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 (SLO County), California. It covers the AIDS epidemic in SLO County from its beginning in 1984 through June 2013. The report attempts to describe HIV and AIDS in terms of its occurrence, transmission, patient demographics and impact. The goal in providing this information is to help community-based organizations, planners, and policy-makers in evaluating and implementing programs and policies involving HIV/AIDS for the county.

In compiling this report, the SLO County Public Health Department follows guidelines suggested by the Centers for Disease Control and Prevention (CDC) and Health Resources Services Administration (HRSA) to develop an Epidemiologic Profile for HIV prevention and community planning[1]. The three key components of the profile are:

1. What are the sociodemographic characteristics of the population?

2. What is the scope of HIV/AIDS in our community?

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 (or newly diagnosed) of HIV/AIDS per year in a county, but 200 prevalent cases (the year's incident cases added to previously diagnosed cases). The prevalent cases would be a combination of the newly occurring cases, and those already living 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. One study estimated the average life expectancy after an HIV diagnosis increased from 10.5 to 22.5 years from 1996 to 2005[2]. Currently, the CDC estimates that approximately 48,000 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. The reporting system implemented in 2002 used an alphanumeric code ("codex"), not names, to report cases. In October 2006, HIV reporting in California became name based. Where possible, HIV cases reported since 2006 were matched back to codex cases. However, some duplicate reporting may still exist, and numbers have changed over the years as cases were matched back to codex cases. In some cases, codex cases have not been matched to names. Thus, state and local numbers may differ.

Data Sources and Limitations

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

1. The data included reflects those HIV and AIDS cases reported to the San Luis Obispo County 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. 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 almost 1 in 6, or 15.8% of persons in the US infected with the HIV virus are unaware of their infection, as they have not been tested.

3. HIV/AIDS cases are counted in the County and State of residence at the time of diagnosis. Therefore, the majority of this report reflects the risks reported by HIV/AIDS who lived in San Luis Obispo (SLO) County at the time of their diagnosis. Data on those case currently reported living in SLO are the best available, however, some small number of cases may have left or moved to the County since June 2013.

4. 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.

5. 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. In 2008, the surveillance case definition for HIV infection and AIDS were revised into a single case definition. Thus, increases or changes in HIV and AIDS rates subsequent to those years did not necessarily reflect an increase in transmission of the virus, but might reflect changes in diagnosis and reporting.

6. Some numbers of reported cases and deaths by year have changed since the 2008 edition of this report. These changes are 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.

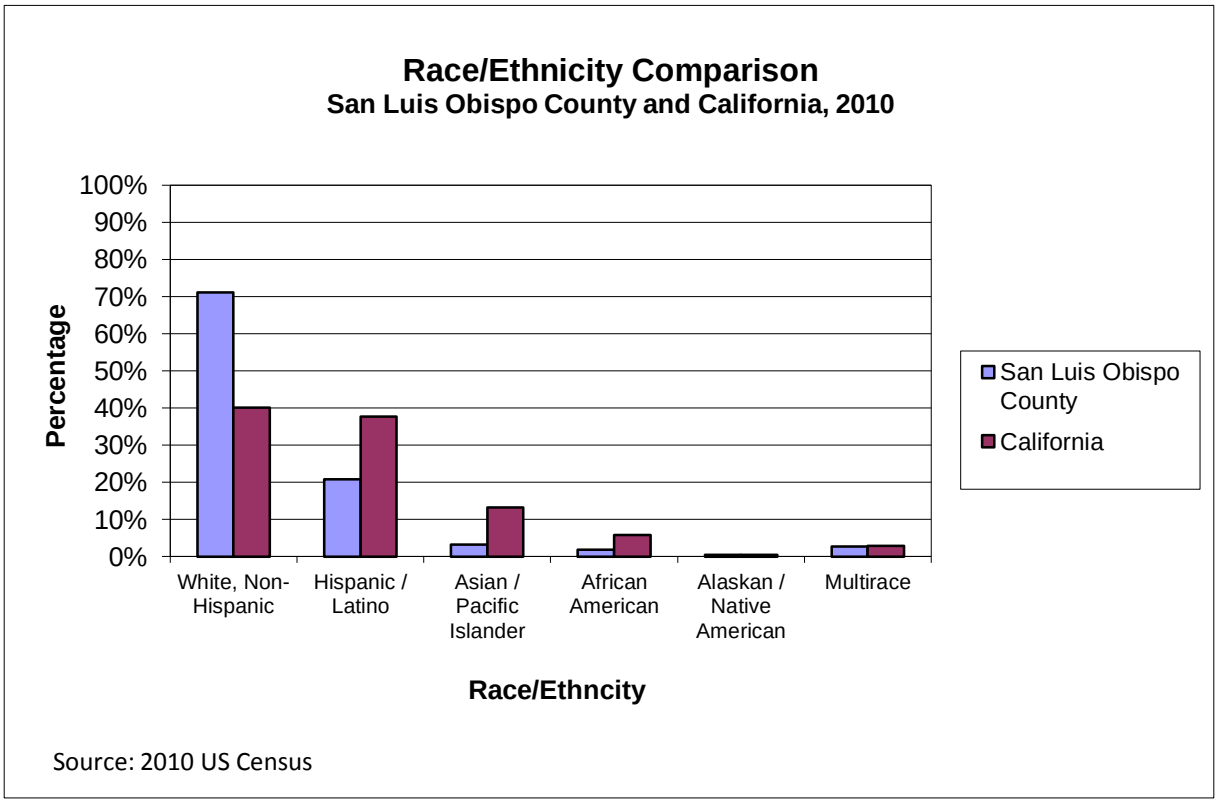
Demographic Characteristics of San Luis Obispo County

