



# Center for Health Statistics



December 2005

DATA SUMMARY No. DS05-12001

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

## Highlights

- **Cerebrovascular disease ranked third among the leading causes of death in California and in the U.S. in 2003.**
- **People aged 65 and older had 87.8 percent of all cerebrovascular disease deaths in California in 2003.**
- **In 2003 California's age-adjusted death rate was 53.3 per 100,000 population.**
- **California has not yet met the HP2010 National Objective of an age-adjusted death rate of no more than 48 deaths per 100,000 population.**

## Cerebrovascular Disease Deaths California, 2000-2003

By Cheryl Wilson

### Introduction

In 2003 cerebrovascular disease, commonly known as stroke, ranked third among the leading causes of death in California and in the United States (U.S.), following heart disease and cancer.<sup>1,2</sup> In addition to being a leading cause of death, stroke is also a major cause of disability. Each year in the U.S., approximately 700,000 people will suffer a new or recurrent stroke. About 500,000 of these strokes are first attacks and 200,000 are recurrent attacks.<sup>3</sup> According to the American Heart Association, people of all age groups have strokes; however, the risk for stroke more than doubles with each decade of life after age 55.<sup>4</sup>

Preliminary data show from 2002 to 2003 cerebrovascular disease deaths among all Americans decreased 3.0 percent from 162,672 deaths in 2002 to 157,803 deaths in 2003.<sup>2,5</sup> Among California residents, cerebrovascular disease deaths increased 0.8 percent from 17,551 deaths in 2002 to 17,686 deaths in 2003.<sup>1,6</sup>

Due to the prevalence of cerebrovascular disease in this country, the U.S. Public Health Service established a national health objective for Healthy People 2010 (HP2010) seeking to reduce the number of cerebrovascular disease deaths to an age-adjusted rate of no more than 48 deaths per 100,000 population.<sup>7</sup> Although California's age-adjusted death rate continued to decline from 2000 to 2003, California has not yet met the HP2010 National Health Objective. In 2000 California's age-adjusted death rate was 62.6 per 100,000 population and in 2003 California's rate was 53.3.

<sup>1</sup>State of California, Department of Health Services. Death Records. 2003.

<sup>2</sup>National Center for Health Statistics, Deaths: Preliminary Data for 2003, *National Vital Statistics Reports*, DHHS Publication No. (PHS) 2005-1120, PRS 05-0162, Vol. 53, No. 15, February 2005.

<sup>3</sup>Centers for Disease Control, Cardiovascular Health: *Stroke Fact Sheet*. May 2003. URL: [http://www.cdc.gov/cvh/library/fs\\_stroke.htm](http://www.cdc.gov/cvh/library/fs_stroke.htm)

<sup>4</sup>American Heart Association. *Heart and Stroke Facts*. 2005. URL: [www.americanheart.org](http://www.americanheart.org).

<sup>5</sup>National Center for Health Statistics, Deaths: Final Data for 2002, *National Vital Statistics Reports*, DHHS Publication No. (PHS) 2005-1120, PRS 04-0536, Vol. 53, No. 5, October 2004.

<sup>6</sup>State of California, Department of Health Services. Death Records. 2002.

<sup>7</sup>U.S. Department of Health and Human Services. *Healthy People 2010 Objectives* (Second Edition, in Two Volumes). Washington, D.C., January 2001.

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

This report presents data on California's cerebrovascular disease deaths focusing on 2003 with comparisons of prior periods and includes tables displaying the number of cerebrovascular disease deaths by race/ethnicity, age, and sex for each year from 2000 to 2003. The report also provides analysis of crude and age-adjusted death rates for California residents with the primary focus on year 2003. The cerebrovascular disease data included in this report are extracted from vital statistics records with deaths attributed to cerebrovascular disease as defined by the International Classification of Diseases, Tenth Revision (ICD-10) codes I60-I69 in accordance with the National Center for Health Statistics (NCHS) Reports.<sup>8</sup>

## Cerebrovascular Disease Deaths

**Tables 1-4** (pages 11-18) show California's cerebrovascular disease death data by race/ethnicity, age, and sex for years 2000 to 2003.

Cerebrovascular disease deaths among California residents varied from 2000 to 2003 with a high of 18,090 deaths in 2000 (**Table 4**, pages 17-18) to a low of 17,551 deaths in 2002 (**Table 2**, pages 13-14), a difference of 3.0 percent.

