

California HIV Prevention Indicators: Brief Report #3

Universitywide AIDS Research Program, University of California
Office of AIDS, California Department of Health Services
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This is the third of a continuing series of brief reports on findings from the California HIV Prevention Indicators Synthesis Project, a collaborative effort of the Universitywide AIDS Research Program and the California State Office of AIDS. For a fuller description of findings, including notes on data limitations, the reader should review the Summary Report available at the UARP website: <http://uarp.ucop.edu/>

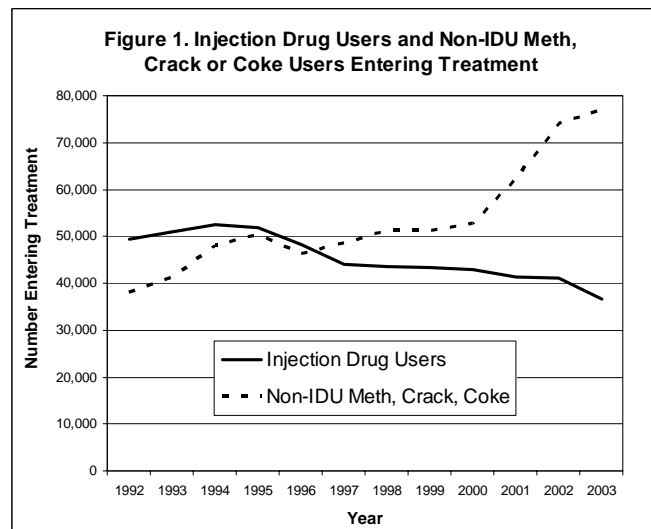
Summary. Until the mid-1990s, California made substantial progress toward preventing new HIV infections. However, in the latter half of that decade, there were few if any further gains. Now, in recent years, we see increases in high risk behaviors, notably widespread use of methamphetamines and increasing high risk sexual activity. The total number of Californians living with HIV continues to increase.

Populations: Numbers in High Risk Groups. From a statewide telephone survey in 2001, an estimated 400,000-480,000 adult men under age 65 in California self-identify as gay or bisexual.¹ Expert consensus places the total number of men who have ever had sex with another man at about 800,000, and the size of the male-to-female transgendered population at 1,500-5,000.²

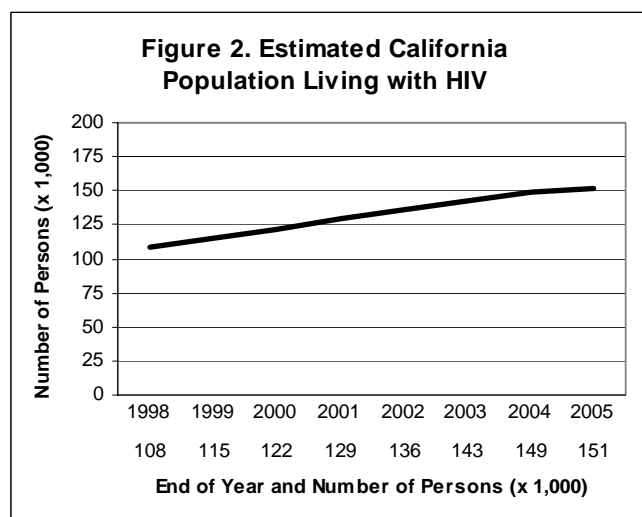
A statewide telephone survey in 2000 found that about 0.8% (0.3%-1.2% with 95% certainty) of adults in California injected non-prescription drugs in the past 12 months,³ suggesting that California has about 200,000 injection drug users (IDU). This figure is lower than consensus estimates of 300,000 IDU.²

From 1992 through 2003, the number of IDU entering treatment declined from 49,400 to 36,700; and the number of non-injecting methamphetamine, cocaine and crack users entering treatment increased from 37,900 to 76,800 (Fig. 1). The numbers for African Americans have been constant, and the increases have been mainly among Latinos (4X) and non-Hispanic Whites (2X). While there have been increases in all regions of California, most of the increase in the past three years has been in the San Joaquin Valley and Southern California, including Los Angeles.⁴

