



California HIV Prevention Indicators

3rd Edition

A Collaborative Effort of the:

Universitywide AIDS Research Program
University of California Office of the President
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and the

HIV Prevention Research and Evaluation Section
Office of AIDS, California Department of Health Services
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Forward

The California HIV Prevention Indicators Synthesis Project is a collaborative effort of the California State Office of AIDS in the California Department of Health Services and the Universitywide AIDS Research Program in the University of California's Office of the President. Our purposes are to develop indicators for monitoring and assessing progress toward HIV prevention in California, and to compile and report on the associated data.

Among the initial research steps was an inventory and assessment of extant data resources. Findings from that assessment were reviewed by three technical advisory groups. Representation on the technical advisory groups included national and California researchers, staff from state and local health departments, and representatives of community based organizations. Comments from the technical advisory groups and their statements regarding priorities were further reviewed by a core advisory group, which continues to guide the project.

Background. An indicator is some quantity or factor that can be stated in quantitative or logical terms and that measures one aspect of a phenomenon.¹ Indicator-based reporting systems consist of direct and indirect information, usually from different sources, about structures, processes and outcomes of systems affecting health.² Health status indicators are measures of the wellness of the population. Health system indicators measure the functioning of the health delivery system.³ Just as indicators in the dashboard of an automobile – speed, distance, water temperature, oil pressure, and battery charge – provide information about the operation of a complex machine, health indicators provide key pieces of information about systems affecting health.

Health indicators have their origins in communicable disease surveillance and the tracking of vital data.⁴ In the years after World War II, the World Health Organization began publishing International Health Yearbooks, a series that included not only basic health data, but also information on health care.⁵ Ideas about health indicators further broadened in response to the social indicators movement of the 1960s,⁶ and the health planning movement of the 1970s.⁷ In the U.S., health indicators are employed to monitor progress toward achievement of national objectives for health promotion and disease prevention.⁸

In applying health indicators to the problem of monitoring national AIDS programs, the United Nations set forth a series of indicators built around four core concepts:

- Monitoring of program context and effort;
- Monitoring of knowledge, attitudes and sexual behavior;
- Monitoring of the availability and quality of health and other services; and
- Monitoring HIV, AIDS and STIs.⁹

Note that the four components reflect aspects of health policy, populations, health services, and disease outcomes.

¹ Palmer B. 1972. *An Advanced Health Planning System*. Springfield VA: National Technical Information Service.

² Blum HL, Stein SL. 1981. Assessment: measurement of where we are, where we are likely to be, and where we want to be. In: Blum HL. *Planning for Health: Generics for the Eighties*. New York: Human Sciences Press, pp 88-133.

³ Hyman HH. 1975. *Health Planning: A Systematic Approach*. Germantown MD: Aspen Systems Corp, p 67.

⁴ Larson JS. 1991. *The Measurement of Health: Concepts and Indicators*. New York: Greenwood Press, p 11.

⁵ Gear HS, Biraud Y, Swaroop S. 1961. *International Work in Health Statistics: 1948-1958*. Geneva: WHO.

⁶ See, for example: Bauer RA (ed). 1966. *Social Indicators*. Cambridge MA: MIT Press.

⁷ See, for example: Schwefel D (ed). 1987. *Indicators and Trends in Health and Health Care*. Berlin: Springer-Verlag.

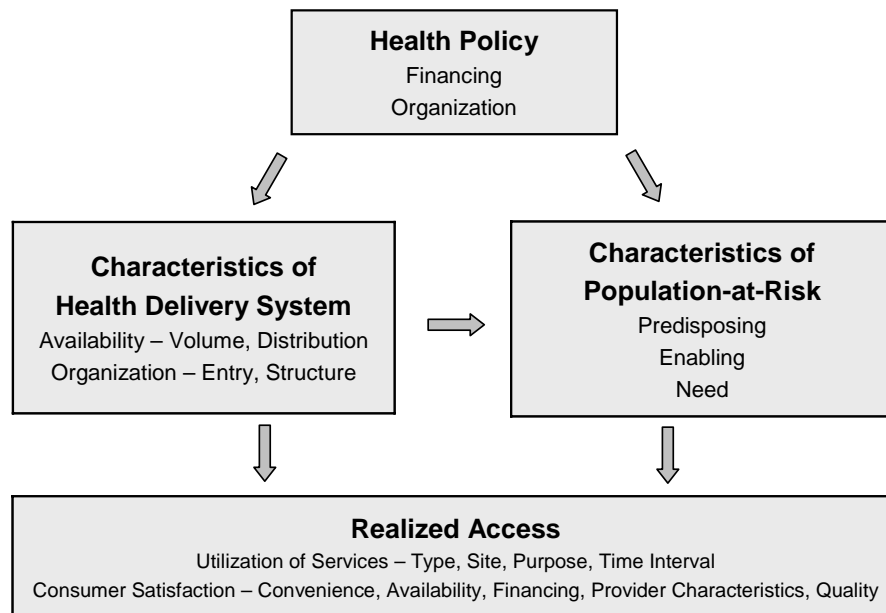
⁸ See, for example: U.S. Public Health Service. 1991. *Healthy People: National Health Promotion and Disease Prevention Objectives*. DHHS Pub No PHS 91-50212. Wash DC: U.S. Govt. Printing Office.

⁹ Joint United Nations Programme on HIV/AIDS. 2000. *National AIDS Programmes: A Guide to Monitoring and Evaluation*. Geneva: UNAIDS.

In the U.S., the Centers for Disease Control has worked on a system of HIV prevention Indicators. The approach organized indicators around four themes or domains (biological, behavioral, service, and sociopolitical) as applied to each of four target populations (high-risk heterosexuals, injection drug users, men who have sex with men, and childbearing women).¹⁰

Framework. In developing HIV prevention indicators for California, we wanted to organize our work to reflect those concepts employed by the UN and the CDC, and we wanted to employ a framework that can be easily understood and intuitively accepted as summarizing the complex relationships between people and preventive health systems. As a starting point, we looked to a Framework for Study of Access to Medical Care.¹¹ A simplified expression of the framework (Figure 1) has four components: Health Policy, Characteristics of the Health Delivery System, Characteristics of the Population-at-Risk, and Realized Access.

Figure 1
Framework for Study of Access to Medical Care



Adapted from: Aday LA, Andersen R, Fleming GV. 1980. *Health Care in the U.S.: Equitable for Whom*. Beverly Hills: Sage, p 35.

The framework starts with *Health Policy* because the interest of health planners and policy makers is fundamentally one of applying health policy to the problem of altering access to care. The two principal health policy considerations are financing and organization of health services. *Potential Access* to care is described by *Characteristics of the Health Delivery System* and *Characteristics of the Population-at-Risk*. The health delivery system is described by availability of resources and their organization, and associated considerations can include volume, distribution, entry, and structural characteristics. The population-at-risk can be described in terms of a wide variety of characteristics that are categorized as either

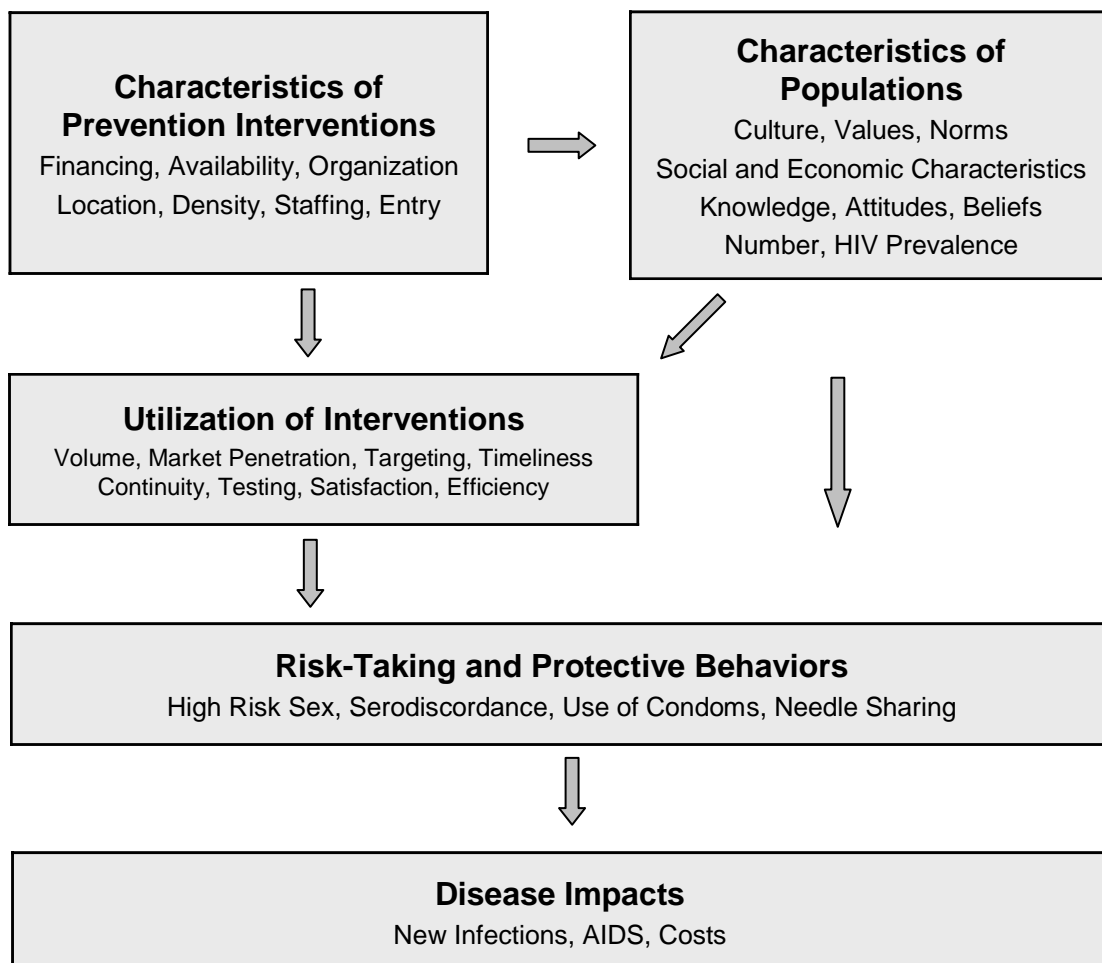
¹⁰ Rugg DL, Heitgerd JL, Cotton DA, et al. 2000. CDC HIV prevention indicators: monitoring and evaluating HIV prevention in the USA. *AIDS* 14:2003-13.

¹¹ Aday LA, Andersen R, Fleming GV. 1980. *Health Care in the U.S.: Equitable for Whom*. Beverly Hills: Sage, pp 25-45.

predisposing, enabling or need characteristics. Predisposing characteristics include variables that describe the propensity of individuals to use services. The enabling component refers to the means people have that support use of services. Enabling characteristics might include availability of health insurance and transportation. *Realized Access* may be divided into indicators of utilization and evaluations of the care received. Indicators might reflect such concerns as frequency of use, convenience or quality of care.

We adapted the access framework to the problem of measuring HIV prevention (Figure 2). For simplification, we considered that aspects of policy can be included with *Characteristics of Interventions*. Also, we considered that, in the field of HIV prevention, an underlying purpose of prevention interventions is to modify behaviors. So we added a box *Risk-Taking and Protective Behaviors* to the diagram to show that behaviors might stem from interaction of populations with any of a range of interventions, or behaviors might flow directly from population characteristics. Behaviors of greatest interest are high risk sexual activity and the sharing of needles among injection drug users. One more box *Disease Impacts* was added to reflect the consequences of risk-taking and protective behaviors. Thus, the addition of two boxes modifies the framework to consider the intended behavioral and health consequences of prevention interventions.

Figure 2
Framework for HIV Prevention Indicators



A second type of modification considers the contents of the individual boxes. We felt it important to adjust the contents to reflect issues of prevention, as opposed to the more curative issues of medical care. For example, the label *Characteristics of the Health Delivery System* was changed to *Characteristics of Prevention Interventions* and, in this context, interventions may include a broad range of activities such as social marketing as well the more conventional HIV prevention services. Similarly, the concepts included under *Characteristics of Populations* were broadened to reflect collective characteristics such as social norms in additions to concepts which simply reflect the aggregates of individual characteristics. The concept of HIV prevalence was added to the box describing population characteristics. Prevalence is viewed as representing a potential for HIV transmission and, consequently, prevalence describes need for prevention interventions.

It is important to maintain a clear distinction between behaviors that define a population and behaviors that are viewed as risk-taking or protective. For example, *men who have sex with men* (MSM) is a concept that can define a potentially high risk population. Thus, the concept is properly entered under characteristics of populations. *Risk-taking and protective behaviors*, on the other hand, reflect specific sex practices that are conducive to the spread of HIV infection. Similarly, *injection drug use* (IDU) is viewed as defining a high risk population, but *needle sharing* is viewed as risk-taking behavior.

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Indicator 1-1-1: Number of Gay and Bisexual Men

Category: Populations

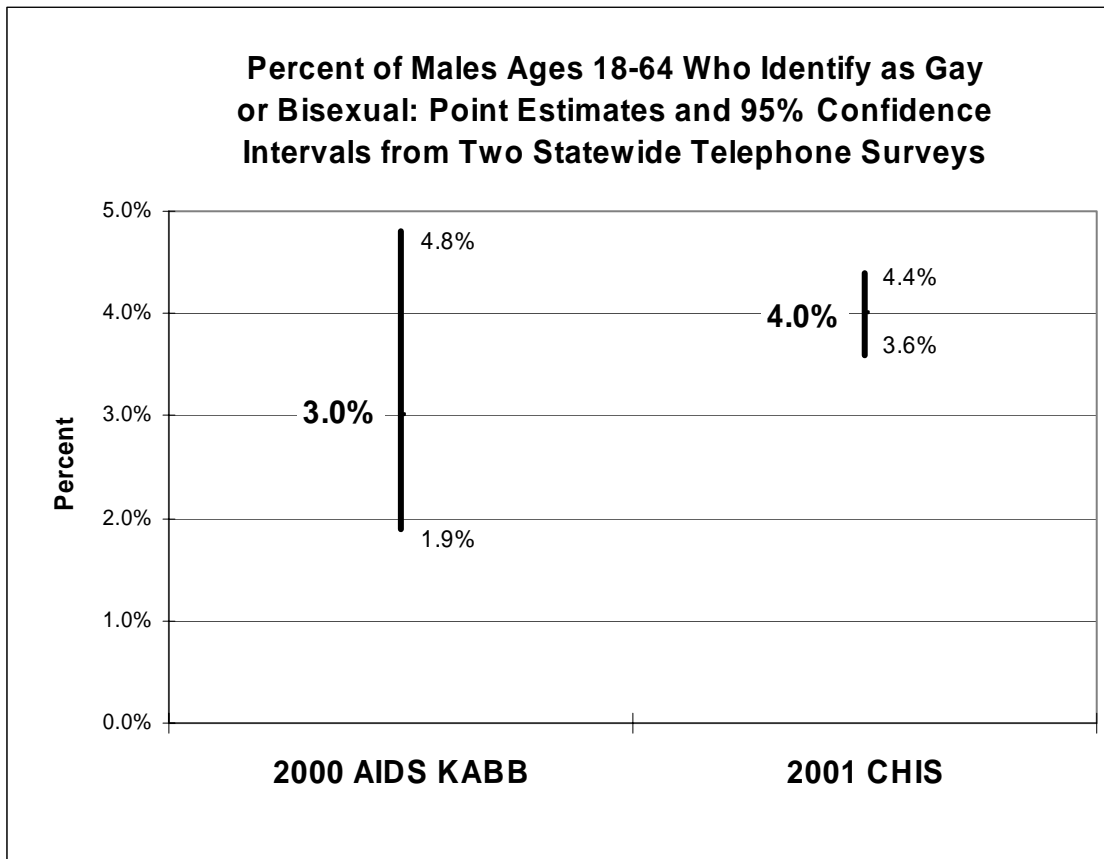
Domain: Numbers in High Risk Groups

Question: Men Who Have Sex with Men: How many are there?

Why it's important: In California, men who have sex with men (MSM) have been at high risk for HIV infection since the inception of the epidemic.

How it's measured: Adult males under age 65 were asked "Are you gay or bisexual?" in two statewide telephone sample surveys.

Findings: The respective surveys found that 3.0% and 4.0% of adult males responded that they are gay or bisexual. The 95% confidence intervals ranged from 1.9% to 4.4%. Using figures from the AIDS KABB survey, the number of gay or bisexual adult males might range between 203,000 and 513,000 in the year 2000. Data from the CHIS for 2001 suggest a figure between 385,000-470,000.



Strengths/Limitations: Telephone surveys have a number of limitations, particularly in connection with sensitive questions. Also, the questions asked for self-identification as a member of a group, not about sexual behavior.

Sources: (1) AIDS KABB - Moskowitz JM, Personal communication, 7-8-04. Data from the *California 2000 HIV/AIDS Knowledge, Attitudes, Beliefs, and Behaviors (KABB) Survey*. (2) CHIS - Analysis of 2001 California Health Interview Survey by UCLA Center for Health Policy Research.

Acknowledgment: Nadereh Pourat

Indicator 1-1-2: Number of Injection Drug Users

Category: Populations

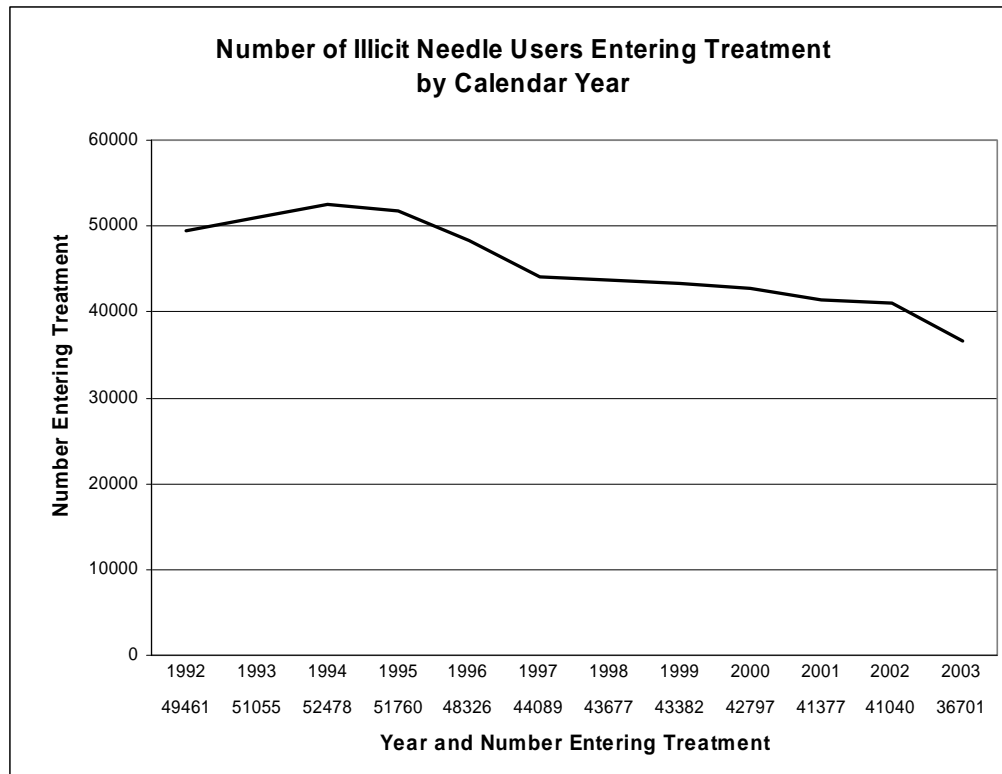
Domain: Numbers in High Risk Groups

Question: Injection Drug Users: How many are there?

Why it's important: Injection drug users (IDU) are at high risk for HIV infection.

How it's measured: Number of persons having a history in the past 12 months of illicit needle use who entered treatment at publicly funded or licensed alcohol or drug treatment programs.

Findings: The number of IDU entering treatment declined from 49,400 in 1992 to 36,700 in 2003.



Strengths/Limitations: The measure does not satisfy. The numbers omit IDU who do not enter treatment during the year, and counts of those who enter treatment may reflect availability of services and propensity to enter treatment.

Additional measures: As a percent of all persons entering treatment, IDU declined from 40% in 1992 to 22.4% in 2003. The HIV Counseling and Testing Program reports that 16,200 HIV tests (6.6% of all tests) were provided to IDU in 1995, a figure that climbed to 22,100 (11.2%) in 2003. The AIDS KABB statewide telephone survey yielded an estimate that 0.8% (95% CI: 0.3%-1.2%) of adults reported non-prescription injection drug use in the past 12 months, an estimate that suggests about 200,000 IDU in California. This figure is well below an expert consensus estimate of 300,000.

Sources: (1) California Alcohol and Drug Data System (CADDs), California Department of Alcohol and Drug Programs. (2) Counseling and Testing Program Data, Office of AIDS, California Department of Health Services. (3) Moskowitz JM, Henneman TA, Young Holt B. *California 2000 HIV/AIDS Knowledge, Attitudes, Beliefs, and Behaviors (KABB) Survey: Methods and Results*. Berkeley, CA: University of California, Berkeley, 2002. pp 65-66. (4) Facer M, Ritieni A, Marino J, Grasso P, Social Light Consulting Group. 2001. *Consensus Meeting on HIV/AIDS: Incidence and Prevalence in California*. Office of AIDS, California Department of Health Services, p 16.

Acknowledgment: Sally Jew

Indicator 1-1-3: Number of Non-Injection Methamphetamine, Cocaine and Crack Users

Category: Populations

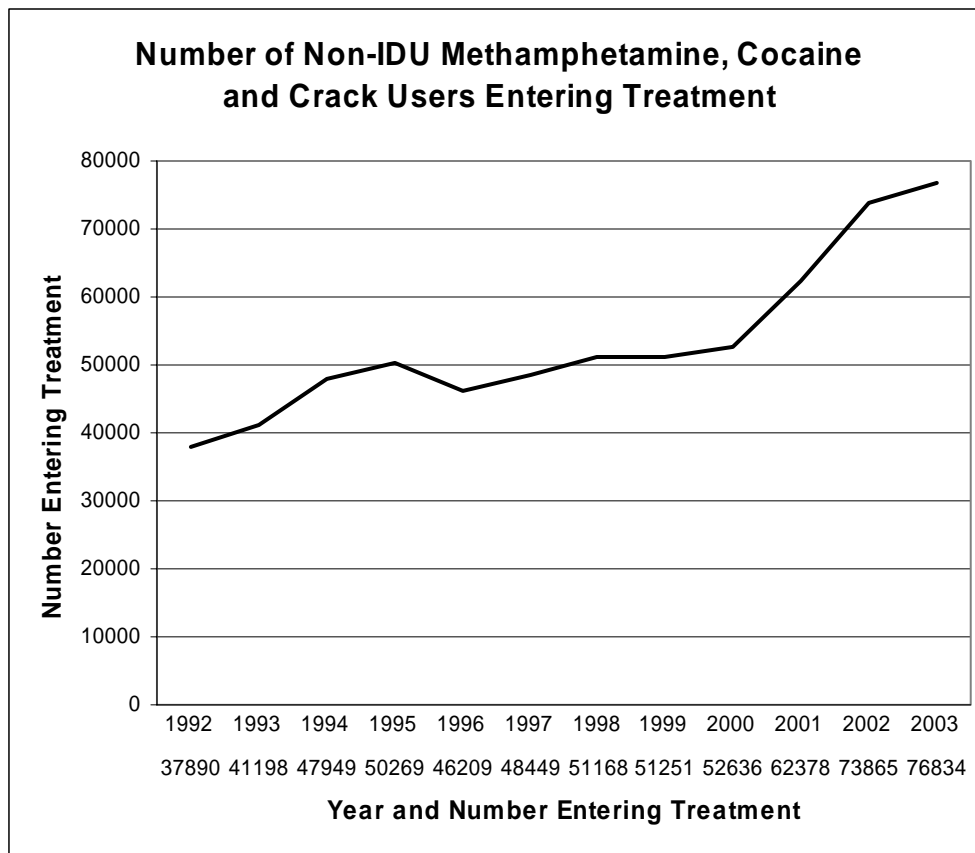
Domain: Numbers in High Risk Groups

Question: Non-Injection Methamphetamine and Crack Users: How many are there?