San Luis Obispo (SLO) County 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 United States Census Bureau, has an estimated population of 276,443 in 2013, which represents a 2.5% increase from 2010[31]. San Luis Obispo is the 23rd largest county in California. That is, 22 counties have larger populations, and 35 counties have smaller populations than SLO County. The population density according to the 2010 Census is 81.7 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 9.3% between 2000 and 2010. The majority of the County is agricultural, with ~60% of the land area devoted to farming.

According to the 2010 Decennial Census, San Luis Obispo County has a population that is 71.1% white, non-Hispanic, 20.8% Hispanic, 2.6% African-American, 4.5% Asian, and 8.3% comprised of other categories, including Native American, Alaskan Native and Pacific Islander. 15.2% of the population is above the age of 65, while approximately 33.5% is below the age of 24. The median household income in 2012 was $59,628 which is lower than the California median income of $61,400[4]. According to the National Association of Home Builders Housing Opportunity Index, 2014 1st Quarter report, San Luis Obispo County is ranked the 218 out of 225 in affordability, with 26.9% of homes affordable for persons earning the median income in the County. In addition, it is considered the 4th least affordable Metro Area in regions with a population of 500,000 or less.[5] It is estimated that in SLO County, 13.7% of individuals live below the poverty level, as compared to 15.3% statewide[6].

Demographic distributions of SLO County are quite different from that of the State. Although gender distribution is similar, SLO County has a considerably more homogeneous racial make-up than the State, with almost 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 approximately 26.6% of the population being 55 years or older. California as a whole has a slightly younger population distribution, with ~23% of the population being 55 years or older.

Figure 1
County and State Population Demographics, 2010



SLO County's economy is considered strong, with an average unemployment rate per year of 5.0%, as of May, 2014[7]. 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 2013-14 year, 34,747 students were in enrolled in public schools in SLO County. Numbers have been steadily declining since the 2000-01 school year when 37,693 students were enrolled. The adjusted high school four year dropout rate for the County is 2.0%, which has been decreasing, while the state's rate has fluctuated, coming in at 3.9% for 2012-2013. However the percentage of high school graduates in the County is higher than the state's at 88.5% versus 80.2%[8]. More demographic characteristics of the County are displayed in Table 1.1.

Race

Table 1.1
San Luis Obispo County and California Populations by Gender, Race and Age, 2010*

	San Luis Obispo County		California
	Number	% of Population	% of Population
Gender			
Male	137,999	51.2%	49.7%
Female	131,638	48.8 %	50.3%
Race and Hispanic Origin			
White, Non-Hispanic	191,696	71.1%	40.1%
Hispanic	55,973	20.8%	37.6%
Black	5,550	2.1%	6.2%
Asian	8,507	3.2%	13.0%
Other	12,649	4.7%	18.0%
Age			
< 5	13,343	4.9%	6.8%
5 - 14	27,974	10.4%	13.7%
15 - 24	49,069	18.2%	15.0%
25 - 34	32,108	11.9%	14.3%
35 - 44	29,752	11.0%	13.9%
45 - 54	39,253	14.6%	14.1%
55 - 64	37,116	13.8%	10.8%
65 +	41,022	15.2%	11.4%
Total	269,637	100%	100.0%

Source: 2010 US Census

*It should be noted that the Race and Ethnicity columns will NOT sum to 100%, as the Hispanic category includes White, Black, Asian and other races.

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. Please note that the Department of Finance estimates in City limits are not used to calculate rates or percentages in the remainder of the report, but only used here to demonstrate where the population centers are.

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 2011-2012 California Health Interview Survey (CHIS), 89.0% of the population has health insurance, an increase of 1.4% from the 2003 CHIS survey, but the same as the 2005 CHIS survey.

Table 1.2
Population Estimates by City and Region, January 2014

City/Region	Number	% of Population
San Luis Obispo	45,473	16.7%
North County		
Paso Robles	30,469	11.2%
Atascadero	28,675	10.5%
South County		
Arroyo Grande	17,334	6.4%
Grover Beach	13,153	4.8%
Pismo Beach	7,705	2.8%
North Coast		
Morro Bay	10,276	3.8%
Balance of County	119,272	43.8%
Total	*272,357*	*100.0%*

Source: California Department of Finance

HIV in San Luis Obispo County

HIV first became reportable in California in 2002 through an anonymous code-based system ("codex") system that assigned a codex number to all cases, and did not report to the State the name of the infected individual. In 2006, a name-based system was implemented, allowing for more accurate tracking of cases, and in line with the CDC's recommendations for name-based reporting. Demographic information is available for all cases reported, whether codex or named cases. Where possible, cases reported by name after 2006 were matched back to previously reported cases that had been assigned codex numbers for anonymity. The State only has access to name-based data, so although the State reports numbers for all Counties on its website[9], those numbers can be significantly different than the numbers maintained and reported by the San Luis Obispo Public Health Department AIDS Program. As of June 30, 2013, 166 cases of HIV that have not progressed to AIDS have been reported in SLO County. As in previous years SLO County HIV/AIDS Epidemiologic Profiles[10], HIV cases will be broken down by community cases vs. cases of incarcerated persons.

