,432, which is slightly higher than the California median income of \$58,327<sup>2</sup>. According to the National Association of Home Builders Housing Opportunity Index of 2006, SLOC is ranked the fifteenth least affordable housing market out of 182 metropolitan areas in the United States. It is estimated that in SLOC, 13.4% of persons under the age of 18 live below the poverty level, as compared to 19.6% statewide<sup>3</sup>.

Demographic distributions of SLOC are quite different from that of the State. Although gender distribution is similar, SLOC has a considerably more homogeneous racial make-up than the State, with over three-fourths of the County's population classifying themselves as white, non-Hispanic (see Figure 1). The County has also attracted a significant retirement population, with over one-fourth of the population being 55 years or older. California as a whole has a slightly younger population distribution.



**Figure 1.1**  
County vs. State % Population by Race, 2004<sup>2</sup>



Source: 2004 American Community Survey

SLOC's economy is considered strong, with an average unemployment rate per year of 4.1%, and a rate of 3.4% for the month of May 2005<sup>4</sup>. The government is the County's largest employer (Federal, State and local), followed by PG&E and healthcare organizations. The County has several large institutions, which contribute to area employment, including California Polytechnic State University (CPSU), California Men's Colony (CMC), Atascadero State Hospital (ASH), Diablo Canyon Nuclear Power Plant, and two military sites. The economy is also dependent on tourism, a major industry in the region. The County is home to over 80 vineyards and other agricultural concerns. Overall, there is a strong mix of civil service, private industry and agriculture contributing to the economic and demographic makeup of the County. The education system is also strong, although there has been a decline in enrollment over the past few years. For the 2005-06 year, 35,971 students were enrolled in public schools in SLOC. Numbers have been steadily declining since the 2000-01 school year when 37,693 students were enrolled. The high school dropout rate for the County is 10.5%, which has been increasing, while the state's rate has been decreasing (12.6%). However the percentage of high school graduates in the County is higher than the state's at 89.3% versus 84.9%<sup>5</sup>. More demographic characteristics of the County are displayed in Table 1.1.

**Table 1.1**  
San Luis Obispo County and California Populations by Gender, Race and Age, 2004<sup>#</sup>

	San Luis Obispo County		California
	Number	% of Population	% of Population
<b>Gender</b>			
Male	117,014	49.1%	49.5%
Female	121,488	50.9%	50.5%
<b>Race and Hispanic Origin</b>			
White, Non-Hispanic	182,812	76.7%	44.2%
Hispanic	40,433	17.0%	34.9%
Black	1,934	0.8%	6.0%
Asian	7,562	3.2%	12.0%
Other	5,761	2.4%	2.9%
<b>Age</b>			
< 5	11,470	4.8%	7.5%
5 - 14	30,126	12.6%	15.3%
15 - 24	35,924	15.1%	13.9%
25 - 34	29,186	12.2%	14.5%
35 - 44	32,548	13.6%	15.5%
45 - 54	37,535	15.7%	13.7%
55 - 64	26,630	11.2%	9.1%
65 +	35,083	14.7%	10.4%
<b>Total</b>	<b>238,502</b>	<b>100.0%</b>	<b>99.9%</b>

Source: 2004 American Community Survey

<sup>#</sup>There is a large discrepancy between the Department of Finance's estimate for overall County population and the 2004 American Community Survey's overall population, which is partially explained by the fact that the American Community survey is limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters.

Although the population density is 76 persons per square mile, most of the population lives in several large cities or unincorporated regions, the largest of which is the County seat, the city of San Luis Obispo. The 7 largest population centers are shown in Table 1.2.

The County has four hospitals, two of which are located within the city of San Luis Obispo. One hospital is located in Templeton, which serves the majority of the North County population, and a fourth hospital is located in Arroyo Grande, in South County, where there is a large cluster of retired persons. According to the 2003 California Health Interview Survey (CHIS), 88.6% of the population has health insurance. In addition, according to the 2003 Action for Healthy Communities Comprehensive Report, about 5.7% has Medi-Cal, Medicare or VA coverage.

**Table 1.2**  
Population Estimates by City and Region, January 2006

<b>City/Region</b>	<b>Number</b>	<b>% of Population</b>
San Luis Obispo	44,439	16.9%
<b>North County</b>		
Paso Robles	28,969	11.0%
Atascadero	27,658	10.5%
<b>South County</b>		
Arroyo Grande	16,599	6.3%
Grover Beach	13,213	5.0%
Pismo Beach	8,617	3.3%
<b>North Coast</b>		
Morro Bay	10,491	4.0%
Balance of County	113,256	43.0%
<i>Total</i>	<i>263,242</i>	<i>100.0%</i>

Source: State of California, Department of Finance

### *AIDS in San Luis Obispo*

The first case of AIDS in SLOC was reported in 1984. By June 1997, 405 cases had been reported, and to date, 556 cases have been reported. This represents an increase from 175.1 cases per 100,000 in 1998, to an overall cumulative incidence rate (CIR) of 211.2 per 100,000 as of July 17, 2006. Since deaths are not accounted for when calculating Cumulative Incidence, only a decrease in the population at risk can lower the rate. Starting in November 2004, the California Department of Health Services began describing the HIV/AIDS epidemic in terms of prevalence rather than the previously utilized CIR. The measure of prevalence helps us better understand the current impact of HIV/AIDS in our community, as prevalence describes the current number of people living with HIV/AIDS in a community versus the total number of persons who have contracted the disease since the beginning of the epidemic. Although, CIR data is still in this report it is taken from 2004 data only. This is the second year prevalence will be reported. Table 2.1 shows the CIR for SLOC and selected comparison populations.