Why it's important: Methamphetamine, cocaine and crack users are at high risk for HIV infection.

How it's measured: Number of persons having a history in the past 12 months of using methamphetamines, cocaine or crack, but no illicit needle use, who entered treatment at publicly funded or licensed alcohol or drug treatment programs.

Findings: The number of non-IDU methamphetamine, cocaine or crack users entering treatment increased from 37,900 in 1992 to 76,800 in 2003.



Strengths/Limitations: The numbers omit users who do not enter treatment during the year, and counts of those who enter treatment may reflect availability of services and propensity to enter treatment. Nevertheless, the increased counts over time are interesting when compared with data on declining counts of IDU entering treatment over the same time period.

Additional measures: As a percent of all persons entering treatment, non-IDU methamphetamine, cocaine and crack users increased from 31% in 1992 to 47% in 2003. The HIV Counseling and Testing Program reports that 27,500 HIV tests (13.3% of all tests) were provided to non-IDU amphetamine and crack users in 1998, a figure that climbed to 29,000 (14.7%) in 2003.

Sources: (1) California Alcohol and Drug Data System (CADDSS), California Department of Alcohol and Drug Programs. (2) Counseling and Testing Program Data, Office of AIDS, California Department of Health Services.

Acknowledgment: Sally Jew

Indicator 1-1-4: Number of Persons in State Prisons and Local Jails

Category: Populations

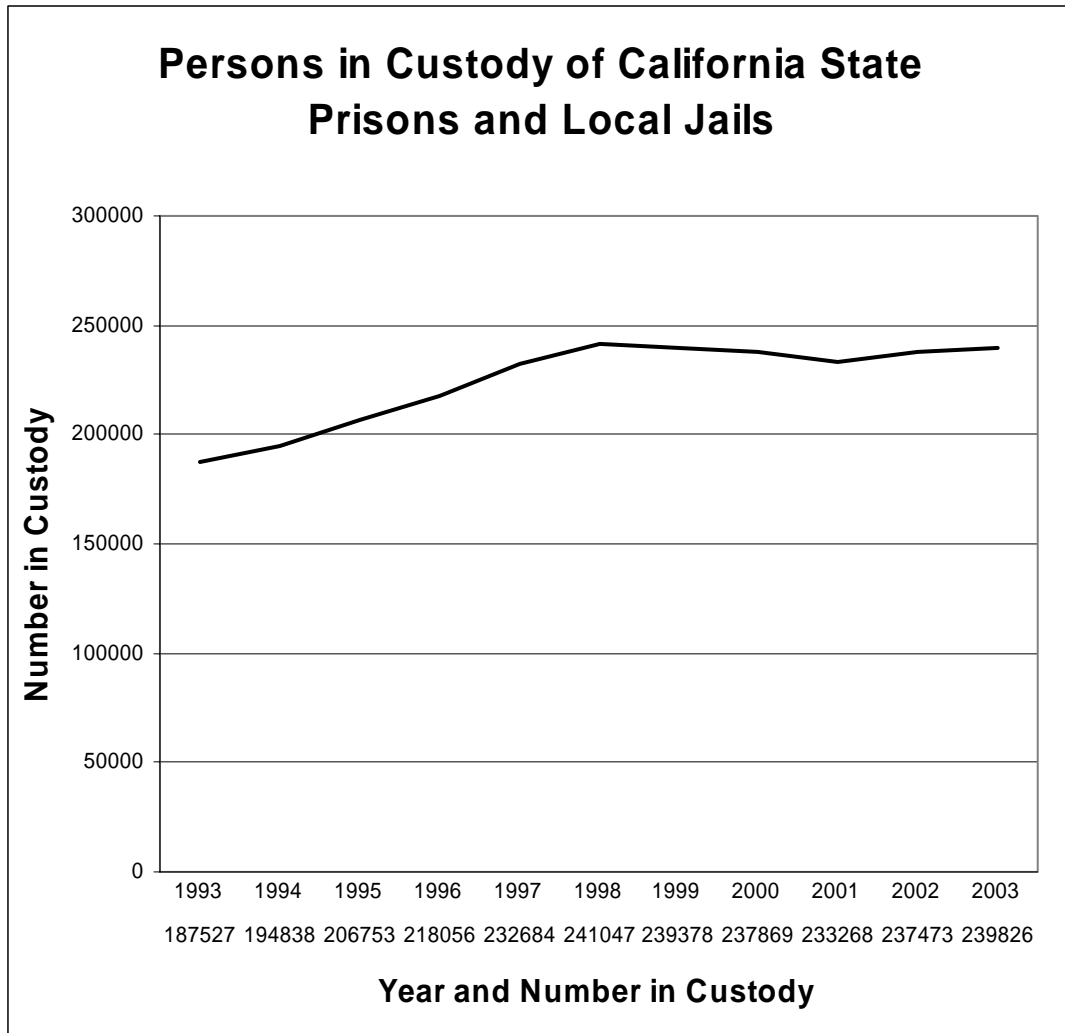
Domain: Numbers in High Risk Groups

Question: Incarcerated Persons: How many are there?

Why it's important: Incarcerated populations are at high risk for HIV infection.

How it's measured: Number of persons in custody of California state prisons at end of year plus average daily population in local jails.

Findings: In 1993, there were 188,000 individuals in custody. By 2003, the count increased to 240,000. In that year, of 164,500 persons in state prisons, all but 10,700 were male.



Strengths/Limitations: Some individuals may be double-counted if they are state prisoners housed in local jails.

Sources: (1) Data compiled from Bureau of Justice Statistics publications of the U.S. Department of Justice, Office of Justice Programs. (2) California Board of Corrections, Jail Profile Survey Reports.

Indicator 1-2-1: Estimated California Population Infected with HIV

Category: Populations

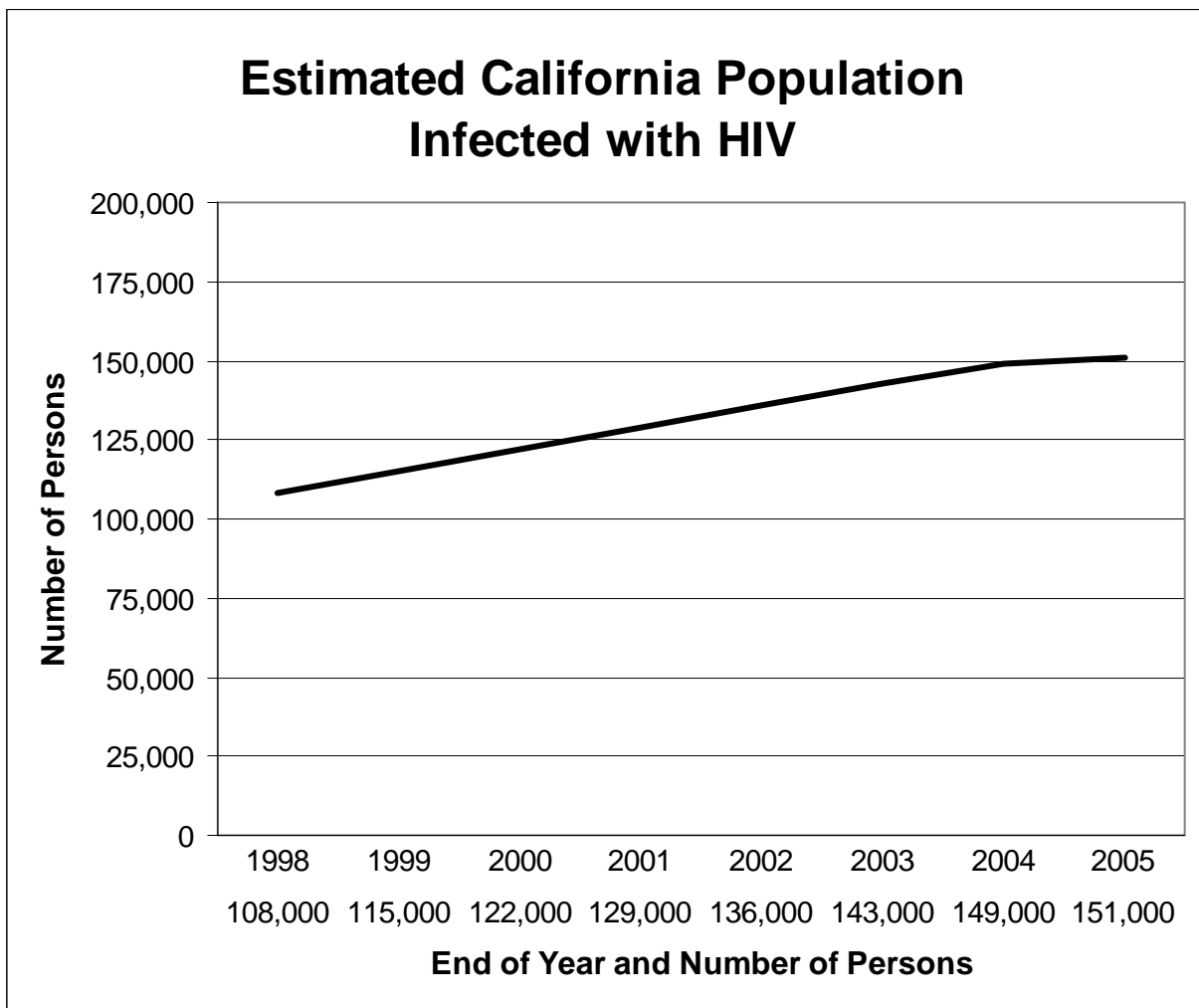
Domain: Prevalence of HIV Infection

Question: How many persons in California are infected with HIV?

Why it's important: The extent to which HIV is present in the community represents increased potential for new infections.

How it's measured: Models developed by the CDC placed the total number infected nationally at 1.0 to 1.2 million persons. On the basis of current and previous national models, UARP staff estimate that the total number of persons in California with HIV is about 2.6 times the number with AIDS. Conversations with CDC staff verify that the estimate is reasonable and perhaps even conservative. However, there is a possibility of a 5%-10% error in the estimate.

Findings: Over the past seven years, the number of persons in California who are infected with HIV has increased from about 108,000 to more than 150,000. On the basis of national estimates, we estimate that about 25% do not know they are infected.



Source: (1) Derived from: Glynn M, Rhodes P. Estimated HIV prevalence in the United States at the end of 2003. National HIV Prevention Conference; June 2005; Atlanta. Abstract 595. See also:

<http://www.cdc.gov/hiv/stats.htm>

Acknowledgment: M Glynn

Indicator 1-2-2: HIV Prevalence among Adults in a Statewide Telephone Survey

Category: Populations

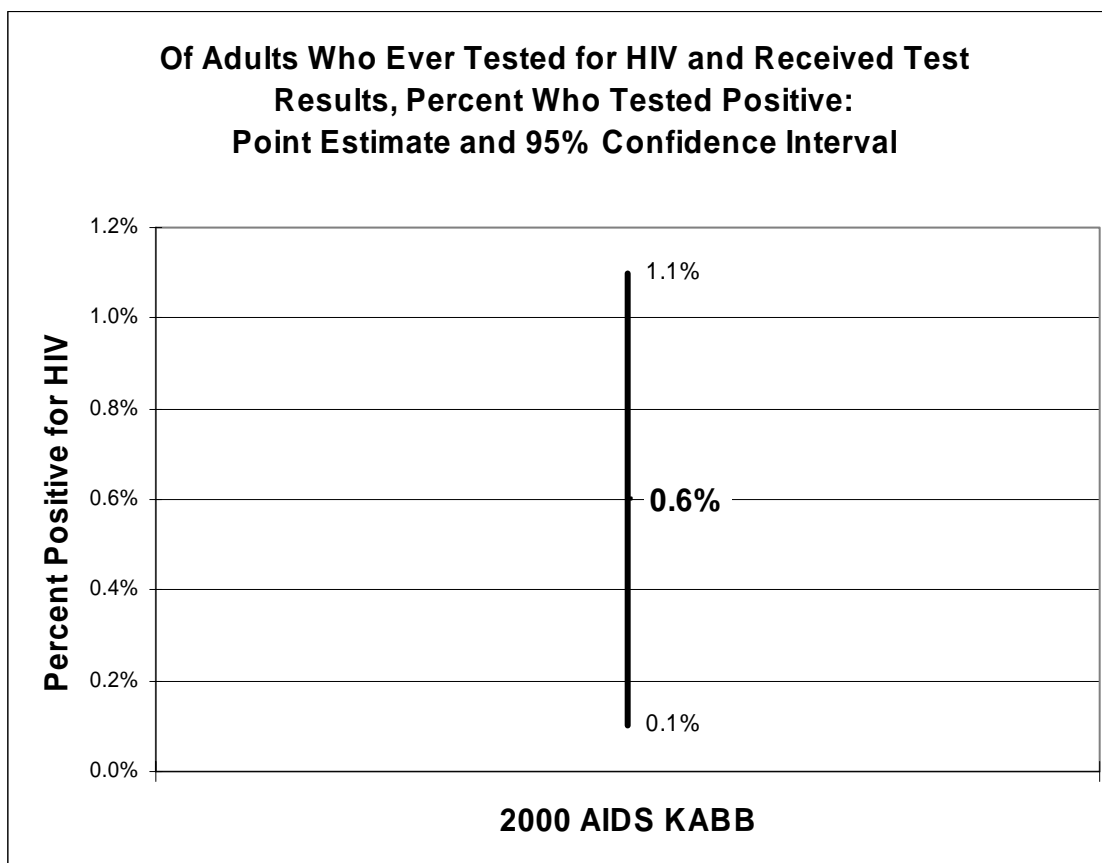
Domain: Prevalence of HIV Infection

Question: How many adults are infected with HIV?

Why it's important: The extent to which HIV is present in the community represents increased potential for new infections.

How it's measured: Respondents in a statewide telephone survey who indicated that they had ever tested for HIV and received test results were then asked about the results of the test.

Findings: An estimated 0.6% of adults ages 18 and older responded that they tested positive. The 95% confidence interval ranged from 0.1% to 1.1%, suggesting that the number of persons with HIV infection might be about 150,000 with a range from 25,000 to 274,000.



Strengths/Limitations: The AIDS KABB is the only statewide sample survey that sheds light on HIV prevalence. However, telephone surveys have a number of limitations, particularly in connection with sensitive questions. Findings are limited by the very broad confidence interval.

Additional measure: Expert consensus estimates place the total number of persons with HIV between 94,300 and 130,500 in 1997.

Source: (1) Moskowitz JM, Henneman TA, Young Holt B. *California 2000 HIV/AIDS Knowledge, Attitudes, Beliefs, and Behaviors (KABB) Survey: Methods and Results*. Berkeley, CA: University of California, Berkeley, 2002. p 85. (2) Facer M, Ritieni A, Marino J, Grasso P, Social Light Consulting Group. 2001. *Consensus Meeting on HIV/AIDS: Incidence and Prevalence in California*. Office of AIDS, California Department of Health Services, p 5.

Indicator 1-2-3: HIV Prevalence among MSM Respondents in a San Francisco Street Survey

Category: Populations

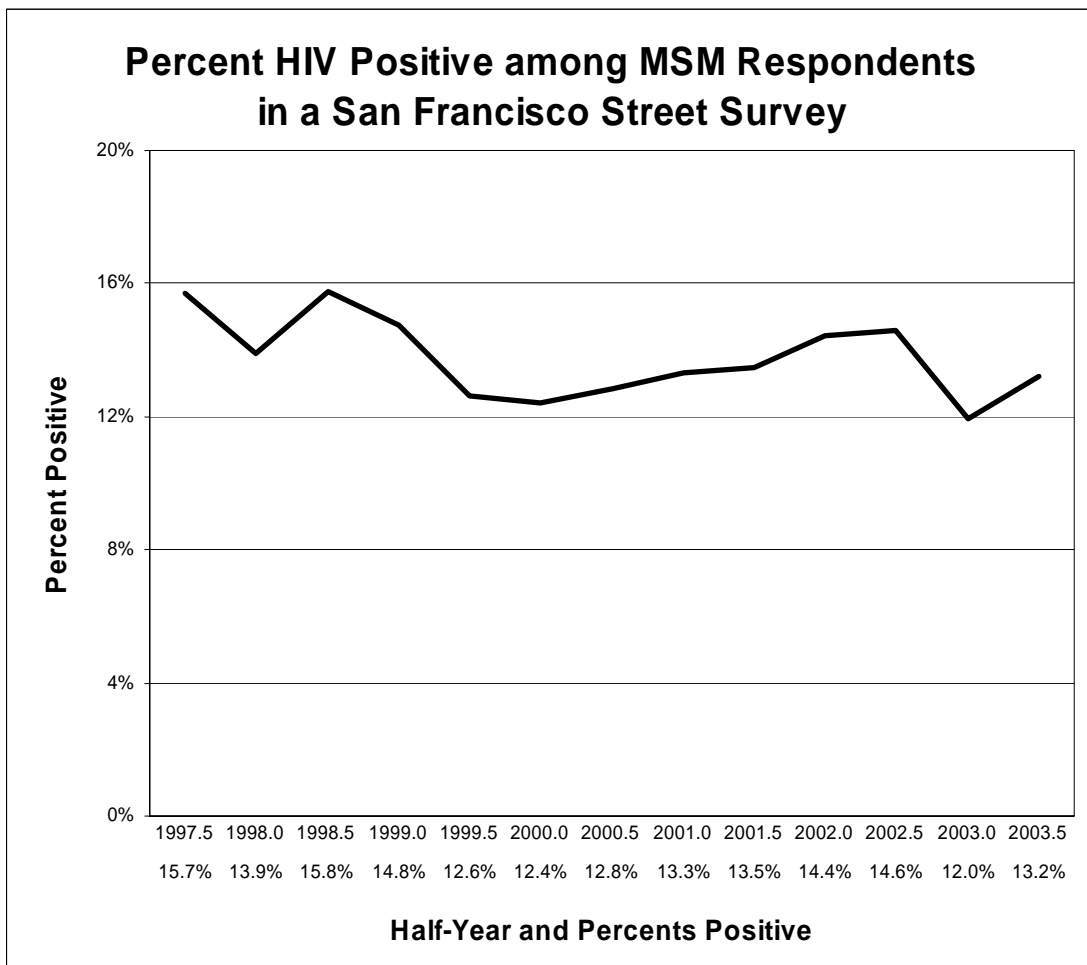
Domain: Prevalence of HIV Infection

Question: How common is HIV infection among MSM populations?

Why it's important: The extent to which HIV is present in the community represents increased potential for new infections.

How it's measured: Persons who indicate they are HIV positive as a proportion of those who indicate HIV status in an ongoing street survey in San Francisco. Analysis is limited to those who reported African American, Asian/Pacific, Hispanic/Latino or White Non-Hispanic race/ethnic status.

Findings: The percentage who stated that they were HIV positive has changed little since 1997, with perhaps a small downward trend.



Sample Size: Findings are based on 84-447 individuals who said they were HIV positive during any 6-month survey period.

Strengths/Limitations: The sampled method is based on a convenience of subjects. Findings are limited to persons who frequent survey locations, and the percentages cannot be interpreted as representing HIV prevalence within the MSM community.

Source: Stop AIDS Project, San Francisco

Acknowledgment: Roop Prabhu, San Francisco Department of Public Health

Indicator 1-2-4: HIV Prevalence among HIV Counseling and Testing Program Clients

Category: Populations

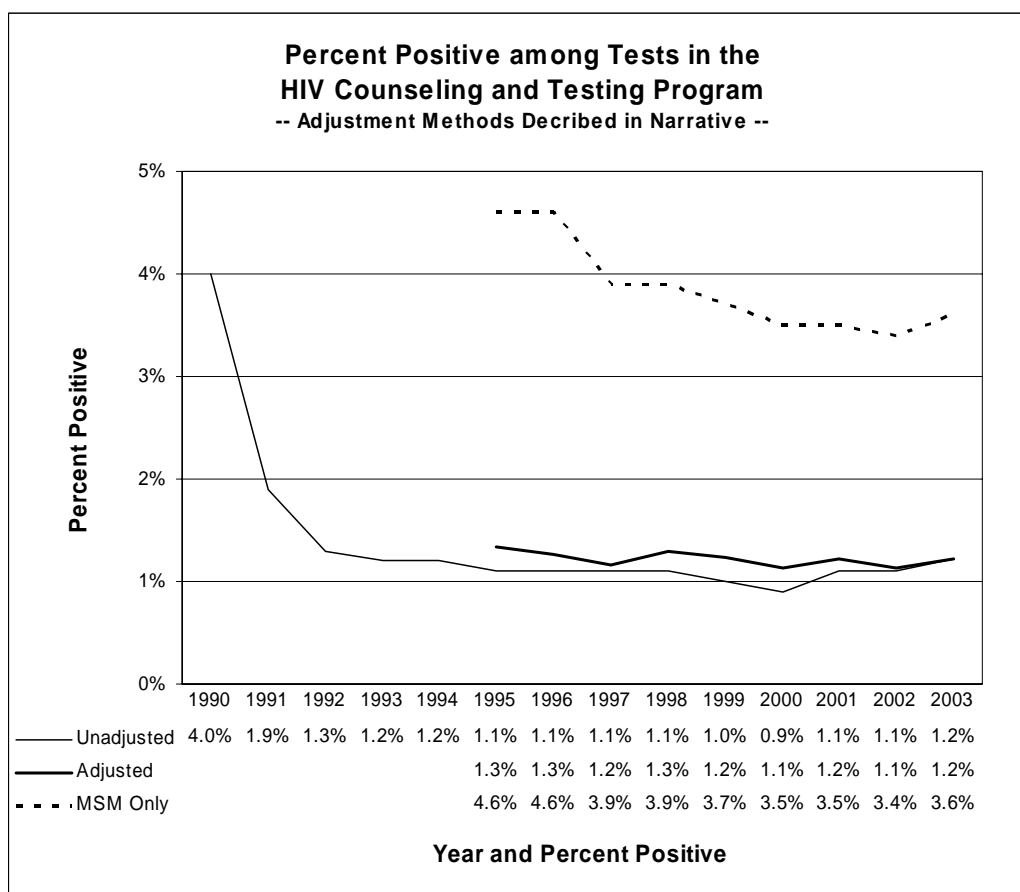
Domain: Prevalence of HIV Infection

Question: How common is HIV infection among testing populations?

Why it's important: The extent to which HIV is present in the community represents increased potential for new infections.

How it's measured: Positive HIV tests as a proportion of tests in the HIV Counseling and Testing Program. Analysis excludes repeated positive tests for the same individual. Data are adjusted for change in case mix over time by standardizing to the year 2003 client mix of 10 sub-populations tiered hierarchically on the basis of HIV risk (transgender, MSM who are IDU, etc).

Findings: The percentage of tests that were positive fell rapidly in the early 1990s, and declined more slowly up through the year 2000. Unadjusted data show a slight increase after that year. However, using the case mix adjusted data, there is no clear trend from 1995-2003. The percentages for MSM continue to decline with the possible exception of an increase in 2003.



