



## Center for Health Statistics



May 2008

DATA  
SUMMARY  
No.  
DS08-05001

This data summary is one of a series in leading cause of death reports.

### Highlights

- **Over seventy-one percent of the 2005 HIV disease deaths occurred among California residents between the ages of 35 to 54.**
- **California's highest age-adjusted HIV disease death rate in 2005 was found among Blacks (15.4 deaths per 100,000 population).**
- **From 2004 to 2005 the age-adjusted HIV disease death rate increased by 11.5 percent among Blacks while it decreased in all other race/ethnic groups with reliable rates.**
- **San Francisco County (19.6) had the highest reliable age-adjusted HIV disease death rate while Santa Clara County (1.5) had the lowest.**

# Human Immunodeficiency Virus Disease Deaths California, 2005

By Sally Jew-Lochman

## Introduction

Human Immunodeficiency Virus (HIV) disease covers the entire HIV spectrum from initial HIV infection to full-blown Acquired Immunodeficiency Syndrome (AIDS).<sup>1</sup> By killing or damaging cells of the body's immune system, HIV disease progressively destroys the body's ability to fight infections and certain cancers.<sup>2</sup> People initially infected with HIV may not look or feel sick as it may take more than ten years to develop AIDS.<sup>3</sup> There is no cure for HIV disease; however, a number of drugs have been developed to slow the spread of HIV in the body and delay the onset of AIDS. In the United States (U.S.) the number of deaths due to HIV disease decreased 4.6 percent from 13,063 in 2004 to 12,456 in 2005.<sup>4</sup> In California HIV disease deaths decreased 6.7 percent from 1,377 in 2004 to 1,285 in 2005.<sup>5</sup>

Currently HIV disease is not among the 15 leading causes of death for the general population in California or the U.S. Yet it is an infectious disease that poses a threat to approximately one million Americans living with HIV/AIDS. Of those living with HIV disease, roughly 25 percent are not aware that they are infected.<sup>6</sup> The epidemic is growing most rapidly in minority populations and is a leading killer of Black males ages 25 to 44.<sup>2</sup>

The U.S. Public Health Service established a number of health objectives as part of the Healthy People 2010 (HP2010) initiative that relates to HIV disease.<sup>7</sup>

<sup>1</sup> San Francisco AIDS Foundation, The Stages of HIV Disease, September 2007. URL: [http://sfaf.org/aids101/hiv\\_disease.html](http://sfaf.org/aids101/hiv_disease.html) Accessed January 31, 2008.

<sup>2</sup> National Institutes of Health, National Institute of Allergy and Infectious Disease. HIV Infection and AIDS: An Overview, October 2007. URL: <http://www.niaid.nih.gov/factsheets/hivinf.htm> Accessed January 31, 2008.

<sup>3</sup> Mayo Clinic, HIV Infection and AIDS, January 2008. URL: <http://www.mayoclinic.com/health/hiv-aids/DS00005/DSECTION=2> Accessed January 31, 2008.

<sup>4</sup> National Center for Health Statistics. Deaths: Preliminary Data for 2005. URL: <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/prelimdeaths05/prelimdeaths05.htm> Accessed January 31, 2008.

<sup>5</sup> State of California, Department of Public Health. Death Records.

<sup>6</sup> Glynn M, Rhodes P. *Estimated HIV Prevalence in the United States at the End of 2003*. National HIV Prevention Conference. Atlanta, Georgia. June 2005.

<sup>7</sup> United States Department of Health and Human Services. *Healthy People 2010 Midcourse Review*. Washington, DC: U.S. Government Printing Office, December 2006.

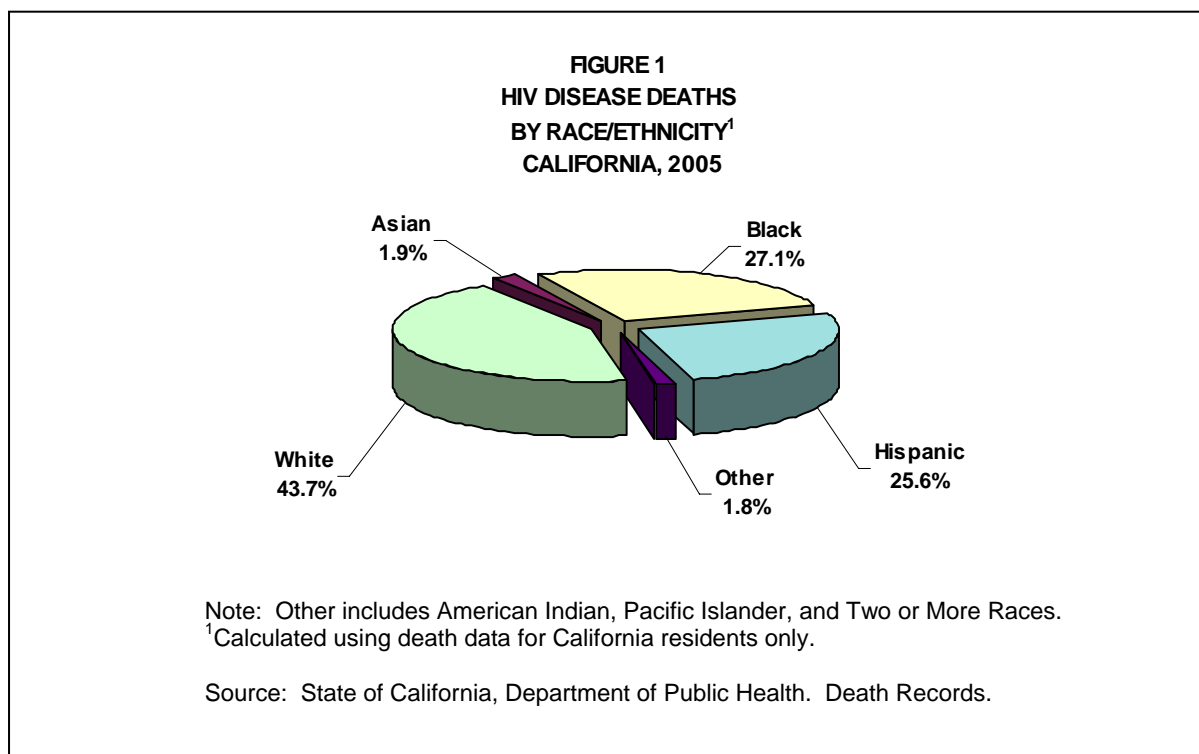
A brief overview of [data limitations and qualifications](#) is provided at the end of this report.