**Table 2.1**  
AIDS Cumulative Incidence Rates for Selected Populations

	Incidence Rate (per 100,000) through May 1999	Incidence Rate (per 100,000) through May 31, 2004
California	337.7	400.4
San Luis Obispo (all cases)*	170.1	216.1
SLO Institutional <sup>#</sup>	-	112.5
SLO Community	-	102.9
Santa Barbara County	150.4	181.8
Monterey County	187.2	213.8

Source: California Dept. Of Health Services, Office of AIDS, HIV/AIDS Surveillance Report and San Luis Obispo County AIDS Program

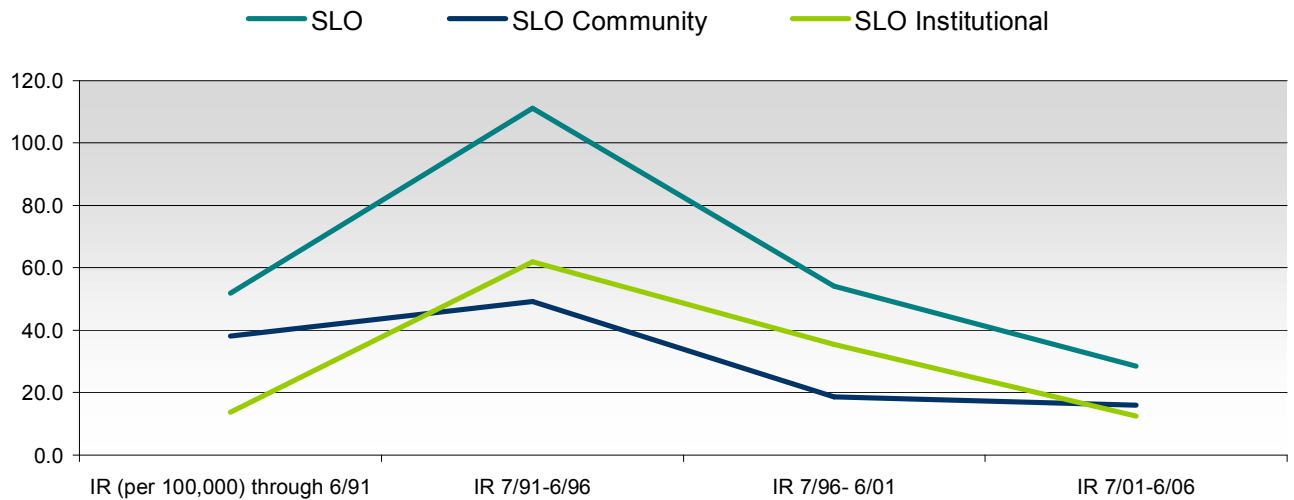
\* All cases in San Luis Obispo County, both community and institutional

<sup>#</sup> The institutional population IR uses a denominator of the overall population of San Luis Obispo County, not solely the institutionalized population

The large incarcerated populations of SLOC have greatly increased the overall number of HIV/AIDS cases in the County. SLOC is home to three State institutions: CMC (estimated population 6,000), ASH (estimated population 1,290 people) and Paso de Robles Boys School. While the CIR for the community population is 102.9, the institutional population has a CIR of 112.5, (which is based on the County's overall population). Between 1999 and 2004, the CIR for SLOC rose by 46 cases per 100,000. This is more than the increase in the neighboring counties of Santa Barbara and Monterey (31.4 and 26.8, respectively), but less than the statewide increase of (62.7). Since the CIR for institutional patients is higher than that of the community cases, this leads to the conclusion that the institutional population skews the overall numbers of HIV/AIDS in SLOC higher, explaining why our increase is greater than neighboring counties. The number of new HIV cases occurring per year has been hypothesized to have remained steady from 1999 to 2005.

To gather a more accurate picture of the frequency of AIDS cases occurring, a CIR of AIDS was calculated for five-year periods throughout the epidemic, and the data is presented in Figure 2.1. This graph shows that the five-year period CIRs for AIDS increased rapidly in the beginning of the AIDS epidemic, but has been slowing primarily as a result of the introduction of HAART therapy, most dramatically in the community population. In this graph, trends in AIDS incidence can be seen going up until 1998, but after HAART therapy, AIDS incidence has been falling. AIDS incidence is no longer temporally correlated with HIV infection, so no direct conclusions can be drawn about present day HIV infection. The CDC however, has estimated that incident HIV infections per year have remained somewhat steady throughout the 1990s and into the new millennium, with approximately 40,000 new infections every year.

**Figure 2.1**  
Cumulative Incidence Rates (per 100,000) in 5-Year Periods



Source: San Luis Obispo County AIDS Program

Table 2.2 shows the prevalence rates for SLOC and selected comparison populations. While the prevalence rate for the community population is 42.2, the prevalence rate for the institutional population is 68.8. This suggests that the institutional population causes the overall numbers of HIV/AIDS in SLOC to be higher, which is consistent with the conclusions drawn from the CIR data. Once again, HIV/AIDS rates in SLOC are seen to be higher than neighboring counties, which can be explained by SLOC's high institutional population in comparison to those neighboring counties. Overall, prevalence rates yield findings consistent with the conclusions drawn from CIRs.