From 2000 to 2003 cerebrovascular disease deaths were higher for California female residents than for California male residents. During this period the highest number of cerebrovascular disease deaths among California female residents occurred in 2000 with 10,825 deaths (**Table 4**, pages 17-18) and the lowest number of deaths 10,508 occurred in 2002 (**Table 2**, pages 13-14), a difference of 2.9 percent. Cerebrovascular disease deaths among California male residents also varied from 2000 to 2003 with the highest number of male deaths of 7,295 occurring in 2001 and the lowest number of male deaths of 7,043 occurring in 2002, a difference of 3.5 percent. The female to male cerebrovascular disease death ratio was 1.5 female deaths for every male death for each year during 2000 to 2003.

In 2003 California's female residents had 59.9 percent of the total cerebrovascular disease deaths and males had 40.1 percent. Among the age groups listed in **Table 1** (pages 11-12), females had considerably more cerebrovascular disease deaths than males in the 15 to 24 and 75 and older age groups while male deaths exceeded females in the age groups of 25 through 74 years. The gender difference was greatest in the age group 85 and older by a ratio of 2.4 female deaths for every male death.

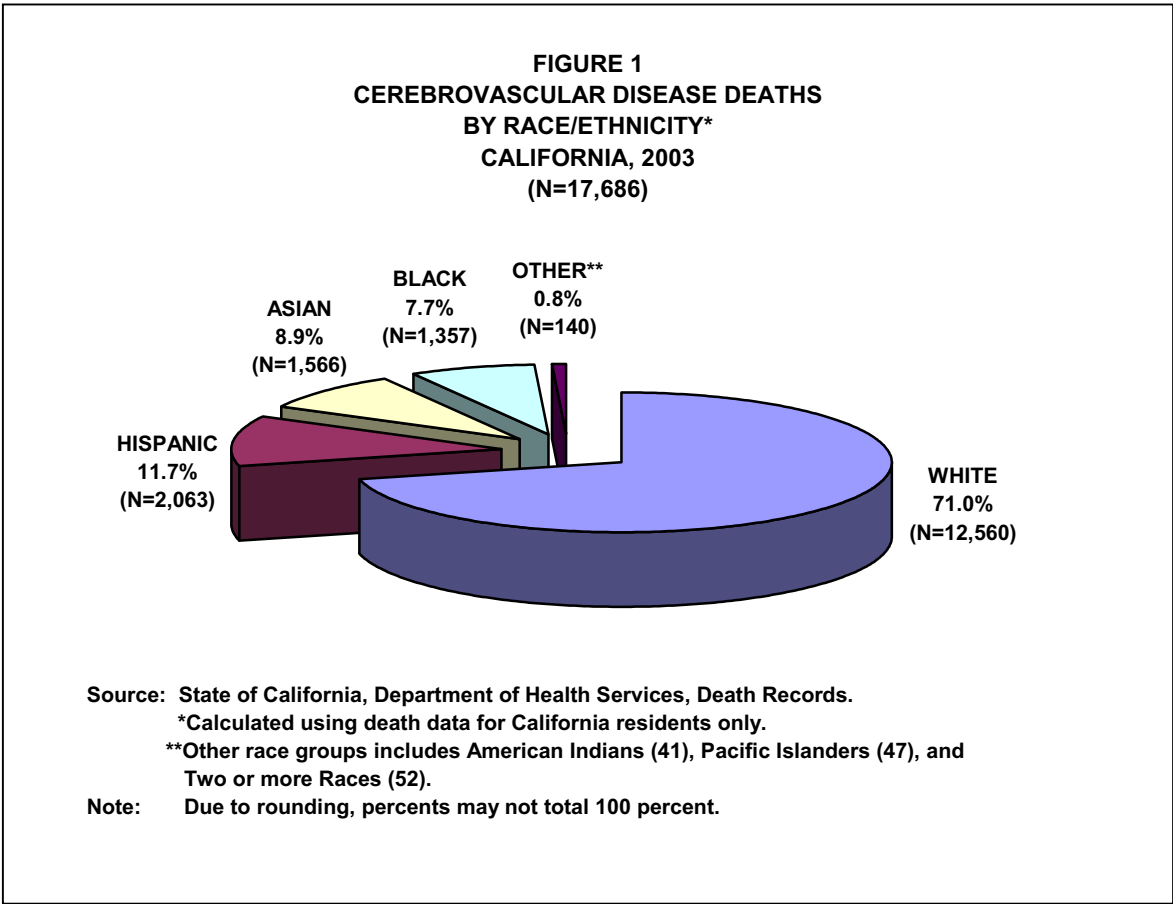
**Table 1** (pages 11-12) shows among California residents overall, cerebrovascular disease deaths were highest among people aged 65 and older. In California 87.8 percent of all cerebrovascular disease deaths occurred in this age group. Among individual race/ethnic groups, decedents aged 65 and older accounted for 92.6 percent of the deaths among Whites, 82.8 percent among Asians, 80.5 percent among American Indians, 73.5 percent among Hispanics, 72.7 percent among Blacks, and 65.4 percent among Two or More Races. This was not true for Pacific Islanders, which had a slightly larger percentage (51.1 percent) of cerebrovascular disease deaths among decedents under age 65.

