



# Center for Health Statistics



June  
2004

DATA  
SUMMARY  
No. DS04-  
07005

This Data Summary is one of a series of leading cause of death reports.

## HIGHLIGHTS

- ⚡ **Since 1999, HIVD is the eighth leading cause of death among Black males in California.**
- ⚡ **California's HIVD age-adjusted death rate dropped 7 percent to 4.0 per 100,000 population from 4.3 in 2001.**
- ⚡ **San Francisco County had the highest average HIVD age-adjusted death rate at 19.8 per 100,000 population.**
- ⚡ **California has not yet achieved the Healthy People 2010 National Objective for HIVD of no more than 0.7 deaths per 100,000 population.**

# Human Immunodeficiency Virus Disease Deaths California 2002

By Steven Shippen

## Introduction

In the United States (U.S.), deaths due to human immunodeficiency virus disease (HIVD) declined 11.3 percent from 18,454 in 1999 to 16,371 in 2002.<sup>1</sup> Conversely, at the end of 2002, an estimated 384,906 people in the U.S. were living with HIVD, a 23.6 percent increase from the 311,424 persons living with HIVD in 1999.<sup>1</sup> The data support a Centers for Disease Control and Prevention report stating, "During the mid-to-late 1990's, advances in HIV treatments led to dramatic declines in AIDS deaths and slowed the progression from HIV to AIDS. However, in recent years, the rate of decline for both cases and deaths began to slow, and in 1999, the annual number of AIDS cases appears to be leveling, while the decline in AIDS deaths has slowed considerably."<sup>2</sup>

This report presents data on California's HIVD deaths in 2002, and provides analysis of crude and age-adjusted death rates for California residents by sex, age, race/ethnicity, and county. Data were extracted from California's vital statistics records with death attributed to HIVD as defined by International Classification of Diseases (ICD), Tenth Revision (ICD-10) codes B20-B24, in accordance with the National Center for Health Statistics Reports.<sup>3</sup>

Prior to 1999, in accordance with the National Center for Health Statistics (NCHS), ICD Ninth Revision (ICD-9) codes 042-044 were used for acquired immune deficiency syndrome (AIDS) and human immunodeficiency virus (HIV) infection. NCHS reported that the change in mortality coding methodology from ICD-9 to ICD-10 shows a comparability ratio for HIVD of 1.0637, denoting about 6 percent more deaths due to HIVD using the new ICD-10 methodology.<sup>4</sup> Acceptable under ICD-10, underlying cause of death is coded to HIVD when HIV and any malignant neoplasm is also indicated or pneumonia and the majority of infectious conditions are considered a direct sequel of HIV.<sup>4</sup>

<sup>1</sup>Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2002; Vol. 14, (Oct 03).

<sup>2</sup>Centers for Disease Control and Prevention, Divisions of HIV/AIDS. Surveillance: A Glance at the HIV Epidemic, May 2003, page 3, URL: <http://www.cdc.gov/nchstp/od/news/At-a-Glance.pdf>

<sup>3</sup>National Center for Health Statistics, Vital Statistics: Instructions for Classifying the Underlying Cause of Death. NCHS Instruction Manual, Part 9. Hyattsville, Maryland: Public Health Service. 1999.