**Table 2.2**  
AIDS Prevalence Rates for Selected Populations

	Prevalence Rate (per 100,000) through June 30, 2006
California	160
San Luis Obispo (all cases)*	111
SLO Institutional <sup>2</sup>	42.2
SLO Community	68.8
Santa Barbara County	71
Monterey County	92

Source: California Dept. Of Health Services, Office of AIDS, HIV/AIDS Surveillance Report and San Luis Obispo County AIDS Program and population estimates from CA Department on Finance, 1/1/2006.

\*All cases in San Luis Obispo County, both community and institutional

<sup>^</sup> The institutional population prevalence rate uses a denominator of the overall population of San Luis Obispo County, not solely the institutionalized population

## Affected Populations

### *Race*

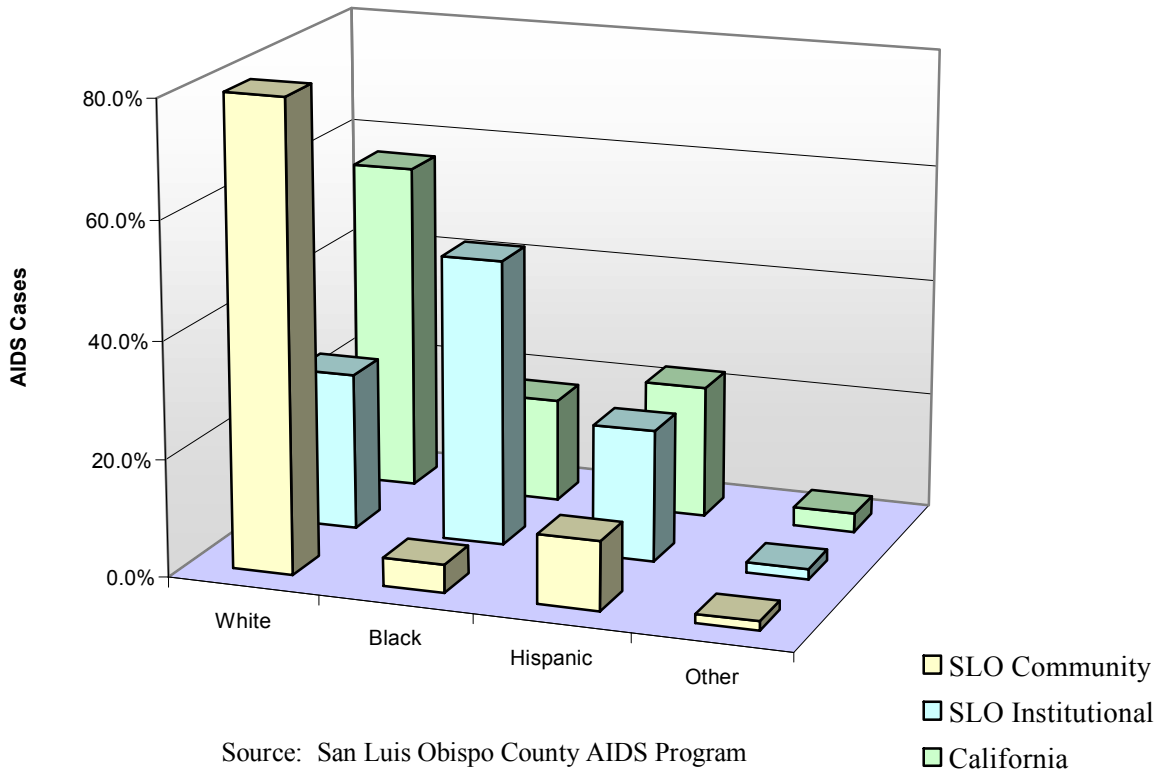
The ethnic distribution of AIDS in SLOC differs from the ethnic distribution of the population overall. Table 3.1 contains data showing the racial distribution of AIDS cases within the County. For instance, although African Americans represent only 0.8% of the population in San Luis Obispo, 27.4% of all AIDS cases in the County are African-Americans. This reflects trends in HIV/AIDS data, with African Americans representing the ethnic group with the highest rate of new cases. The majority of the African-American cases in San Luis Obispo County however, are occurring in the incarcerated population. In Figure 3.1, the racial distribution of AIDS cases for the State, SLOC Community and SLOC Institutional cases are shown. This figure demonstrates that the African-American Institutional population of SLOC is significantly over-represented as a percentage of overall AIDS cases, even when compared to the entire State population. By viewing both Table 3.1 and Figure 3.1, the difference in demographic distribution of cases between community and institutional cases can be easily ascertained. The ethnic distribution of AIDS in community cases more closely follows the overall ethnic distribution of the County.