---

<sup>8</sup>National Center for Health Statistics. *Vital Statistics, Instructions for Classifying the Underlying Cause of Death*. NCHS Instruction Manual, Part 9. Public Health Service. Hyattsville, Maryland, 1999.

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

**Figure 1** shows Whites had the highest percentage of cerebrovascular disease deaths (71.0 percent) among all California residents followed by Hispanics (11.7 percent), Asians (8.9 percent), and Blacks (7.7 percent). The three remaining race/ethnic groups (American Indians, Pacific Islanders, and Two or More Races) combined accounted for 0.8 percent of the total cerebrovascular disease deaths in 2003.



### Cerebrovascular Disease Crude Death Rates

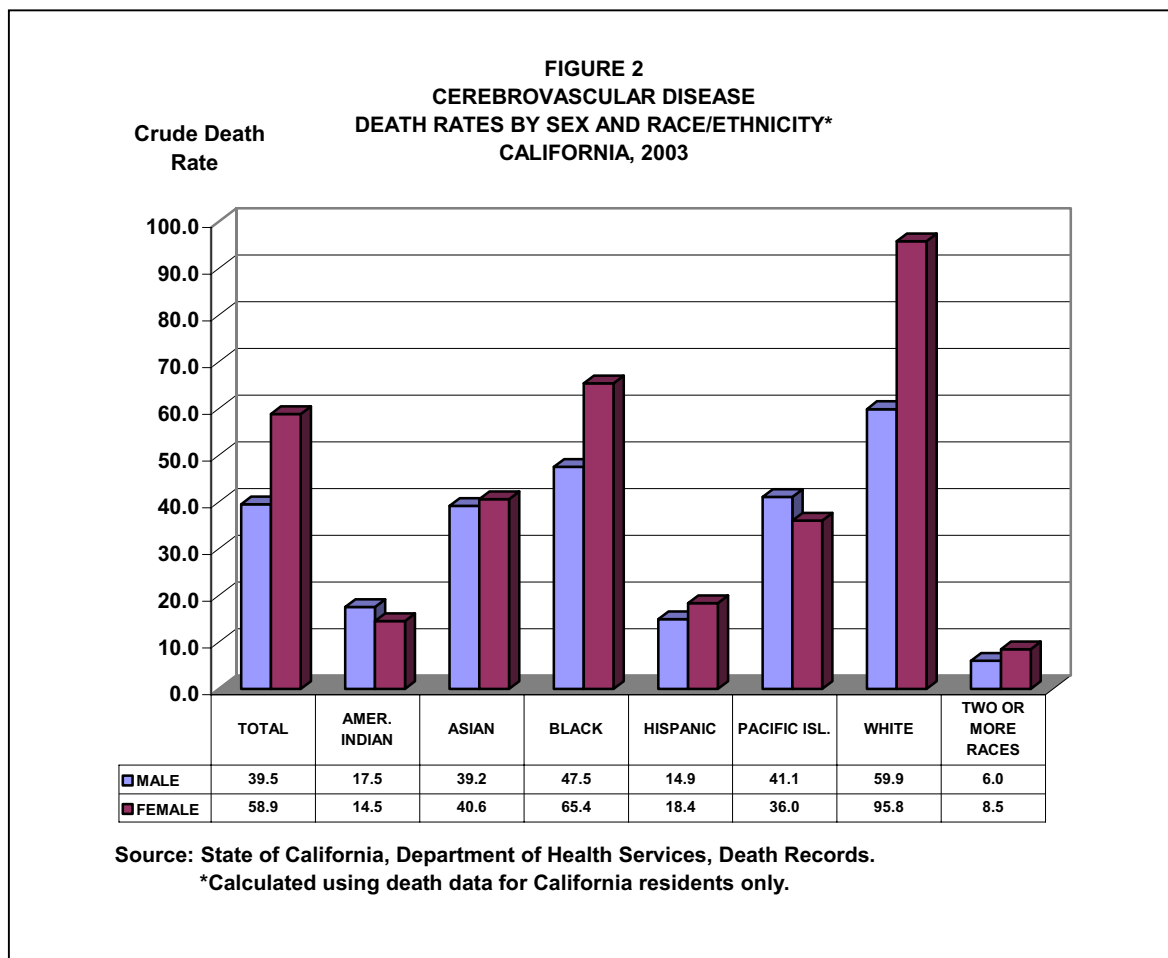
**Tables 1-4** (pages 11-18) show California's cerebrovascular disease crude death rates decreased each year from 2000 to 2003. In 2000 the crude death rate was 53.1 per 100,000 population and in 2003 the rate was 49.2, a decrease of 7.3 percent. The difference in crude death rates from 2000 to 2003 was significant.