The goal is to reduce deaths from HIV infection to no more than 0.7 deaths per 100,000 population (age-adjusted to the year 2000 population). Neither the U.S. nor California with age-adjusted death rates of 4.2 and 3.5, respectively, has yet achieved the HP2010 objective.<sup>4,5</sup>

This report presents data on California resident deaths due to HIV disease focusing on 2005. The analyses include a presentation of crude and age-specific death rates and comparisons of age-adjusted death rates by sex, age, race/ethnicity, and county. Crude rates reflect mortality risk of a current or real population, age-specific rates are the most useful method for comparing risk among age groups, and age-adjusted rates allow comparison among groups and over time while controlling for differences in the age structures of comparison groups. The data were extracted from vital statistics records with deaths attributed to these diseases as defined by the International Classification of Diseases, Tenth Revision (ICD-10) codes B20 to B24 in accordance with the National Center for Health Statistics (NCHS).<sup>8</sup>

## HIV Disease Deaths

**Table 1** (page 11) shows the number of HIV disease deaths for 2005 among California residents by race/ethnicity, age, and sex. There were a total of 1,285 deaths recorded consisting of 179 females (13.9 percent) and 1,106 males (86.1 percent). Californians between the ages of 35 to 54 made up 71.5 percent of all 2005 HIV disease deaths. The largest proportion of deaths (36.4 percent) occurred in the 35 to 44 age group.



<sup>8</sup>Centers for Disease Control and Prevention. Instructions for Classifying the Underlying Cause of Death, 2008. *NCHS Instruction Manual*, Part 2a. National Center for Health Statistics. Hyattsville, Maryland. January 2008.

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

**Figure 1** (page 2) shows that Whites had the highest percentage of deaths with 43.7 percent followed by Blacks with 27.1 percent, Hispanics with 25.6 percent, and Asians with 1.9 percent and Other with 1.8 percent. Other includes American Indians (0.9 percent), Pacific Islanders (0.2 percent), and Two or More Races (0.7 percent). Percentages may not total to 100 percent due to rounding.

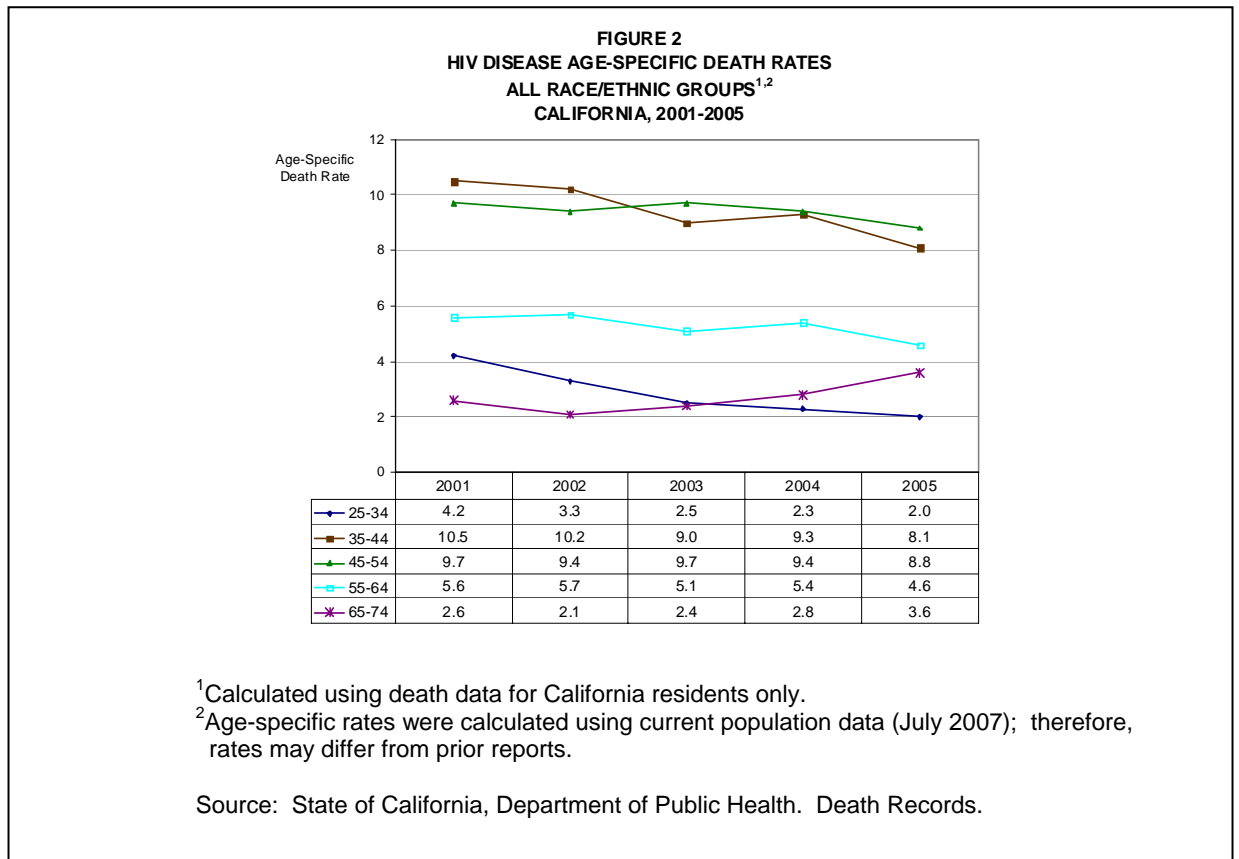
## HIV Crude Death Rates

California's 2005 HIV crude death rate of 3.5 per 100,000 population (**Table 1**, page 11) was lower than the U.S. rate of 4.2.<sup>2</sup> Blacks had the highest reliable rate (15.4) followed by Whites (3.4), Hispanics (2.5), and Asians (0.6). The differences in reliable crude rates between each race/ethnic group were significant.

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 of comparing sex or race/ethnic groups, geographic reporting areas, or multiple reporting periods.