From 1993 to 2003, the population in state prisons and local jails increased from 188,000 to 240,000.⁵



Populations: Prevalence of HIV Infection. An estimated 151,000 Californians are living with HIV as of the end of 2005. The estimate is derived from CDC computer models of the national epidemic applied to California.⁶ The estimated number of Californians living with HIV significantly increased from about 108,000 at the end of 1998 (Fig. 2). A slight reduction in the annual increase for the year 2005 probably results from delays in reporting of AIDS cases, which in turn affects the HIV estimate.

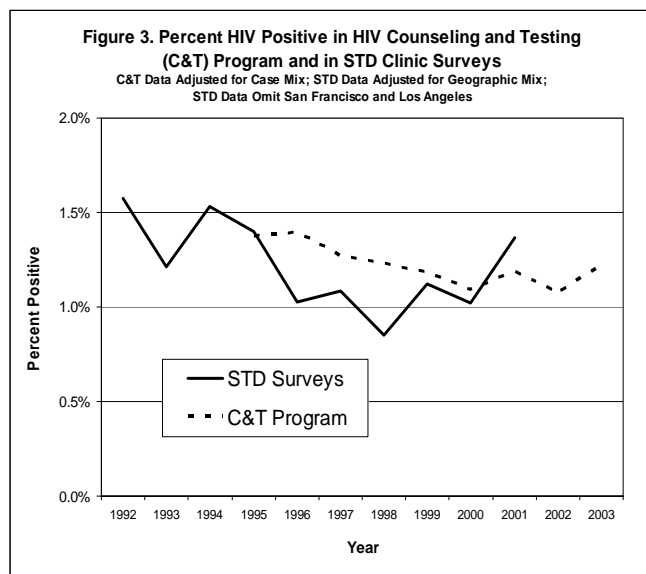


A general population survey in 2000 suggested that up to 150,000 adults carried the virus, but the confidence interval for the estimate was very wide (25,000-274,000 at 95% certainty) and the question addressed only individuals who had previously tested for HIV.⁷

An expert consensus group previously estimated the total number of infected persons at 108,000-124,000 in 1997. The group estimated the percent infected with HIV among selected groups as follows: 10%-20% of men who have sex with men (MSM) excluding injection drug users (IDU); 4%-5% of IDU excluding MSM; 10%-25% of MSM who were also IDU; and 35% among the male-to-female transgendered population.²

Venue-based surveys of adult MSM in Los Angeles and San Francisco in 2004 found an HIV prevalence of 21% and 22%, respectively.^{8,9}

Surveys of childbearing women from 1988 to 1998 suggest that about 322 to 488 (0.55%-0.80%) childbearing women in any year were infected with HIV, with no evidence of a trend over time.¹⁰



Within the statewide HIV Counseling and Testing (C&T) Program, about 4% of clients tested positive in 1990, a figure that rapidly declined and has leveled off to slightly over 1% for the past several years. When findings for all clients are adjusted for change in the composition of the client population over time, the data provide little evidence of change since 1995 (Fig. 3). Among MSM, the percent positive declined from 4.6% in 1995 to 3.6% in 2003. In comparison to non-Hispanic Whites, African Americans are about 1.7 times as likely to test positive, and Latinos about 1.4 times as likely.¹¹

Annual surveys at sexually transmitted disease clinics, when standardized for locations sampled (excluding LA