Sample Size: The total number of tests was as high as 340,000 in 1992 and has declined to 197,000 in 2003. Tests of MSM increased from 29,000 in 1995 to 37,400 in 2003.

Strengths/Limitations: This indicator is useful for monitoring change in number of new infection, rather than for estimating the absolute number of new infections. Findings are limited to persons who make use of the program, and are influenced by availability of services and propensity to use them. These percentages cannot be interpreted as representing HIV prevalence within the community.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: Nancy Berman Lees, Christine Dahlgren, David Webb

Indicator 1-2-5: HIV Prevalence among MSM in the HIV Counseling and Testing Program Who Report Injecting Methamphetamines in the Past Two Years

Category: Populations

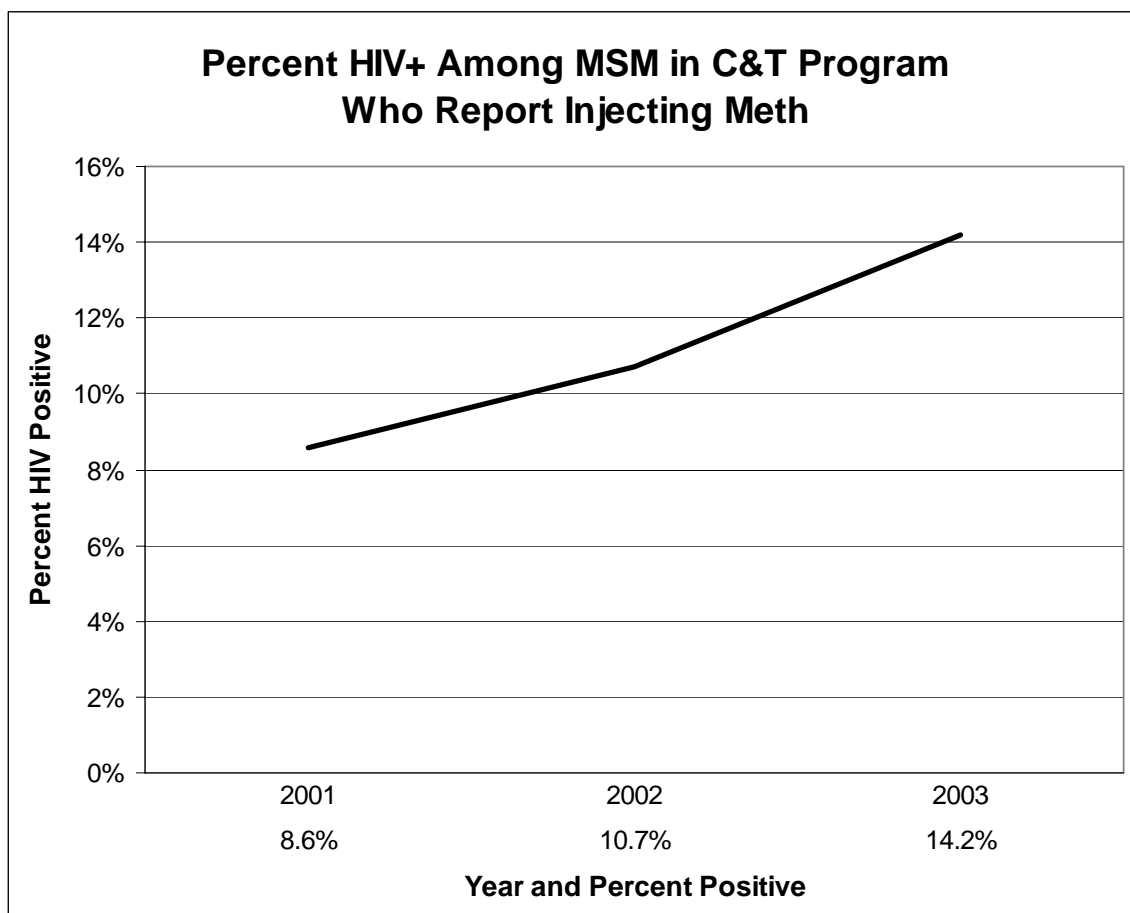
Domain: Prevalence of HIV Infection

Question: How common is HIV infection among MSM testing populations who report methamphetamine use?

Why it's important: The extent to which HIV is present in the community represents increased potential for new infections.

How it's measured: Positive HIV tests as a proportion of tests in the HIV Counseling and Testing Program of MSM who report injecting methamphetamines in the past two years. Analysis excludes repeated positive tests for the same individual.

Findings: The percentage of tests that were positive increased rapidly from 8.6% in 2001 to 14.2% in 2003.



Sample Size: The total number of tests for this groups increased from 712 in 2001 to 1,211 in 2003.

Strengths/Limitations: This indicator is useful for monitoring change in number of new infection, rather than for estimating the absolute number of new infections. Findings are limited to persons who make use of the program, and are influenced by availability of services and propensity to use them. These percentages cannot be interpreted as representing HIV prevalence within the community. Also, the rapid increase in the number who chose to test suggests that MSM who have used meth in the past may be now seeking treatment and HIV testing.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: David Webb

Indicator 1-2-6: HIV Prevalence in Sexually Transmitted Disease Clinics

Category: Populations

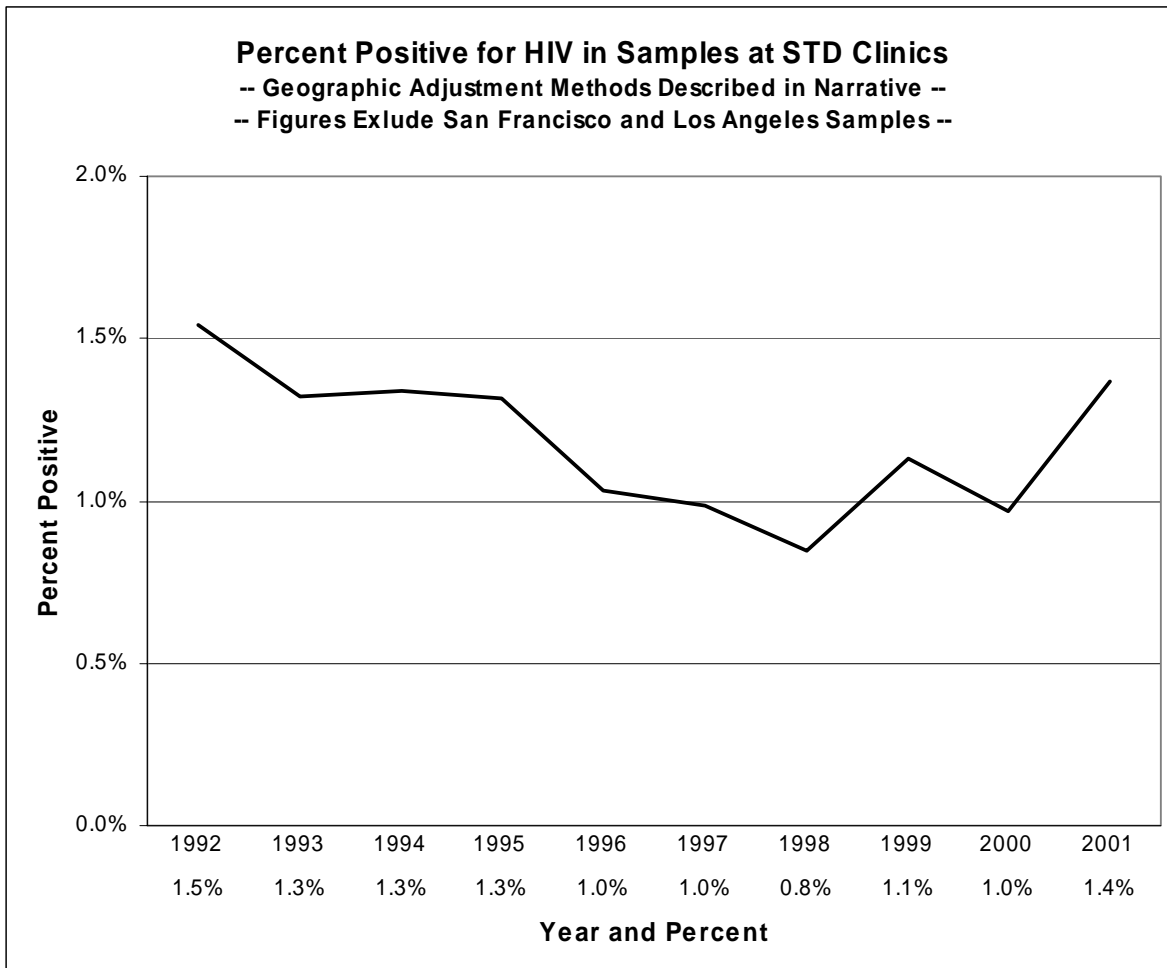
Domain: Prevalence of HIV Infection

Question: How common is HIV infection among sexually transmitted disease clinic users?

Why it's important: The extent to which HIV is present in the community represents increased potential for new infections.

How it's measured: HIV positive tests as a proportion of samples tested using specimens taken from sexually transmitted disease clinics at selected locations, excluding Los Angeles and San Francisco counties. Data are adjusted for change in the geographic distribution of samples across the state by standardizing to the geographic mix in 2001.

Findings: Adjusted data show a long term decline through 1998 and an increase through 2001.



Sample Size: The number of samples declined from 16,200 in 1992 to 4,300 in 2001.

Strengths/Limitations: This indicator is useful for monitoring change in number of new infection, rather than for estimating the absolute number of new infections. Findings are limited to locations sampled, and those locations tend to reflect communities where HIV infection is of greatest concern. Because the samples were drawn from persons testing for sexually transmitted diseases, findings cannot be generalized to the overall population.

Source: California HIV Seroprevalence Annual Reports. Office of AIDS, California Department of Health Services

Indicator 1-2-7: HIV Prevalence among Women in the Counseling and Testing Program

Category: Populations

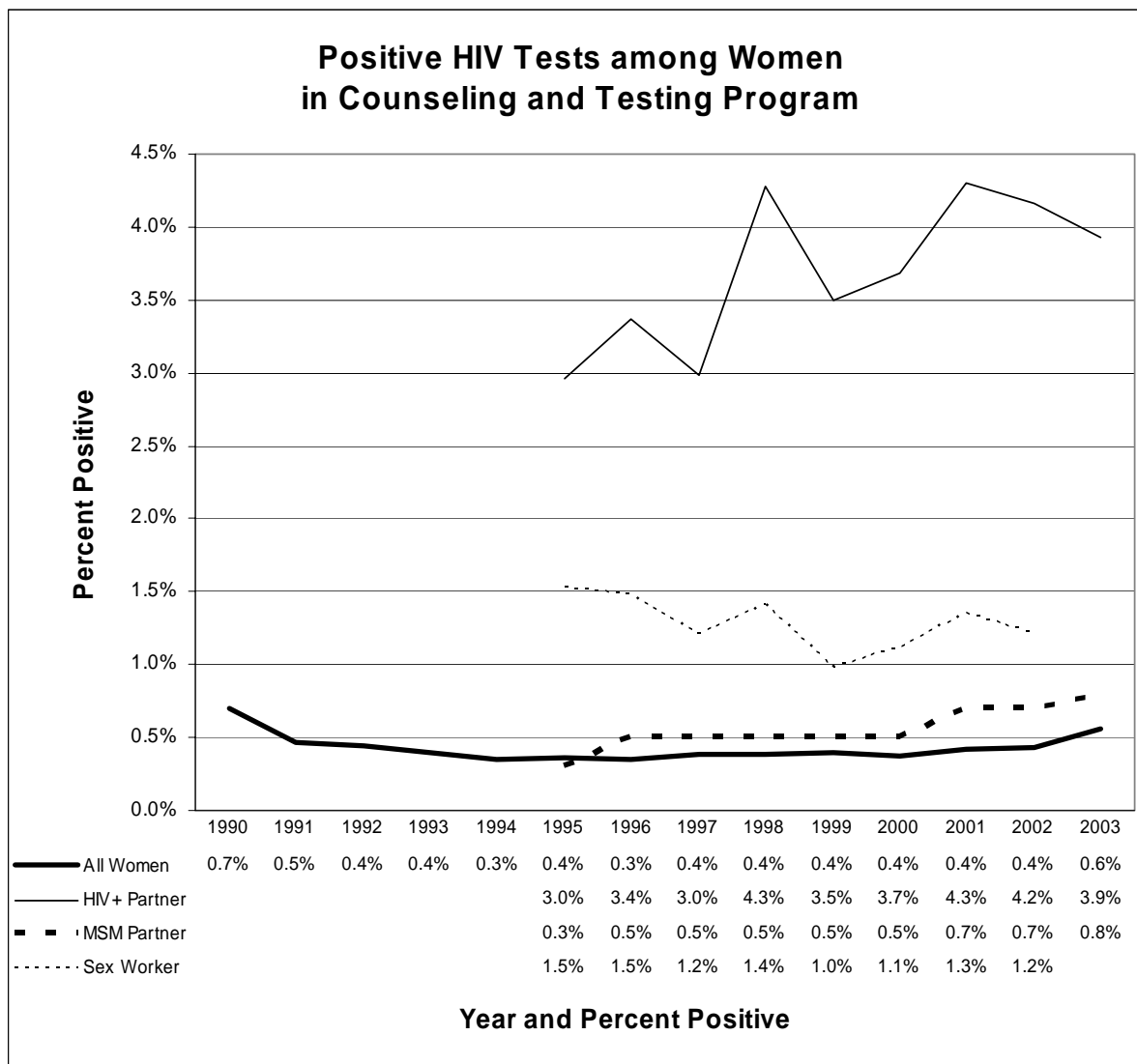
Domain: Prevalence of HIV Infection

Question: How common is HIV infection among women?

Why it's important: The extent to which HIV is present in the community represents increased potential for new infections.

How it's measured: Among women in the HIV Counseling and Testing Program, positive HIV tests as a proportion of tests. Analysis excludes repeated positive tests for the same individual.

Findings: From 1990 to 2003, the percentage of tests that were positive has been fairly level. Recent suggestions of an increase likely reflect improved outreach to high risk populations.



Sample Size: The annual number of positive HIV tests of women has ranged from 564 to 304.

Strengths/Limitations: This indicator is of limited utility without full adjustment for change in case-mix over time. Findings are limited to persons who make use of the program, and are influenced by availability of services and propensity to use them.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: Nancy Berman Lees, David Webb

Indicator 1-2-8: HIV Prevalence among Childbearing Women

Category: Populations

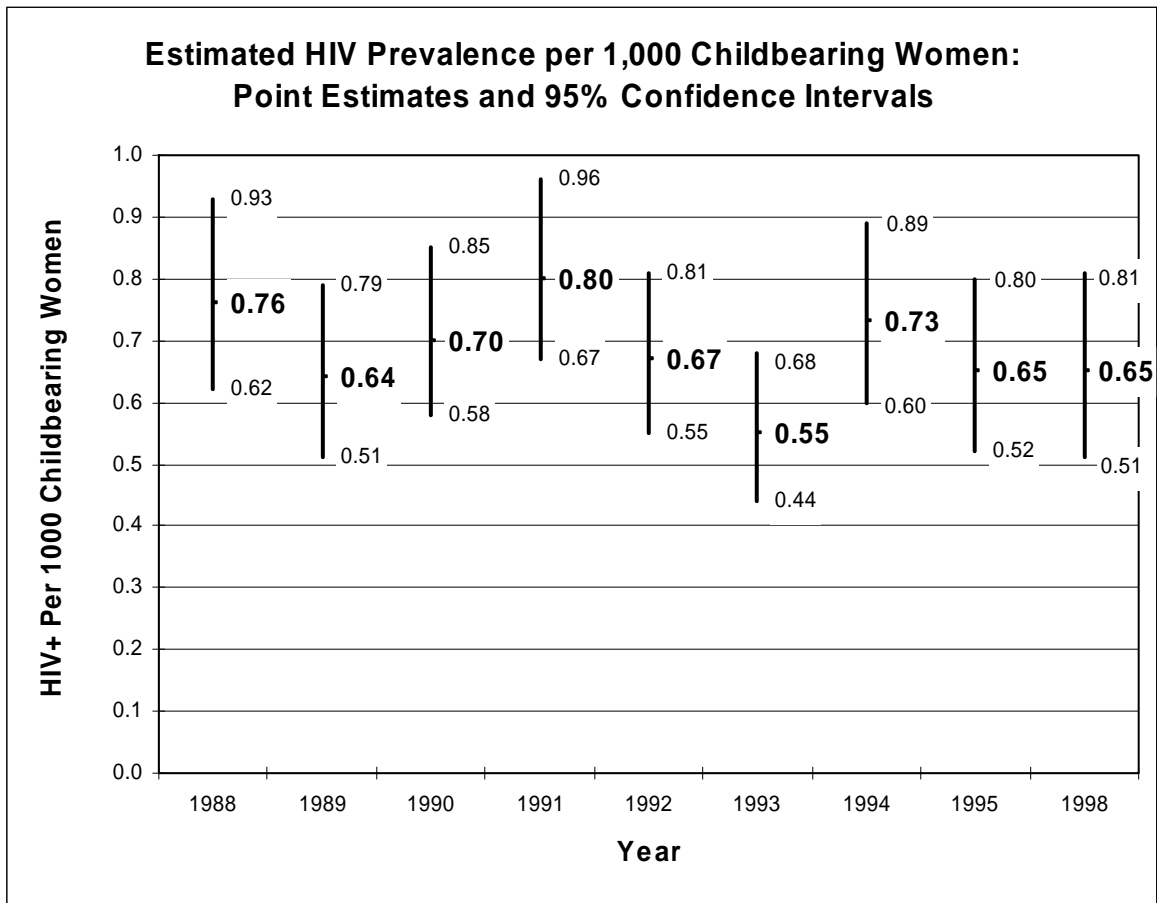
Domain: Prevalence of HIV Infection

Question: How many childbearing women are infected with HIV?

Why it's important: HIV among childbearing women represents potential for perinatal infection of newborns. Figures also inform about the extent to which women are infected.

How it's measured: About 25% of newborns to state residents were sampled for evidence of HIV exposure each year from 1988-1998, except that there was no testing in years 1996 and 1997.

Findings: Over the study years, estimated prevalence of HIV infection among childbearing women has fluctuated with a high of 0.80 per 1000 in 1991 and a low of 0.55 per 1000 in 1993, with no evidence of a trend. The estimated total number of infected childbearing women in any given year ranged from 322 to 488.



Strengths/Limitations: These are excellent data with minimal limitations.

Source: Zukowski D, Ruiz J. *California Childbearing Women: A Comparison of HIV Seroprevalence Data from the Third Quarters of 1992, 1995, and 1998 and Zidovudine Determination, 1998*. California Office of AIDS, Jan 2001.

Indicator 1-2-9: HIV Prevalence in State Prisons

Category: Populations

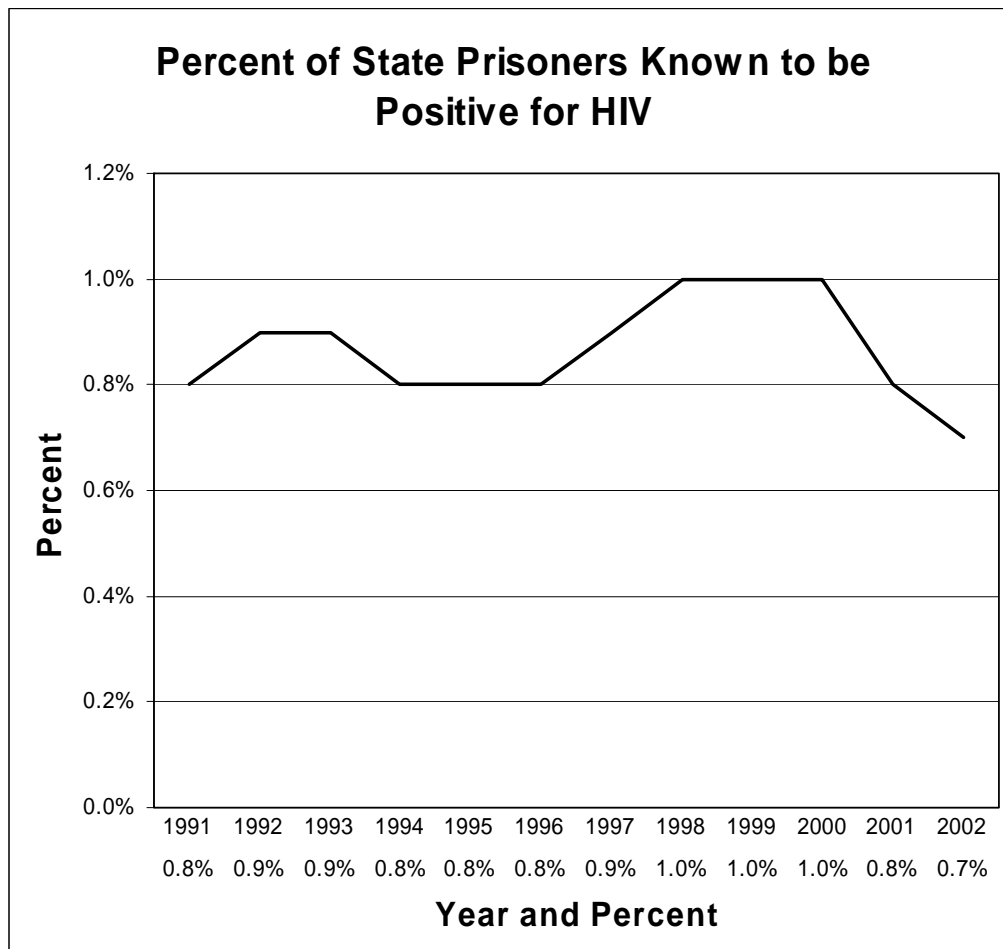
Domain: Prevalence of HIV Infection

Question: To what extent are prisoners infected with HIV?

Why it's important: The extent to which HIV is present in prisons represents increased potential for new infections.

How it's measured: Number of prisoners known to be positive for HIV divided by total number of prisoners.

Findings: The percent of state prisoners known to be positive for HIV trended upward through the year 1996, and has declined since 2000. In absolute numbers, there were 786 known cases in 1991 and 1,181 in the year 2002.



Strengths/Limitations: California has no routine HIV testing in prisons, and testing is only done at prisoners' requests, after a relevant incident, with medical indications, or under court order. Thus, we can be certain that prevalence is under-estimated, but do not know the extent of the error or whether there has been a change in the degree of error over time.

Additional measures: In the year 2002, prevalence among women (0.8%) was higher than among men (0.7%), but it is unclear if these findings reflect detection error. In any case, women represented only 74 of the total 1,181 known cases.

Sources: Data compiled from Bureau of Justice Statistics publications of the U.S. Department of Justice, Office of Justice Programs.