## HIV Age-Specific Death Rates

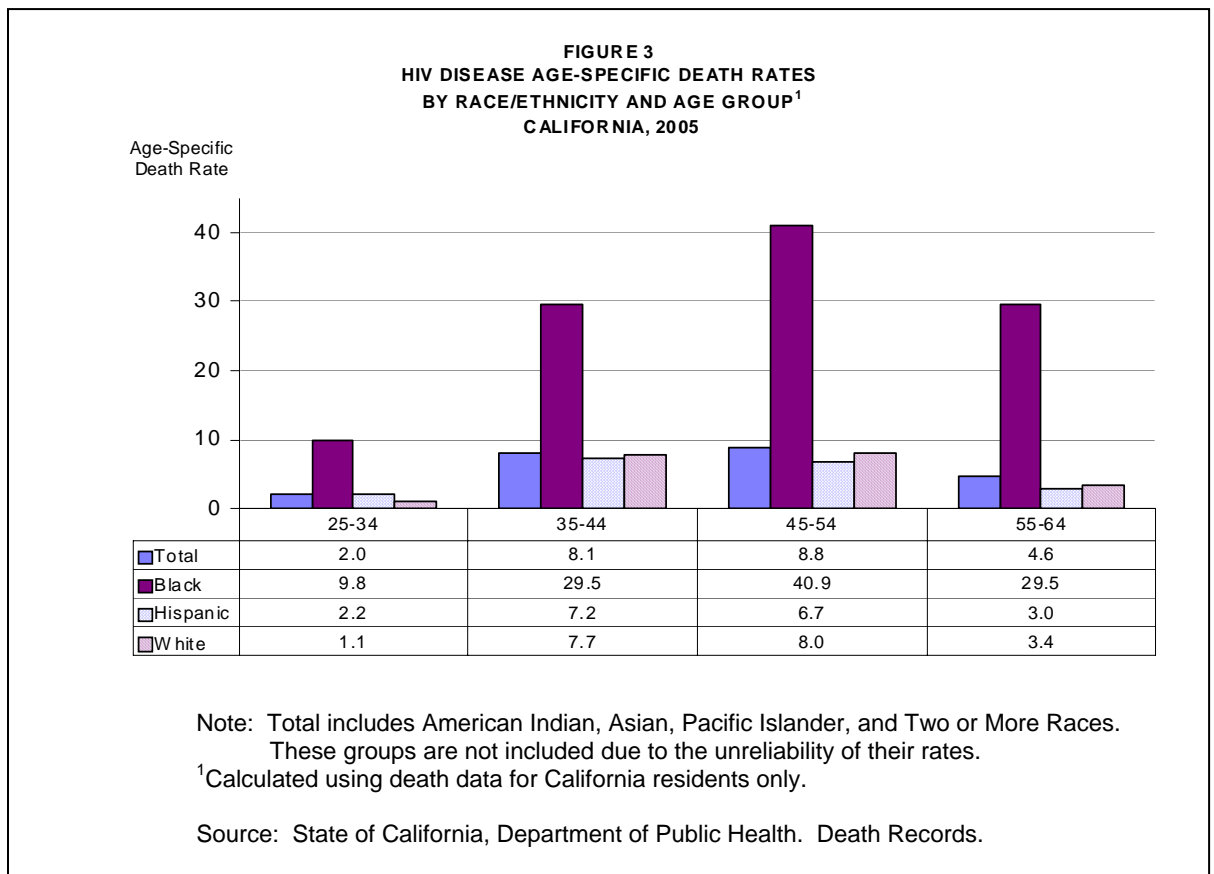
**Table 1** (page 11) displays 2005 age-specific death rates by sex and race/ethnicity. Overall, reliable age-specific death rates due to HIV disease ranged from a low of 2.0 deaths per 100,000 population for those 25 to 34 years of age to a high of 8.8 deaths per 100,000 population for those 45 to 54 years of age. For all race/ethnic groups combined, males had higher death rates than their female counterparts in all age groups with reliable rates.



See the CHS Vital Statistics Query System (VSQ) at <http://www.applications.dhs.ca.gov/vsq/default.asp> to create customized statistical tables.

**Figure 2** (page 3) shows the 2001 to 2005 reliable age-specific death rates for California residents. The rates for residents in age groups from 25 to 64 decreased over the 5-year period but increased for residents 65 to 74 years of age. A similar pattern held true for the changes in rates between 2004 and 2005. The largest decrease in rates for this period occurred among residents 55 to 64 years of age (14.8 percent).

**Figure 3** shows the reliable age-specific death rates for 2005 by race/ethnicity for residents 25 to 64 years of age. The rates for American Indians, Asians, Pacific Islanders, and Two or More Races were not shown individually due to unreliable rates. Blacks had the highest death rates in all four age groups (9.8, 29.5, 40.9, and 29.5, respectively). Hispanics had the lowest death rates in the 35 to 44, 45 to 54, and 55 to 64 age groups (7.2, 6.7, and 3.0, respectively) while Whites had the lowest rates in the 25 to 34 age group (1.1). The death rate among Black residents ranged from a low of 3.8 times higher than Whites in the 35 to 44 age group to a high of 8.7 times higher in the 55 to 64 age group.