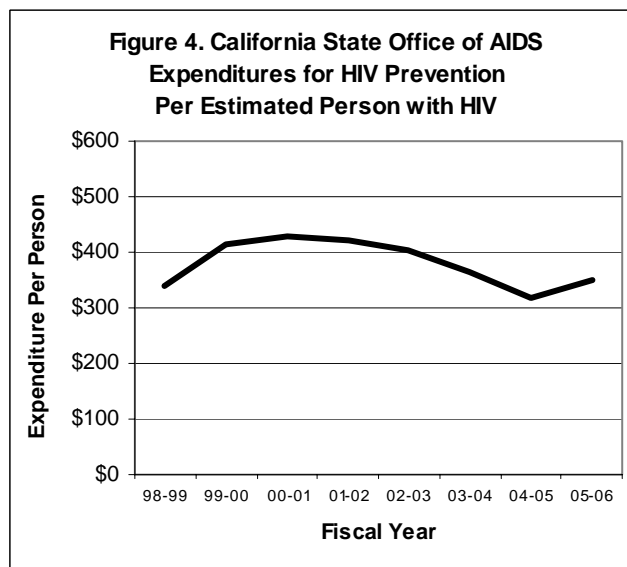
and SF), suggest a decline in HIV prevalence from 1992 to 1998 from 1.6% to 0.8%. However, by 2001 the estimate increased to 1.4% (Figure 3).¹²

Data from San Francisco STD clinics point to a sustained decline in the proportion of clinic users who tested positive for HIV from about 15% in 1989 to 7% in 1998.¹³ However, evidence over the past three years suggests increased prevalence at STD clinics, particularly among MSM.¹⁴

Similarly, the total number of HIV cases detected in San Francisco increased from about 500 in 1999 to 1,984 in 2003;¹⁵ and while in 2001 only two cases of HIV were detected per 100,000 blood donations in the San Francisco Bay Area, 10 per 100,000 were detected in 2003. By the year 2004, the rate decreased to 3/100,000.¹⁶

The number of known HIV cases among state prisoners increased from 786 in 1991 to 1,181 in 2002.¹⁷

Prevention Interventions: Effort. Total federal and state funds spent for HIV prevention by the California State Office of AIDS fell from \$54.8 million in FY 02-03 to \$47.5 million in 04-05. For FY 05-06, the budget increased to \$53.1 million.¹⁸ When expenditures are viewed in relation to the estimated total population with HIV, the annual expenditure peaked at \$429 per person with HIV in FY 00-01 and declined to \$351 per person for FY 05-06 (Fig.4).

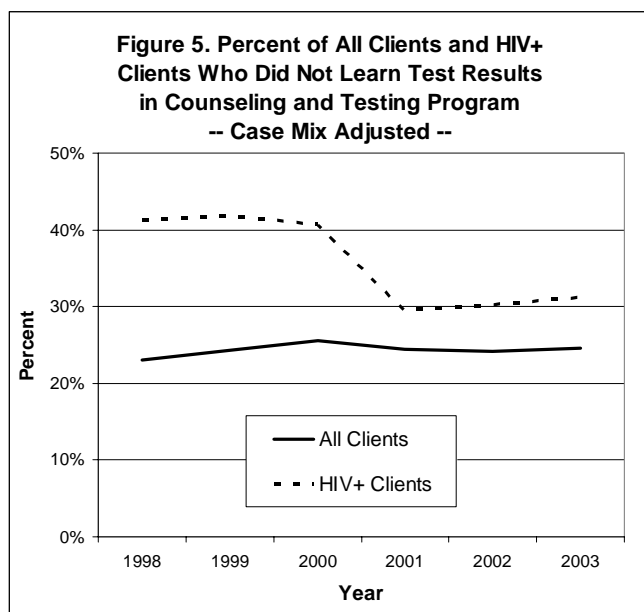


Prevention Interventions: Availability and Utilization. Population surveys suggest that the percent of adults under age 65 who reported testing for HIV in the past year declined from about 37% in 1998 to 32% in 2000.¹⁹

The annual volume of HIV testing in the statewide HIV Counseling and Testing Program peaked at 340,000 in 1992 and has since declined to 197,000 in 2003. Over this period, the program has increasingly focused on higher risk populations.¹¹

Prevention Interventions: Timeliness and Continuity.