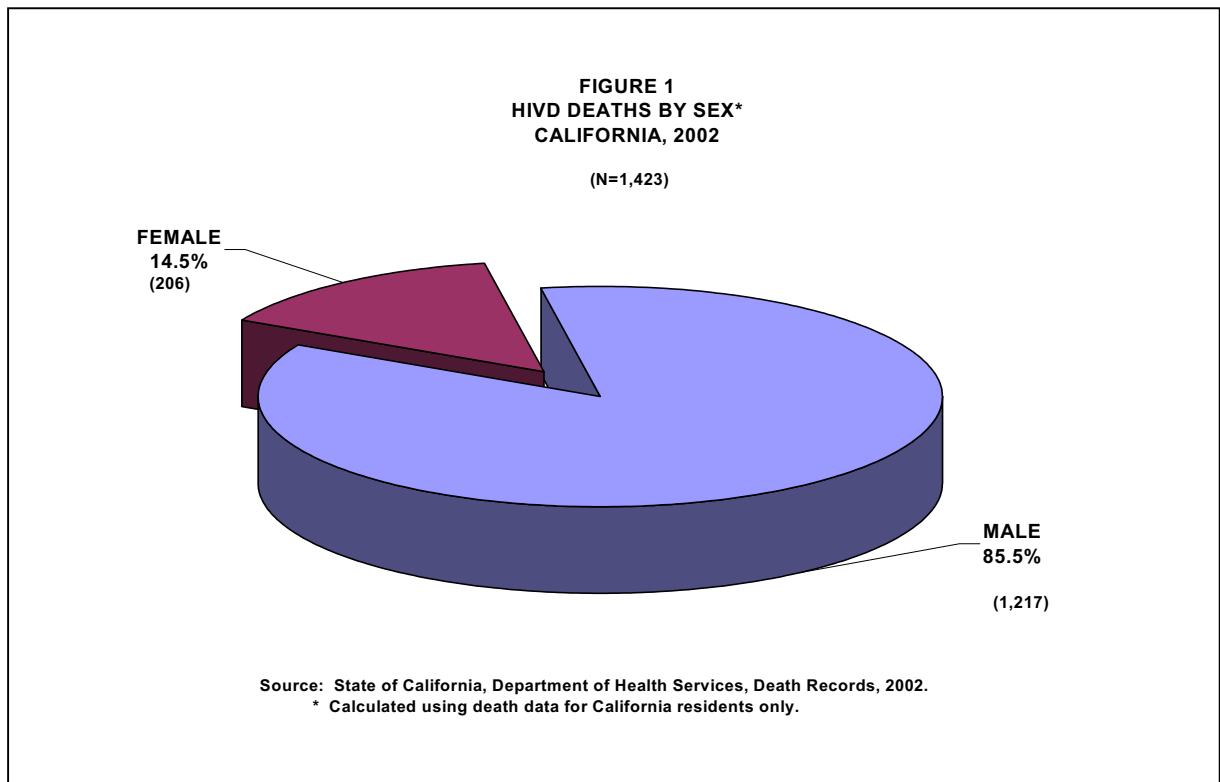
<sup>4</sup>Anderson RN, Minino AM, Hoyert DL, Rosenberg HM. Comparability of Cause of Death Between ICD-9 and ICD-10: Preliminary Estimates. National Vital Statistics Reports; Vol. 49 No. 2. Hyattsville, Maryland: National Center for Health Statistics. 2001.

A description of [methods](#) with a brief overview of [data limitations](#) and [qualifications](#) are provided at the end of this report.

As with other diseases, “survival analysis” is the most appropriate statistical technique for determining whether survival has increased. Therefore, the mortality data within this report should be supplemented with incidence data to adequately measure the impact of the HIVD epidemic. Data related to the incidence of HIVD in California can be obtained from the Department of Health Services, Office of AIDS.

## HIVD Deaths

**Table 1** (page 9) shows HIVD death data for California residents by race/ethnicity, age group, and sex. Overall, HIVD deaths in 2002 decreased by 72 or 4.8 percent from HIVD deaths in 2001.<sup>5</sup> Approximately seventy-two percent of all HIVD deaths in 2002 occurred among people in the age groups 35 to 54, a slight increase from the 69.2 percent of deaths reported for the same age groups in 2001.



HIVD deaths among California residents remain significantly higher for males than for females. As shown in **Figure 1**, males accounted for 1,217 or 85.5 percent of the total HIVD deaths and females accounted for 206 or 14.5 percent. For every female HIVD death there were six male HIVD deaths.

As shown in **Table 1** (page 9), in 2002 Whites had the highest number of HIVD deaths, 654 or 46.0 percent, followed by Blacks with 363 deaths or 25.5 percent; Hispanics with 358 deaths or 25.2 percent; and Asian/Other with 48 deaths or 3.4 percent.

In 2002, Asian/Other was the only race/ethnic group with more HIVD deaths than in 2001. Deaths for Asian/Other increased by 13 or 37.1 percent, Hispanic deaths decreased by 35 or 8.9 percent, Black deaths decreased by 22 or 5.7 percent, and White deaths decreased by 28 or 4.1 percent.

<sup>5</sup>Shippen S. *Human Immunodeficiency Virus Disease Deaths California 2001*. California Department of Health Services, Center for Health Statistics, July 2003.