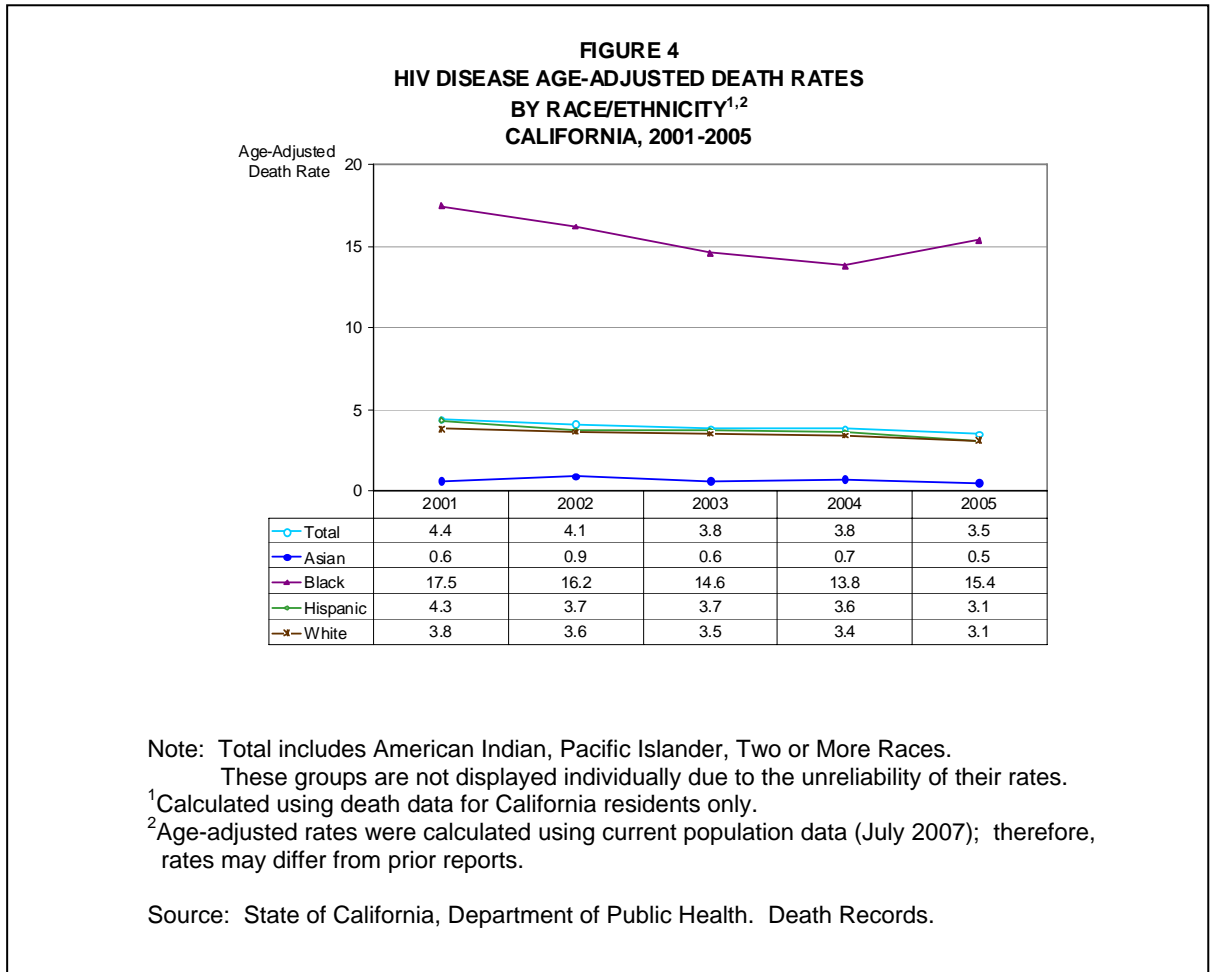


## HIV Age-Adjusted Death Rates

**Table 1** (page 11) displays 2005 HIV age-adjusted death rates by sex and race/ethnicity. California's 2005 age-adjusted death rate was 3.5 deaths per 100,000 population. Blacks had the highest age-adjusted death rate (15.4). Hispanics and Whites both had the second highest (3.1), while Asians had the lowest rate (0.5). Reliable death rates were significantly different between these race/ethnic groups except between Hispanics and Whites.

Read more about crude and age-adjusted death rates on the National Center for Health Statistics site found at <http://www.cdc.gov/nchs>

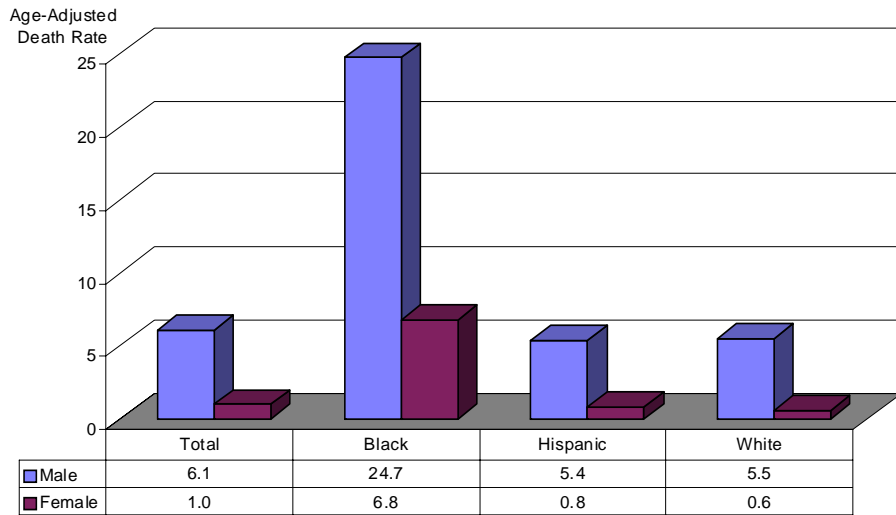
**Figure 4** shows trends in California’s HIV disease age-adjusted death rates from 2001 to 2005 for race/ethnic groups with reliable rates. The overall age-adjusted rate decreased by 20.5 percent, from 4.4 deaths per 100,000 population in 2001 to 3.5 deaths per 100,000 population in 2005. Significant decreases also occurred among Whites (18.4 percent) and Hispanics (27.9 percent) but the decreases among Blacks and Asians were not significant. Between 2004 and 2005, the only age-adjusted rate that increased was among Blacks (11.5 percent).



**Figure 5** (page 6) shows the 2005 age-adjusted death rates by sex and race/ethnicity. The overall death rate for males (6.1) was significantly higher than for all females (1.0), as were the rates for males in all race/ethnic groups with reliable rates. Black males had the highest death rate (24.7) followed by Black females (6.8), White males (5.5), Hispanic males (5.4), Hispanic females (0.8), and White females (0.6). Black males had significantly higher rates than all other sex and race/ethnicity groups. Among males, the rate among Blacks was 4.5 times higher than the second highest group. The rate in Black females was 8.5 times higher than the next highest group.

Additional CHS data and reports can be found at: <http://www.dhs.ca.gov/ohir/reports>

**FIGURE 5**  
**HIV DISEASE AGE-ADJUSTED DEATH RATES**  
**BY SEX AND RACE/ETHNICITY<sup>1</sup>**  
**CALIFORNIA, 2005**



Note: Total includes American Indian, Asian, Pacific Islander, and Two or More Races. These groups are not displayed individually due to the unreliability of their rates.  
<sup>1</sup>Calculated using death data for California residents only.

Source: State of California, Department of Public Health. Death Records.

## HIV Disease Rates for California Counties

**Table 2** (page 12) shows the three-year average numbers of HIV deaths during 2003 to 2005 with crude and age-adjusted death rates for California and its 58 counties. County crude and age-adjusted HIV death rates were calculated using 2004 mid-year population denominators and are presented as rates per 100,000 population.