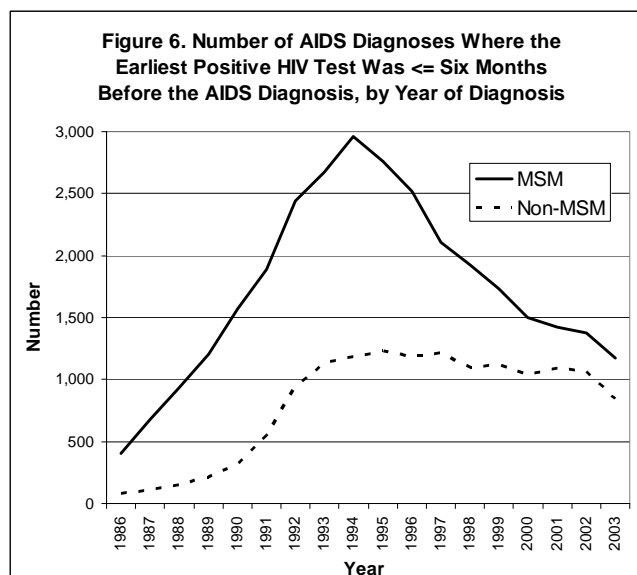
From 1998 to 2003, the number of persons tested in the statewide Counseling and Testing Program who were referred by outreach services increased from 16,400 to 19,500.¹¹



Case-mix adjusted data from the Counseling and Testing Program indicate that 24.5% of all clients in 2003 did not return for test results, a figure that increased slightly from about 23% in 1998. Among those who tested positive for HIV over the same time period, the case-mix adjusted percent who did not return for test results decreased from about 41% to 31% (Fig. 5).¹¹

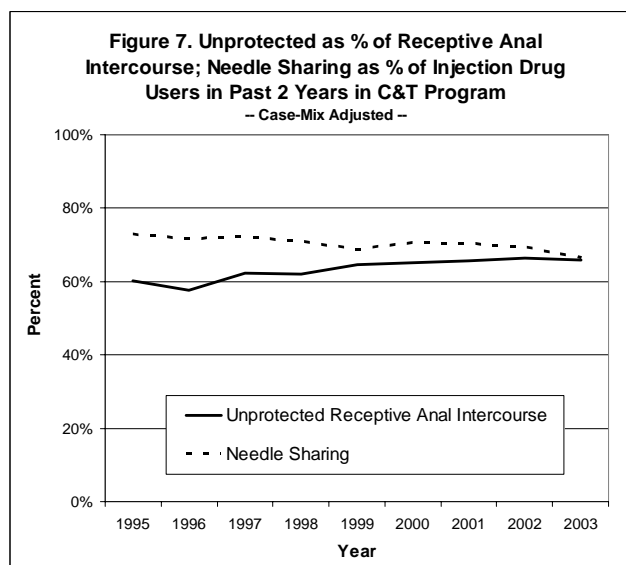
Data from the 1998 Survey of Childbearing Women suggest that, out of an estimated 337 childbearing women with HIV, about 69 (20%) did not receive antiretroviral therapy (41-109 at 95% certainty).¹⁰

The number of new AIDS cases with a late diagnosis of HIV infection, measured as the number of new AIDS cases where the earliest positive HIV test was less than or equal to six months prior to the AIDS diagnosis, has steadily declined from about 4,100 in 1994 to 2,000 in 2003. The decline was primarily among the MSM population (Fig. 6).²⁰



Risk-Taking and Protective Behaviors. A series of street-based convenience samples in San Francisco from late 2002 through 2003 of men who had more than one sex partner in the prior six months and who also practiced anal intercourse in the prior six months found that from 7% to 15% of respondents did not plan to use condoms for anal sex in the coming six months.²¹

Within the statewide HIV Counseling and Testing (C&T) Program, case-mix adjusted data show a steady increase in the proportion of clients who had more than five sex partners in the past two years, from about 10% in 1995 to 24% in 2003. However, the same case-mix adjustment suggests a decline in the percent of clients who had an HIV positive sex partner in the past two years from 7.6% in 1995 to 5.1% in 2003. Among MSM, the percentage fell from 26% to 18%.¹¹