**Table 3.1**  
Racial breakdown of AIDS cases in San Luis Obispo County and California  
expressed as a percentage of cases, 2006

Race	San Luis Obispo (All cases)	San Luis Obispo Institutional	San Luis Obispo Community	California
White	53.8%	26.8%	82.0%	56.5%
Black	27.4%	48.9%	4.8%	17.7%
Hispanic	17.4%	22.5%	11.8%	22.6%
Other	1.6%	1.8%	1.5%	3.2%

Source: California Dept. Of Health Services, Office of AIDS, AIDS Surveillance Report  
Cumulative Cases as of June 30th, 2006 and San Luis Obispo County AIDS Program

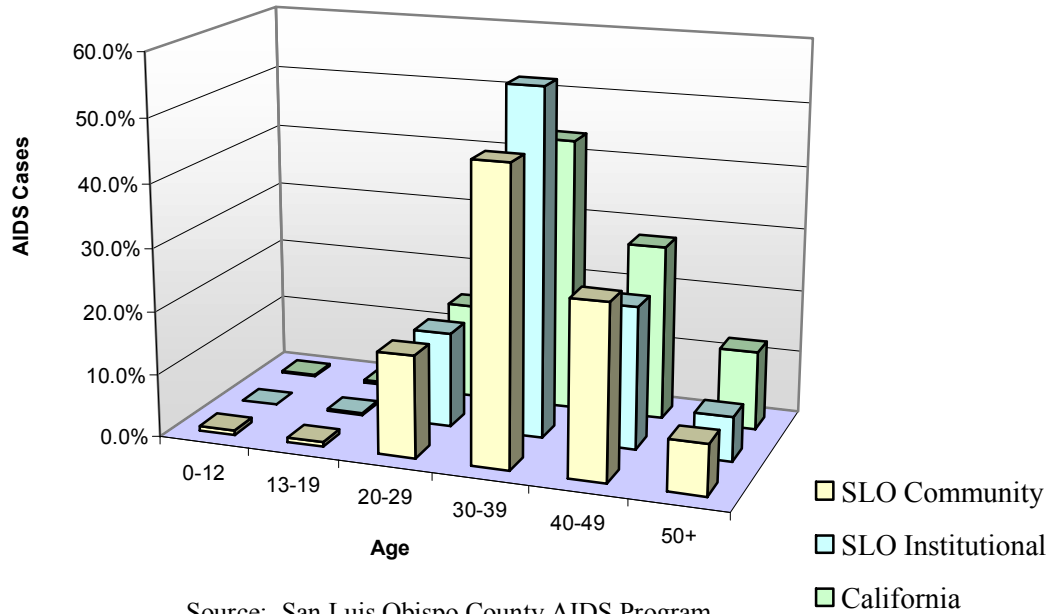
**Figure 3.1**  
Racial breakdown of AIDS patients in San Luis Obispo County vs. California



**Age**

The majority of AIDS cases within the County are diagnosed in 30-39 year olds, across all populations, including the San Luis Obispo County Community, Institutional, and California population. Figure 3.2 shows a graph of the age distribution of AIDS patients in all three of these populations. It should be noted however that all cases in the institutional category are male, while the California and San Luis Obispo County Community populations are comprised of both males and females.

**Figure 3.2**  
Age at diagnosis of AIDS in San Luis Obispo County compared to California



### ***Gender***

Because SLOC has such a large, male-only institutional population, it is important to look at community and institutional cases separately in order to truly understand the impact of AIDS on specific genders. In the SLOC community population, 242 males have been diagnosed with AIDS and 30 females. Thus, approximately 12% of community AIDS cases occur in females within the County, which is higher than the state rate of 8%. Identified risks for HIV transmission vary by gender within the community, as shown in Table 3.2 below. For females, Heterosexual Contact is the largest risk factor (55.2%), followed by Intravenous Drug Use (IDU). For community males, men who have sex with men (MSM) is by far the highest risk category, followed by the combined MSM/IDU category.

In institutionalized males, the trends vary somewhat in that IDU is the highest risk factor for acquiring AIDS. These results are shown in Table 3.3. The next highest risk factors are MSM/IDU and MSM. The table shows that risks are more evenly distributed among the top three risks factors in the institutional cases, while in the community MSM is by far the greatest risk factor.



**Table 3.2**

Exposure categories\* for Community AIDS cases in San Luis Obispo County

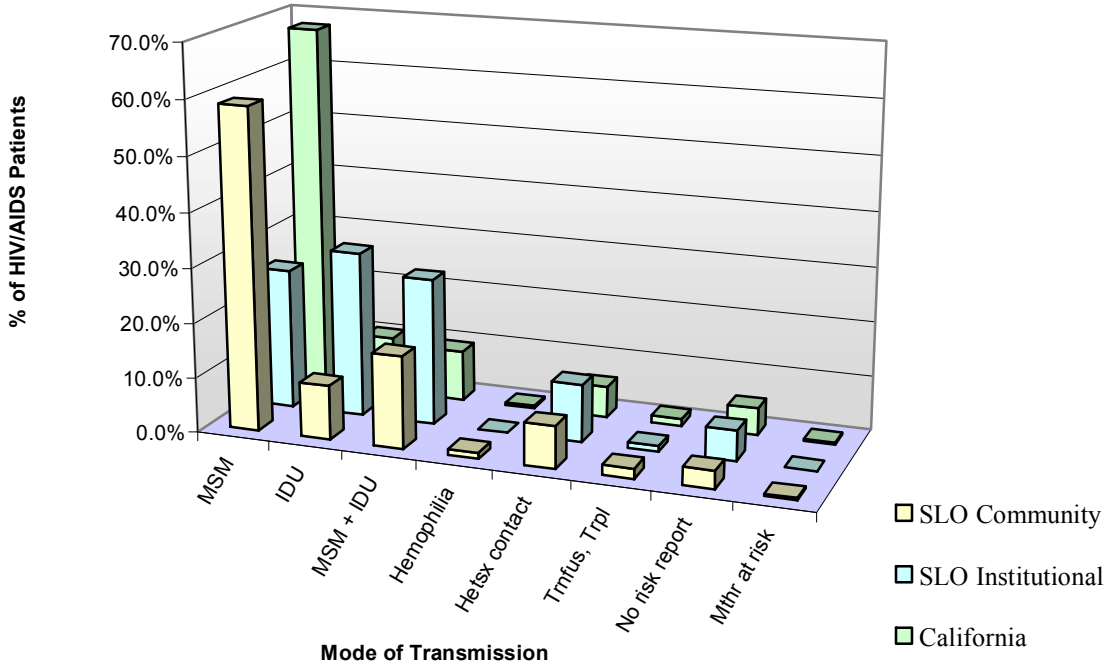
Exposure / Mode of Transmission	Males (n = 242)		Females (n=30)	
	# of Cases	% of Cases	# of Cases	% of Cases
Male-to-male Sexual contact (MSM)	160	66.1%	0	0.0%
Injection drug use (IDU)	17	7.0%	10	33.3%
MSM + IDU	46	19.0%	0	0.0%
Hemophilia	3	1.2%	0	0.0%
Heterosexual Contact	5	2.1%	16	53.3%
Transfusion	3	1.2%	2	6.7%
Undetermined	8	3.3%	1	3.3%
Mother at Risk	0	0.0%	1	3.3%
<i>Total</i>	<i>242</i>	<i>100.0%</i>	<i>30</i>	<i>100.0%</i>