Reliable age-adjusted rates ranged from a high of 19.6 in San Francisco County to a low of 1.5 in Santa Clara County. Four counties had reliable age-adjusted rates that were significantly different from the state rate; two county rates were higher and two were lower than the state rate of 3.7. **Figure 6** (page 13) shows a thematic map of the 2003-2005 age-adjusted death rates for all California counties.

Please refer to the Data Limitations and Qualifications section for language regarding significance testing between the county and state age-adjusted rates.

## HIV Deaths for City Health Jurisdictions

**Table 3** shows the 2003 to 2005 average numbers of HIV deaths and crude death rates for California's three city health jurisdictions. Long Beach had the highest average number of deaths (43.3) followed by Pasadena (5.3) and Berkeley (3.7). Long Beach was the only jurisdiction with a reliable crude death rate (8.9).

Age-adjusted death rates were not calculated for the city health jurisdictions because city population data by age are not available.

**TABLE 3  
HIV DEATHS  
AMONG THE CITY HEALTH JURISDICTIONS<sup>1</sup>  
CALIFORNIA, 2003-2005**

CITY HEALTH JURISDICTION	NUMBER OF DEATHS (Average)	2004 POPULATION	CRUDE DEATH RATE
BERKELEY	3.7	104,193	3.5 *
LONG BEACH	43.3	487,079	8.9
PASADENA	5.3	143,995	3.7 *

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

<sup>1</sup>Calculated using death data for California residents only.

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

Sources: State of California, Department of Public Health. Death Records. State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2007, with 2000 Benchmark, May 2007.

## 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 sex or race/ethnic groups, geographic areas 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. The weighted average rate 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.

Age-adjusted rates are presented when the single summary measure is needed, but data analysts should inspect age-specific rates first.<sup>9</sup> Age-specific rates provide insights to important age-related mortality trends that can be masked by age-adjusted rates. For example, a shift in the number of deaths from one age group to another could produce very little change in the age-adjusted rate, but may warrant further investigation. In

<sup>9</sup>Choi BCK, de Guia NA, and Walsh P. Look before you leap: Stratify before you standardize. *American Journal of Epidemiology*, 149: 1087-1096. 1999.

addition, analysis of age-specific rates can reveal that populations being compared do not show a consistent relationship (e.g., the trend is not in the same direction for all age-specific rates) in which case the analysis of age-specific rates is recommended over age-adjusted rates.

## Data Limitations and Qualifications

The HIV disease death data presented in this report are based on the vital statistics records with ICD-10 code B20-B24 as defined by the NCHS.<sup>8</sup> Deaths by place of residence means that the data include only those deaths occurring among residents of that geographic area within California, regardless of the place of death.

The term “significant” within the text indicates statistical significance based on the difference between two independent rates ( $p < .05$ ). Significant difference between the county and state age-adjusted death rates was determined by comparing the 95 percent confidence intervals (CI) of the two rates, which are based on the rate, standard deviation, and standard error. Rates were considered to be significantly different from each other when their CIs (rounded to the nearest hundredth) did not overlap. If the upper limit of the county CI fell below the lower limit of the state CI, the county rate was deemed to be significantly lower. If the lower limit of the county CI exceeded the higher limit of the state CI, the county rate was deemed to be significantly higher. Significant differences of overlapping CIs were not addressed in this report. Overlapping CIs require a more precise statistical measure to determine significant and non-significant differences in rates because CIs may overlap as much as 29 percent and still be significantly different.<sup>10</sup>

The county or state age-adjusted mortality rates that equaled or surpassed the HP2010 objective target rate were noted as achieved, regardless of rate reliability. Readers are cautioned that measuring progress toward target attainment for a HP2010 objective using only one data point is not recommended. HP2010 guidelines recommend using absolute differences between the target rate and the most recent data point as well as a progress quotient to measure relative changes over time in monitoring progress toward achieving the objective target rate.<sup>11</sup> See the guidelines for HP2010 objectives on the NCHS website at <http://www.cdc.gov/nchs/hphome.htm>

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. To assist the reader, the 95 percent CIs 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 (\*). The CIs represent the range of values likely to contain the “true” value 95 percent of the time.

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<sup>10</sup> van Belle G. *Statistical Rules of Thumb, Rule 2.5*. Wiley Publishing. March 2002.

<sup>11</sup> Keppel KG, et al. Measuring Progress in Healthy People 2010. *Healthy People 2010 Statistical Notes*, No. 25. National Center for Health Statistics. Hyattsville, Maryland. September 2004.



Beginning in 1999 cause of death has been reported using ICD-10.<sup>12</sup> Cause of death for 1979 through 1998 was coded using the International Classification of Diseases, Ninth Revision (ICD-9). Depending on the specific cause of death, the numbers of deaths and death rates are not comparable between ICD-9 and ICD-10. Therefore, our analyses do not combine both ICD-9 and ICD-10 data.

To meet the U.S. Office of Management and Budget minimum standards for race and ethnicity data collection and reporting, the report presents the following race/ethnic groups: American Indian, Asian, Black, Hispanic, Pacific Islander, White, and Two or More Races. Hispanic origin of decedents is determined first and includes any race group. Second, decedents of the Two or More Races group are determined and are not reported in single race groups. In order to remain consistent with the population data obtained from the Department of Finance, the single race groups are defined as follows: the “American Indian” race group includes Aleut, American Indian, and Eskimo; the “Asian” race group includes Asian Indian, Asian (specified/unspecified), Cambodian, Chinese, Filipino, Hmong, Japanese, Korean, Laotian, Thai, and Vietnamese; the “Pacific Islander” race group includes Guamanian, Hawaiian, Samoan, and Other Pacific Islander; the “White” race group includes White, Other (specified), Not Stated, and Unknown.

Caution should be exercised in the interpretation of mortality data by race/ethnicity. Misclassification of race/ethnicity on death certificates may contribute to death rates that may be understated among American Indians, Asians, Hispanics, and Pacific Islanders.<sup>13</sup> This problem could contribute to understatements of rates for the Two or More Races group as well. All race groups may not be individually displayed on the tables due to unreliable rates, but the state totals do include their data.

Beginning in 2000 federal race/ethnicity reporting guidelines changed to allow reporting of more than one race on death certificates. California initiated use of the new guidelines on January 1, 2000, and collects up to three races. To be consistent with the population groups, current reports tabulate race of decedent using all races mentioned on the death certificate. Therefore, prior reports depicting race group statistics based on single race are not comparable with current reports.