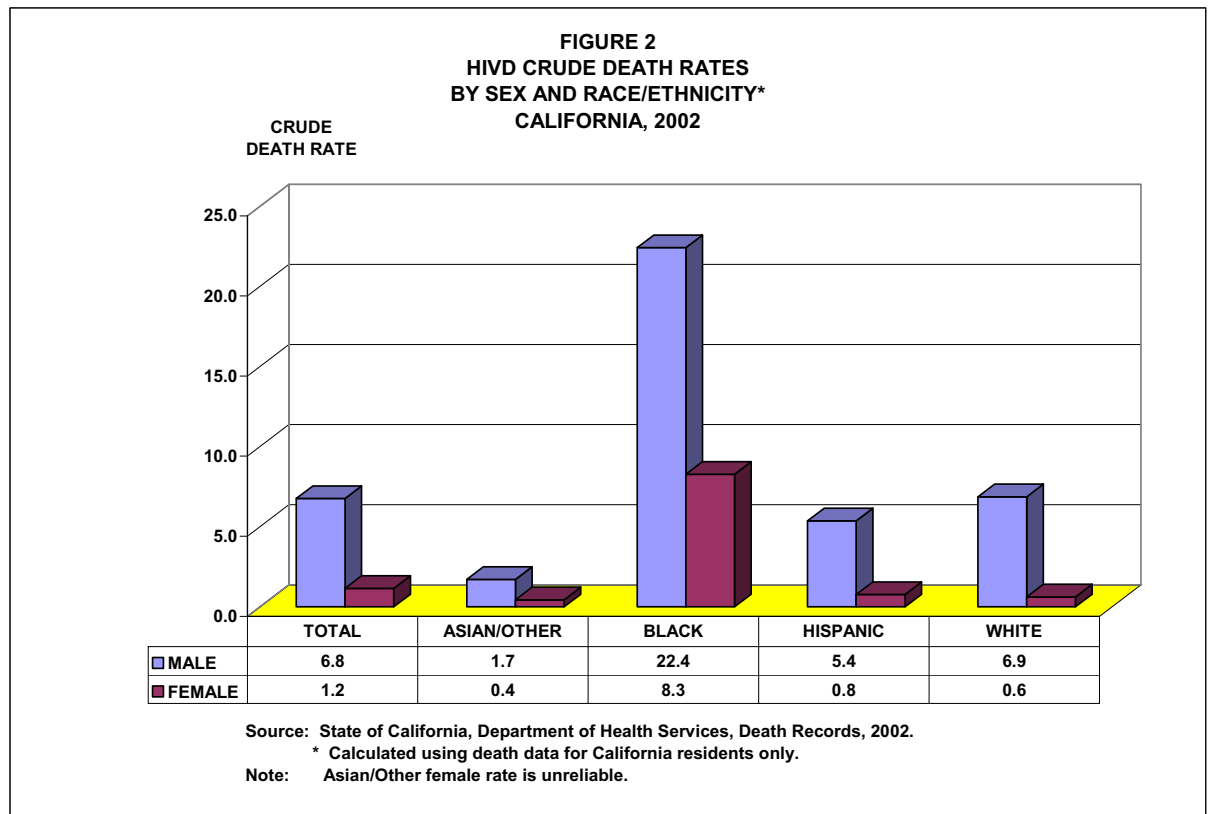
See the [Methodological Approach Section](#) later in this report for an explanation of crude, age-specific, and age-adjusted death rates.

HIVD deaths remain significantly higher for males than females among the four major race/ethnic groups. Since 1999, HIVD has been the eighth leading cause of death among Black males in California.<sup>6</sup>

## HIVD Crude Death Rates

Table 1 (page 9) shows California's HIVD crude death rate in 2002 was 4.0 per 100,000 population, 4.8 percent lower than the crude death rate of 4.2 in 2001.<sup>5</sup>

Compared with 2001, California's crude death rate among males declined 6.8 percent from 7.3 to 6.8 per 100,000 population in 2002. Among females, the crude death rate remained unchanged from the 2001 rate of 1.2 per 100,000 population.<sup>5</sup>



As shown in **Table 1** (page 9), Blacks had the highest crude death rate (15.3), followed by Whites (3.7), Hispanics (3.2), and Asian/Other (1.1). The crude death rate for Blacks was significantly higher than the other race/ethnic groups.

Compared with 2001, Asian/Other was the only race/ethnic group to experience a higher crude death rate, an increase of 37.5 percent from 0.8 per 100,000 population. Blacks decreased 6.1 percent, Hispanics decreased 11.1 percent, and Whites decreased 5.1 percent from their respective 2001 rates of 16.3, 3.6, and 3.9 per 100,000 population. None of these changes were statistically significant.

**Figure 2** shows that among males in 2002, Black males had the highest crude death rate (22.4 per 100,000 population) followed by White males (6.9), Hispanic males (5.4), and Asian/Other males (1.7). Among females, Blacks had the highest crude death rate (8.3),