Prior to 1996, estimates of HIV infection in the population were based on back-calculation from AIDS mortality data. Name based reporting is starting to give us a better idea of actual new infections, but because many people are unaware of their infection status, estimating the

number of new cases is still necessary. The CDC has estimated that new HIV infections per year have remained somewhat steady throughout the 1990s and into the new millennium, with approximately 56,000 new infections every year. However, it is also estimated that ~16% of persons infected with the HIV virus are unaware of their HIV positive status.
Starting in November 2004, the California Department of Public Health began describing the HIV/AIDS epidemic in terms of prevalence rather than the previously utilized Cumulative Incidence Rate, or 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.

The large incarcerated populations of SLO County have greatly increased the overall number of HIV/AIDS cases in the County. SLO County is home to two State institutions: California Men's Colony (CMC - estimated population 6,000), and Atascadero State Hospital (ASH - estimated population 1,290 people). In addition, the now-closed Paso Robles Boys School has contributed to the burden of HIV/AIDS in the County.

Race

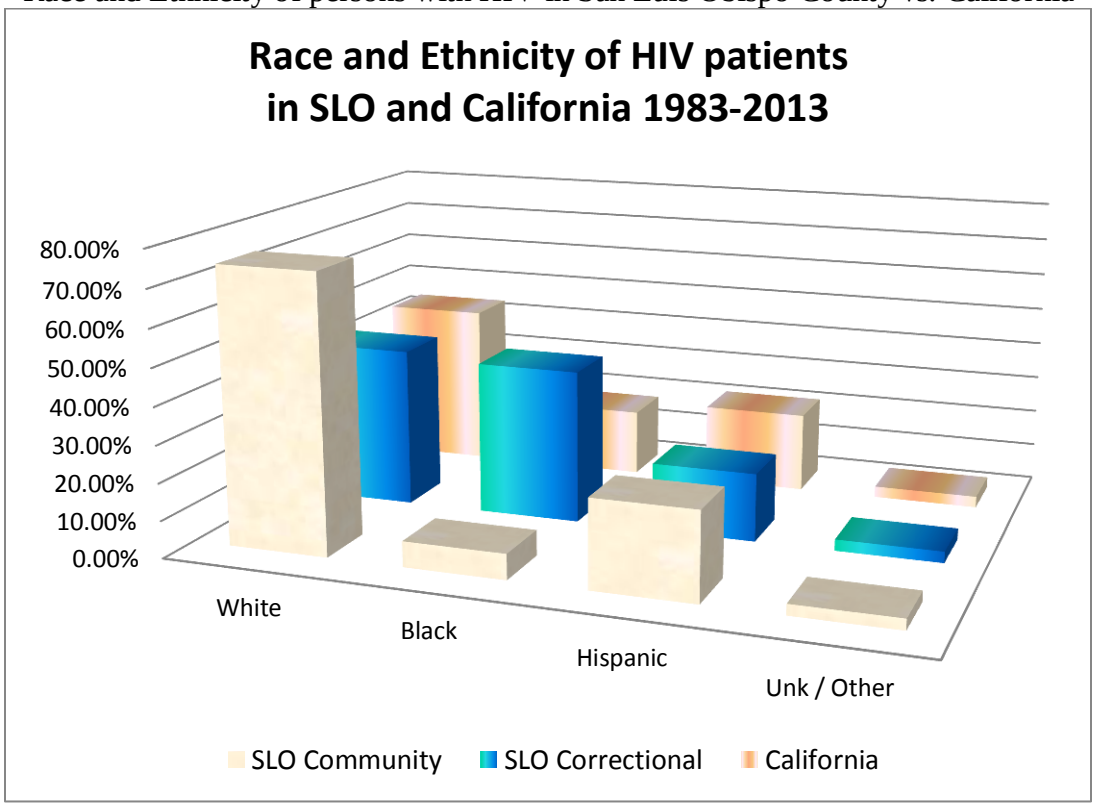
The ethnic distribution of HIV in SLO County differs from the ethnic distribution of the population overall. Table 2.1 contains data showing the racial distribution of HIV cases within the County. African Americans represent only 1.8% of the population in San Luis Obispo, but 25.7% of all HIV cases in the County are African-Americans. This reflects national 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 are occurring in the incarcerated population. In Figure 2.1, the racial distribution of HIV cases for the State, SLO County community and SLO County institutional cases are shown. The graph demonstrates that the African-American institutional population of SLO County is significantly over-represented as a percentage of overall HIV cases, even when compared to the entire State population. By viewing both Table 2.1 and Figure 2.1, the difference in demographic distribution of cases between community and institutional cases can be easily ascertained.