Source: California Dept. Of Health Services, Office of AIDS, HIV/AIDS Surveillance Report and San Luis Obispo County AIDS Program

\*This list does not include all exposure categories. Categories with small numbers have been omitted.

**Figure 3.3**

Mode of Transmission for HIV/AIDS in San Luis Obispo County and California



Source: San Luis Obispo County AIDS Program

**Table 3.3**  
Exposure categories for Institutional AIDS cases\* in SLOC

<b>Exposure / Mode of Transmission</b>	<b>Cases (n)</b>	<b>Cases (%)</b>
MSM	73	25.7%
IDU	86	30.3%
MSM + IDU	76	26.8%
Hemophilia	0	0.0%
Heterosexual Contact	30	10.6%
Transfusion	3	1.1%
Undetermined	16	5.6%
Mother at Risk	0	0.0%
<b>Total</b>	<b>284</b>	<b>100.0%</b>

Source: California Dept. Of Health Services, Office of AIDS, HIV/AIDS Surveillance Report and San Luis Obispo County AIDS Program

\*All institutional cases are males

Combining the MSM and MSM+IDU categories to reveal total risk to gay/bisexual men shows rates of exposure between SLOC cases and California cases at 67.5% and 76.8% of AIDS cases, respectively. For the institutional population, IDU is the greatest risk factor, with 30.3% of the cases reporting that as their only risk factor, but 57.0% reporting it as one of their possible risk factors. In the community, a combined 26.8 % of cases listed IDU as a risk.

### ***Deaths due to AIDS***

Prior to the introduction of HAART, the AIDS case-fatality rate was very high, reaching 100% in some years. The case-fatality rate is the percentage of persons dying who have contracted a disease. As progression to AIDS has slowed, so has the case-fatality rate amongst AIDS patients. Table 3.4 shows the number of AIDS cases diagnosed by calendar year for both community and institutionalized cases, and the case-fatality rate by year. The total case-fatality rate is 47.5%. Note that the cumulative community case-fatality rate is 59.2%, which is somewhat higher than the cumulative institutional case-fatality rate of 36.3%. The explanation for this is not known, although loss to follow up within the prison system could account for some of the difference. The difference in access to care between Community and incarcerated populations could also be a factor.

When looking at the leading cause of death in SLOC, AIDS is not one of the 10 leading causes of death for the period of 1999-2006. Because coding for the classification of diseases changed in 1999, it is impossible to compare the years prior to 1999 to years occurring after. Thus, the snapshot we have now shows low AIDS mortality, but the case-fatality data in Table 3.4 shows that this was not always the case.

**Table 3.4**  
San Luis Obispo County AIDS Cases by Year of Diagnosis and Year of Death

Year	Community Cases		Institutional Cases		Total Reported Cases and Deaths		Case Fatality Rate
	Cases	Deaths	Cases	Deaths	Cases	Deaths	
<b>1983-1989</b>	48	46	15	12	63	58	92.1%
<b>1990</b>	18	17	6	6	24	23	95.8%
<b>1991</b>	21	16	19	16	40	32	80.0%
<b>1992</b>	33	25	22	14	55	39	70.9%
<b>1993</b>	24	18	33	21	57	39	68.4%
<b>1994</b>	22	16	18	7	40	23	57.5%
<b>1995</b>	10	4	32	11	42	15	35.7%
<b>1996</b>	19	5	32	6	51	11	21.6%
<b>1997</b>	9	1	20	2	29	3	10.3%
<b>1998</b>	9	3	11	2	20	5	25.0%
<b>1999</b>	6	2	14	1	20	3	15.0%
<b>2000</b>	6	2	23	2	29	4	13.8%
<b>2001</b>	11	2	9	1	20	3	15.0%
<b>2002</b>	10	1	12	2	22	3	13.6%
<b>2003</b>	8	1	5	0	13	1	7.7%
<b>2004</b>	4	0	4	0	8	0	0.0%
<b>2005</b>	13	2	8	0	21	2	9.5%
<b>Total</b>	<b>271</b>	<b>161</b>	<b>276</b>	<b>88</b>	<b>534</b>	<b>241</b>	<b>45.1%</b>

Source: San Luis Obispo County AIDS Program

### *HIV Testing and Seroprevalence*

HIV testing in San Luis Obispo County is offered both confidentially and anonymously. Confidential testing requires the testing individual to sign a consent form to be tested, and the AIDS Program does not release test information without the written consent of the person receiving the test. Anonymous testing is exactly what the name implies. The person being tested does not reveal their name to anyone, including the AIDS Program. The AIDS Program of SLOC offers both confidential and anonymous HIV testing at multiple sites.