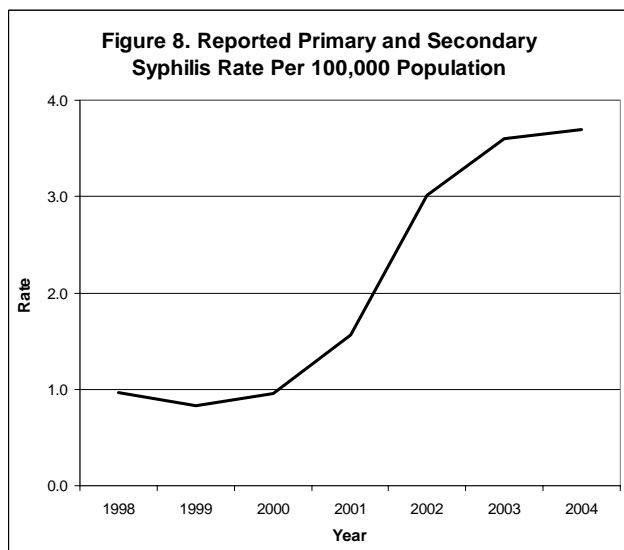
In 1996, of Counseling and Testing Program clients (case-mix adjusted) who engaged in receptive anal intercourse in the past two years, about 60% did not always use a condom. This percentage increased to 66% by 2003 (Fig. 7). The percentage did not substantially change among MSM (56%-58%) or among women (85%).¹¹

In San Francisco, venue-based surveys of MSM who practiced anal intercourse in the prior six months suggest a trend toward lack of protection, from 42% in 1997 to 67% in 2003.²¹ In Los Angeles, of MSM with AIDS who recently practiced anal intercourse, the percentage who failed to use protection increased from 11% in 2000 to 26% in 2003.²²

Among injection drug users in the C&T program (case-mix adjusted), about 73% in 1995 reported that they shared needles in the past two years, a figure that steadily declined to 66.5% by 2003 (Fig. 7).¹¹

Disease Impacts: New Infections. California's new No-Names HIV database received 5,079 reports of new infections for 2002, and 4,735 for 2003. African Americans accounted for 20% of reports to date, and Latinos for 26%.¹⁸ The extent of under-reporting is not known.

From 2002 to 2003, the Counseling and Testing Program experienced a 23% increase in the number of new HIV cases detected. Case-mix adjusted data from the program suggest an increase in new HIV infections per 100 person-years at risk among repeat testers from 0.72 in 1998 to 0.87 in 2003. Among MSM, the rate increased from 2.20 in 1998 to 2.66 in 2003.¹¹

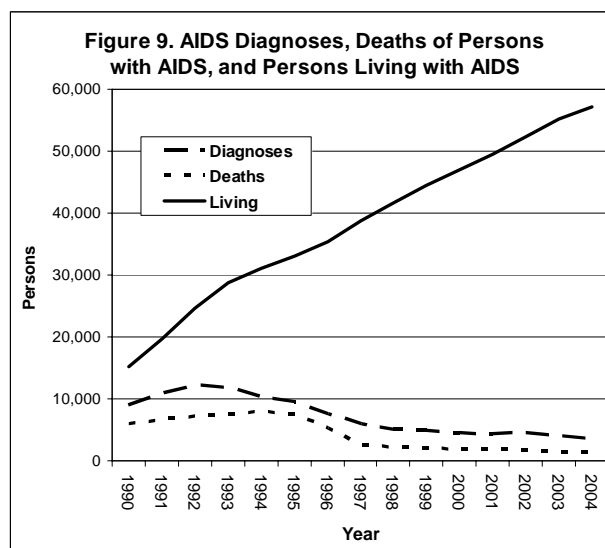


Following a long-term decline in the rate of primary and secondary syphilis infections to 0.8 per 100,000 population in 1999, the rate increased to 3.7 per 100,000 in 2004 (Fig. 8). While HIV status is not known

for many primary and secondary syphilis cases, about 50%-60% of syphilis cases, where HIV status is known, also test positive for HIV.²³