The 2000 U.S. standard population was used for calculating age-adjustments in accordance with statistical policy implemented by NCHS.<sup>14</sup> Age-adjusted death rates are not comparable when rates are calculated with different population standards, e.g., the 1940 standard population. Age-adjusted rates for city health jurisdictions were not calculated. Caution should be exercised when comparing the crude rates of the three city health jurisdictions with the crude rates of the 58 California counties. Population data used to calculate city crude rates in **Table 3** (page 7) differ from population data used to calculate county crude rates in **Table 2** (page 12).

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<sup>12</sup>World Health Organization. *International Statistical Classification of Diseases and Related Health Problems. Tenth Revision*. Geneva: World Health Organization. 1992.

<sup>13</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. September 1999.

<sup>14</sup>Anderson RN, Rosenberg HM. Age Standardization of Death Rates: Implementation of the Year 2000 Standard. *National Vital Statistics Reports*; Vol. 47, No. 3. National Center for Health Statistics. Hyattsville, Maryland. 1998.

A more complete explanation of age-adjustment methodology is available in the "Healthy People 2010 Statistical Notes" publication.<sup>15</sup> Detailed information on data quality and limitations is presented in the appendix of the annual report, "Vital Statistics of California."<sup>16</sup> Formulas used to calculate death rates are included in the technical notes of the "County Health Status Profiles" report.<sup>17</sup>

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<sup>15</sup> Klein RJ, Schoenborn CA. Age Adjustment using the 2000 Projected U.S. Population. *Healthy People 2010 Statistical Notes*, No. 20. National Center for Health Statistics. Hyattsville, Maryland. January 2001.

<sup>16</sup> Springborn, R. *Vital Statistics of California, 2004*. Center for Health Statistics, Department of Health Services (now Department of Public Health), State of California. June 2007.

<sup>17</sup> Shippen S. *County Health Status Profiles 2007*. Center for Health Statistics, Department of Health Services (now Department of Public Health), State of California. December 2007.

**TABLE 1**  
**HIV DISEASE DEATHS**  
**BY RACE/ETHNICITY, AGE, AND SEX**  
**CALIFORNIA, 2005**  
**(By Place of Residence)**