Indicator 2-1-1: State Expenditures for HIV Prevention

Category: Public Policy

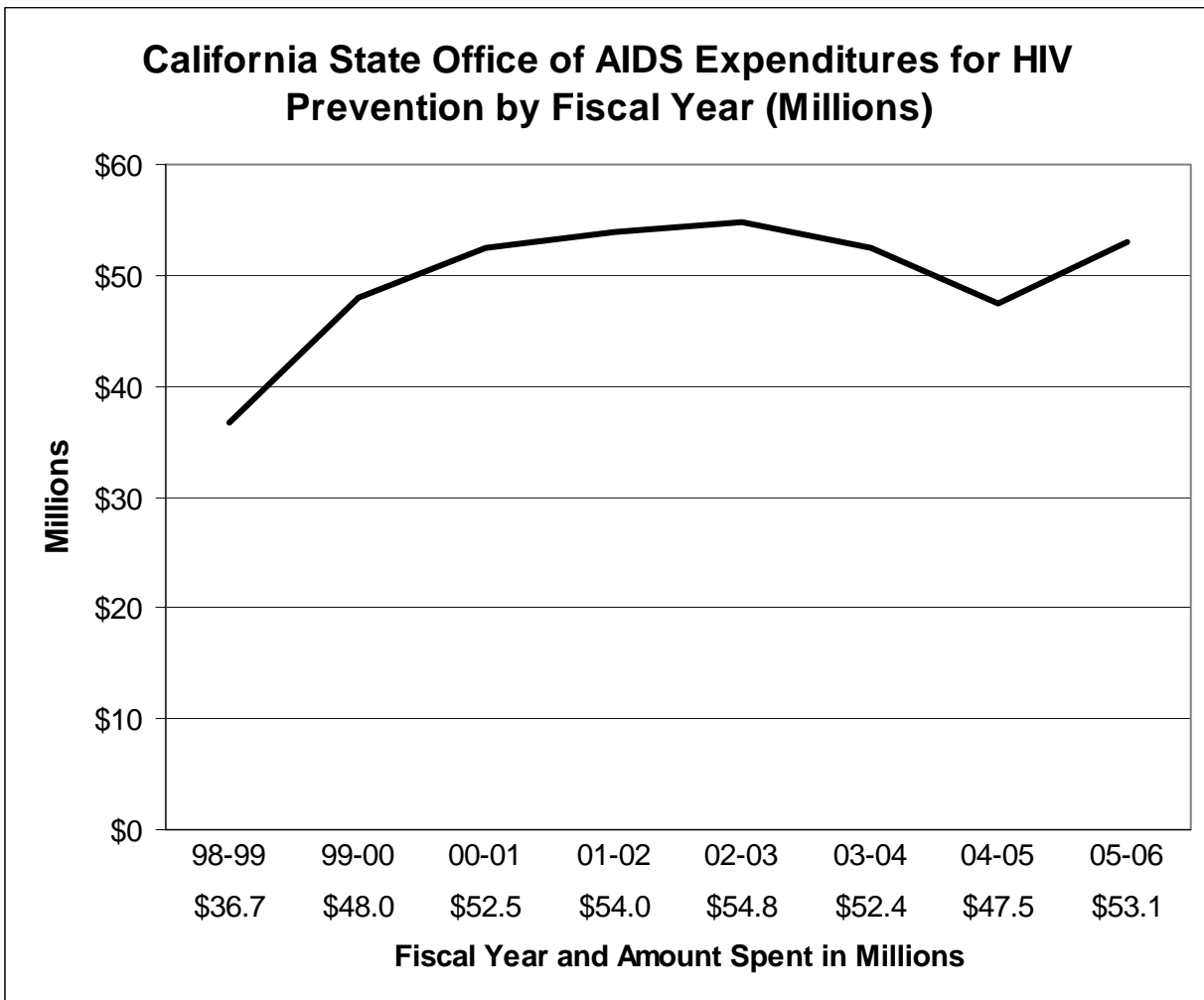
Domain: Prevention Effort

Question: How much money is spent on HIV prevention?

Why it's important: HIV prevention programs have been demonstrated to work and to be a cost-effective public investment.

How it's measured: Federal and state funds expended for HIV prevention programs by the California State Office of AIDS by fiscal year. The figure for the current year is a budgeted amount.

Findings: Federal and State funds spent annually for HIV prevention by the California State Office of AIDS increased up through fiscal year 02-03. The amount decreased in FY 03-04 and again in FY 04-05. The amount budgeted for the current fiscal year restores most of the previous cuts.



Strengths/Limitations: The measure does not include direct federal funding of local projects, nor does it include amounts contributed by local governments, corporations, foundations, or other not-for-profit entities. Year by year tracking of expenditures does not consider any gains in efficiency or effectiveness.

Source: California State Office of AIDS

Acknowledgment: Laurel Cima and Kevin Farrell

Indicator 2-1-2: State Expenditures for HIV Prevention per Estimated Population with HIV

Category: Public Policy

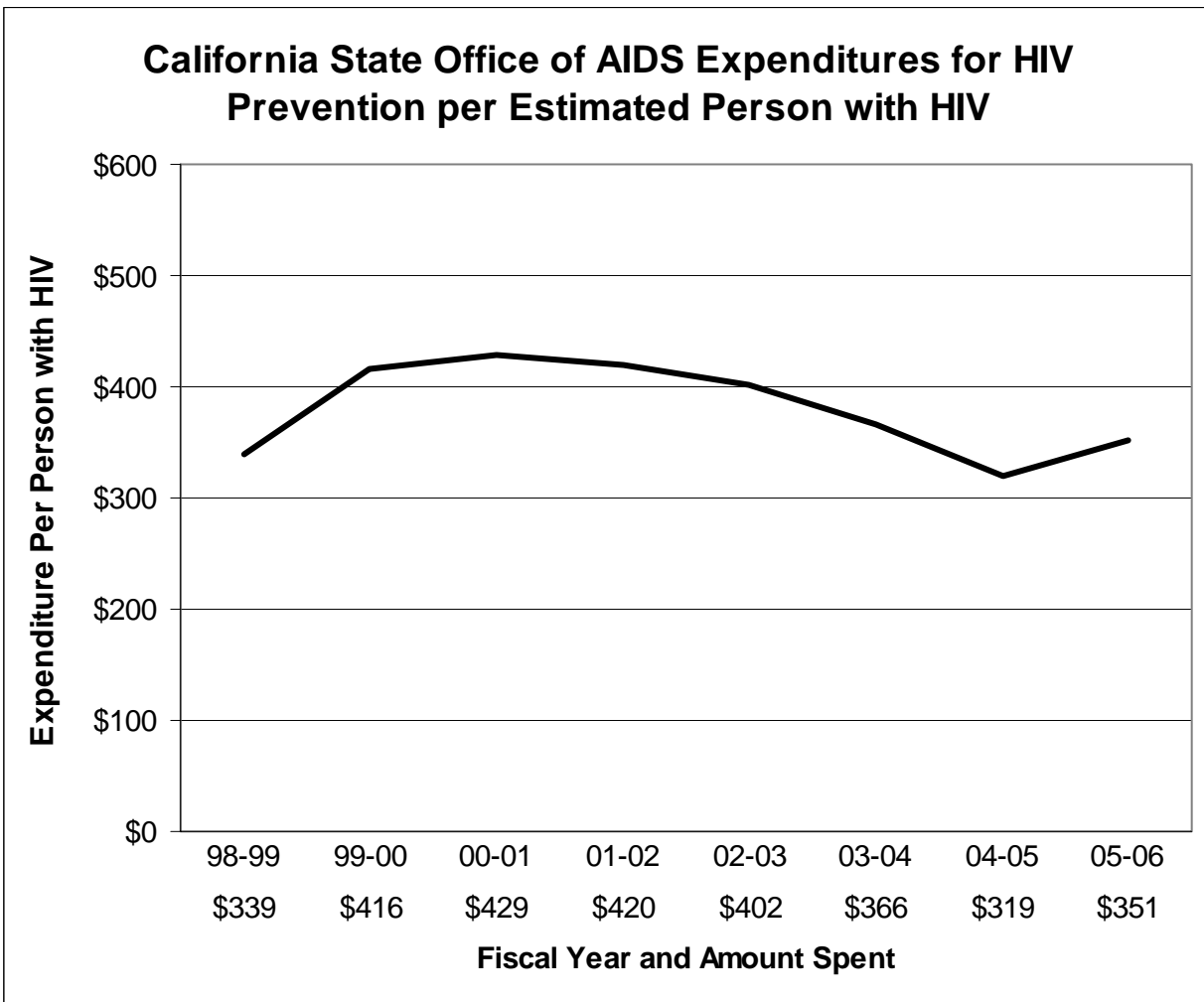
Domain: Prevention Effort

Question: How much money is spent on HIV prevention in relation to the growing need for prevention?

Why it's important: HIV prevention programs have been demonstrated to work and to be a cost-effective public investment. Because the total number of persons with HIV has increased, need for prevention also has increased.

How it's measured: Federal and state funds expended for HIV prevention programs by the California State Office of AIDS by fiscal year divided by the estimated number of persons with HIV.

Findings: In FY 00-01, the California State Office of AIDS spent \$429 per estimated person with HIV in California. By FY 05-06, expenditures decreased to about \$351 per person.



Strengths/Limitations: The measure does not include direct federal funding of local projects, nor does it include amounts contributed by local governments, corporations, foundations, or other not-for-profit entities. Year by year tracking of expenditures does not consider any gains in efficiency or effectiveness. While we are certain that the population with HIV has been growing, we are necessarily limited to estimation of the total number infected.

Source: Calculated from California State Office of AIDS expenditure data, and HIV infection estimates derived from national models developed by the CDC. See indicators 1-2-1 and 2-1-1.

Indicator 2-2-1: Adults Who Tested for HIV in the Past Year

Category: Interventions

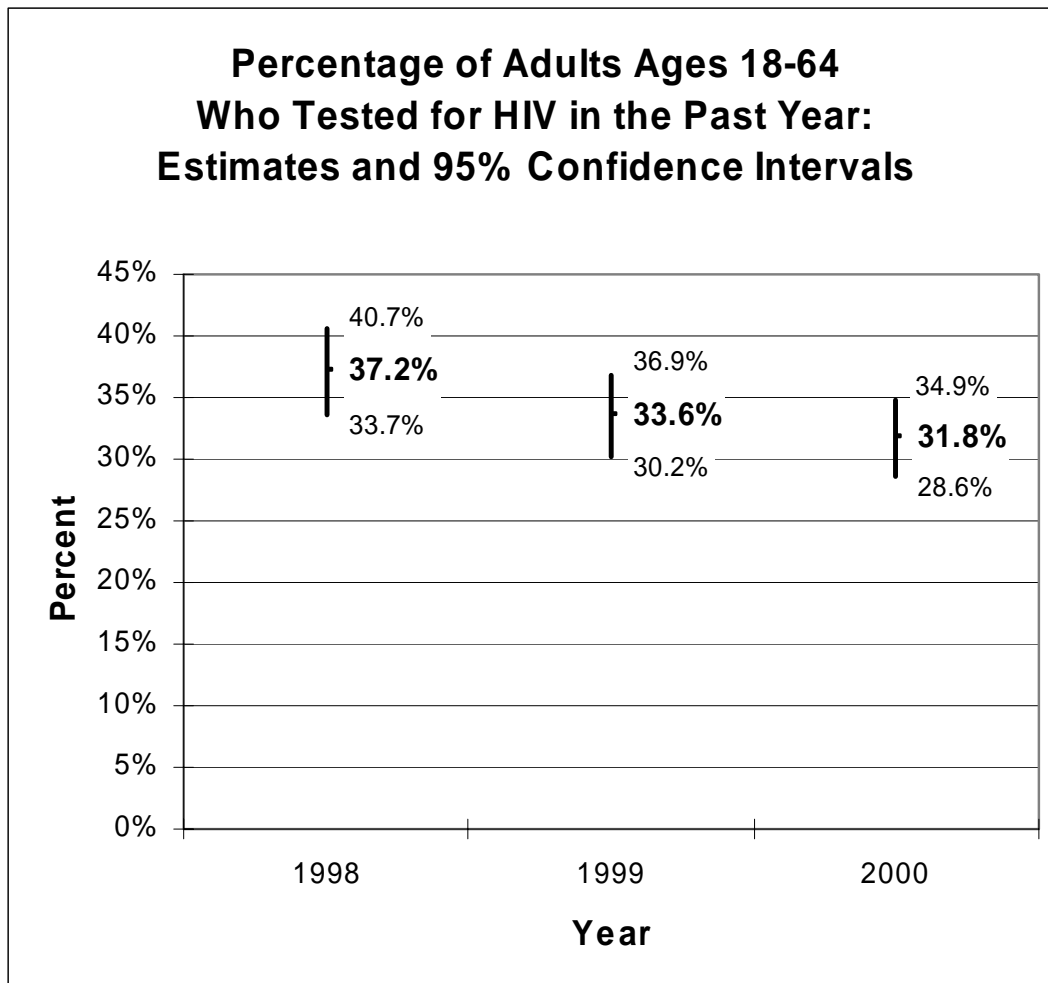
Domain: Availability and Utilization

Question: How many people access HIV testing services?

Why it's important: When people are aware of their HIV status, they are more likely to modify their behavior to protect themselves or others from infection.

How it's measured: Proportion of adult telephone survey respondents ages 18-64 who indicate that they tested for HIV in the past year.

Findings: From 1998 through the year 2000, the estimated percent of adults who tested for HIV in the past declined slightly from 37.2% to 31.8%.



Strengths/Limitations: Telephone surveys have a number of limitations, particularly in connection with sensitive questions. Confidence intervals for these estimates are reasonably narrow. While the question was asked of all adults ages 18-64, we should recognize that many people have no need to test for HIV.

Source: Centers for Disease Control. Behavioral Risk Factor Surveillance System
<http://apps.nccd.cdc.gov/brfss/> accessed 1-29-03 and 12-9-03.

Indicator 2-2-2: Annual Volume of HIV Testing Services

Category: Interventions

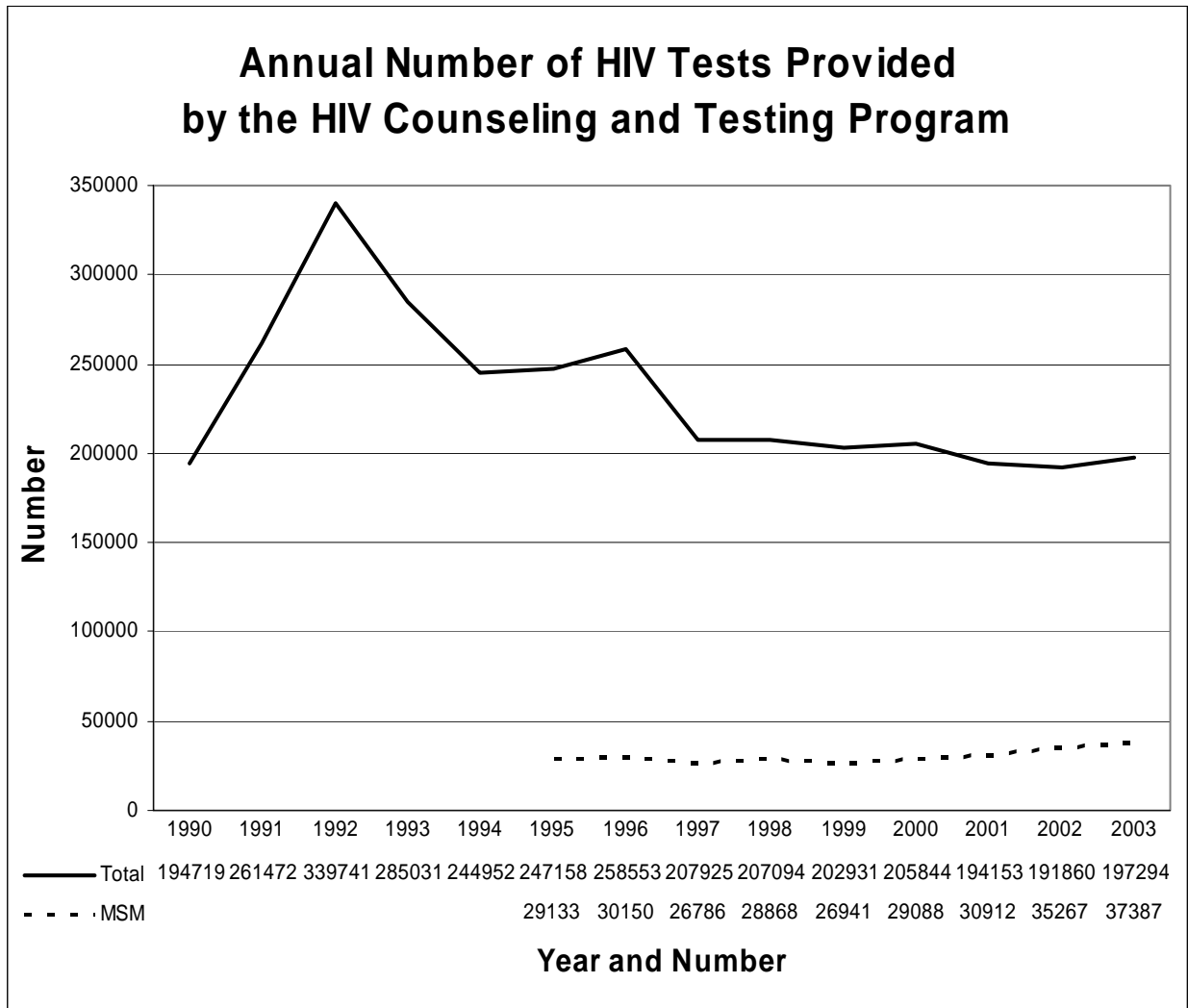
Domain: Availability and Utilization

Question: To what extent are publicly funded HIV testing services available and utilized?

Why it's important: HIV prevention services effectively reduce the number of new HIV infections.

How it's measured: Annual number of HIV tests provided under the HIV Counseling and Testing Program.

Findings: From 1990 to 1992, service volume rapidly increased from 195,000 to 340,000 tests. Numbers have since drifted downward to 197,000 in 2003. The number of tests for MSM increased from 29,100 in 1995 to 37,400 in 2003.



Strengths/Limitations: While the total number of tests has declined, the program appears to be more effectively targeting high risk populations. Also, the decline in testing volume is likely appropriate over a period in which the annual number of new HIV cases decreased. The numbers shown do not include services provided by other prevention programs, nor testing in private medical care.

Source: Office of AIDS, California Department of Health Services

Acknowledgment: Nancy Berman Lees, Christine Dahlgren, David Webb

Indicator 2-3-1: HIV Tests Where Clients Do Not Return for Results

Category: Interventions

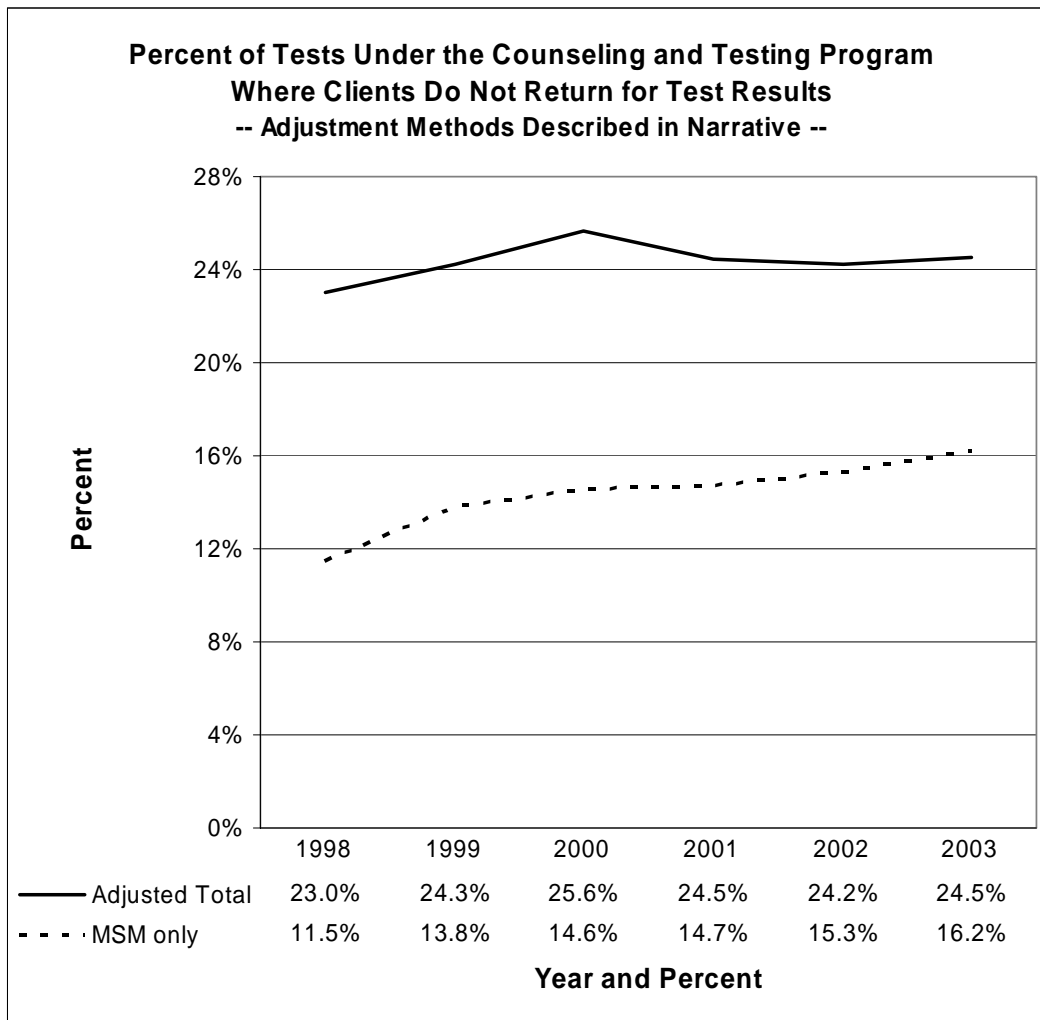
Domain: Timeliness and Continuity

Question: To what extent are high risk populations aware of their HIV status?

Why it's important: The effectiveness of HIV counseling and testing services is improved when clients return for test results.

How it's measured: Percent of HIV tests under the HIV Counseling and Testing Program where clients did not return for test results. Data are adjusted for change in case mix over time by standardizing to the year 2003 client mix of ten tiered groups with varying risk for HIV infections (transgender, MSM who are IDU, etc.).

Findings: From 1998 through 2003, about 25% of clients did not return for test results. MSM have been more likely to obtain test results, but percentages who do not return have increased over time.



Sample Size: The annual number of tests in the study period has ranged from 192,000 to 207,000. The annual number of tests among MSM ranged from 27,000 to 37,000.

Strengths/Limitations: Findings may reflect a change in the composition of program clients.