### Affected Populations

#### *Race*

The ethnic distribution of persons being testing for HIV in San Luis Obispo County is fairly similar to the overall racial makeup of the County. Table 4.1 shows the racial distribution of persons being tested for HIV in 2005 by the AIDS Program vs. those testing positive. Note that the racial breakdown of those testing positive varies quite a bit from those simply being tested. However, since there were only 3 positive test results, the percentages are very volatile.

**Table 4.1**

HIV testing by Race in SLOC for the year ending June 30, 2006.

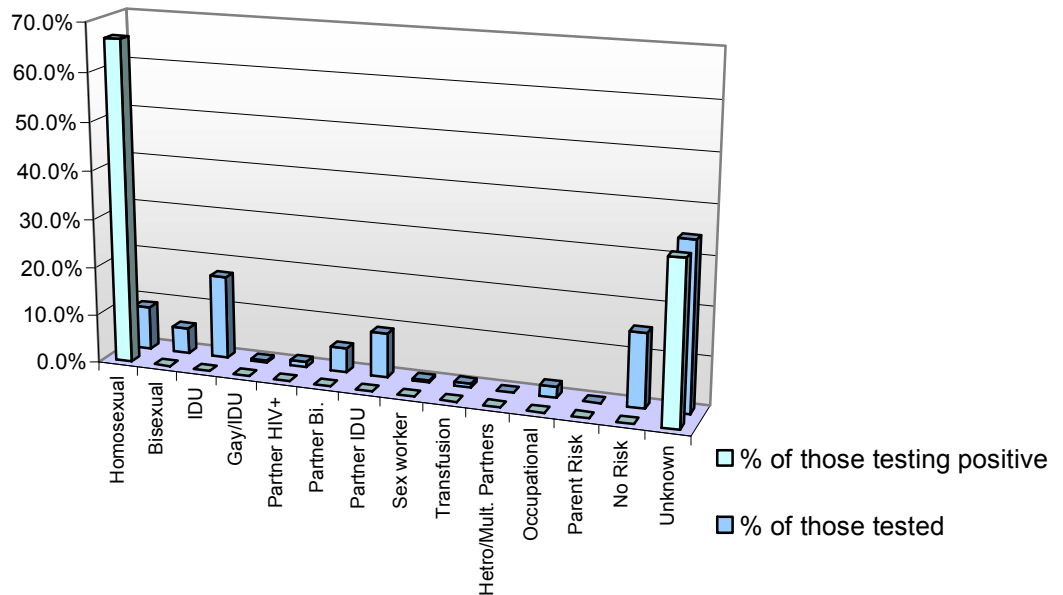
Race	SLO County (%)	Persons being tested for HIV (%)	Persons testing positive for HIV (%)
White	76.70%	71.78%	66.67%
Black	0.80%	2.97%	33.33%
Hispanic	17.00%	20.33%	0.00%
Other	5.50%	4.92%	0.00%

Source: San Luis Obispo County AIDS Program

**Exposure Category**

The most commonly reported risk category of those known for persons being tested at AIDS Program sites in 2005 was the risk category of “Injection Drug User” (IDU). For those testing positive however, the greatest risk category was “Homosexual” followed by “Unknown.” Figure 4 compares the breakdown of risks for persons being tested vs. those who tested positive for HIV at AIDS program sites for 2005. State statistics were not added to the comparison, as State statistics are compiled by Calendar year, while SLOC statistics are compiled by Fiscal year. However, in the calendar year 2005, in the State population, the greatest risk factor for a positive HIV test was MSM, followed by “risk not reported” and “Heterosexual contact.” The low overall percentage of persons who tested positive (0.28%) seems to suggest that HIV prevalence is fairly low in San Luis Obispo County.