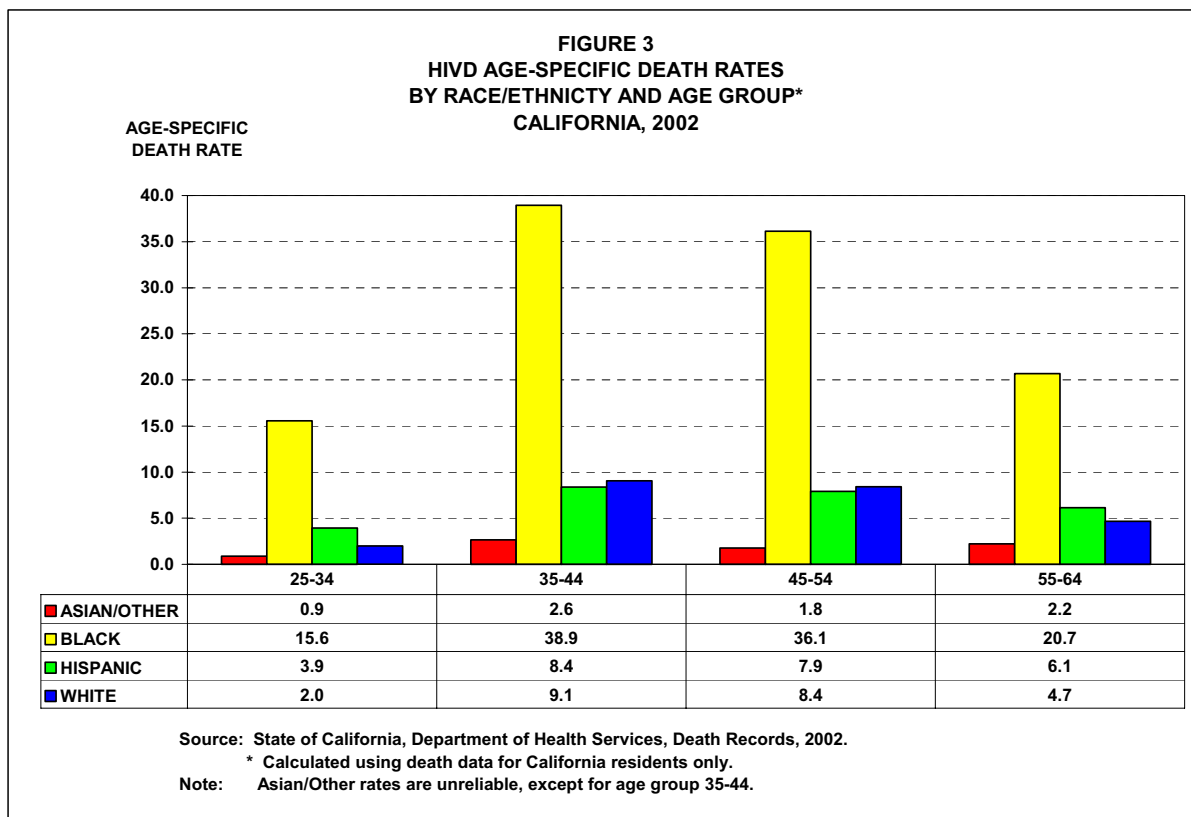
<sup>6</sup>State of California, Department of Health Services, Death Records.

See the Vital Statistics Query System (VSQ) at our web site [www.dhs.ca.gov/hisp/Applications/vsg/vsg.cfm](http://www.dhs.ca.gov/hisp/Applications/vsg/vsg.cfm) to create your own vital statistics tables.

followed by Hispanics (0.8), and Whites (0.6). Comparisons of reliable rates within each race/ethnic group show significantly higher crude death rates for males than females. The crude rate for Asian/Other females was unreliable (0.4).

### HIVD Age-Specific Death Rates

As shown in **Table 1** (page 9), reliable male age-specific death rates were higher than the corresponding rates for females overall and for each race/ethnic group in 2002. Both male and female residents experienced their highest age-specific death rates, 16.6 and 3.1 respectively, in age group 35 to 44. In 2001, the highest age-specific death rate among males (17.5) occurred in age group 35 to 44 while the highest rates for females (2.6) were in age groups 35 to 44 and 45 to 54.<sup>5</sup>



**Figure 3** shows age-specific death rates in 2002 by race/ethnicity and age group. Averaging four times higher than Hispanics and five times higher than Whites, Blacks had the highest age-specific death rate across age groups (25 to 64). In each case, the highest age-specific death rate for Asian/Other (2.6), Blacks (38.9), Hispanics (8.4) and Whites (9.1) occurred in age group 35 to 44. Of the reliable rates, the differences between age-specific death rates for Blacks and the other race/ethnic groups were statistically significant. None of the Asian/Other age-specific rates were reliable, except for age group 35 to 44.

In 2001, the highest reliable age-specific death rate among Blacks (41.3) and Hispanics (9.8) occurred in age group 45 to 54. Whites (9.3) had their highest reliable age-specific rate in age group 35 to 44.<sup>5</sup>

You can read more about crude and age-adjusted death rates on the National Center for Health Statistics Web site at [www.cdc.gov/nchs](http://www.cdc.gov/nchs)