Table 2.1
Racial breakdown of HIV cases* in San Luis Obispo County and California
expressed as a percentage of cases

Race	San Luis Obispo All Cases	San Luis Obispo Institutional	San Luis Obispo Community	California (All cases)
White	62.0%	43.1%	74.3%	44.1%
Black	20.5%	41.5%	6.9%	18.1%
Hispanic	21.7%	18.5%	23.8%	31.5%
Other/Unk	17.5%	15.4%	18.8%	6.3%

*All cases, regardless of year diagnosed

Figure 2
Race and Ethnicity of persons with HIV in San Luis Obispo County vs. California



Age
The majority of HIV cases are diagnosed in 30-49 year olds in both the San Luis Obispo County community and institutional populations. 53.0% of all cases in the community were diagnosed in this age group, and 72.3%% of the institutionalized population. It should be noted however that almost all cases in the institutional category are male, while the San Luis Obispo County community population is comprised of both males and females.

Gender
Because SLO County has such a large, male-only institutional population, it is important to look at community and institutional HIV cases separately in order to truly understand the impact on specific genders. In the SLO County community population, 78 males have been diagnosed with HIV and 23 females. Thus, approximately 22% of community HIV cases occur in females within the County, which is higher than the state rate of 12.7%.

Exposure Category
Identified risks for HIV transmission vary between the community and institutional populations, as shown in Table 2.2 below. For community HIV cases, men who have sex with men (MSM) is by far the highest risk category, with 56.4% of cases falling into this category, with the next largest category being heterosexual contact. Heterosexual contact includes

females who have sex with bisexual men and HIV positive men. The MSM/Bi category contains MSM and females who have sex with bisexual men. The MSM/IDU category is for those who identify as both MSM and an Intravenous Drug User (IDU).

In the institutionalized population, the trends vary somewhat in that risk factors are more evenly distributed between MSM & IDU. These results are shown in Table 2.2.

Table 2.2
Exposure Categories for HIV cases in SLO County and California

Mode of Transmission	**SLO Community**		**SLO Institutional**		**California**	
MSM/Bi	57	56.4%	40	61.5%	33,348	67.4%
IDU	18	17.8%	29	44.6%	2,899	5.9%
MSM + IDU	7	6.9%	17	26.2%	2,959	6.0%
Hemophilia/ Transfusion	1	1.0%	4	6.2%	83	0.2%
Hetsx contact	24	23.8%	24	36.9%	4,188	8.5%
No risk report/ Other	14	13.9%	6	9.2%	5,671	11.5%

*This table reflects the risk factors for those persons reported from SLO County who are HIV+ only, so numbers are smaller than in previous years. HIV+ patients may have progressed to AIDS, and will be reflected in the Community AIDS exposure categories.

Exposure by gender statistics are shown in Table 2.3. As seen, the greatest risk for men is MSM, while the greatest risk for females is heterosexual contact and IDU. Percentages will not add up to 100%, as persons may report more than one risk factor.

Table 2.3
Exposure Categories for HIV cases in SLO County by Gender

Mode of Transmission	**SLO Community Males**		**SLO Community Females**	
MSM/Bi	57	73.1%	0	0.0%
IDU	10	12.8%	8	34.8%
MSM + IDU	7	9.0%	0	0.0%
Hemophilia/ Transfusion	1	1.3%	0	0.0%
Hetsx contact	20	25.6%	17	73.9%
No risk report/ Other	10	12.8%	4	17.4%

AIDS in San Luis Obispo County

The first case of AIDS was reported in 1984. As of June 2013, 642 cases of AIDS have been reported in San Luis Obispo County. AIDS cases are divided into community and institutional cases as per HIV statistics.

In SLO County, the number of diagnosed community AIDS cases increased steadily between 1983 and 1992. In 1993, the AIDS case definition changed, contributing to a decline in diagnosed cases. In 1996, HAART treatment was introduced, and helped to slow the progression of HIV to AIDS cases even further in the community. HAART helps halt the replication of the HIV virus in the body, thereby decreasing viral load and slowing the progression to AIDS for those with HIV infection. This caused a dramatic drop in the case fatality rate for AIDS patients. In 1989, the cumulative case fatality rate was 90.8%, however by 2013, the cumulative case fatality rate had dropped to 50.9%.