AGE GROUPS	DEATHS			POPULATION			RATES			95% CONFIDENCE LIMITS					
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL		MALE		FEMALE	
										LOWER	UPPER	LOWER	UPPER	LOWER	UPPER
<b>TOTAL<sup>1</sup></b>															
Under 1	0	0	0	543,197	277,034	266,163	-	-	-	-	-	-	-	-	-
1 to 4	1	0	1	2,162,671	1,103,176	1,059,495	0.0 *	-	0.1 *	0.0	0.1	-	-	-	0.0
5 to 14	1	1	0	5,563,406	2,844,855	2,718,551	0.0 *	0.0 *	-	0.0	0.1	0.0	0.1	0.0	0.3
15 to 24	14	11	3	5,344,828	2,764,795	2,580,033	0.3 *	0.4 *	0.1 *	0.1	0.4	0.2	0.6	0.0	0.2
25 to 34	98	79	19	5,002,559	2,580,156	2,422,403	2.0	3.1	0.8	1.6	2.3	2.4	3.7	0.4	1.1
35 to 44	468	409	59	5,746,279	2,928,529	2,817,750	8.1	14.0	2.1	7.4	8.9	12.6	15.3	1.6	2.6
45 to 54	451	388	63	5,147,574	2,558,524	2,589,050	8.8	15.2	2.4	8.0	9.6	13.7	16.7	1.8	3.0
55 to 64	161	139	22	3,487,509	1,689,518	1,797,991	4.6	8.2	1.2	3.9	5.3	6.9	9.6	0.7	1.7
65 to 74	73	63	10	2,032,694	940,470	1,092,224	3.6	6.7	0.9 *	2.8	4.4	5.0	8.4	0.3	1.5
75 to 84	17	15	2	1,401,490	581,188	820,302	1.2 *	2.6 *	0.2 *	0.6	1.8	1.3	3.9	0.0	0.6
85 & Older	1	1	0	525,229	177,444	347,785	0.2 *	0.6 *	-	0.0	0.6	0.0	1.7	-	-
Total	1,285	1,106	179	36,957,436	18,445,689	18,511,747	3.5	6.0	1.0	3.3	3.7	5.6	6.3	0.8	1.1
Age-Adjusted							3.5	6.1	1.0	3.3	3.7	5.7	6.4	0.8	1.1
<b>ASIAN</b>															
Under 1	0	0	0	49,237	25,114	24,123	-	-	-	-	-	-	-	-	-
1 to 4	0	0	0	196,209	100,294	95,915	-	-	-	-	-	-	-	-	-
5 to 14	0	0	0	510,921	263,092	247,829	-	-	-	-	-	-	-	-	-
15 to 24	0	0	0	600,459	308,166	292,293	-	-	-	-	-	-	-	-	-
25 to 34	1	1	0	670,404	325,288	345,116	0.1 *	0.3 *	-	0.0	0.4	0.0	0.9	-	-
35 to 44	11	10	1	707,330	335,157	372,173	1.6 *	3.0 *	0.3 *	0.6	2.5	1.1	4.8	0.0	0.8
45 to 54	4	4	0	637,063	294,728	342,335	0.6 *	1.4 *	-	0.0	1.2	0.0	2.7	-	-
55 to 64	7	6	1	419,901	193,246	226,655	1.7 *	3.1 *	0.4 *	0.4	2.9	0.6	5.6	0.0	1.3
65 to 74	1	1	0	260,846	113,982	146,864	0.4 *	0.9 *	-	0.0	1.1	0.0	2.6	-	-
75 to 84	0	0	0	163,066	68,137	94,929	-	-	-	-	-	-	-	-	-
85 & Older	0	0	0	48,284	18,635	29,649	-	-	-	-	-	-	-	-	-
Total	24	22	2	4,263,720	2,045,839	2,217,881	0.6	1.1	0.1 *	0.3	0.8	0.6	1.5	0.0	0.2
Age-Adjusted							0.5	1.0	0.1 *	0.3	0.7	0.6	1.5	0.0	0.2
<b>BLACK</b>															
Under 1	0	0	0	25,199	12,843	12,356	-	-	-	-	-	-	-	-	-
1 to 4	0	0	0	106,784	54,437	52,347	-	-	-	-	-	-	-	-	-
5 to 14	1	1	0	360,722	183,297	177,425	0.3 *	0.5 *	-	0.0	0.8	0.0	1.6	-	-
15 to 24	3	2	1	378,701	195,916	182,785	0.8 *	1.0 *	0.5 *	0.0	1.7	0.0	2.4	0.0	1.6
25 to 34	30	21	9	305,865	150,542	155,323	9.8	13.9	5.8 *	6.3	13.3	8.0	19.9	2.0	9.6
35 to 44	107	83	24	362,335	178,384	183,951	29.5	46.5	13.0	23.9	35.1	36.5	56.5	7.8	18.3
45 to 54	130	101	29	317,604	153,768	163,836	40.9	65.7	17.7	33.9	48.0	52.9	78.5	11.3	24.1
55 to 64	58	44	14	196,909	91,007	105,902	29.5	48.3	13.2 *	21.9	37.0	34.1	62.6	6.3	20.1
65 to 74	19	16	3	117,087	53,068	64,019	16.2	30.1 *	4.7 *	8.9	23.5	15.4	44.9	0.0	10.0
75 to 84	0	0	0	61,691	23,969	37,722	-	-	-	-	-	-	-	-	-
85 & Older	0	0	0	22,384	6,516	15,868	-	-	-	-	-	-	-	-	-
Total	348	268	80	2,255,281	1,103,747	1,151,534	15.4	24.3	6.9	13.8	17.1	21.4	27.2	5.4	8.5
Age-Adjusted							15.4	24.7	6.8	13.8	17.1	21.8	27.7	5.3	8.3
<b>HISPANIC</b>															
Under 1	0	0	0	279,284	142,428	136,856	-	-	-	-	-	-	-	-	-
1 to 4	0	0	0	1,089,780	555,829	533,951	-	-	-	-	-	-	-	-	-
5 to 14	0	0	0	2,650,982	1,350,760	1,300,222	-	-	-	-	-	-	-	-	-
15 to 24	7	7	0	2,148,302	1,115,705	1,032,597	0.3 *	0.6 *	-	0.1	0.6	0.2	1.1	-	-
25 to 34	45	38	7	2,079,681	1,114,291	965,390	2.2	3.4	0.7 *	1.5	2.8	2.3	4.5	0.2	1.3
35 to 44	145	133	12	2,001,344	1,059,515	941,829	7.2	12.6	1.3 *	6.1	8.4	10.4	14.7	0.6	2.0
45 to 54	89	73	16	1,324,898	667,089	657,809	6.7	10.9	2.4 *	5.3	8.1	8.4	13.5	1.2	3.6
55 to 64	21	18	3	689,035	330,377	358,658	3.0	5.4 *	0.8 *	1.7	4.4	2.9	8.0	0.0	1.8
65 to 74	18	15	3	371,279	166,361	204,918	4.8 *	9.0 *	1.5 *	2.6	7.1	4.5	13.6	0.0	3.1
75 to 84	3	3	0	206,295	85,200	121,095	1.5 *	3.5 *	-	0.0	3.1	0.0	7.5	-	-
85 & Older	1	1	0	64,960	22,556	42,404	1.5 *	4.4 *	-	0.0	4.6	0.0	13.1	-	-
Total	329	288	41	12,905,840	6,610,111	6,295,729	2.5	4.4	0.7	2.3	2.8	3.9	4.9	0.5	0.9
Age-Adjusted							3.1	5.4	0.8	2.7	3.4	4.7	6.0	0.6	1.1
<b>WHITE</b>															
Under 1	0	0	0	151,110	77,067	74,043	-	-	-	-	-	-	-	-	-
1 to 4	1	0	1	623,971	318,134	305,837	0.2 *	-	0.3 *	0.0	0.5	-	-	0.0	1.0
5 to 14	0	0	0	1,817,035	933,830	883,205	-	-	-	-	-	-	-	-	-
15 to 24	4	2	2	2,028,198	1,049,934	978,264	0.2 *	0.2 *	0.2 *	0.0	0.4	0.0	0.5	0.0	0.5
25 to 34	20	17	3	1,814,390	925,536	888,854	1.1	1.8 *	0.3 *	0.6	1.6	1.0	2.7	0.0	0.7
35 to 44	195	176	19	2,544,695	1,292,034	1,252,661	7.7	13.6	1.5	6.6	8.7	11.6	15.6	0.8	2.2
45 to 54	221	203	18	2,750,632	1,386,760	1,363,872	8.0	14.6	1.3 *	7.0	9.1	12.6	16.7	0.7	1.9
55 to 64	72	68	4	2,106,739	1,039,368	1,067,371	3.4	6.5	0.4 *	2.6	4.2	5.0	8.1	0.0	0.7
65 to 74	34	30	4	1,243,912	588,425	655,487	2.7	5.1	0.6 *	1.8	3.7	3.3	6.9	0.0	1.2
75 to 84	14	12	2	947,877	394,001	553,876	1.5 *	3.0 *	0.4 *	0.7	2.3	1.3	4.8	0.0	0.9
85 & Older	0	0	0	379,918	126,136	253,782	-	-	-	-	-	-	-	-	-
Total	561	508	53	16,408,477	8,131,225	8,277,252	3.4	6.2	0.6	3.1	3.7	5.7	6.8	0.5	0.8
Age-Adjusted							3.1	5.5	0.6	2.8	3.3	5.0	6.0	0.4	0.8

Note: Rates are per 100,000 population. ICD-10 codes B20-B24.  
Year 2000 U.S. Standard Population is used for age-adjusted rates.  
Hispanic includes any race category. American Indian, Asian, Black, Pacific Islander, White, and Two or More Races exclude Hispanic ethnicity.

\* Death rate unreliable, relative standard error is greater than or equal to 23 percent.  
- Percentages, rates, and confidence limits are not calculated for zero events.  
<sup>1</sup> Includes deaths for American Indian (11), Pacific Islander (3), and Two or More Races (9) not shown individually due to unreliable rates.

Source: State of California, Department of Finance. Race/Ethnic Population with Age and Sex Detail, 2000-2050, July 2007.  
State of California, Department of Public Health. Death Records.