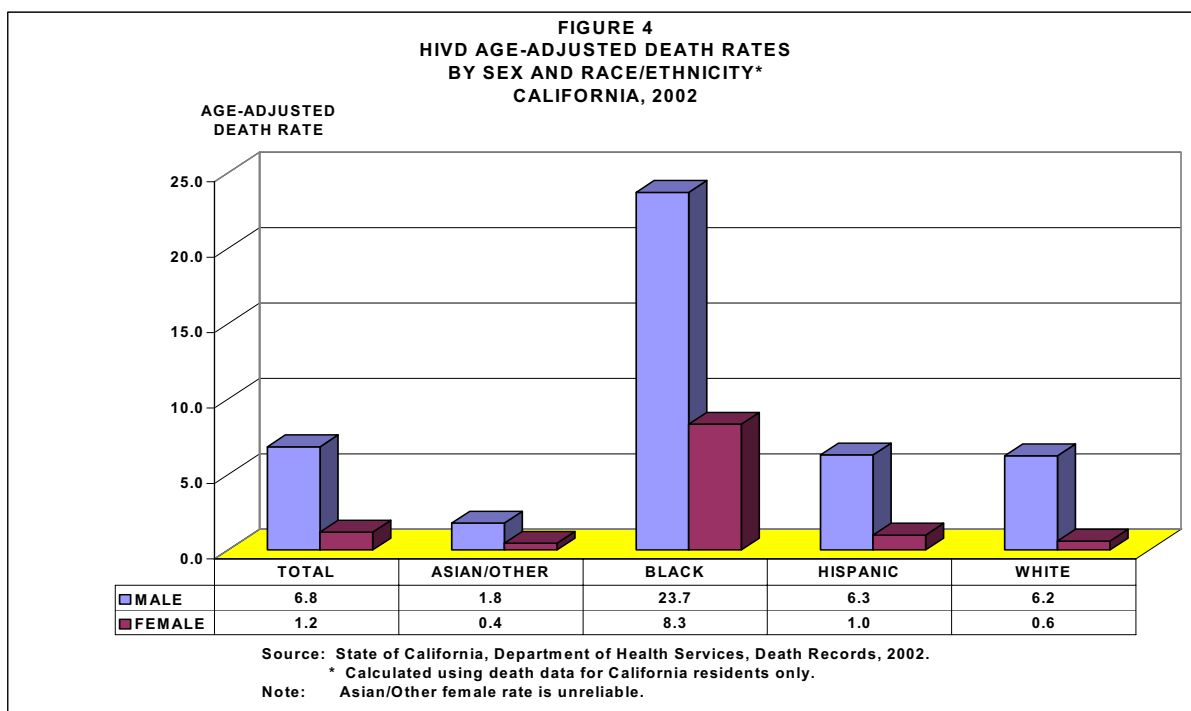
## HIVD Age-Adjusted Death Rates

As shown in **Table 1** (page 9), California's age-adjusted death rate in 2002 was 4.0 per 100,000 population, seven percent lower than the 4.3 rate in 2001.<sup>5</sup> Although the 2002 rate was below the U.S. age-adjusted death rate of 4.9 in 2002, California did not meet the Healthy People 2010 National Health Objective of reducing the number of HIVD deaths to an age-adjusted death rate of no more than 0.7 per 100,000 population.<sup>7,8</sup>

Compared with 2001, California's male age-adjusted death rate decreased 8.1 percent from 7.4 to 6.8 per 100,000 population in 2002. Conversely, the female age-adjusted death rate remained unchanged at 1.2 per 100,000 population. Males were six times more likely to die from HIVD than were females. Of the reliable rates, the differences between the male and female age-adjusted rates overall and within each race/ethnic group were statistically significant.

Among the race/ethnic groups in 2002, Blacks had the highest age-adjusted death rate (15.7 per 100,000 population), followed by Hispanics (3.8), Whites (3.4), and Asian/Other (1.1). From 2001 to 2002, the age-adjusted death rate for Blacks, Hispanics, and Whites decreased by 7.1 percent, 11.6 percent, and 5.6 percent, respectively. The age-adjusted death rate for Asian/Other increased 37.5 percent from 2001; however, none of the age-adjusted rate changes from 2001 to 2002 were statistically significant.

**Figure 4** shows age-adjusted death rates by sex and race/ethnicity. Male age-adjusted death rates were significantly higher than corresponding female rates overall and within each race/ethnic group. Male rates were 10.3 times higher than female rates for Whites, 6.3 times higher for Hispanics, and 2.9 times higher for Blacks.



<sup>7</sup> Kochanek KD, Smith BL. *Deaths: Preliminary Data for 2002*. National Vital Statistics Reports; Vol. 52, No. 13. Hyattsville, Maryland: National Center for Health Statistics, 2004.

<sup>8</sup> U.S. Department of Health and Human Services. *Healthy People 2010 Objectives* (Second Edition, in Two Volumes). Washington, D.C., January 2001.

For more data, see DHS Center for Health Statistics, Home Page at [www.dhs.ca.gov/org/hisp/chs/default.htm](http://www.dhs.ca.gov/org/hisp/chs/default.htm)

Black males (23.7) and Black females (8.3) had significantly higher age-adjusted death rates than their counterparts among the race/ethnic groups. Asian/Other females were the only gender specific race/ethnic group with an unreliable age-adjusted death rate.

Among males, 2001 to 2002, the age-adjusted death rate decreased for Hispanics by 12.5 percent, followed by an 11.2 percent decrease for Blacks, and a 6.1 percent decrease for Whites. The Asian/Other male rate increased 20 percent. Among females, 2001 to 2002, Hispanics were the only race/ethnic group with a decrease (16.7 percent) in the age-adjusted death rate. The age-adjusted death rate for Black females increased 3.8 percent while White females were unchanged. The rates for Asian/Other females were unreliable and none of the gender specific age-adjusted rate changes from 2001 to 2002 were statistically significant.