Studies of MSM (excluding IDU) at STD clinics in San Francisco point to declining HIV incidence from 1989 through 1996 and perhaps an increase up through 1998.¹³ More recent analyses of 1998-2002 data from San Francisco and Los Angeles STD clinics did not detect increased new HIV incidence among MSM with syphilis.²⁴

Disease Impacts: AIDS. The annual number of new AIDS diagnoses peaked at 12,500 in 1992 and declined to about 3,350 in 2004. The number of deaths among persons with AIDS reached a high of over 7,900 in 1994, fell rapidly to 2,550 by 1997, and has since declined to 1,262 in 2004 (Fig 9).²⁰ Because of reporting delays, figures for recent years must be regarded a preliminary.



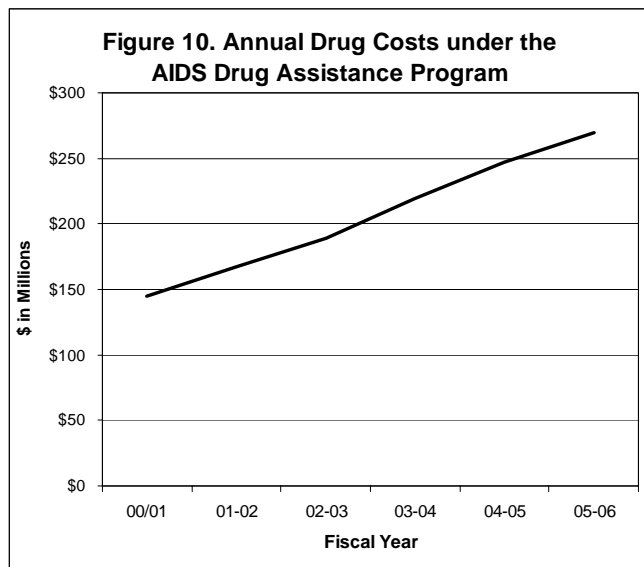
Because the new treatments for HIV delay or prevent a progression to AIDS, diagnosed cases of AIDS are no longer a useful marker of recent trends in the epidemic, they reflect failures of therapy, or failed access or utilization of therapy. However, the number of persons living with AIDS is an important marker of the burden of the epidemic on the health services system.

The consequence of improved survival among persons with AIDS is a rapid and sustained increase in the number of persons living with AIDS. By the end of 2004, about 57,200 individuals in California were living with AIDS. The number of persons living with AIDS has nearly doubled in the past decade (Fig. 9).²⁰

About 19% of persons living with AIDS are African American and 27% are Latino. And about two-thirds are living in Los Angeles County and the San Francisco Bay Area. The largest percentage increase

over the past decade in the number living with AIDS has been in the San Joaquin Valley (2.7X).²⁰

As a consequence of the rapidly growing number of persons living with HIV/AIDS, the annual cost drugs under the AIDS Drug Assistance Program (ADAP) nearly doubled from \$145 million in FY 00-01 to \$270 million in the current fiscal year (Fig. 10).



This and other reports can be downloaded from:
http://uarp.ucop.edu/prevention_indicators/HIV_prevention.html

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We welcome submission of copies of reports and journal articles containing relevant data from statewide and local studies on HIV prevention in California.