Affected Populations

Race

As in HIV cases, the ethnic distribution of AIDS in SLO County 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 2.1% of the population in San Luis Obispo, 27.7% of all AIDS cases in the County are African-Americans. The majority of the African-American AIDS cases in San Luis Obispo County are occurring in the incarcerated population, as is the case with HIV. Reviewing Table 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
Race and Ethnicity of community AIDS cases in San Luis Obispo County and California expressed as a percentage of cases 1983-2013

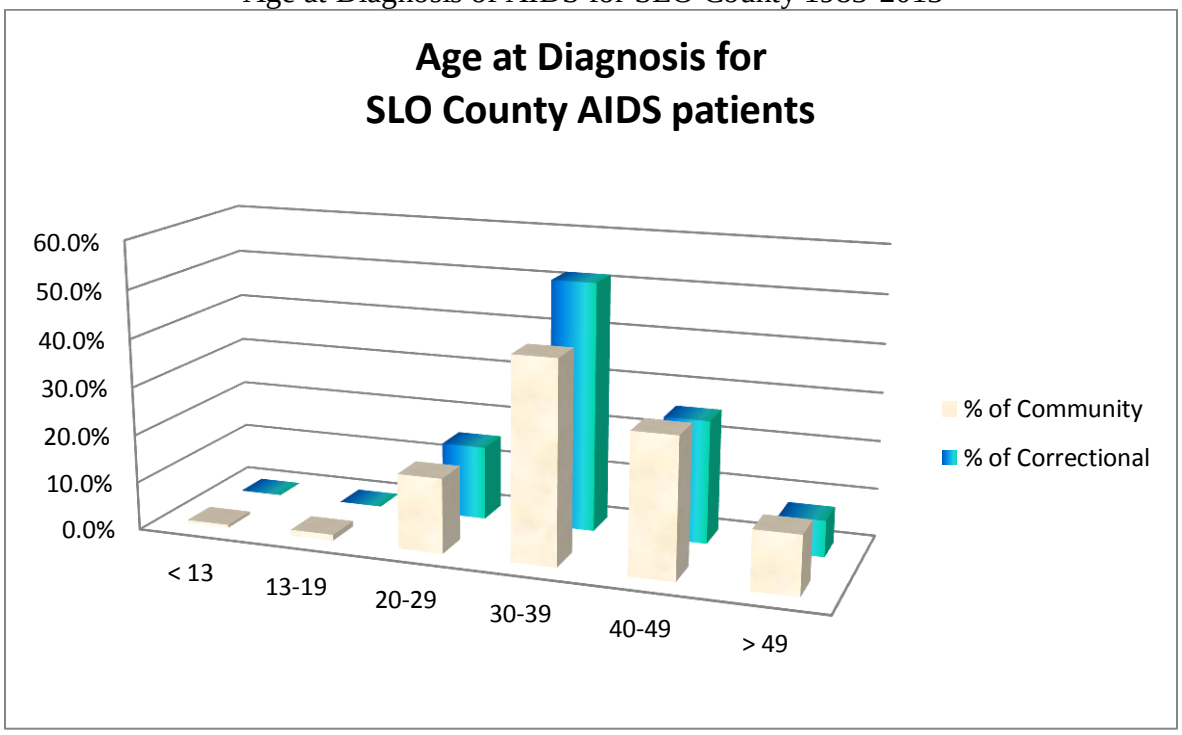
Race	San Luis Obispo (All cases)	San Luis Obispo Institutional	San Luis Obispo Community	California (All cases)
White	61.4%	37.7%	83.7%	52.5%
Black	27.7%	60.7%	5.7%	17.7%
Hispanic	18.5%	23.5%	14.0%	25.7%
Other race	1.4%	1.6%	10.5%	4.1%

Source: California Dept. Of Public Health, Office of AIDS, AIDS Surveillance Report Cumulative Cases as of Dec 31, 2013 and San Luis Obispo County AIDS Program

Age

The majority of AIDS cases are diagnosed in 30-39 year olds in both the San Luis Obispo County community and institutional populations. 41.7% of all cases in the community were diagnosed in this age group, and 51.6% of the institutionalized population. It should be noted that almost all AIDS cases in the institutional category are adult males, thus no patients were diagnosed in the correctional population between the ages of 0-19.

Figure 3
Age at Diagnosis of AIDS for SLO County 1983-2013



Gender

Because SLO County 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 SLO County community population, 296 males have been diagnosed with AIDS and 40 females. Thus, approximately 13% of community AIDS cases occur in females within the County, which is higher than the state rate of 8.7%.

Exposure Category

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 (100%), followed by Injection Drug Use (IDU). For community males, men who have sex with men (MSM) is

by far the highest risk category, with 81.1% of male cases falling into this category, followed by the combined IDU category at 24.3%.

In institutionalized males, the trends vary somewhat in that IDU is the highest risk factor categorized for those with AIDS. Table 3.2 shows that the next highest risk factors are MSM/IDU followed closely by 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. The percentages in Table 3.2 will not add up to 100%, as persons may have reported multiple risks, and thus be counted in more than one risk category.

Table 3.2
Exposure categories for Community AIDS cases in San Luis Obispo County

Exposure / Mode of Transmission	**Males (n = 296)**		**Females (n=40)**	
	# of Cases	% of Cases	# of Cases	% of Cases
Male-to-male Sexual contact (MSM)/Bi	240	81.1%	0	0.0%
Injection drug use (IDU)	72	24.3%	13	32.5%
MSM + IDU	52	17.6%	0	0.0%
Hemophilia/Transfusion	7	2.4%	2	5.0%
Heterosexual Contact	59	19.9%	40	100%
Undetermined	16	5.4%	0	0.0%

Table 3.3
Exposure categories for institutional AIDS cases in SLO County

Exposure / Mode of Transmission	**Cases (n)**	**Cases (%)**
MSM	168	54.9%
IDU	176	57.5%
MSM + IDU	87	28.4%
Hemophilia/Transfusion	17	5.6%
Heterosexual Contact	30	44.8%
Undetermined	19	6.2%

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

For the institutional population, IDU is the greatest risk factor, with 43% of the cases reporting that as their only risk factor, but 57.2% reporting it as one of their possible risk factors. In the community, for both males and females, a combined 13.9 % of cases listed IDU as one of their risk factors.