**Figure 4**  
HIV Test Results by Behavior, 2005



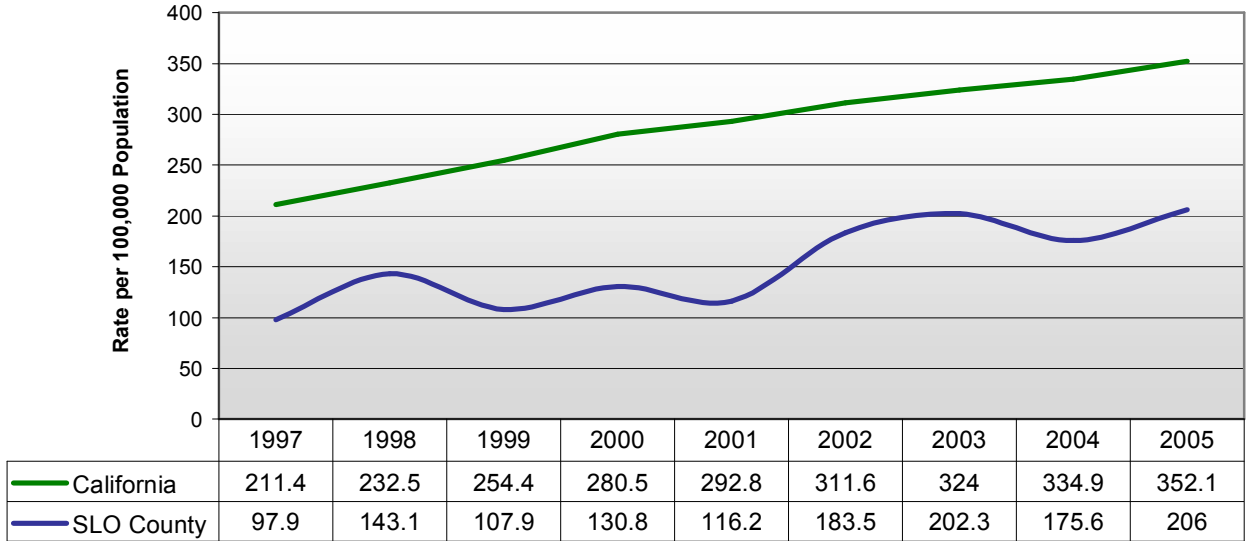
## ***Sexually Transmitted Diseases as a Marker for Risky Behavior***

The spread of Sexually Transmitted Diseases (STD) other than HIV is considered a marker for behavior that can and does spread HIV. Someone diagnosed with a STD has almost certainly had unprotected sex, a risk for contracting HIV. Some STDs can increase the chances of becoming infected with HIV. These STDs, such as syphilis and herpes, can cause open sores that give HIV an increased chance of entering the bloodstream<sup>6</sup>. Gonorrhea has been shown to increase viral shedding from HIV infected partners, thus increasing the risk of transmission<sup>5</sup>. Monitoring STDs allows the AIDS Program to estimate the prevalence of risky sexual behavior occurring in the population.

In California, chancroid, chlamydia, gonorrhea, and syphilis are all reportable diseases, and statistics are tabulated at both the state and County level. Syphilis has had a recent surge in case numbers among MSM across the United States, and in San Luis Obispo County as well. The primary explanation for this increase in cases is increased risky sexual contact. The reasons for this include a prevailing belief that there is a “cure” for AIDS, and a decreased sensitivity to safe-sex messages in the MSM community.

In San Luis Obispo County, although chlamydia was the most commonly reported STD, as shown in figure 5.1, the rate of chlamydia infections per 100,000 runs well below the State.

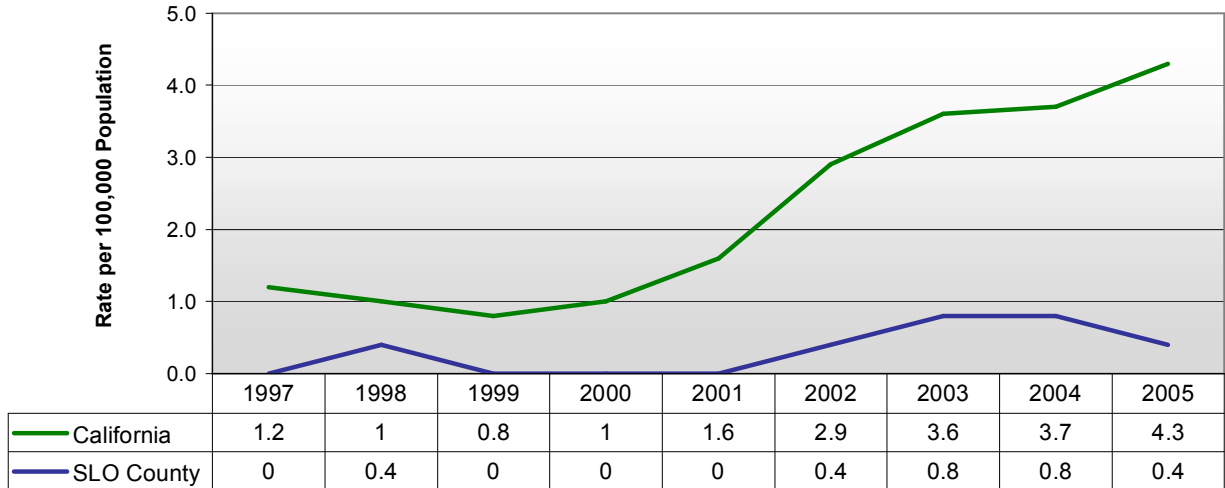
**Figure 5.1**  
Reported Incidence of Chlamydia in SLOC and California, 1997-2005



*Data source: State of California, Department of Health Service; Sexually Transmitted Disease Control Branch. Provisional Data.*

There has been a generalized trend of increased incidence of syphilis cases in SLO County beginning in 2001, but that seems to be decreasing over the past year. Once again the incidence is lower than that of the State of California, as shown in Figure 5.2. These cases have occurred primarily among MSM.