Source: Office of AIDS, California Department of Health Services

Acknowledgment: Nancy Berman Lees, Christine Dalhgren, David Webb

Indicator 2-3-2: Positive HIV Tests Where Clients Do Not Return for Results

Category: Interventions

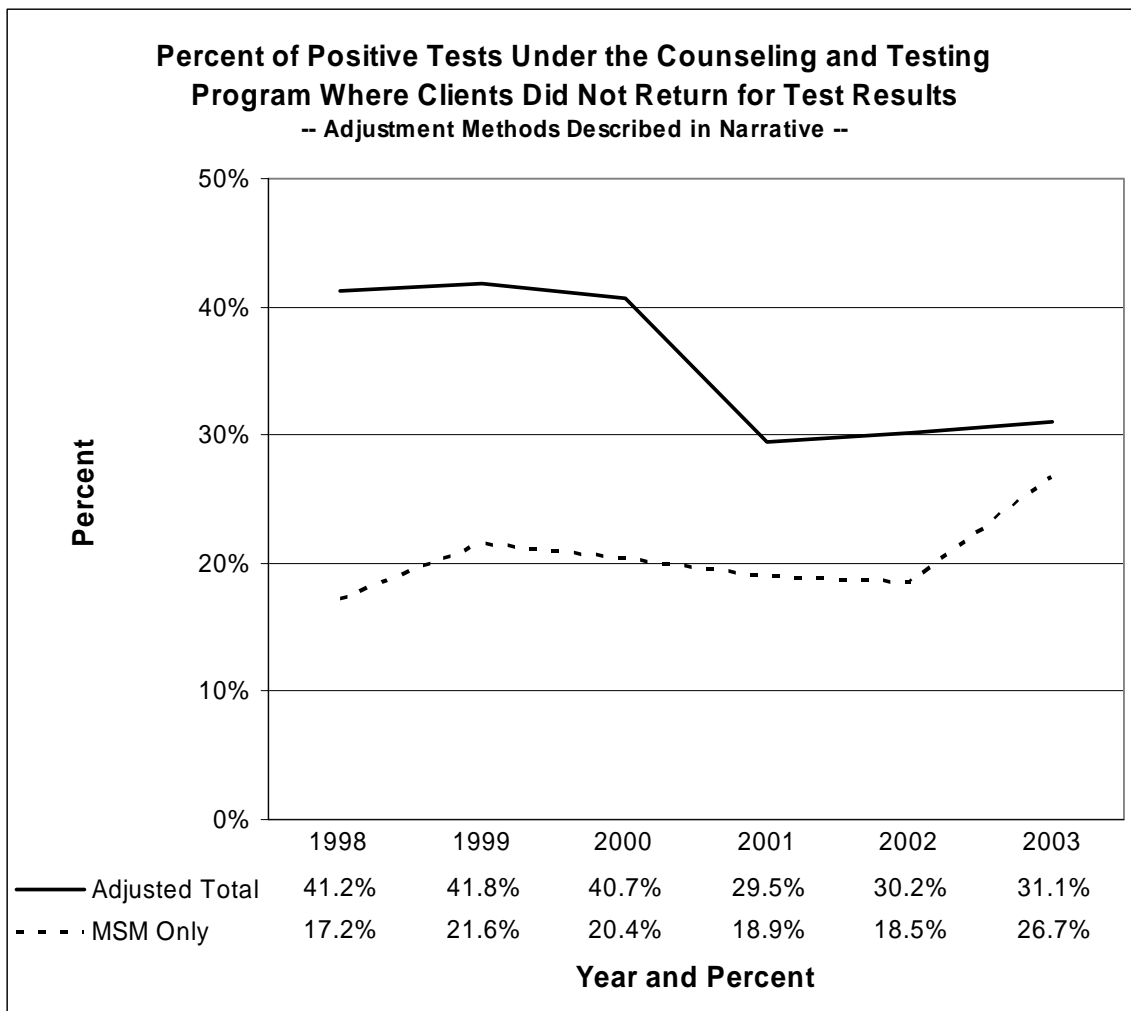
Domain: Timeliness and Continuity

Question: To what extent are persons with HIV aware of their HIV status?

Why it's important: The effectiveness of HIV counseling and testing services is improved when clients with HIV return for test results.

How it's measured: Percentage of positive HIV tests under the HIV Counseling and Testing Program where clients did not return for test results. Data are adjusted for change in case mix over time by standardizing to the year 2003 client mix based on 10 tiered risk groups (transgender, MSM who are IDU, etc.).

Findings: From 1999 through 2003, there was a decline in the percentage of positive HIV tests where clients did not return for test results. However, the most recent figure was still above 30%. MSM were generally more likely to return for test results, but percentages not returning have increased over time.



Sample Size: Over the study period, the annual number of positive HIV tests ranged from 1,938 to 2,414. Among MSM, the number ranged from 1,010 to 1,346.

Strengths/Limitations: Findings may reflect a change in the composition of program clients.

Source: Office of AIDS, California Department of Health Services

Acknowledgment: Nancy Berman Lees, Christine Dahlgren, David Webb

Indicator 2-3-3: Earliest Positive HIV Test Was Less than or Equal to Six Months before AIDS Diagnosis

Category: Interventions

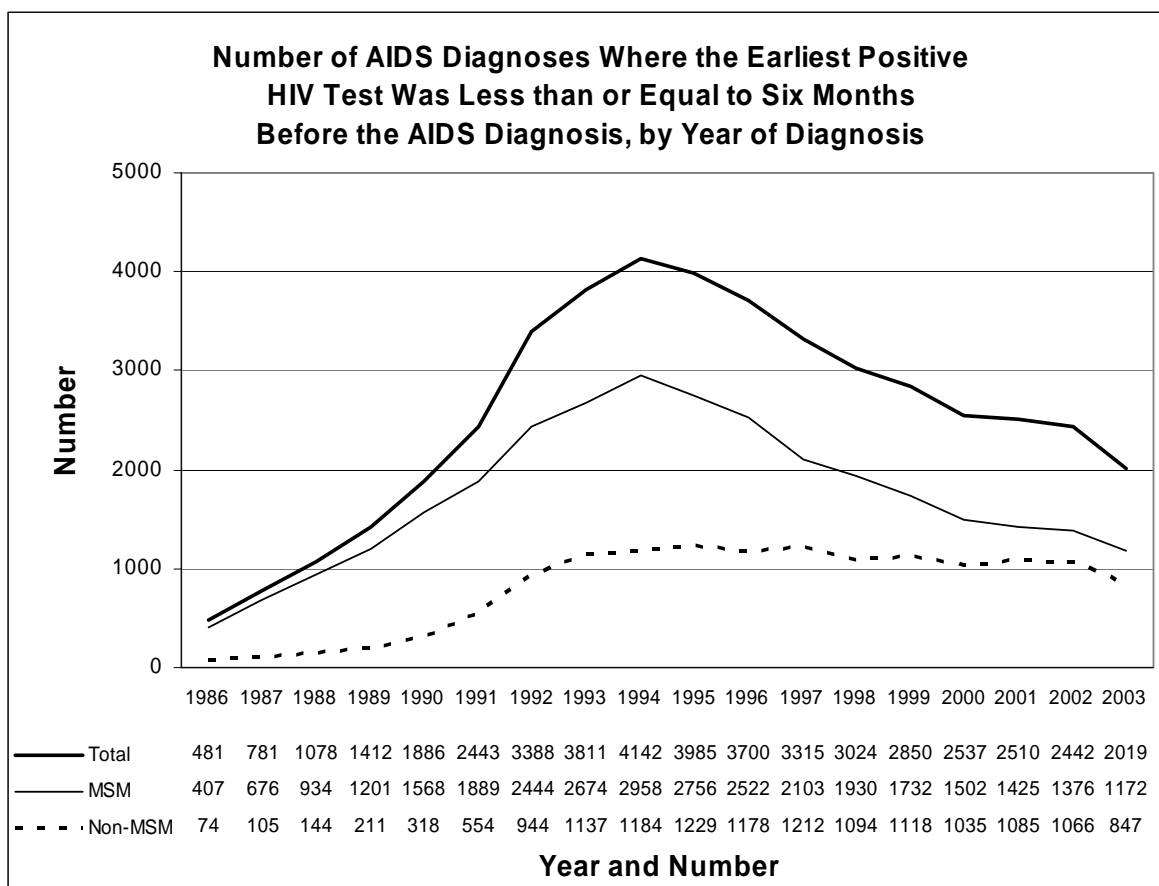
Domain: Timeliness and Continuity

Question: To what extent are people with HIV aware of their status?

Why it's important: When individuals with HIV are unaware of their HIV status, they are more likely to engage in behaviors that infect others.

How it's measured: Number of AIDS diagnoses where the earliest positive HIV test was less than or equal to six months before the AIDS diagnosis, by year of AIDS diagnosis. Cases where earliest positive HIV test are unknown are excluded.

Findings: The numbers rapidly increased to a high of 4,142 in 1994, and have since declined to 2,019 in 2003. While the pattern is similar among the MSM population, note that the numbers for the non-MSM population have declined at a slower pace.



Strengths/Limitations: The numbers in the earlier years should probably be disregarded, as those times were relatively chaotic and chances for error are great. For example, many people were diagnosed with AIDS and never had an HIV test and, thus, were not counted in this study. Numbers in more recent years seem more accurate. We would like to present these numbers as a percentage of all AIDS diagnoses. However, such an approach would be misleading because many individuals who forestall onset of AIDS with anti-retroviral therapy would not appear in the database until some future year.

Source: Office of AIDS, California Department of Health Services

Acknowledgment: A. Nakamura

Indicator 2-3-4: Persons Successfully Referred by Outreach to HIV Counseling and Testing Program

Category: Interventions

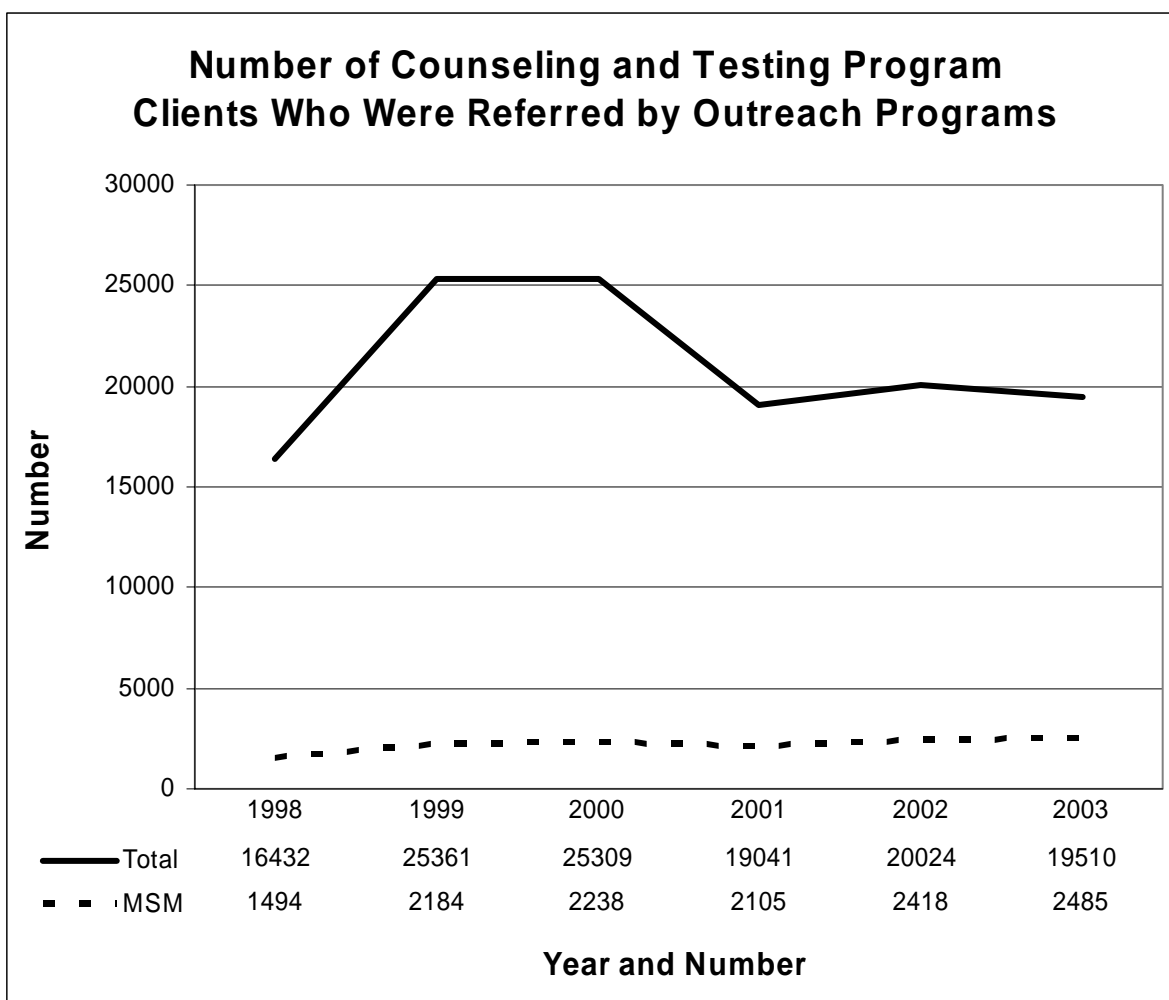
Domain: Timeliness and Continuity

Question: To what extent does outreach encourage high risk populations to enter prevention services?

Why it's important: Successful outreach with high risk populations helps the HIV Counseling and Testing program direct services toward those most in need.

How it's measured: Number of HIV tests in the Counseling and Testing program where the client indicates referral from outreach.

Findings: During each year 1999 and 2000, about 25,300 HIV tests were delivered to persons who had been referred by outreach programs. Numbers have since declined to about 19,500 in 2003. From 1998 to 2003, the number of MSM recruited by outreach increased from 1,500 to 2,500.



Strengths/Limitations: Findings are presented in absolute numbers, rather than as percents of all program clients, because changes in total number of clients over time might cloud the issue.

Source: Office of AIDS, California Department of Health Services

Acknowledgment: Nancy Berman Lees, David Webb

Indicator 2-3-5: Estimated Number of Untreated Childbearing Women with HIV

Category: Interventions

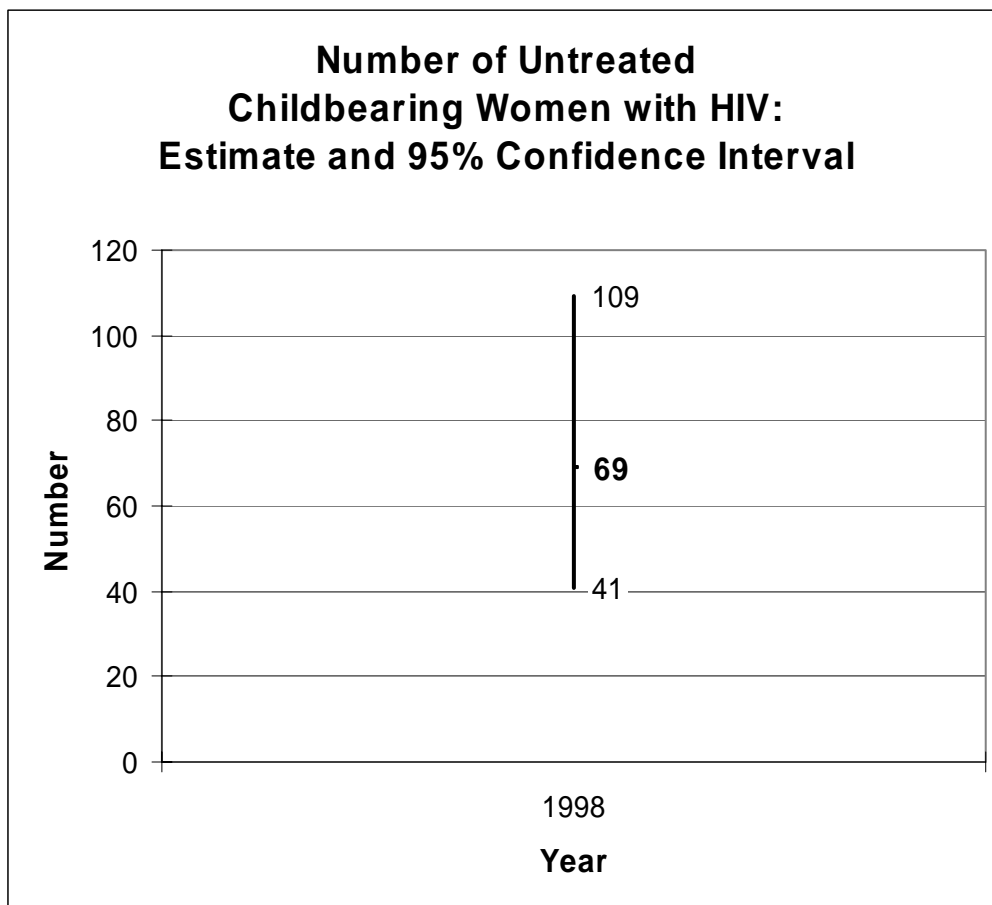
Domain: Timeliness and Continuity

Question: How many childbearing women are infected with HIV and are not treated prior to delivery?

Why it's important: Delivery of antiretroviral therapy to childbearing women substantially diminishes the likelihood that the baby will become infected.

How it's measured: In 1998, 135,991 resident newborns were tested for evidence that the mother was positive for HIV and for evidence of treatment.

Findings: Eighteen cases were identified as untreated newborns of women with HIV. Data presented here extrapolate findings to the total population of resident newborns for that year. An estimated 69 childbearing women with HIV were not treated prior to delivery, with a 95% confidence interval ranging from 41 to 109 women.



Strengths/Limitations: The estimates presented here should not be construed to mean that all of the newborns became infected with HIV. Untreated, about 25% of perinatally exposed infants will develop HIV infection.

Calculated from: Zukowski D, Ruiz J. *California Childbearing Women: A Comparison of HIV Seroprevalence Data from the Third Quarters of 1992, 1995, and 1998 and Zidovudine Determination, 1998.* California Office of AIDS, Jan 2001.

Indicator 3-1-1: Intent to Use Condoms for Anal Sex in a San Francisco Street Survey

Category: Populations

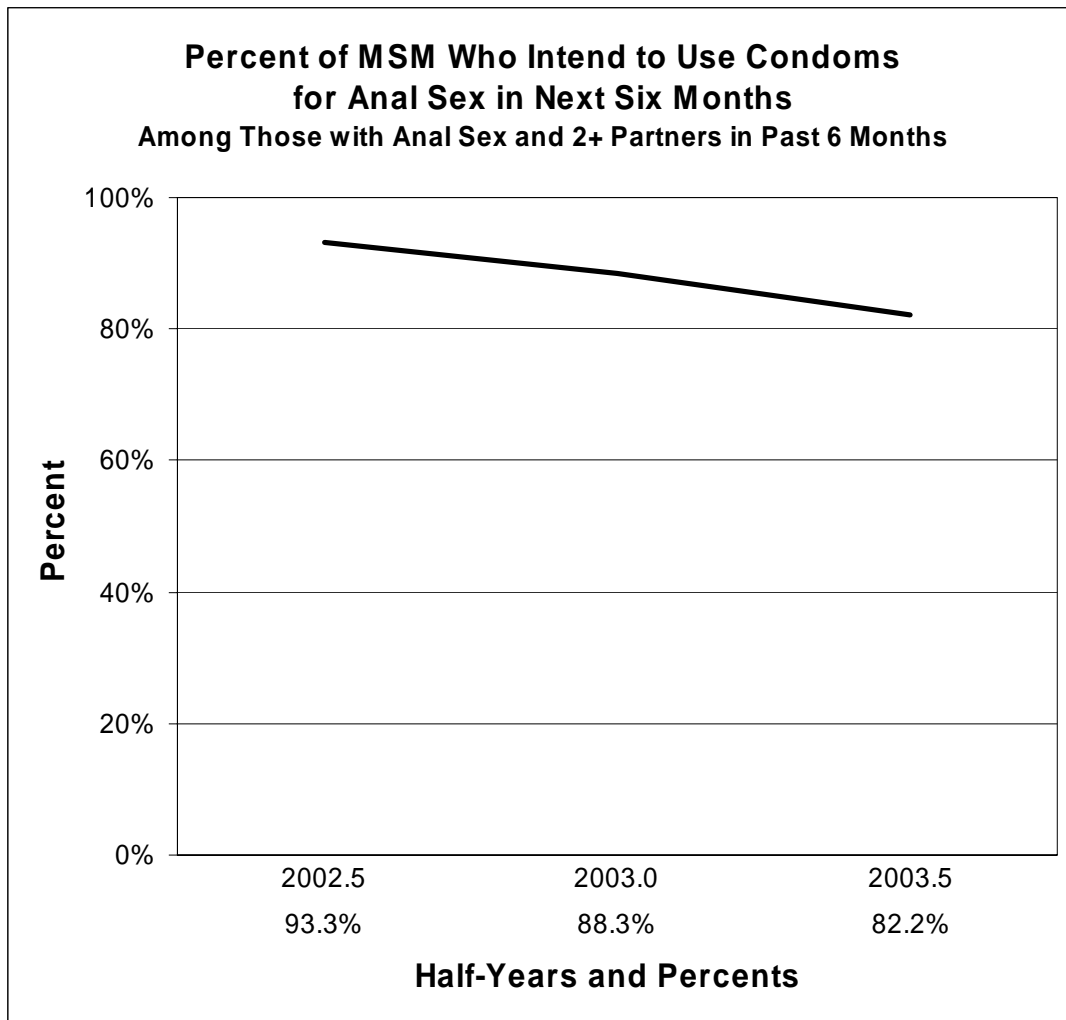
Domain: Values

Question: To what extent do MSM with a history of multiple partners and anal sex intend to use condoms for anal sex?

Why it's important: Unprotected anal intercourse is a common route for HIV infection.

How it's measured: Among MSM who indicate they had more than one sex partner in the past six months, and who practiced anal intercourse, the proportion who express intent to use condoms for anal sex in the coming six months.

Findings: The percentage who expressed intent to use condoms is high, but appears to have declined.



Sample Size: Findings are based on 346-646 individuals who met the study criteria during any six month period.

Strengths/Limitations: Findings from the convenience sample are limited to persons who frequent survey locations, and the percentages cannot be interpreted as representing condom usage within the MSM community.

Source: Stop AIDS Project, San Francisco

Acknowledgment: Roop Prabhu, San Francisco Department of Public Health

Indicator 3-2-1: Counseling and Testing Program Clients with More than Five Sex Partners in Past Year

Category: Risk-Taking and Protective Behaviors

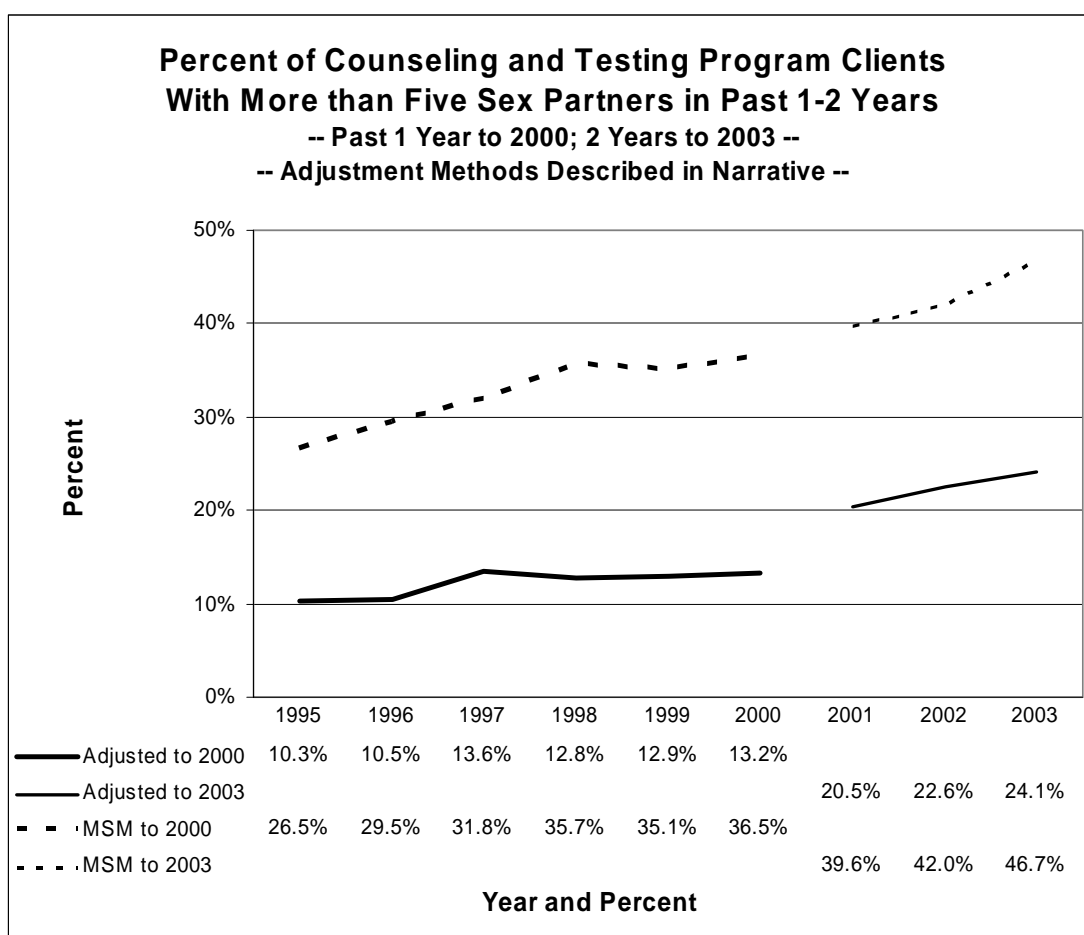
Domain: High Risk Sex

Question: To what extent do adult populations have multiple sex partners?