TABLE 2  
HIV DISEASE DEATHS  
CALIFORNIA, 2003-2005  
(By Place of Residence)

COUNTY	2003-2005 DEATHS (AVERAGE)	PERCENT	2004 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
<b>HEALTHY PEOPLE 2010 NATIONAL OBJECTIVE:</b>					<b>0.7</b>		
CALIFORNIA	1,342.0	100.0	36,525,947	3.7	3.7	3.5	3.9
ALAMEDA	69.0	5.1	1,497,316	4.6	4.4	3.4	5.5
ALPINE <sup>2</sup>	0.0	-	1,304	-	-	-	-
AMADOR	1.0	0.1	37,507	2.7 *	2.3 *	0.0	7.0
BUTTE	4.7	0.3	213,143	2.2 *	2.5 *	0.2	4.8
CALAVERAS	1.0	0.1	44,243	2.3 *	1.8 *	0.0	5.3
COLUSA <sup>2</sup>	0.0	-	20,927	-	-	-	-
CONTRA COSTA	31.7	2.4	1,014,992	3.1	3.0	2.0	4.1
DEL NORTE	0.3	a	29,162	1.1 *	1.0 *	0.0	4.6
EL DORADO	2.3	0.2	172,320	1.4 *	1.3 *	0.0	3.2
FRESNO	27.3	2.0	874,745	3.1	3.6	2.2	4.9
GLENN	0.3	a	28,115	1.2 *	1.4 *	0.0	6.3
HUMBOLDT	3.7	0.3	130,859	2.8 *	2.8 *	0.0	5.7
IMPERIAL	3.3	0.2	159,844	2.1 *	2.2 *	0.0	4.6
INYO	0.3	a	18,923	1.8 *	1.4 *	0.0	6.1
KERN	17.0	1.3	744,489	2.3 *	2.5 *	1.3	3.7
KINGS	3.0	0.2	143,970	2.1 *	2.3 *	0.0	4.8
LAKE	3.7	0.3	62,994	5.8 *	5.9 *	0.0	12.3
LASSEN	0.3	a	35,626	0.9 *	0.9 *	0.0	3.8
LOS ANGELES <sup>1</sup>	477.7	35.6	10,152,410	4.7	4.7	4.3	5.2
MADERA	2.3	0.2	139,398	1.7 *	1.7 *	0.0	3.8
MARIN	7.3	0.5	251,812	2.9 *	2.6 *	0.6	4.5
MARIPOSA <sup>2</sup>	0.0	-	18,066	-	-	-	-
MENDOCINO	2.7	0.2	89,966	3.0 *	2.8 *	0.0	6.2
MERCED	5.7	0.4	237,550	2.4 *	2.7 *	0.5	5.0
MODOC <sup>2</sup>	0.0	-	10,178	-	-	-	-
MONO <sup>2</sup>	0.0	-	13,727	-	-	-	-
MONTEREY	6.7	0.5	423,137	1.6 *	1.7 *	0.4	3.0
NAPA	2.0	0.1	132,753	1.5 *	1.4 *	0.0	3.5
NEVADA	2.0	0.1	98,436	2.0 *	1.9 *	0.0	4.6
ORANGE <sup>1</sup>	50.3	3.8	3,038,670	1.7	1.6	1.2	2.1
PLACER	3.7	0.3	302,199	1.2 *	1.2 *	0.0	2.5
PLUMAS	0.7	a	21,478	3.1 *	5.1 *	0.0	17.4
RIVERSIDE	74.3	5.5	1,845,185	4.0	4.4	3.4	5.4
SACRAMENTO	45.7	3.4	1,357,367	3.4	3.4	2.4	4.4
SAN BENITO	1.0	0.1	57,307	1.7 *	1.8 *	0.0	5.4
SAN BERNARDINO	58.7	4.4	1,922,467	3.1	3.3	2.4	4.1
SAN DIEGO	112.7	8.4	3,031,055	3.7	3.7	3.0	4.4
SAN FRANCISCO <sup>1</sup>	170.7	12.7	793,564	21.5	19.6	16.6	22.5
SAN JOAQUIN	15.7	1.2	645,560	2.4 *	2.7 *	1.4	4.1
SAN LUIS OBISPO	3.7	0.3	259,709	1.4 *	1.4 *	0.0	2.9
SAN MATEO	19.0	1.4	720,229	2.6	2.4 *	1.3	3.5
SANTA BARBARA	6.0	0.4	416,662	1.4 *	1.5 *	0.3	2.7
SANTA CLARA <sup>1</sup>	28.7	2.1	1,747,295	1.6	1.5	1.0	2.1
SANTA CRUZ	8.0	0.6	259,942	3.1 *	2.9 *	0.9	4.9
SHASTA	3.7	0.3	177,465	2.1 *	2.1 *	0.0	4.3
SIERRA <sup>2</sup>	0.0	-	3,716	-	-	-	-
SISKIYOU	0.7	a	45,644	1.5 *	1.1 *	0.0	3.6
SOLANO	18.0	1.3	418,097	4.3 *	4.3 *	2.3	6.3
SONOMA	11.0	0.8	477,419	2.3 *	2.2 *	0.9	3.6
STANISLAUS	10.3	0.8	499,864	2.1 *	2.4 *	0.9	3.8
SUTTER	1.0	0.1	87,881	1.1 *	1.1 *	0.0	3.3
TEHAMA	0.7	a	59,942	1.1 *	1.3 *	0.0	4.6
TRINITY	0.3	a	13,961	2.4 *	1.8 *	0.0	7.9
TULARE	7.0	0.5	406,003	1.7 *	2.0 *	0.5	3.5
TUOLUMNE <sup>2</sup>	0.3	a	57,186	0.6 *	0.4 *	0.0	1.6
VENTURA	11.0	0.8	808,735	1.4 *	1.4 *	0.6	2.2
YOLO	4.0	0.3	186,751	2.1 *	2.5 *	0.0	4.9
YUBA <sup>2</sup>	0.0	-	66,682	-	-	-	-

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

Source : State of California, Department of Finance. Race/Ethnic Population with Age and Sex Detail, 2000-2050, July 2007.  
State of California, Department of Public Health, Death Records.

<sup>1</sup> County age-adjusted rate is significantly different from the state age-adjusted rate.

<sup>2</sup> Met or surpassed HP2010 target rate.

a Represents a percentage of more than zero but less than 0.05.

- Percentages, rates, and confidence limits are not calculated for zero events.

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

**FIGURE 6**  
**HIV DISEASE DEATHS**  
**AGE-ADJUSTED DEATH RATES**  
**CALIFORNIA, 2003-2005**