## HIVD Death Rates for California Counties

**Table 2** (page 10) shows the number of HIVD deaths averaged over a three-year period from 2000 to 2002 with crude and age-adjusted death rates for California and its 58 counties.

Los Angeles County had the highest average number of deaths (522.0), followed by San Francisco County (185.7), and San Diego County (128.3).

Among the 13 counties with reliable crude death rates, San Francisco County had the highest rate (23.4), followed by Los Angeles County (5.3) and Riverside County (4.8). Orange County had the lowest reliable crude rate at 1.9 HIVD deaths per 100,000 population.

Among the 13 counties with reliable age-adjusted death rates, San Francisco County had the highest age-adjusted rate at 19.8 per 100,000 population, 11.0 times higher than the lowest age-adjusted rate of 1.8 in Santa Clara County.

The Healthy People 2010 National Objective to reduce HIVD deaths to an age-adjusted rate of no more than 0.7 deaths per 100,000 population was met by ten counties (none with reliable age-adjusted death rates). California as a whole did not meet the objective with an average age-adjusted death rate of 4.2 for the three-year period.

## HIVD Deaths among the Three City Health Jurisdictions

**Table 3** (page 7) shows the three-year average (2000-2002) number of HIVD deaths and crude death rates for California's three city health jurisdictions. Age-adjusted death rates were not calculated for city health jurisdictions because city population data by age are not available.

TABLE 3  
DEATHS DUE TO HIV/AIDS  
AMONG THE CITY HEALTH JURISDICTIONS  
CALIFORNIA, 2000-2002\*

CITY HEALTH JURISDICTION	NUMBER OF DEATHS (Average)	2001 POPULATION	CRUDE DEATH RATE
BERKELEY	2.7	103,600	2.6 **
LONG BEACH	49.0	466,500	10.5
PASADENA	9.0	135,300	6.7 **

Note: Rates are per 100,000 population; ICD-10 codes B20-B24.

\* Calculated using death data for California residents only.

\*\* Death rate unreliable, relative standard error is greater than or equal to 23 percent.

Source: State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2003, with 2000 DRU Benchmark.  
State of California, Department of Health Services, Death Records.

Long Beach had the highest average number of deaths (49.0), followed by Pasadena (9.0), and Berkeley (2.7). The crude death rates were 2.6 per 100,000 population for Berkeley, 10.5 for Long Beach, and 6.7 for Pasadena. However, the rates for Berkeley and Pasadena were not reliable.

## Methodological Approach

The methods used to analyze vital statistics data are important. Analyzing only the number of deaths has its disadvantages and can be misleading because the population at risk is not taken into consideration. Crude death rates show the actual rate of dying in a given population, but because of the differing age compositions of various populations, crude rates do not provide a statistically valid method for comparing geographic areas and/or multiple reporting periods. Age-specific death rates are the number of deaths per 100,000 population in a specific age group and are used along with standard population proportions to develop a weighted average rate. This is referred to as an age-adjusted death rate and removes the effect of different age structures of the populations whose rates are being compared. Age-adjusted death rates therefore provide the preferred method for comparing different race/ethnic groups, sexes, and geographic areas and for measuring death rates over time. The year 2000 population standard is used as the basis for age-adjustments in this report.

## Data Limitations and Qualifications

The HIVD death data presented in this report are based on vital statistics records with ICD-10 codes B20-B24 as defined by the NCHS.<sup>3</sup> Deaths by place of residence means that the data include only those deaths occurring among residents of California and its counties, regardless of the place of death.

The term “significant” within the text indicates statistically significant based on the difference between two independent rates ( $p < .05$ ).

As with any vital statistics data, caution needs to be exercised when analyzing small numbers, including the rates derived from them. Death rates calculated from a small number of deaths and/or population tend to be unreliable and subject to significant variation from one year to the next. To assist the reader, 95 percent confidence intervals are provided in the data tables as a tool for measuring the reliability of death rates. Rates with a relative standard error (coefficient of variation) greater than or equal to 23 percent are indicated with an asterisk (\*).

Beginning in 1999 cause of death is reported using ICD-10.<sup>9</sup> Cause of death for 1979 through 1998 was coded using ICD-9. Depending on the specific cause of death, the number of deaths and death rate are not comparable between ICD-9 and ICD-10. This is the second year that rates in **Tables 2** and **3** are based upon three-year averages using ICD-10 coding for the HIVD cause of death.

---

<sup>9</sup>World Health Organization. International Statistical Classification of Diseases and Related Health Problems. Tenth Revision. Geneva: World Health Organization. 1992.