Why it's important: Having multiple sex partners increases the potential for HIV transmission.

How it's measured: Of Counseling and Testing Program clients, the percent with more than five sex partners in past twelve months (up to 2000) or past two years (beginning 2001). Data are adjusted for change in case mix over time by standardizing client mix on the basis of ten tiered risk groups.

Findings: From 1995 through the year 2000, similar percentages of clients had more than five sex partners in the last year. Among MSM, percentages increased. Beginning in 2001, the measure changed to number of sex partners in the shorter of past two years or since HIV test; and, from 2001 to 2003, the adjusted percentage for the overall population increased from 20.5% to 24.1%. Among the MSM population, it increased from 39.6% to 46.7%



Sample Size: Over the study period, the number of clients who reported more than five sex partners in from about 22,300 to 47,500. Among MSM, the number of MSM ranged from about 7,700 to 17,500.

Strengths/Limitations: Findings may reflect a change in the composition of program clients, for example, a trend toward increased focus on high risk populations.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: Nancy Berman Lees, Christine Dahlgren, David Webb

Indicator 3-2-2: Counseling and Testing Program Clients with Sex Partners who are Positive for HIV

Category: Risk-Taking and Protective Behaviors

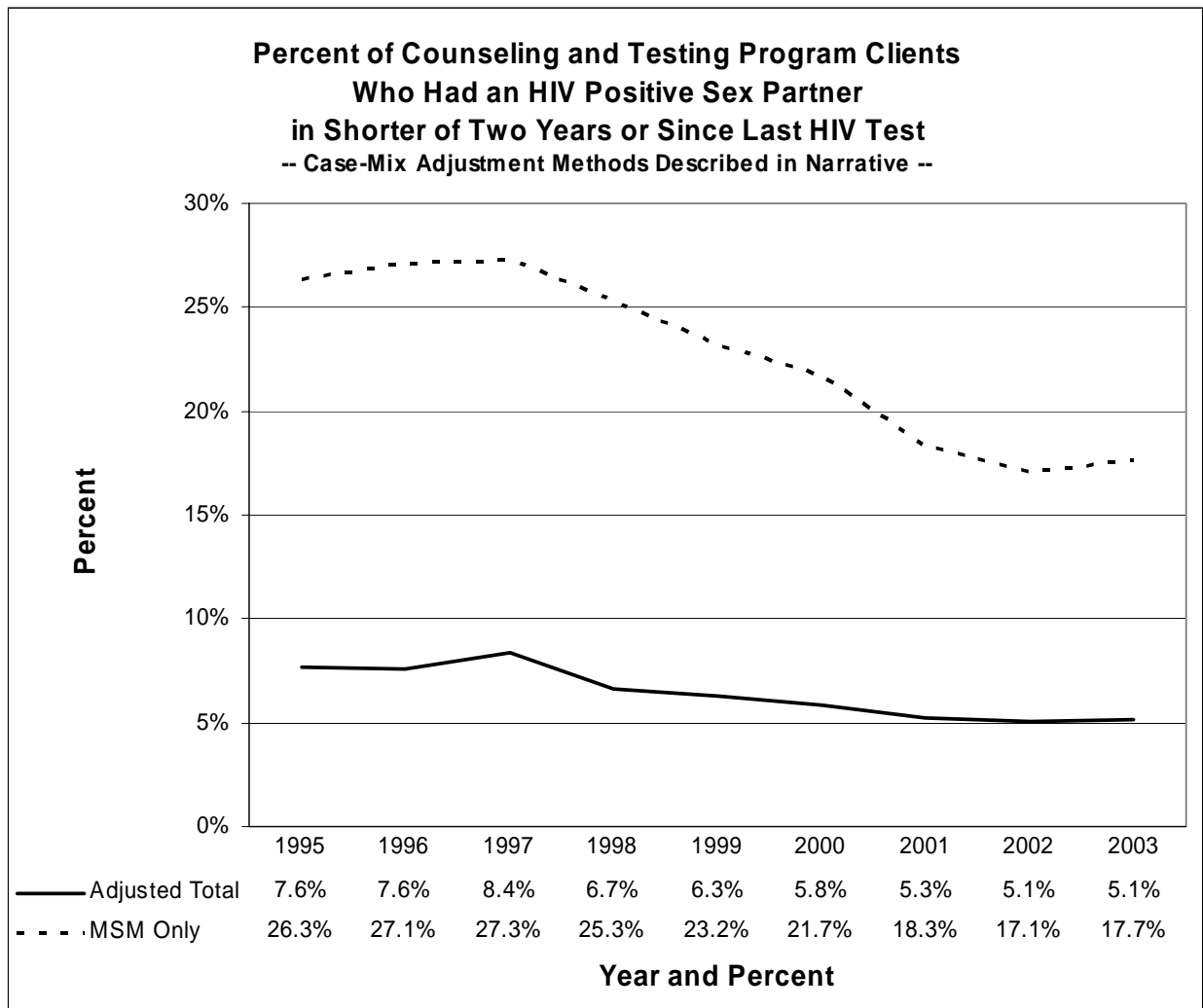
Domain: High Risk Sex

Question: To what extent do adults have sex partners who are infected with HIV?

Why it's important: Having a sex partner with HIV increases the potential for HIV transmission.

How it's measured: Of Counseling and Testing Program clients, percent with HIV positive sex partners in the shorter of past two years or since last HIV test. Data are adjusted for change in case mix over time by standardizing to the year 2003 client mix on the basis of ten tiered risk groups.

Findings: Adjusted data suggest the percentages have declined over time. Among MSM, percentages have been very high, but have also declined.



Sample Size: The total number of clients who reported having an HIV positive sex partner decreased from 9,000 to 13,600. Among MSM, the number ranged from about 5,700 to 8,200.

Strengths/Limitations: Findings may reflect a change in the composition of program clients.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: Nancy Berman Lees, Christine Dahlgren, David Webb

Indicator 3-2-3: Adults Who Had a Casual Sex Partner and Did Not Use a Condom

Category: Risk-Taking and Protective Behaviors

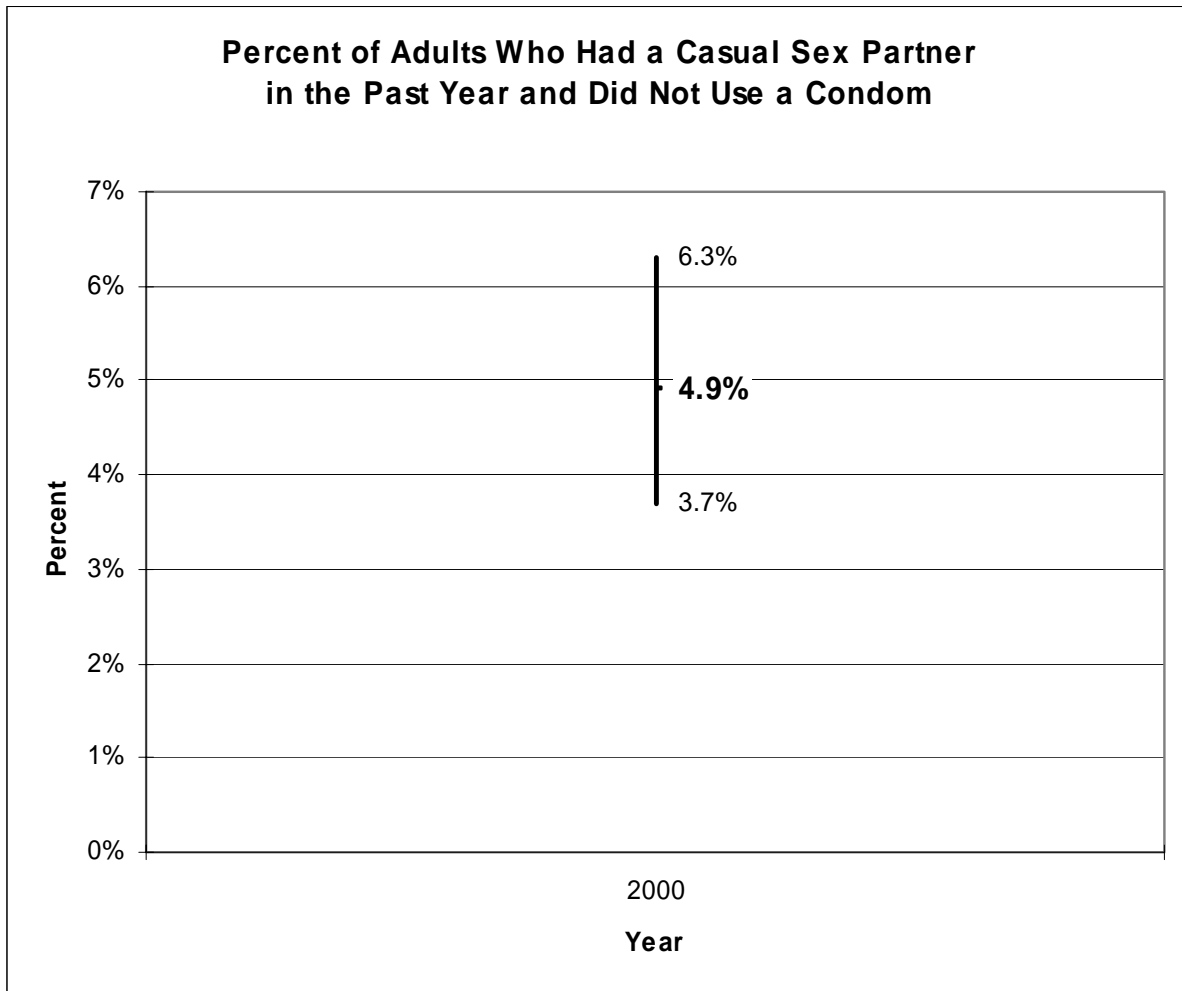
Domain: High Risk Sex

Question: To what extent does the population engage in casual sex while not using condoms?

Why it's important: Failure to use a condom with casual sex partners increases the potential for HIV transmission.

How it's measured: In a statewide telephone survey, percent of adults ages 18 and older who report having a casual sex partner in the past year and not using a condom.

Findings: An estimated 4.9% (95% CI: 3.7%-6.3%) of adults report having a casual sex partner in the past year and not using a condom. This suggests that about 1.2 million (0.9-1.6 million) adults placed themselves at risk.



Strengths/Limitations: Telephone surveys have a number of limitations, particularly in connection with sensitive questions.

Source: Moskowitz JM, University of California, Berkeley. Personal communication 10-28-03. Data from the California 2000 HIV/AIDS Knowledge, Attitudes, Beliefs, and Behaviors (KABB) Survey.

Indicator 3-2-4: Unprotected Anal Intercourse among MSM Respondents in a San Francisco Street Survey

Category: Risk-Taking and Protective Behaviors

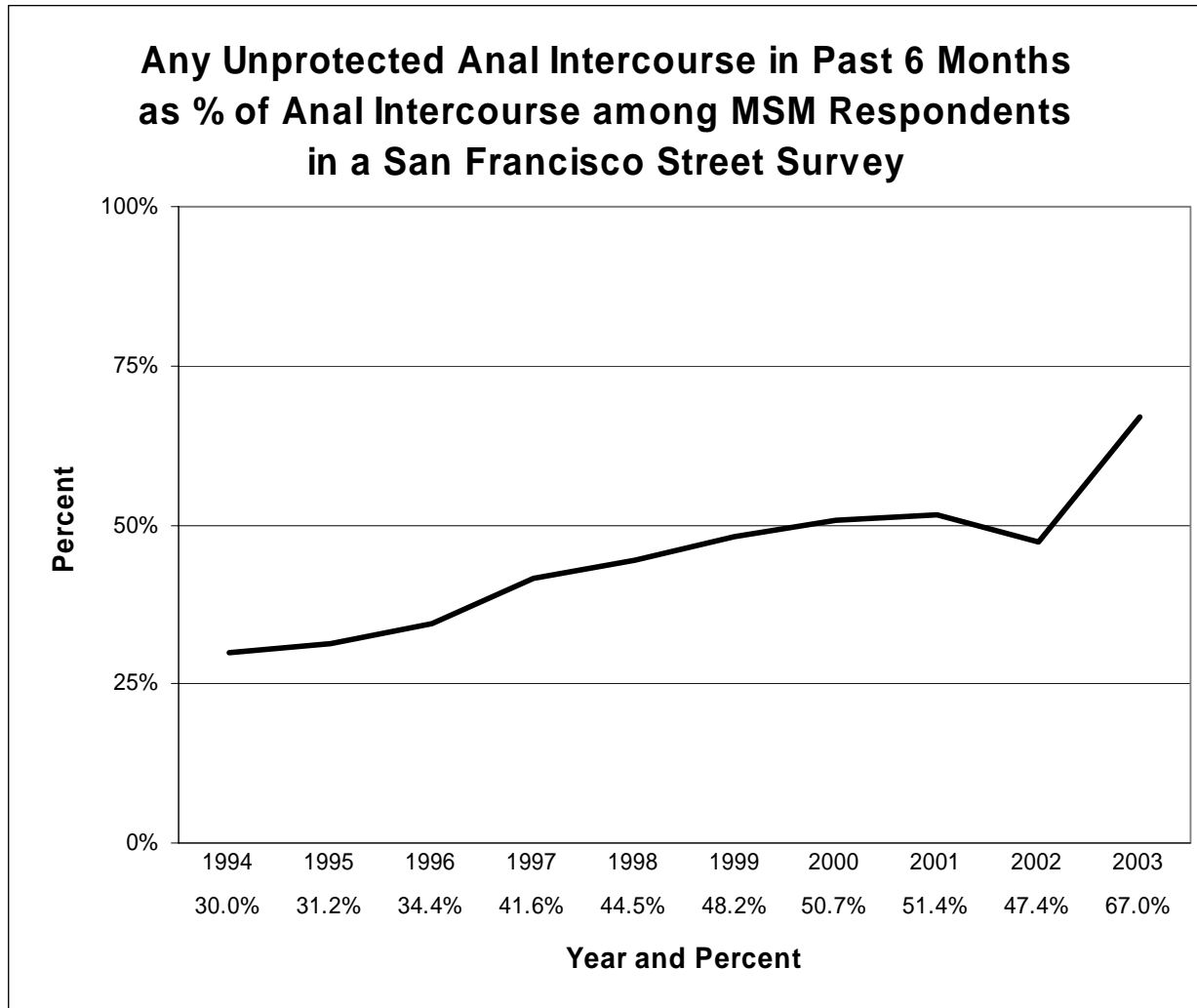
Domain: High Risk Sex

Question: To what extent do MSM engage in unprotected anal intercourse?

Why it's important: Unprotected anal intercourse is a common route for HIV infection.

How it's measured: Among MSM who indicate that they practiced anal intercourse in the past six months, the proportion who did not always use a condom.

Findings: Percentages have substantially increased over the years.



Sample Size: Findings are based on 600-2500 individuals in any given year who reported unprotected anal intercourse.

Strengths/Limitations: Findings from the convenience sample are limited to persons who frequent survey locations, and the percentages cannot be interpreted as representing condom usage within the MSM community.

Source: Stop AIDS Project, San Francisco

Acknowledgment: Roop Prabhu, San Francisco Department of Public Health

Indicator 3-2-5: Unprotected Receptive Anal Intercourse

Category: Risk-Taking and Protective Behaviors

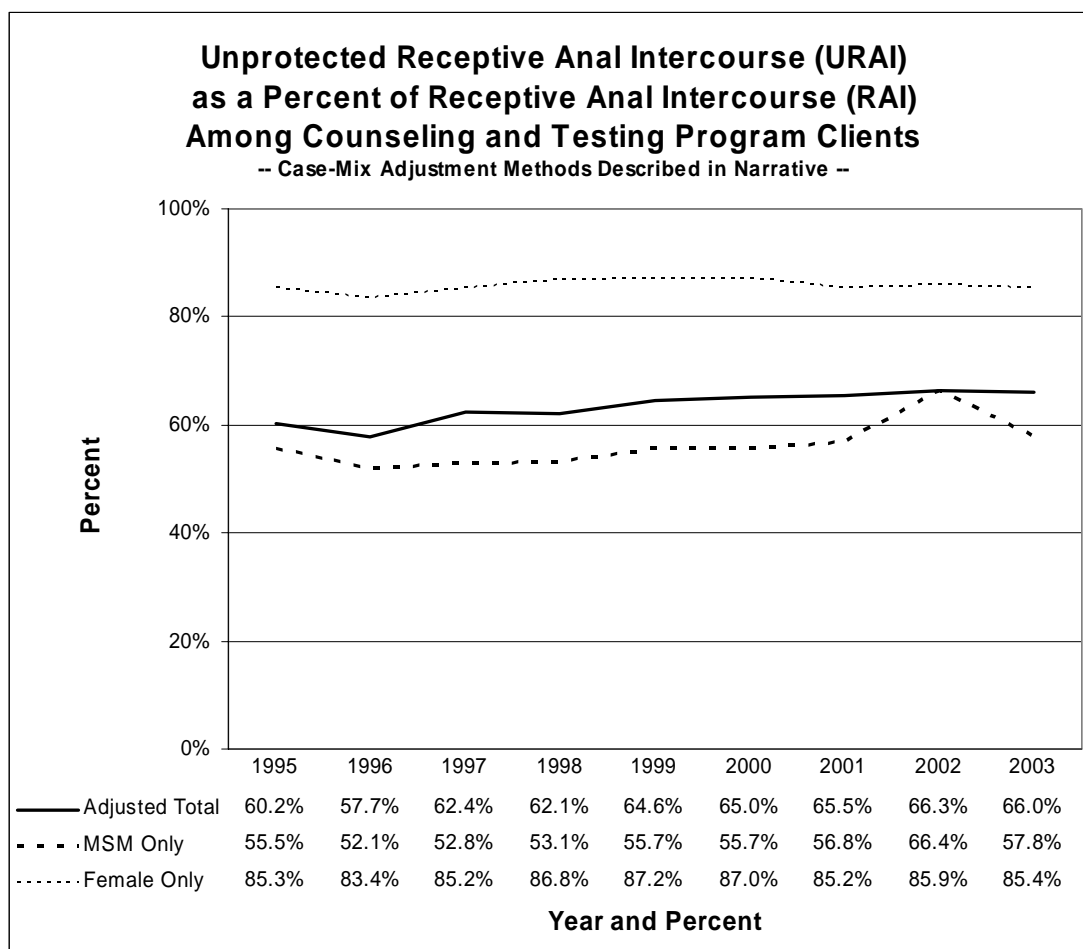
Domain: High Risk Sex

Question: To what extent do those who engage in receptive anal intercourse neglect to use condoms?

Why it's important: Failure to use a condom during anal intercourse substantially increases the risk of HIV transmission.

How it's measured: Among Counseling and Testing Program clients who report receptive anal intercourse (RAI) in the shorter of the past two years or since last HIV test, percent who report not always using a condom. Data are adjusted for change in case mix over time by standardizing to the year 2003 client mix based on ten tiers of risk groups.

Findings: Overall percentages are high. Adjusted data suggest a long term increase since 1996. Percentages have generally been lower among MSM, although they also appear to have increased since 1996. Percentages among women have been very high (85%) and have been fairly constant.



Sample Size: The numbers of clients reporting a history of URAI ranged from 19,600-24,700 over the study years. Among MSM, the numbers ranged from 8,800-14,200; and among women, from 8,300-14,400.

Strengths/Limitations: Findings may reflect a change in the composition of program clients, for example, a trend toward increased focus on high risk populations. The data do not consider whether URAI was within monogamous relationships or with casual partners.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: Nancy Berman Lees, David Webb

Indicator 3-3-1: Needle Sharing among Injection Drug Users

Category: Risk-Taking and Protective Behaviors

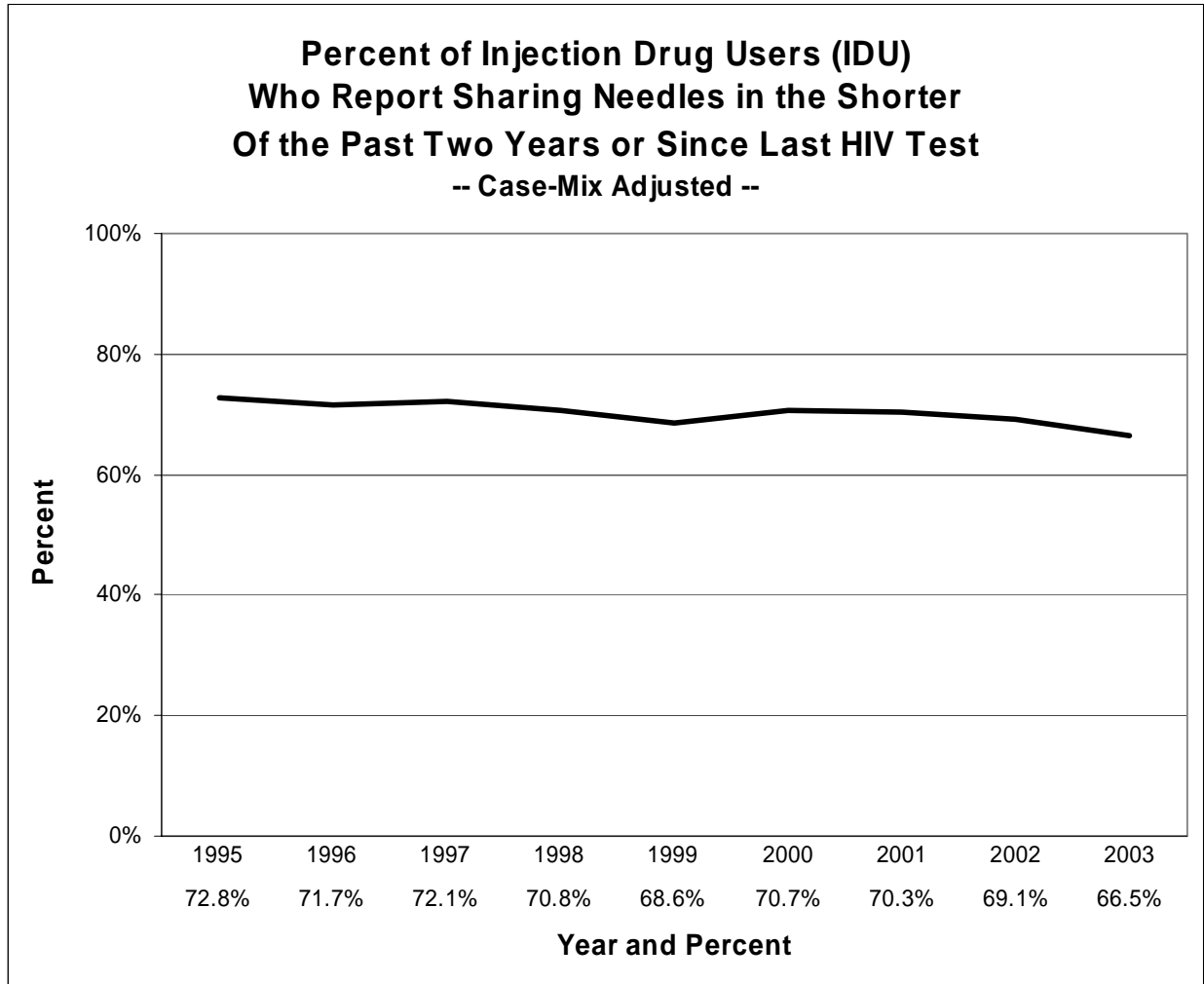
Domain: Needle Sharing

Question: To what extent do injection drug users share needles?