Deaths due to AIDS

Prior to the introduction of HAART, the AIDS case-fatality rate was extremely high. The case-fatality rate is the percentage of persons dying who have contracted a disease. Table 3.4 shows the number of AIDS cases diagnosed for selected calendar years, and the case-fatality rate by year.

AIDS is not one of the 10 leading causes of death in SLO County for the period of 1999-2013. The picture in recent years shows lower AIDS mortality, but the case-fatality data in Table 3.4 shows that this was not always the case. For the first 6 years of the epidemic, the Case Fatality Rate (CFR) was 90.8%, while in the last six years, the CFR has averaged 39.3%, and the overall CFR between 1983-2013 is 41.3%.

Table 3.4

San Luis Obispo County Cumulative HIV & AIDS Cases by Year of Diagnosis and Year of Death

	Total Reported Cases and Deaths		Case Fatality Rate
Year	**Cumulative Cases**	**Cumulative Deaths**	
1983-1989	65	59	90.8%
2008	723	279	38.6%
2009	745	282	37.9%
2010	758	288	38.0%
2011	772	310	40.2%
2012	780	311	39.9%
1983-2013	800	330	41.3%

Currently reported living in San Luis Obispo County

As of June 2013, there was a total of 626 persons reported living in San Luis Obispo County who were HIV or AIDS positive. Of these, 357 lived in correctional facilities, and 269 were reported as living in a community setting.

Table 3.5

Persons currently living in San Luis Obispo County with HIV/AIDS

	Living in SLO Co.	HIV+ Only	HIV/AIDS	Male	Female / Transgender
SLO Community	269	102	167	221	48
SLO Correctional	357	135	222	355	2

Table 3.6

Current Age of persons living with HIV /AIDS in SLO County

Current Age Range	<13	13-19	20-29	30-39	40-49	>49	Total
	0	2	18	31	62	156	269

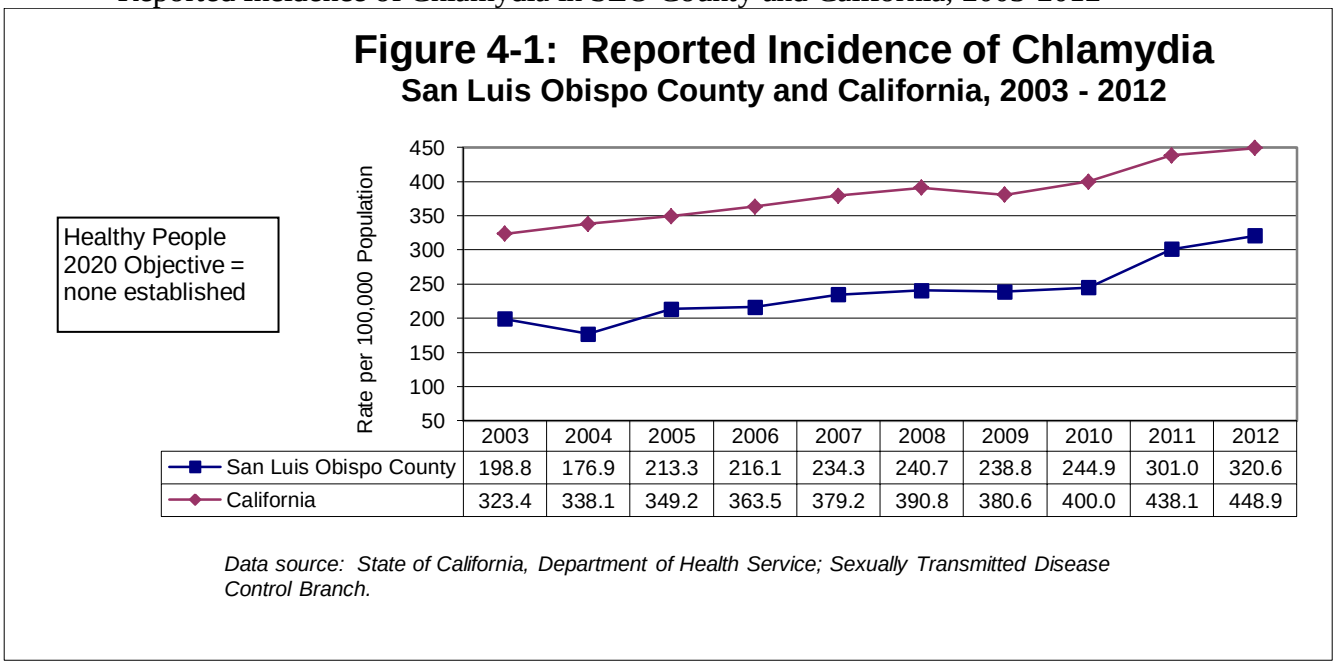
Sexually Transmitted Infections as a Marker for Risky Behavior