The race/ethnic groups presented in the tables are mutually exclusive. White, Black, and Asian/Other exclude Hispanic ethnicity, while Hispanic includes any race/ethnic group. In order to remain consistent with the population data obtained from the Department of Finance, the “White race/ethnic group” includes: White, Other (specified), Not Stated, and Unknown; and the “Asian/Other race/ethnic group” includes: Aleut, American Indian, Asian Indian, Asian (specified/unspecified), Cambodian, Chinese, Eskimo, Filipino, Guamanian, Hawaiian, Hmong, Japanese, Korean, Laotian, Other Pacific Islander, Samoan, Thai, and Vietnamese. In addition, caution should be exercised in the interpretation of mortality data by race/ethnicity. Misclassification of race/ethnicity on the death certificate may contribute to death rates that may be underestimated among Hispanics and Asian/Other.<sup>10</sup>

Beginning in 2000 federal race/ethnic reporting guidelines changed to allow the reporting of up to three races on death certificates. The race/ethnic groups in this report were tabulated based on the first listed race on those certificates for which more than one race was listed. Therefore race/ethnic comparison should not be made with race/ethnic data prior to year 2000.

Effective 1999 the standard population for calculating mortality data age-adjustments was changed from the 1940 population standard to the year 2000 population standard, in accordance with new statistical policy implemented by the National Center for Health Statistics. The new population standard affects measurement of mortality trends and group comparisons. Of particular note are the effects on race comparison of mortality.<sup>11</sup> Age-adjusted rates presented in this report are not comparable to rates calculated with different population standards.

In addition, the population data used to calculate the crude rates in **Table 3** (page 6) differ from the population data used to calculate the crude rates in **Table 2** (page 10). Consequently, caution should be exercised when comparing the crude rates among the three city health jurisdictions with the rates among the 58 California counties. Age-adjusted rates for city health jurisdictions were not calculated.

For a more complete explanation of the age-adjustment methodology used in this report, see the “Healthy People 2010 Statistical Notes” publication.<sup>11</sup> Detailed information on data quality and limitations is presented in the appendix of the annual report “Vital Statistics of California.”<sup>12</sup> Formulas used to calculate death rates are included in the technical notes of the “County Health Status Profiles” report.<sup>13</sup>

This Data Summary was prepared by Steven Shippen, Center for Health Statistics, 1616 Capitol Avenue, Suite 74.165, MS 5103, P.O. Box 997410, Sacramento, CA 95899-7410, Telephone (916) 650-6896 and Fax (916) 650-6889.

---

<sup>10</sup>Rosenberg HM, et al. Quality of Death Rates by Race and Hispanic Origin: A Summary of Current Research, 1999. Vital and Health Statistics, Series 2 No. 128, National Center for Health Statistics, DHHS (PHS) Pub. No. 99-1328. September 1999.

<sup>11</sup>Klein RJ, Schoenborn CA. Healthy People 2010 Statistical Notes: Age Adjustment using the 2000 Projected U.S. Population. National Center for Health Statistics, DHHS Publication, No. 20. January 2001.

<sup>12</sup>Riedmiller K, Ficenc S, Bindra K, Christensen J. *Vital Statistics of California, 2000*. Center for Health Statistics, California Department of Health Services. November 2003.

<sup>13</sup>Shippen S, Wilson C, *County Health Status Profiles 2004*. Center for Health Statistics, California Department of Health Services. April 2004.