Why it's important: Needle sharing among injection drug users carries a risk of HIV transmission.

How it's measured: Among Counseling and Testing Program clients who report injection drug use (IDU) in the shorter of the past two years or since last HIV test, percent who report sharing needles. Findings are standardized for case mix in the year 2003.

Findings: Overall percentages are high, with a generally declining trend.



Sample Size: The number of clients who reported a history of needle sharing ranged from about 8,900-14,800.

Strengths/Limitations: Findings may reflect a change in the composition of program clients. The data do not consider whether needle sharing included bleaching of apparatus or sharing with exclusive partners.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: Nancy Berman Lees, David Webb

Indicator 4-1-1: Number of New HIV Infections

Category: Disease Impacts

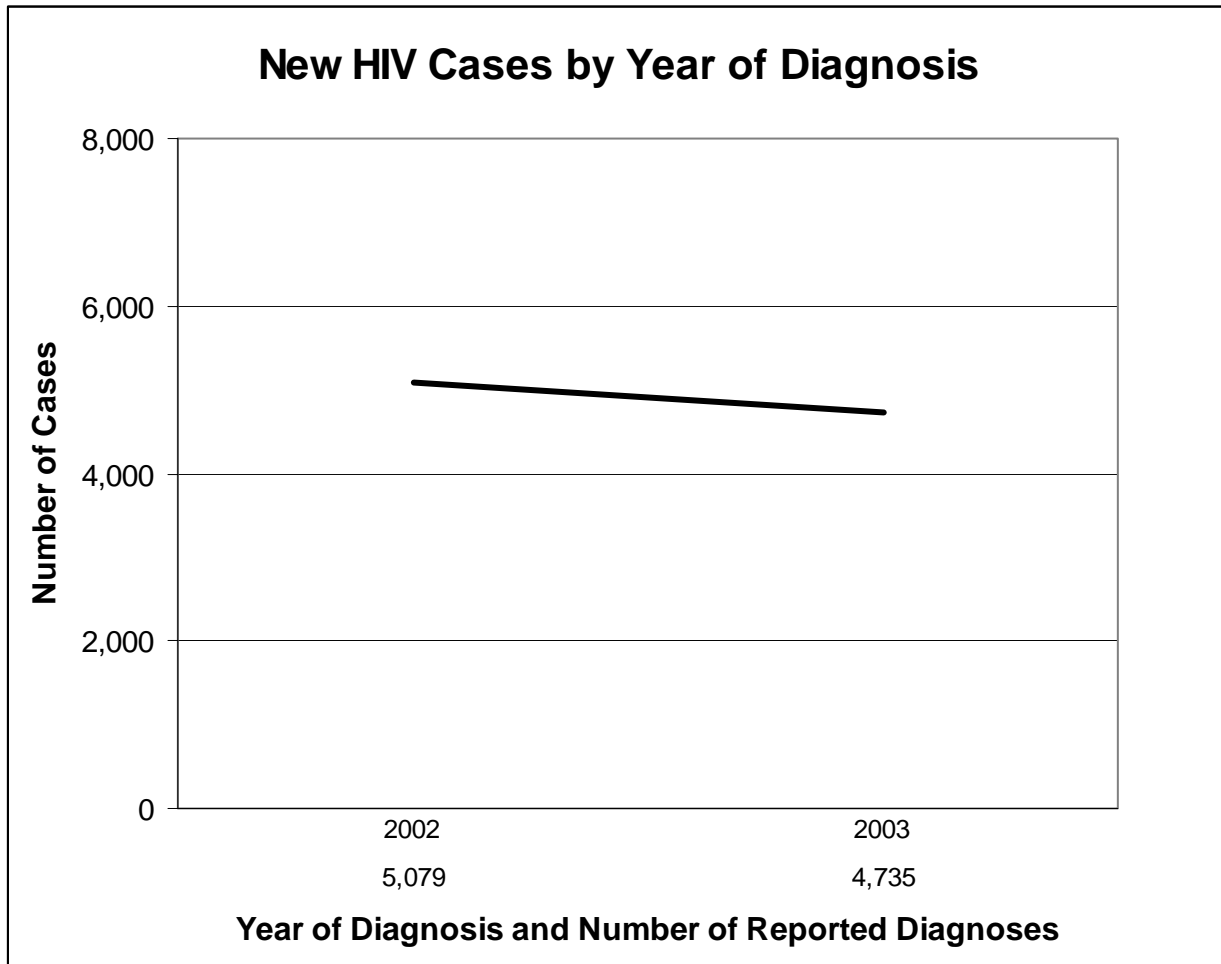
Domain: New Infections

Question: To what extent has the number of new HIV infections changed over time?

Why it's important: Successful HIV prevention reduces the rate of new HIV infections.

How it's measured: Number of new HIV infections reported to the Non-Names HIV Reporting System by year of diagnosis.

Findings: 5,079 new cases were reported for the year 2002 and 4,735 were reported for 2003.



Strengths/Limitations: Because the HIV reporting system is new, the extent of under-reporting is unknown. Also, the extent of time lag in reporting is not yet clear.

Source: California Department of Health Services, Office of AIDS, HIV/AIDS Case Registry Section, data as of October 31, 2005.

Indicator 4-1-2: New HIV Cases Identified in the Counseling and Testing Program

Category: Disease Impacts

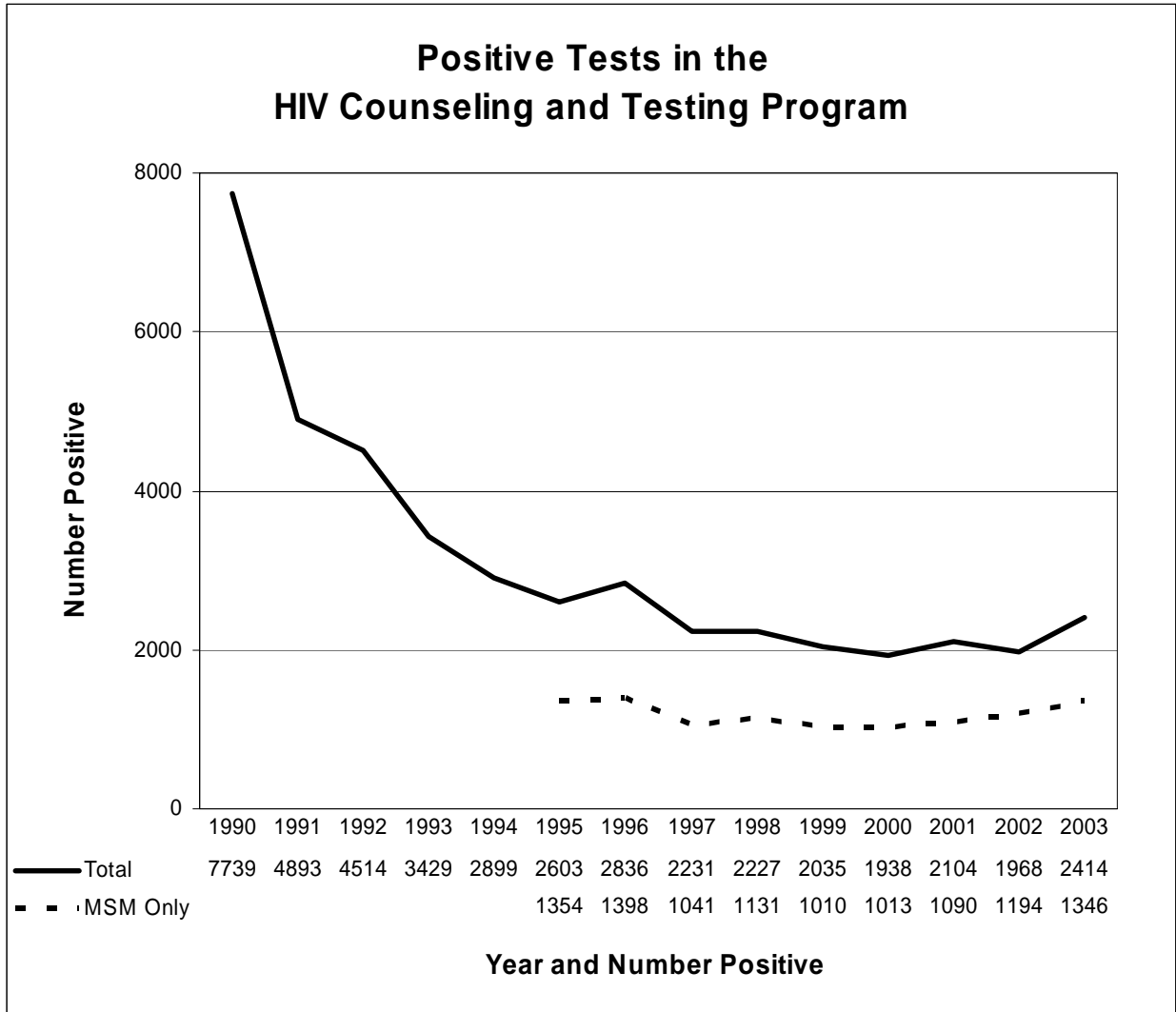
Domain: New Infections

Question: To what extent has the number of new HIV infections changed over time?

Why it's important: Successful HIV prevention reduces the rate of new HIV infections.

How it's measured: Number of positive HIV tests annually in the HIV Counseling and Testing Program among clients who have not previously tested positive.

Findings: The number of newly detected cases declined over the longer term, but increased in 2003. The number detected among MSM declined up through 1999 and has since increased.



Strengths/Limitations: Recent increases may reflect improved outreach to higher risk populations.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: Nancy Berman Lees, Christine Dahlgren, David Webb

Indicator 4-1-3: Number of New HIV Cases Identified in the Counseling and Testing Program per Estimated 1,000 Persons with HIV

Category: Disease Impacts

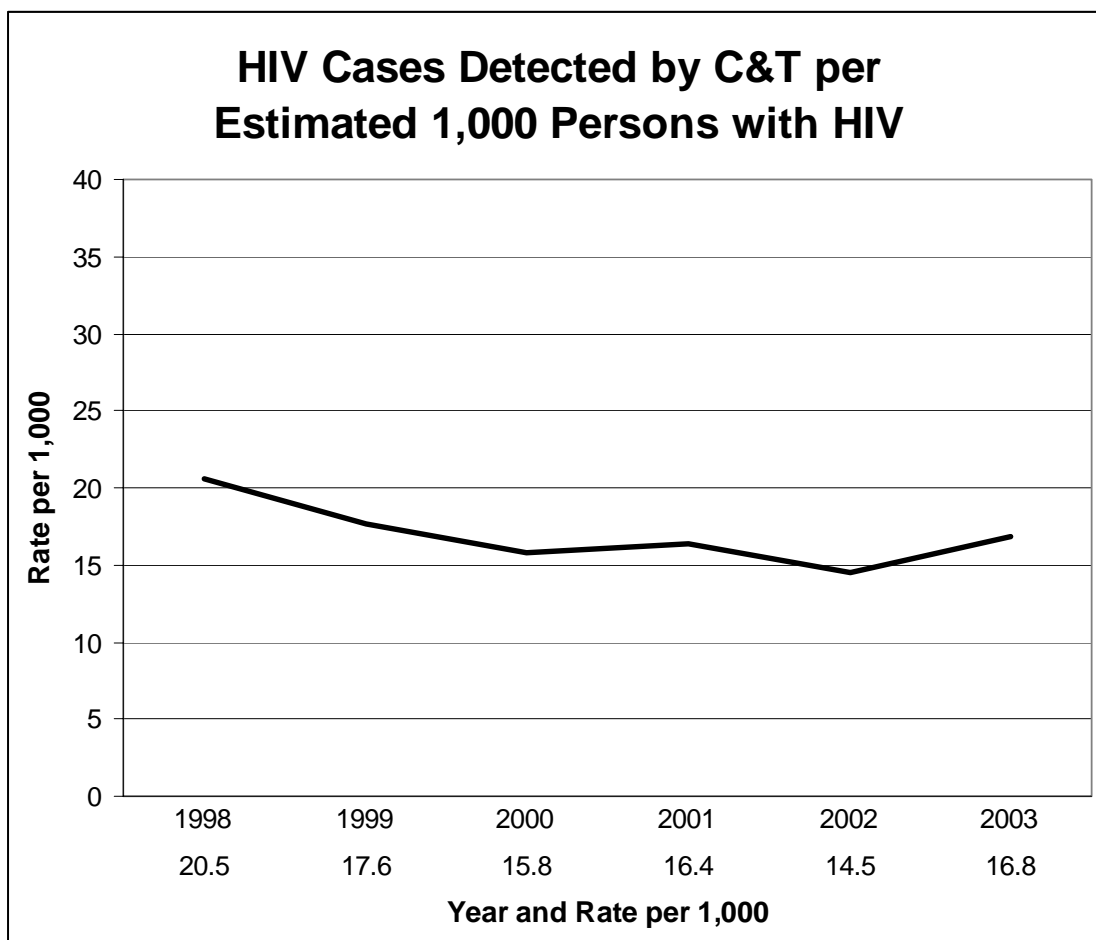
Domain: New Infections

Question: To what extent has the number of new HIV infections changed over time in relation to the potential for new infections?

Why it's important: The size of the population with HIV is increasing and this represents an increasing potential for new infections. This measure measures the number of new cases detected in relation to that potential.

How it's measured: Number of positive HIV tests annually in the HIV Counseling and Testing Program among clients who have not previously tested positive divided by the estimated population with HIV and divided by 1,000.

Findings: The number of newly detected cases declined over the longer term relative to the potential for new infections.



Strengths/Limitations: The C&T program accounts for less than half of all newly identified HIV cases. The size of the total population with HIV is an estimate based on national models developed by the CDC.

Source: Counseling and Testing Program Data, California State Office of AIDS. UARP estimates of the population with HIV derived from: Glynn M, Rhodes P. Estimated HIV prevalence in the United States at the end of 2003. National HIV Prevention Conference; June 2005; Atlanta. Abstract 595.

Acknowledgment: Nancy Berman Lees, Christine Dahlgren, David Webb

Indicator 4-1-4: New HIV Infections per 100 Person-Years at Risk

Category: Disease Impacts

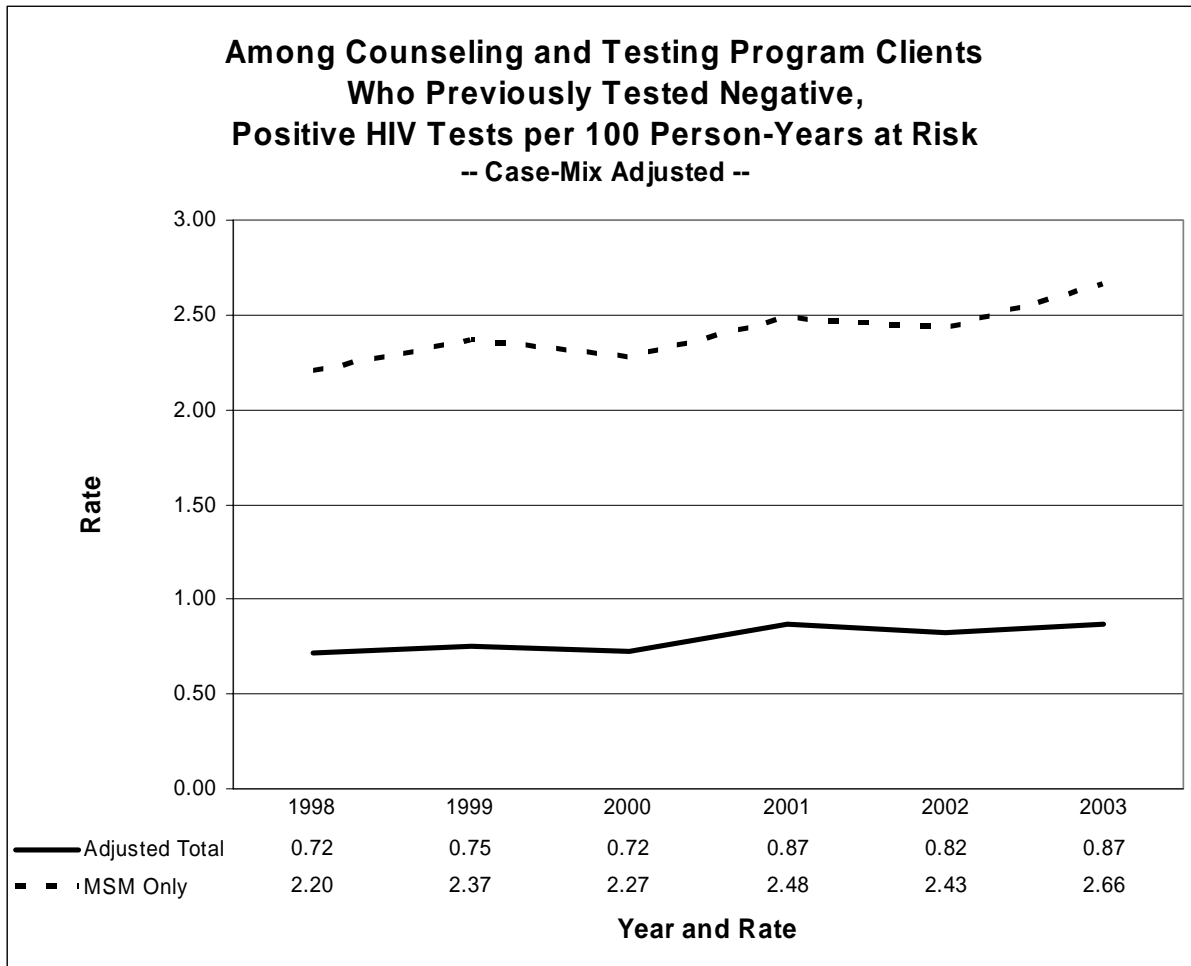
Domain: New Infections

Question: To what extent has incidence of new HIV infection changed over time?

Why it's important: Successful HIV prevention reduces the rate of new HIV infections.

How it's measured: Number of positive HIV tests per 100 person-years at risk among Counseling and Testing Program clients who state that they had a prior negative test and give the date of that test as at least two months ago and not more than 5 years ago. Data are adjusted for change in case mix over time by standardizing to the year 2003 client mix based on 10 tiers of risk groups.

Findings: Adjusted data suggest that rates have increased since 1998. Similarly, rates for MSM also have trended upward.



Sample Size: This measure is based on annual 930-1,250 new infections yearly, of which 580-820 were among MSM.

Strengths/Limitations: The reader is advised to be cautious about over-interpreting year to year changes. Findings may reflect a change in the composition of program clients, for example, a trend toward increased focus on high risk populations. Measurement is limited to repeat testers, who are assumed to be at higher risk. The calculations slightly underestimate the rate of new infections.

Source: Counseling and Testing Program Data, California State Office of AIDS

Acknowledgment: Nancy Berman Lees, Christine Dahlgren, David Webb

Indicator 4-1-5: Primary and Secondary Syphilis

Category: Disease Impacts

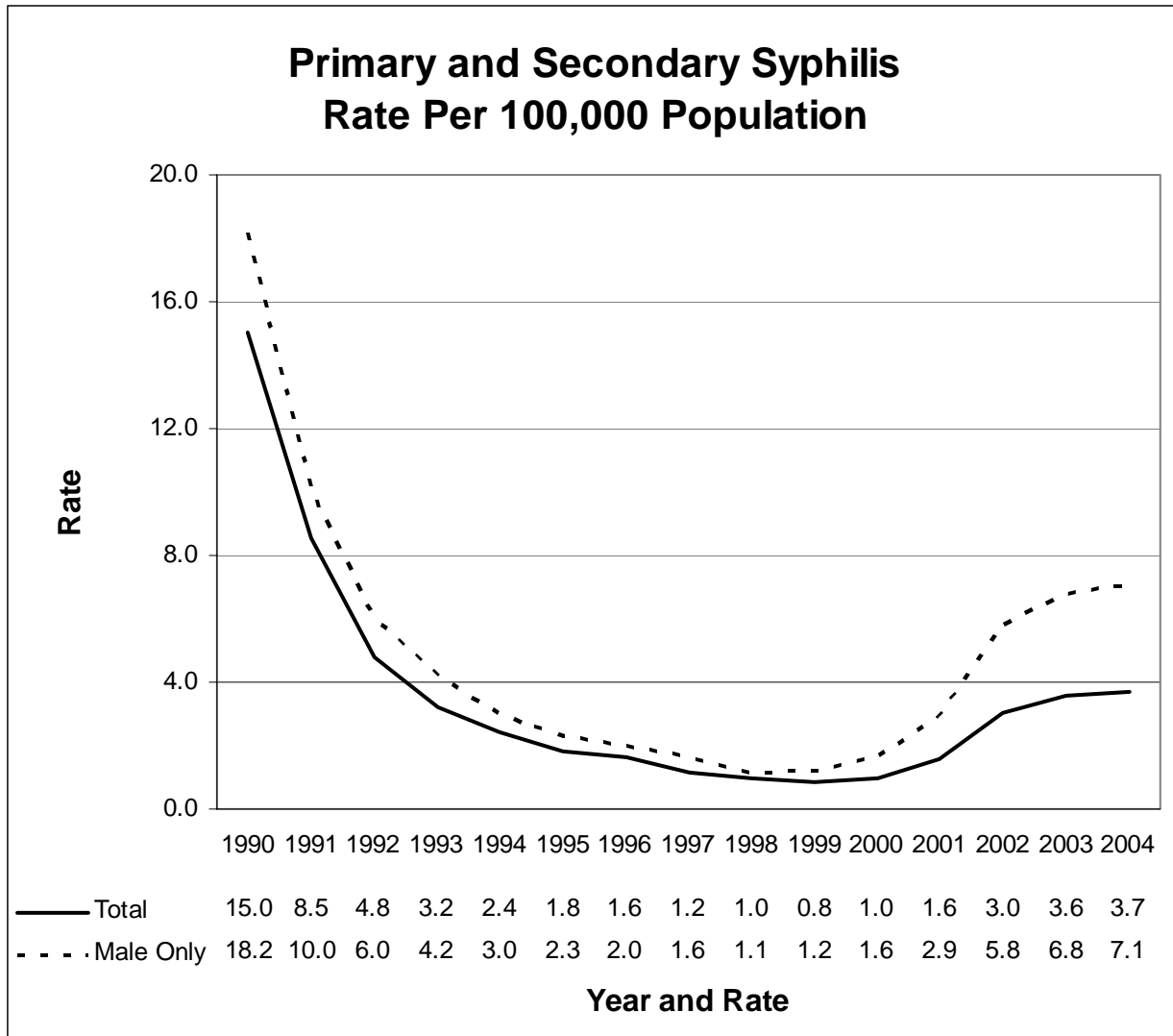
Domain: New Infections

Question: To what extent has incidence of syphilis infections changed over time?

Why it's important: Changes in the rate of new syphilis infections may parallel changes in the rate of new HIV infections.