The spread of Sexually Transmitted Infections (STIs) other than HIV is considered a marker for behavior that can and does spread HIV. Someone diagnosed with a STI has almost certainly had unprotected sex, a risk for contracting HIV. Some STIs can increase the chances of becoming infected with HIV. These STIs, such as syphilis and herpes (HSV), can cause open sores that give HIV an increased chance of entering the bloodstream[11]. HSV is the most common genital co-infection in HIV infected men and women (although not reportable in California), and HIV infectiousness from men to women is increased by the presence of STIs[12]. Monitoring STIs allows the AIDS Program to estimate the prevalence of risky sexual behavior occurring in the population.

In California, cancroid, chlamydia, gonorrhea, and syphilis are all reportable diseases, and statistics are tabulated at both the state and County level. Syphilis as well as Gonorrhea 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, chlamydia was the most commonly reported STI, however, the rate of chlamydia infections per 100,000 runs well below the State rate.

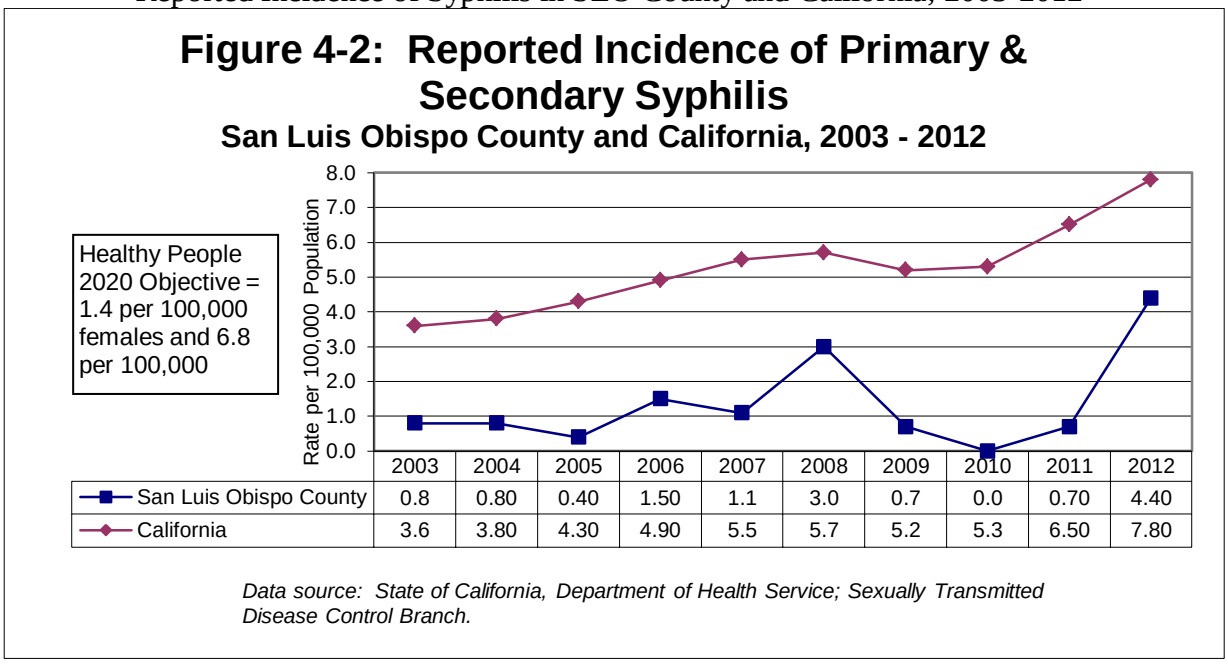
Figure 4.1
Reported Incidence of Chlamydia in SLO County and California, 2003-2012



Syphilis is generally described by the stage of disease that a person is in when diagnosed. For example, a person may have Primary, Secondary or Latent Syphilis, and Syphilis of unknown

duration. The diagnosis is based on symptoms and length of infection. In San Luis Obispo County, the majority of cases diagnosed are in the Late Latent stages of infection. Late Latent cases are no longer infectious. Only when a person is in the primary or secondary stage of infection and have open lesions are they infectious. There has been a general increase in syphilis cases in California and the US over the past several years, particularly in the MSM community. However, SLO County has a low incidence of Primary and Secondary cases of Syphilis. Once again the incidence is lower than that of the State of California, as shown in Figure 4.2. These cases have occurred primarily among MSM. Due to low overall numbers of Primary and Secondary Syphilis cases in SLO County, a small number of cases can cause large swings in incidence data, which is reflected in the rise between 2005 and 2006, with a sharp decline the next year. Starting in 2011 however, the rate rises again sharply, in the County and State. The SLO PHD has a STI program investigator that contacts each reported case of syphilis, and conducts a thorough investigation. Despite education and outreach, rates have continued to rise.