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California HIV Prevention Indicators - December 1, 2005

1-1. Populations: Numbers in High Risk Groups

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1-1-1. Males Ages 18-64 Reporting to be Gay or Bisexual (CHIS)												4.0%				
1-1-2. Persons Entering Treatment with History of Illicit Needle Use in Past 12 Months (x1000)			49.5	51.1	52.5	51.8	48.3	44.1	43.7	43.4	42.8	41.4	41.0	36.7		
1-1-3. Persons Entering Treatment with History of Non-IV Meth, Coke or Crack in Past 12 Months (x1000)			37.9	41.2	47.9	50.3	46.2	48.4	51.2	51.3	52.6	62.4	73.9	76.8		
1-1-4. Persons in Custody of California State Prison and Local Jail Jurisdictions (x1000)			187.5	194.8	206.8	218.1	232.7	241.0	239.4	237.9	237.9	233.3	237.5	239.8		

1-2. Populations: Prevalence of HIV Infection

1-2-1. Estimated California Population Infected with HIV (x1000) (UARP Estimate)									108.4	115.5	122.3	128.7	136.2	143.3	148.7	151.1
1-2-2. Adults Ages 18+ Who Said They Tested Positive as % of Those Ever Tested (AIDS KABB)											0.6%					
1-2-3. HIV Prevalence among MSM in a San Francisco Street Survey (Stop AIDS)						1.3%	1.3%	1.2%	1.3%	1.2%	1.1%	1.2%	1.1%	1.2%	1.2%	
1-2-4. HIV Prevalence among Counseling and Testing Program Clients (Case-Mix Adjusted)												8.6%	10.7%	14.2%		
1-2-5. HIV Prevalence among Meth Injecting MSM in C&T Program												1.4%				
1-2-6. HIV Prevalence in Samples from Selected STD Clinics (excludes LA and SF)			1.6%	1.2%	1.5%	1.4%	1.0%	1.1%	0.8%	1.1%	1.0%	1.0%	0.4%	0.6%		
1-2-7. HIV Prevalence among Women in C&T Program (not case-mix adjusted)	0.7%	0.5%	0.4%	0.4%	0.3%	0.4%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.6%	
1-2-8. Estimated HIV Prevalence per 1000 Childbearing Women	0.70	0.80	0.67	0.55	0.73	0.65	0.8%	0.9%	1.0%	1.0%	1.0%	0.8%	0.7%			
1-2-9. Inmates Known to be Positive for HIV in California Prisons		0.8%	0.9%	0.9%	0.8%	0.8%	0.8%	0.9%	1.0%	1.0%	1.0%	0.8%	0.7%			

2-1. Interventions: Effort

2-1-1. State Expenditures for HIV Prevention Programs by Fiscal Year (Millions - Federal and State funds)									\$36.7	\$48.0	\$52.5	\$54.0	\$54.8	\$52.4	\$47.5	\$53.1
2-1-2. State Prevention Expenditure per Estimated Person with HIV									\$339	\$416	\$429	\$420	\$402	\$366	\$319	\$351

2-2. Interventions: Availability and Utilization

2-2-1. Adults Ages 18+ Who Tested for HIV in the Past Year (BRFSS)									37.2%	33.6%	31.8%					
2-2-2. Number of HIV Tests in the Counseling and Testing (C&T) Program (x1000)	194.7	261.5	339.7	285.0	245.0	247.2	258.6	207.9	207.1	202.9	205.8	194.2	191.9	197.3		

2-3. Interventions: Timeliness and Continuity

2-3-1. Percent Who Did Not Learn HIV Test Results in C&T Program (Case-Mix Adjusted)									23.0%	24.3%	25.6%	24.5%	24.2%	24.5%		
2-3-2. Percent of HIV+ Who Did Not Learn HIV Test Results in C&T Program (Case-Mix Adjusted)									41.2%	41.8%	40.7%	29.5%	30.2%	31.1%		
2-3-3. AIDS Cases Where Earliest HIV+ Test <= 6 Months Prior to AIDS Diagnosis (x1000)	1.9	2.4	3.4	3.8	4.1	4.0	3.7	3.3	3.0	2.9	2.5	2.5	2.4	2.0		
2-3-4. C&T Clients Referred by Outreach Projects									7.9%	12.5%	12.3%	9.8%	11.0%	9.9%		
2-3-5. Estimated Untreated HIV Positive Childbearing Women per 1000 Live Births								0.13								