How it's measured: Number of newly detected cases of primary and secondary syphilis per 100,000 population.

Findings: Rates substantially declined up through 1999, but have since increased. Increases in recent years have been almost entirely among the male population.



Sample Size: In 1990, about 4,500 cases were reported, a number that decreased to 282 in 1999 and has since increased to 1,359. In the most recent year, all but 64 cases were among men.

Strengths/Limitations: Measurement does not include cases that elude detection in the early stages.

Sources: Data compiled from various publications of the California Department of Health Services STD Control Branch. Rates prior to the year 2000 are based on California Department of Finance population estimates.

Indicator 4-1-6: HIV among Primary and Secondary Syphilis Cases

Category: Disease Impacts

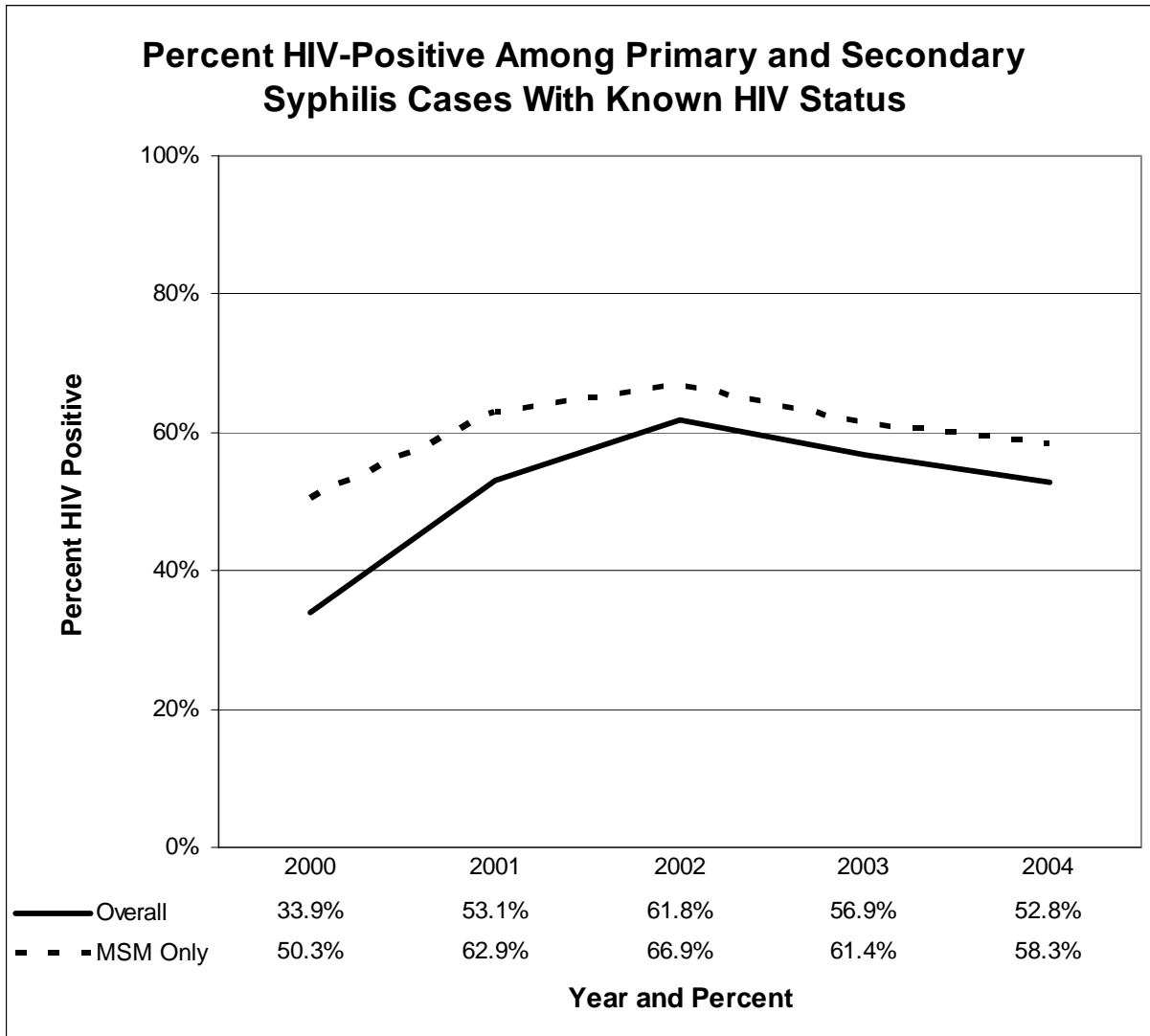
Domain: New Infections

Question: To what extent are new HIV infection and new syphilis infections linked?

Why it's important: Changes in the rate of syphilis infections may parallel changes in the rate of new HIV infections.

How it's measured: Excluding cases where HIV status is unknown, the percent of primary and secondary syphilis cases with a positive HIV test.

Findings: The majority of Primary and Secondary Syphilis Cases also test positive for HIV.



Sample Size: The ratios consider a total of 242-1,116 syphilis cases in any year, with 145-930 among MSM.

Strengths/Limitations: Measurement does not include cases that elude detection in the early stages. HIV status is unknown for large numbers of syphilis cases.

Sources: Lo TQ, Samuel MC. *State of California Syphilis Elimination Surveillance Data*. California Department of Health Services, Syphilis Elimination Branch.

Indicator 4-2-1: New Diagnoses of AIDS

Category: Disease Impacts

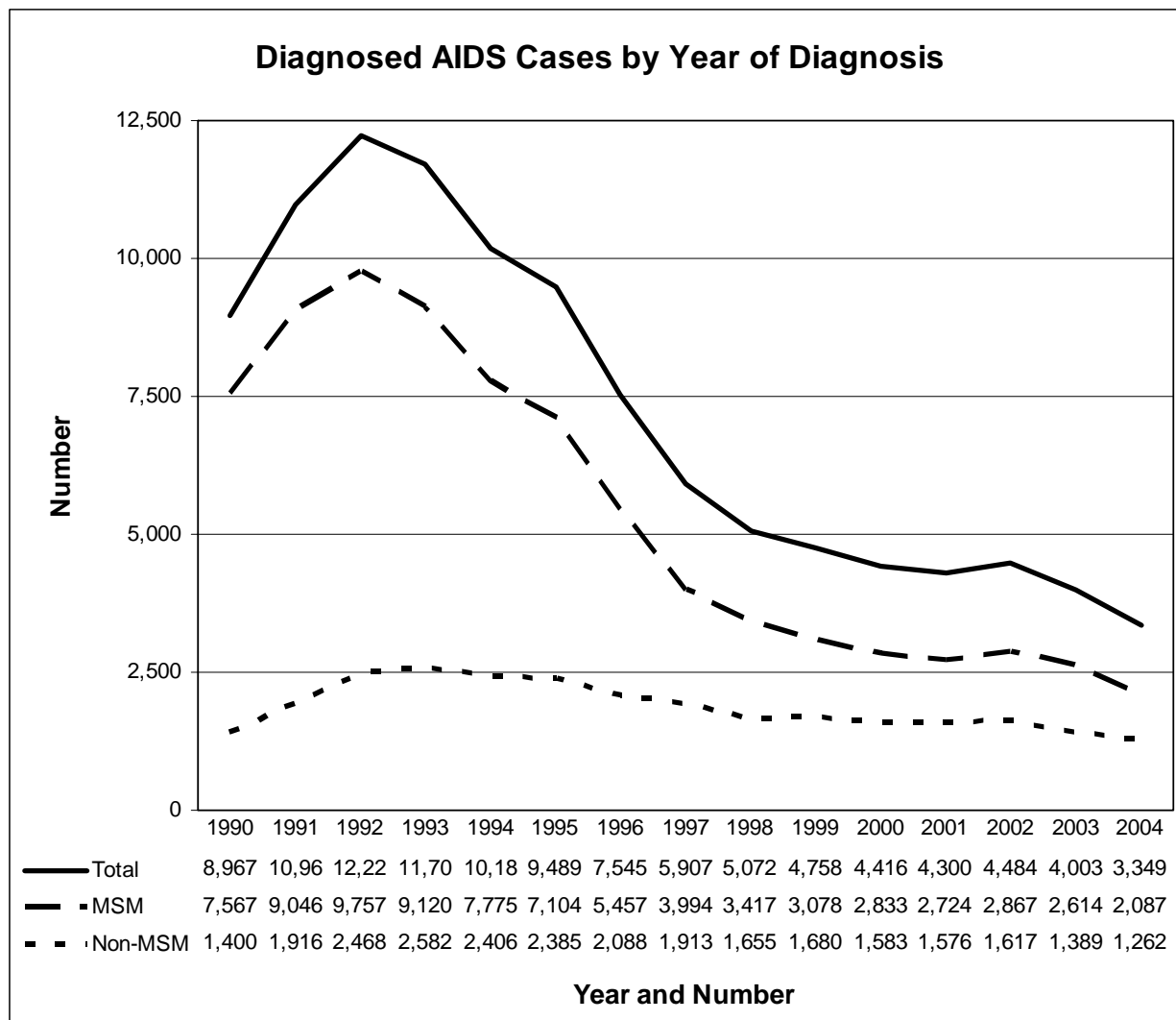
Domain: AIDS

Question: How many new cases of AIDS are diagnosed annually?

Why it's important: Over the longer term, HIV prevention reduces the number of new AIDS cases.

How it's measured: Number of newly diagnosed AIDS cases by year of diagnosis.

Findings: Following rapid increases up through 1992, the annual number of new AIDS cases substantially declined. However, numbers appear to have leveled off in recent years. The pattern for MSM has been similar. However, among non-MSM, the numbers have declined very slowly. Non-MSM constitute an increasing share of the total.



Strengths/Limitations: Findings for recent years are subject to substantial upward revision due to late reporting of new cases. The decline in the number of new AIDS cases since 1992 results from widespread use of anti-viral medications and tells us little about the current spread of HIV.

Source: California Department of Health Services, Office of AIDS-HIV/AIDS Case Registry data as of October 31, 2005.

Acknowledgment: A. Nakamura

Indicator 4-2-2: Number of Persons Living with AIDS

Category: Disease Impacts

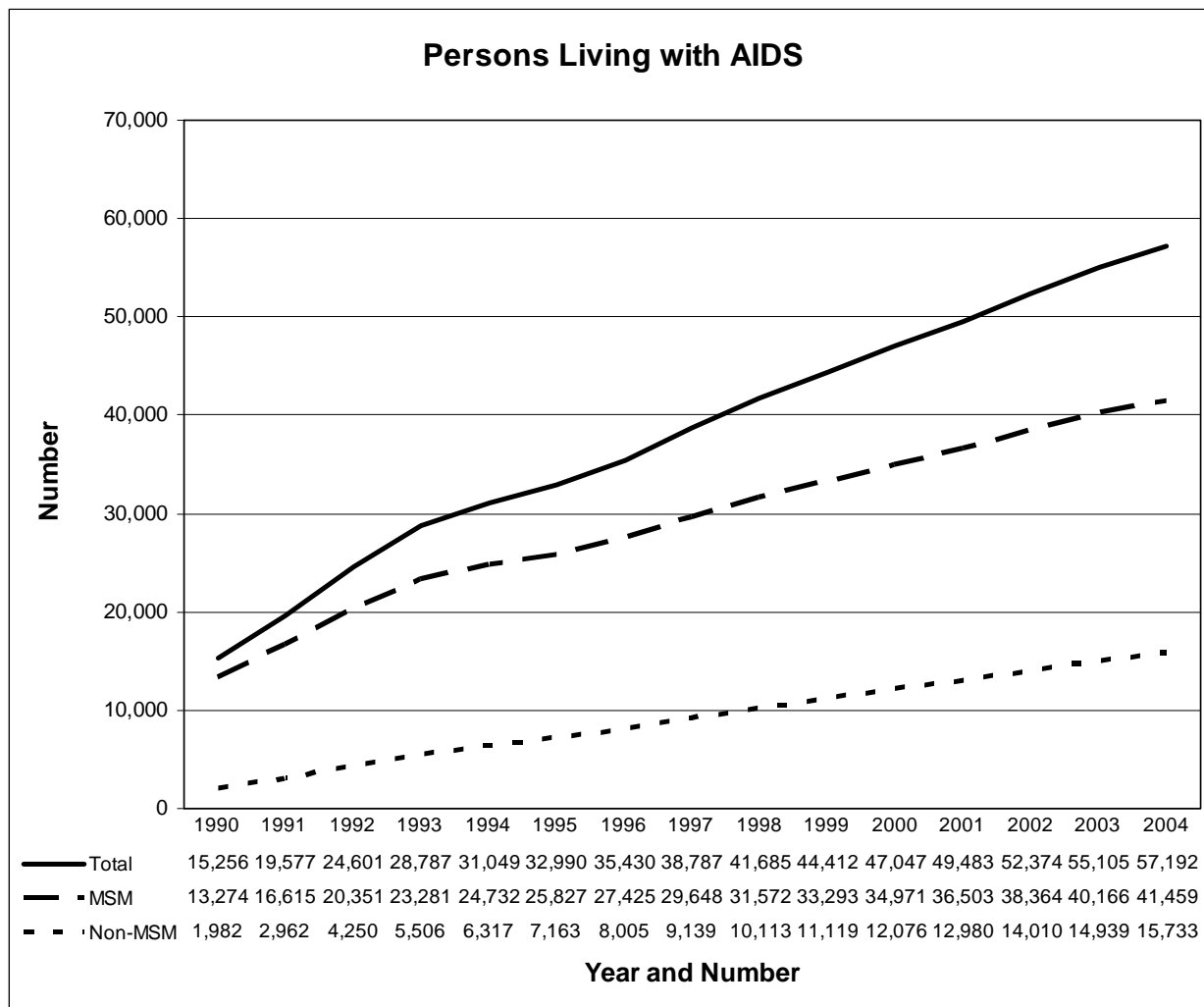
Domain: AIDS

Question: How many people are living with AIDS?

Why it's important: The number of persons living with AIDS presents difficult public policy choices, particularly in regard to financing of AIDS-related services.

How it's measured: Number of persons living with AIDS at end of year.

Findings: The number of persons living with AIDS is increasing at a regular pace, and exceeds 57,000 at the end of 2004.



Strengths/Limitations: The estimated number of persons living with AIDS relies on the AIDS Case Registry and is calculated from annual new cases and annual reported deaths. The measure tells us little about the current spread of HIV.

Sources: California Department of Health Services, Office of AIDS-HIV/AIDS Case Registry data for October 31, 2005.

Acknowledgment: A. Nakamura

Indicator 4-2-3: Deaths of Persons with AIDS

Category: Disease Impacts

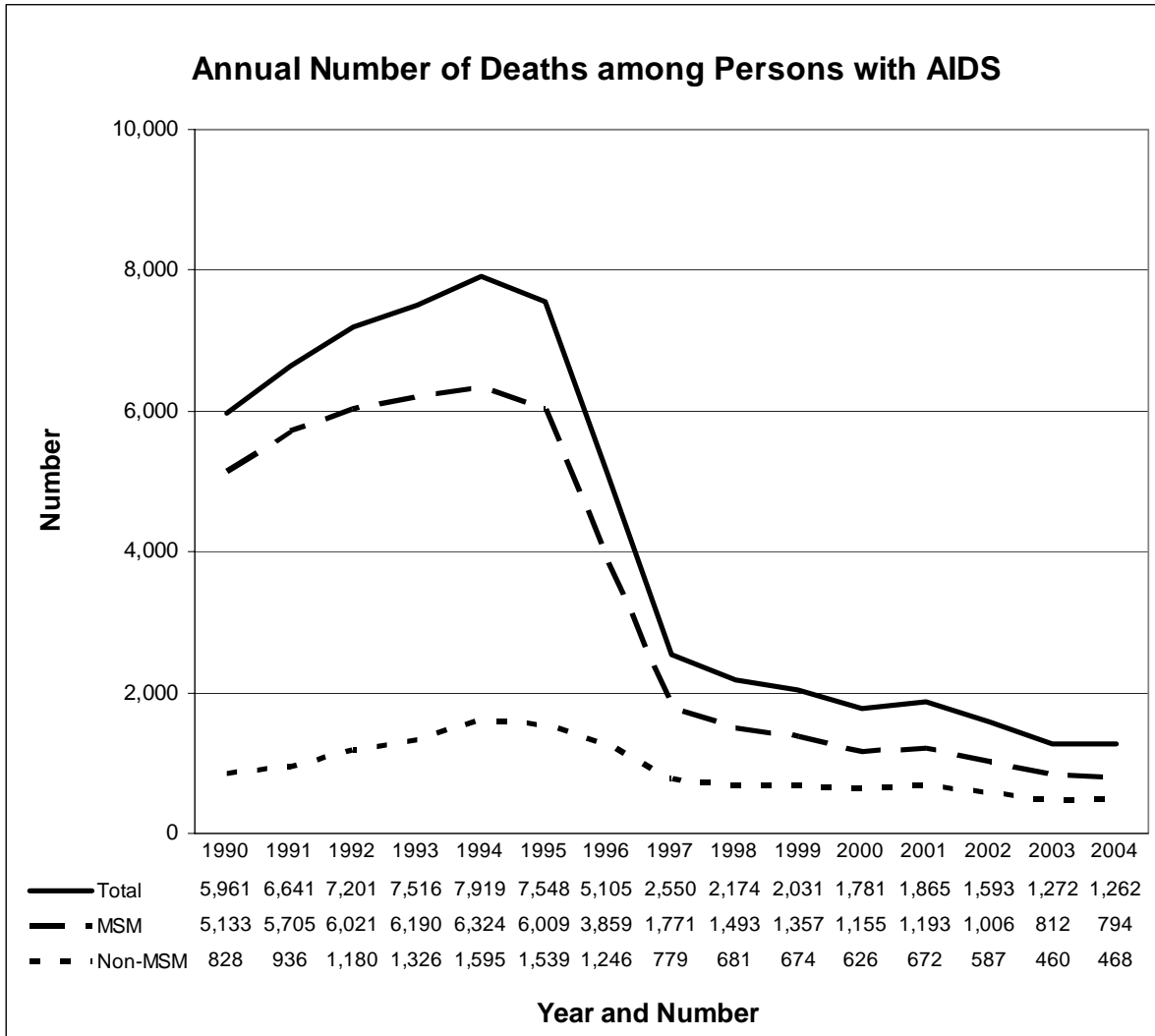
Domain: AIDS

Question: How many people with AIDS die each year?

Why it's important: Over the longer term, HIV prevention reduces the number of deaths among persons with AIDS.

How it's measured: Annual number of deaths among people with AIDS without regard to cause of death.

Findings: Following rapid increases up through 1994, the annual number of deaths dropped precipitously. The pattern is similar among MSM. However, among non-MSM, the declines have been less pronounced.



Strengths/Limitations: The measure includes all deaths of persons with AIDS, and does not restrict to deaths as a consequence of AIDS. The rapid decline in the number of deaths after 1994 results from widespread use of anti-viral medications and, thus, tells us little about the current spread of HIV.

Findings for the most recent years are subject to substantial upward revision due to late reporting.

Sources: California Department of Health Services, Office of AIDS-HIV/AIDS Case Registry data for October 31, 2005.

Acknowledgment: A. Nakamura

Indicator 4-3-1: Cost of Drugs under the AIDS Drug Assistance Program

Category: Disease Impacts

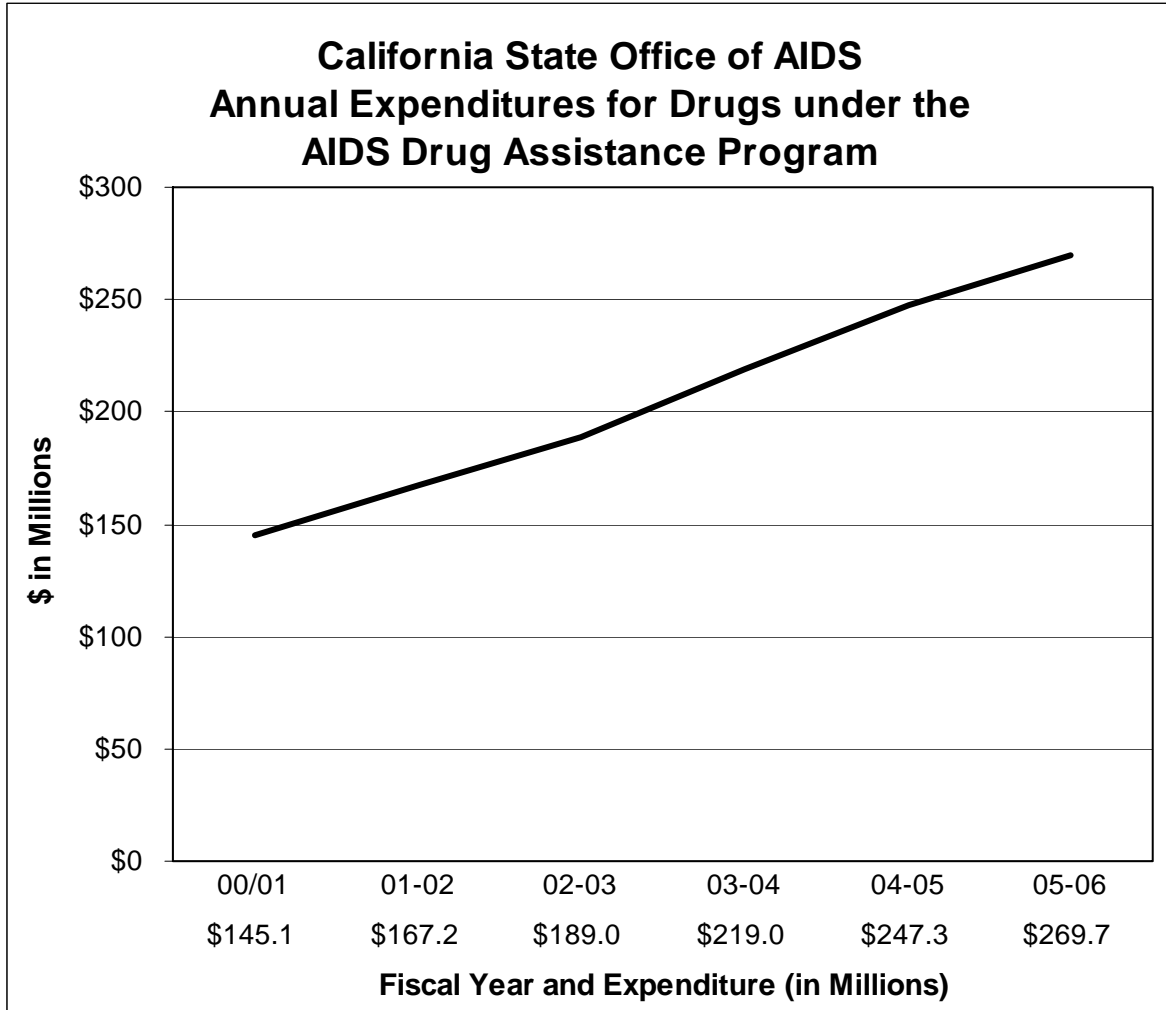
Domain: Cost of Care

Question: How much money is spent on HIV care?

Why it's important: HIV prevention programs can substantially reduce future costs of care for persons with HIV/AIDS.

How it's measured: Funds expended for drugs for AIDS Drug Assistance Program (ADAP) by the California State Office of AIDS by fiscal year. The figure for the current year is a budgeted amount.

Findings: Amounts spend annually are rapidly increasing.



Limitations: The total cost of ADAP drugs also depends on drug prices.

Source: California State Office of AIDS