**TABLE 2**  
**HIVD DEATHS**  
**CALIFORNIA COUNTIES, 2000-2002**  
**(By Place of Residence)**

COUNTY	2000 - 2002 DEATHS (AVERAGE)	PERCENT	2001 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
CALIFORNIA	1,457.0	100.0	35,233,335	4.1	4.2	4.0	4.4
ALAMEDA	70.0	4.8	1,492,004	4.7	4.5	3.4	5.5
ALPINE	0.0	0.0	1,268	0.0 +	0.0 +	-	-
AMADOR	0.7	a	35,242	1.9 *	1.5 *	0.0	5.1
BUTTE	3.3	0.2	213,040	1.6 *	1.6 *	0.0	3.3
CALAVERAS	1.7	0.1	43,392	3.8 *	4.4 *	0.0	11.2
COLUSA	0.3	a	22,012	1.5 *	1.5 *	0.0	6.5
CONTRA COSTA	32.0	2.2	942,662	3.4	3.3	2.1	4.4
DEL NORTE	0.3	a	31,801	1.0 *	1.0 *	0.0	4.2
EL DORADO	3.3	0.2	168,912	2.0 *	2.0 *	0.0	4.1
FRESNO	30.3	2.1	825,365	3.7	4.1	2.6	5.5
GLENN	0.0	0.0	30,291	0.0 +	0.0 +	-	-
HUMBOLDT	5.0	0.3	129,211	3.9 *	3.8 *	0.4	7.1
IMPERIAL	2.7	0.2	161,177	1.7 *	2.2 *	0.0	4.8
INYO	0.0	0.0	18,510	0.0 +	0.0 +	-	-
KERN	12.7	0.9	694,749	1.8 *	2.0 *	0.9	3.1
KINGS	3.7	0.3	129,375	2.8 *	3.0 *	0.0	6.1
LAKE	3.7	0.3	62,080	5.9 *	7.6 *	0.0	15.4
LASSEN	0.7	a	36,759	1.8 *	2.1 *	0.0	7.2
LOS ANGELES	522.0	35.8	9,925,413	5.3	5.3	4.8	5.7
MADERA	4.3	0.3	131,052	3.3 *	3.8 *	0.2	7.4
MARIN	7.7	0.5	249,634	3.1 *	2.8 *	0.8	4.9
MARIPOSA	0.0	0.0	17,218	0.0 +	0.0 +	-	-
MENDOCINO	2.0	0.1	91,963	2.2 *	2.4 *	0.0	5.9
MERCED	4.3	0.3	219,936	2.0 *	2.2 *	0.1	4.2
MODOC	0.0	0.0	10,589	0.0 +	0.0 +	-	-
MONO	0.3	a	11,081	3.0 *	2.5 *	0.0	11.0
MONTEREY	11.7	0.8	409,511	2.8 *	3.0 *	1.3	4.7
NAPA	1.7	0.1	129,130	1.3 *	1.3 *	0.0	3.3
NEVADA	2.0	0.1	99,670	2.0 *	2.1 *	0.0	5.1
ORANGE	55.3	3.8	2,872,632	1.9	1.9	1.4	2.4
PLACER	1.7	0.1	252,688	0.7 *	0.7 *	0.0	1.7
PLUMAS	0.0	0.0	21,044	0.0 +	0.0 +	-	-
RIVERSIDE	78.3	5.4	1,626,134	4.8	5.2	4.1	6.4
SACRAMENTO	50.3	3.5	1,236,054	4.1	4.0	2.9	5.2
SAN BENITO	0.3	a	53,577	0.6 *	0.7 *	0.0	3.0
SAN BERNARDINO	58.0	4.0	1,771,707	3.3	3.5	2.6	4.4
SAN DIEGO	128.3	8.8	3,005,038	4.3	4.7	3.9	5.6
SAN FRANCISCO	185.7	12.7	794,342	23.4	19.8	16.9	22.6
SAN JOAQUIN	17.3	1.2	593,538	2.9 *	3.1 *	1.7	4.6
SAN LUIS OBISPO	6.0	0.4	262,123	2.3 *	2.5 *	0.5	4.5
SAN MATEO	20.3	1.4	759,313	2.7	2.5	1.4	3.6
SANTA BARBARA	4.0	0.3	417,331	1.0 *	1.0 *	0.0	1.9
SANTA CLARA	35.3	2.4	1,795,132	2.0	1.8	1.2	2.5
SANTA CRUZ	7.7	0.5	264,525	2.9 *	2.8 *	0.8	4.8
SHASTA	2.3	0.2	179,892	1.3 *	1.4 *	0.0	3.1
SIERRA	0.0	0.0	3,465	0.0 +	0.0 +	-	-
SISKIYOU	1.3	0.1	45,624	2.9 *	3.3 *	0.0	9.0
SOLANO	17.7	1.2	408,095	4.3 *	4.3 *	2.3	6.3
SONOMA	19.3	1.3	468,682	4.1	3.8	2.1	5.5
STANISLAUS	11.0	0.8	472,096	2.3 *	2.5 *	1.0	4.0
SUTTER	1.0	0.1	83,999	1.2 *	1.3 *	0.0	3.8
TEHAMA	0.7	a	57,642	1.2 *	1.2 *	0.0	4.3
TRINITY	0.0	0.0	13,605	0.0 +	0.0 +	-	-
TULARE	5.3	0.4	388,730	1.4 *	1.6 *	0.2	3.0
TUOLUMNE	1.0	0.1	57,497	1.7 *	1.8 *	0.0	5.4
VENTURA	17.0	1.2	763,586	2.2 *	2.3 *	1.2	3.4
YOLO	4.3	0.3	167,259	2.6 *	3.0 *	0.1	5.9
YUBA	1.0	0.1	64,938	1.5 *	1.7 *	0.0	5.1

Source: State of California, Department of Finance, 2001 Population Projections with Age, Sex and Race/Ethnic Detail, December 1998; Department of Health Services, Death Records.

a Represents a percentage of more than zero but less than 0.05.  
\* Death rate unreliable, relative standard error is greater than or equal to 23 percent.  
+ Standard error indeterminate, death rate based on no (zero) deaths.  
- Confidence limit is not calculated for no (zero) events.

Note: ICD-10 codes B20-B24; rates are per 100,000 population. Year 2000 U.S. standard population is used for age-adjusted rates.