3-1. Risk-Taking and Protective Behaviors: Intentions

3-1-1. MSM Intent to Use Condoms for Anal Sex in a San Francisco Street Survey (Stop AIDS) ¹														93.3%	84.8%	
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3-2. Risk-Taking and Protective Behaviors: High Risk Sex

3-2-1. C&T Clients with More Than Five Sex Partners (Case-Mix Adjusted) ²						10.3%	10.5%	13.6%	12.8%	12.9%	13.2%	20.5%	22.6%	24.1%		
3-2-2. C&T Clients with HIV+ Sex Partners (Past 2 Years - Case-Mix Adjusted)						7.6%	7.6%	8.4%	6.7%	6.3%	5.8%	5.3%	5.1%	5.1%		
3-2-3. Adults Ages 18+ Who Had Casual Sex in Last Year and Didn't Use Condom (AIDS KABB)											4.9%					
3-2-4. Any Unprotected among MSM Reporting Anal Intercourse (Past 6 Months - Stop AIDS)					30.0%	31.2%	34.4%	41.6%	44.5%	48.2%	50.7%	51.4%	47.4%	67.0%		
3-2-5. Any Unprotected as % of C&T Clients Reporting Receptive Anal Intercourse (Past 2 Years - Case-Mix Adjusted)						60.2%	57.7%	62.4%	62.1%	64.6%	65.0%	65.5%	66.3%	66.0%		

3-3. Risk-Taking and Protective Behaviors: Needle Sharing

3-3-1. C&T Injection Drug Users Who Shared Needles (Past 2 Years)						72.8%	71.7%	72.1%	70.8%	68.6%	70.7%	70.3%	69.1%	66.5%		
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4-1. Disease Impacts: New Infections

4-1-1. New HIV Infections Reported to No-Names HIV Database														5,079	4,735	
4-1-2. HIV Cases Detected in C&T Program (x1000)	7.7	4.9	4.5	3.4	2.9	2.6	2.8	2.2	2.2	2.0	1.9	2.1	2.0	2.4		
4-1-3. HIV Cases Detected by C&T Program per Estimated 1,000 Persons with HIV									20.5	17.6	15.8	16.4	14.5	16.8		
4-1-4. New HIV Cases per 100 Person-Years at Risk (C&T Program - Case-Mix Adjusted)									0.72	0.75	0.72	0.87	0.82	0.87		
4-1-5. Primary and Secondary Syphilis Rate per 100,000 Population	15.0	8.5	4.8	3.2	2.4	1.8	1.6	1.2	1.0	0.8	1.0	1.6	3.0	3.6	3.7	
4-1-6. HIV Positive as Percent of Primary and Secondary Syphilis Cases									33.9%	53.1%	61.8%	56.9%	52.8%			

4-2. Disease Impacts: AIDS

4-2-1. Number Diagnosed with AIDS (x1000)	9.0	11.0	12.2	11.7	10.2	9.5	7.5	5.9	5.1	4.8	4.4	4.3	4.5	4.0	3.3	
4-2-2. Number Living with AIDS (x1000)	15.3	19.6	24.6	28.8	31.0	33.0	35.4	38.8	41.7	44.4	47.0	49.5	52.4	55.1	57.2	
4-2-2. Deaths of Persons with AIDS from Any Cause (x1000)	6.0	6.6	7.2	7.5	7.9	7.5	5.1	2.6	2.2	2.0	1.8	1.9	1.6	1.3	1.3	

4-3. Disease Impacts: Cost of Care

4-3-1. AIDS Drug Assistance Program Expenditures for Drugs (millions)											\$145.1	\$167.2	\$189.0	\$219.0	\$247.3	\$269.7
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Note 1. Among MSM with 2+ partners and who practiced anal intercourse in past six months.

Note 2. Over past 12 months for years 1991-2000. Starting 2001, over the shorter of past two years or since last HIV test.