Figure 4.2
Reported Incidence of Syphilis in SLO County and California, 2003-2012

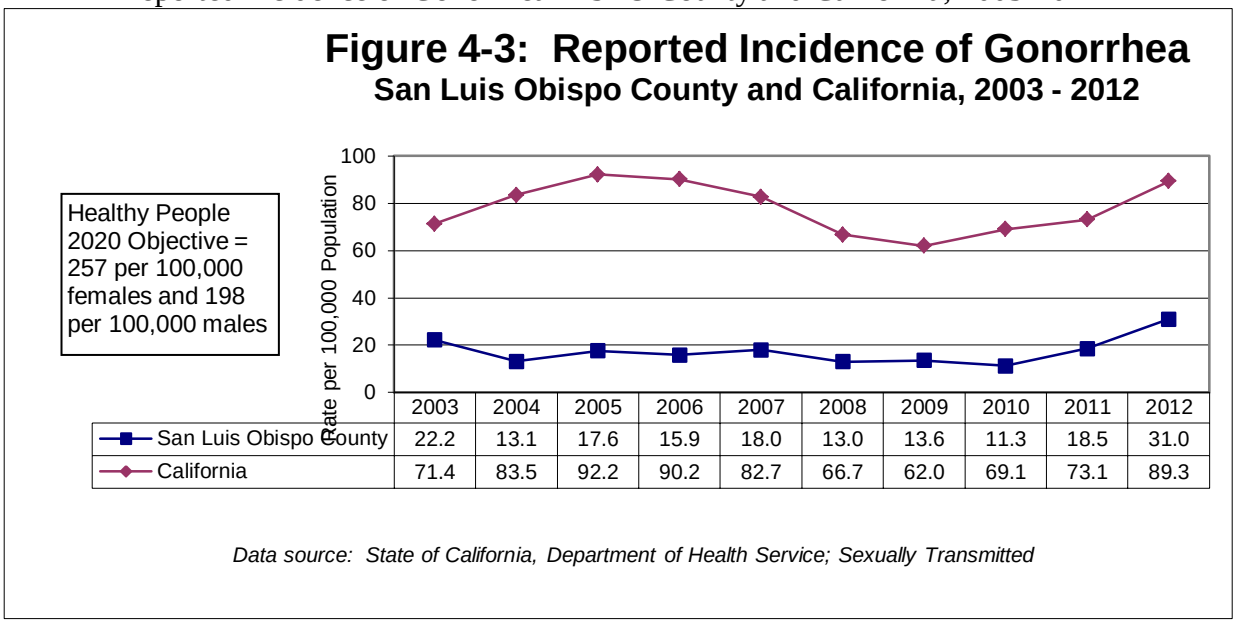


	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
San Luis Obispo County	0.8	0.80	0.40	1.50	1.1	3.0	0.7	0.0	0.70	4.40
California	3.6	3.80	4.30	4.90	5.5	5.7	5.2	5.3	6.50	7.80

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

Gonorrhea rates per 100,000 in San Luis Obispo County are lower than the State average, and rates had remained relatively steady in the County between 2003 and 2010. Since 2010-11 however, gonorrhea rates are on the rise across the US. Each Gonorrhea case is investigated, contacted and educated on STI prevention and treatment.

Figure 4.3
Reported Incidence of Gonorrhea in SLO County and California, 2003-2012



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
San Luis Obispo County	22.2	13.1	17.6	15.9	18.0	13.0	13.6	11.3	18.5	31.0
California	71.4	83.5	92.2	90.2	82.7	66.7	62.0	69.1	73.1	89.3

Data source: State of California, Department of Health Service; Sexually Transmitted

While the low rates of STIs up until 2001 suggested a general decline in risky behavior, the figures over the past decade show overall increases that should be addressed. The SLO PHD continues to investigate and contact each case of Gonorrhea and Syphilis to ensure proper treatment, as well as provide prevention education. For many patients however, the availability of ready treatment encourages risky behavior and practices. One study in San Francisco and Los Angeles[13] 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. The changes in HIV/AIDS data collection allows us to now estimate the number of persons living in our County with HIV/AIDS, which is very different from the number of residents diagnosed in our County (persons diagnosed here may move away, while persons diagnosed elsewhere may move here).

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, in part due to a large number of HIV+ persons being unaware of their status. While cases of AIDS have declined, the prevalence of HIV in the population is increasing. Recent national studies, as well as increasing rates of other STIs suggest that risky sexual behavior has increased in the population, leading to increased risks of transmission of HIV. These factors, in combination, can easily lead to higher HIV transmission rates.

According to the CDC, the lifetime treatment costs of health care associated with HIV is estimated at $379,668 (in 2010 dollars).[14] One study cited by the CDC estimates that the medical savings from infections averted by US prevention programs from 1991-2006 to be $129.9 billion with 361,878 infections prevented[15]. A key strategy in any HIV/AIDS program 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. Another key strategy is effective and timely treatment for those infected with the disease. With newly available data on persons living in our community with HIV/AIDS, a better understanding of needs and gaps will help provide the treatment and support needed.

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