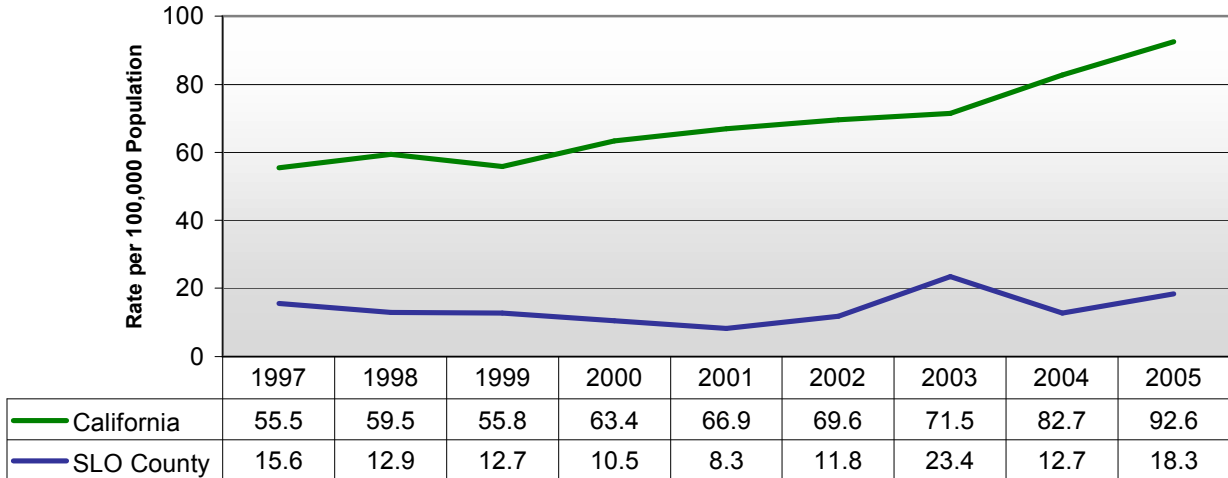
**Figure 5.2**  
Reported Incidence of Syphilis in SLOC and California, 1997-2005



*Data source: State of California, Department of Health Service; Sexually Transmitted Disease Control Branch. Provisional Data.*

Gonorrhea rates per 100,000 in San Luis Obispo County are lower than the State average, and had shown a downward trend between the years of 1997-2001. With the upswing in cases since then however, gonorrhea rates are on the rise, both in San Luis Obispo County and California as a whole. As shown in Figure 5.3, gonorrhea rates increased from 1997 to 2003, dropped a little in 2004, and increased again in 2005.

**Figure 5.3**  
Reported Incidence of Gonorrhea in SLOC and California, 1997-2005



*Data source: State of California, Department of Health Service; Sexually Transmitted Disease Control Branch. Provisional Data.*

While the low rates of STDs up until 2001 suggested a general decline in risky behavior, the figures for 2002 and continuing into 2005 show overall increases that should be addressed. The rates show the need for education and intervention to prevent these diseases as well as HIV. Because HIV testing data is still preliminary, it is unknown whether these trends are extending to HIV incidence rates. One recent study in San Francisco and Los Angeles<sup>6</sup> however, seems to suggest that the increase in syphilis rates does not correspond to increases in HIV rates. This data however, is subject to limitations in the study.



## ***Conclusion***

HIV and AIDS continue to significantly affect the population of San Luis Obispo County. Although the exact number of HIV positive individuals or individuals living with AIDS within the County is not known, (persons diagnosed here may move away, while persons diagnosed elsewhere may move here), information will be more accurate in years to come due to the advent of name-based HIV reporting. While the trend in progression from HIV to AIDS continues to decline, the HIV epidemic is far from over, and in fact could be in danger of increasing its spread through the population as demonstrated by the increases in other STDs, most notably the increase in syphilis cases among MSM. As the cases of AIDS have declined, the prevalence of HIV in the population is increasing. Recent national studies, as well as increasing rates of other STDs suggest that risky sexual behavior has increased in the population, leading to increased risks of transmission of HIV. Other studies suggest that up to three-fourths of HIV infected homosexual and bisexual men are unaware of their HIV infections. These factors, in combination, can easily lead to higher HIV transmission rates, re-igniting a slowing epidemic. According to the Department of Health and Human Services, the lifetime costs of health care associated with HIV, in light of recent advances in diagnostics and therapeutics, is \$155,000 or more per person<sup>7</sup>. Thus the cost for every 100 individuals so affected would be \$15,500,000. The key is to prevent HIV transmission in individuals, before the tragedy of HIV and AIDS enters their lives. To do this requires constant surveillance, education and prevention efforts.

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<sup>1</sup> State of California, Department of Finance. *E-1 City / County Population Estimates, with Annual percent Change, January 1, 2005 and 2006*. Sacramento, CA. <<http://www.dof.ca.gov>>

<sup>2</sup> *2004 American Community Survey*. U.S. Census Bureau. <[www.factfinder.census.gov](http://www.factfinder.census.gov)>

<sup>3</sup> National Association of Home Builders Housing Opportunity Index of 2006. <[www.nahb.org](http://www.nahb.org)>

<sup>4</sup> California Department of Health Services and California Conference of Local Health Officers. *County Health Status Profiles 2006*. <<http://www.dhs.ca.gov/hisp/chs/OHIR/reports/healthstatusprofiles/2006/>>

<sup>5</sup> State of California, Department of Education / Education Demographics Unit. DataQuest. Sacramento, California, May 2006. <[www.cde.ca.gov/ds/](http://www.cde.ca.gov/ds/)>

<sup>6</sup> "HIV prevention through early detection and treatment of other Sexually Transmitted Diseases." MMWR 47.2 (1998).

<sup>7</sup> California Department of Health Services, Office of AIDS. *HIV/AIDS Surveillance Report*. <<http://www.dhs.ca.gov>>