Among the individual race/ethnic groups, cerebrovascular disease crude death rates varied from 2000 to 2003. During this period, Whites had the highest crude death rate each year among all the race/ethnic groups. In 2003 Whites had a crude death rate of 78.0 per 100,000 population, followed by Blacks (56.6), Asians (39.9), Pacific Islanders (38.6), Hispanics (16.6), American Indians (16.0), and Two or More Races (7.2).

As shown in **Figure 2** (page 4), California female residents had an overall crude death rate of 58.9 per 100,000 population, which was 1.5 times higher than the male crude death rate of 39.5 in 2003. Female rates also exceeded male rates within each of the race/ethnic groups, with the exception of American Indians and Pacific Islanders where

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

males had higher crude death rates than females. Overall, White females and Black females had the highest crude death rates at 95.8 and 65.4, respectively. Among males, Whites had the highest crude death rate at 59.9 followed by Blacks at 47.5. In 2003 females had significantly higher crude death rates than their male counterparts for Blacks, Hispanics, Whites, and California residents overall. The gender differences among the remaining race/ethnic groups were not statistically significant.



## Cerebrovascular Disease Age-Specific Death Rates

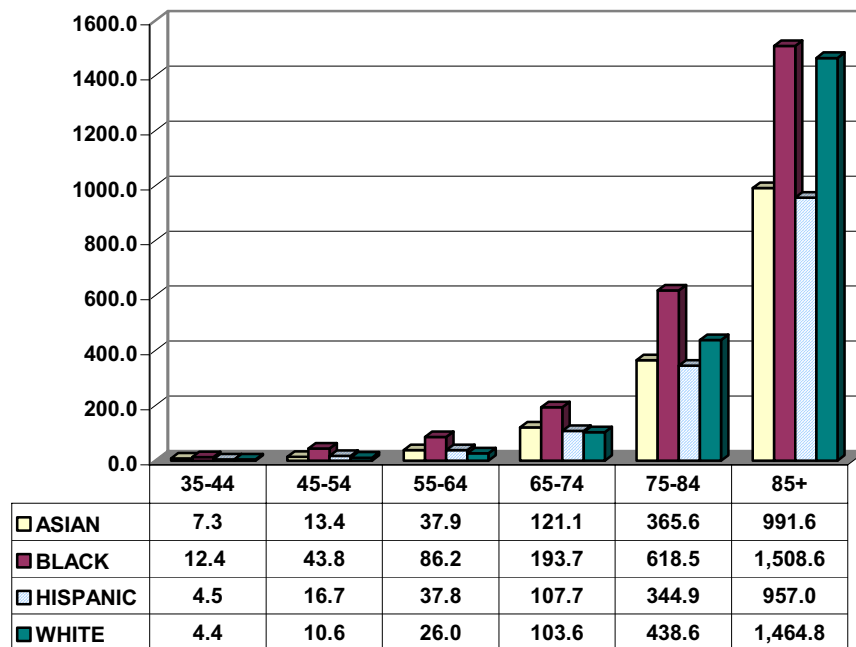
**Tables 1-4** (pages 11-18) show that among California residents and for each of the race/ethnic groups, reliable age-specific death rates increased with the age of the decedent.

**Figure 3** (page 5) shows the cerebrovascular disease age-specific death rates by race/ethnicity and age group in 2003. Among the age groups listed, Blacks had the highest reliable age-specific death rates in the 35 through 85 and older age groups. Whites had the lowest reliable age-specific death rates in the 35 through 74 age groups, and Hispanics had the lowest rates in the 75 through 85 and older age groups. Not shown in Figure 3, but displayed in **Table 1** (pages 11-12), Hispanics had the only reliable rate in the age group 25 to 34. Rates for American Indians, Pacific Islanders, and Two or More Races were not displayed in this figure due to unreliable age-specific death rates.

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)

**FIGURE 3  
CEREBROVASCULAR DISEASE AGE-SPECIFIC DEATH RATES  
BY RACE/ETHNICITY AND AGE\*  
CALIFORNIA, 2003**

Age-Specific  
Death Rates



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

\*Calculated using death data for California residents only.

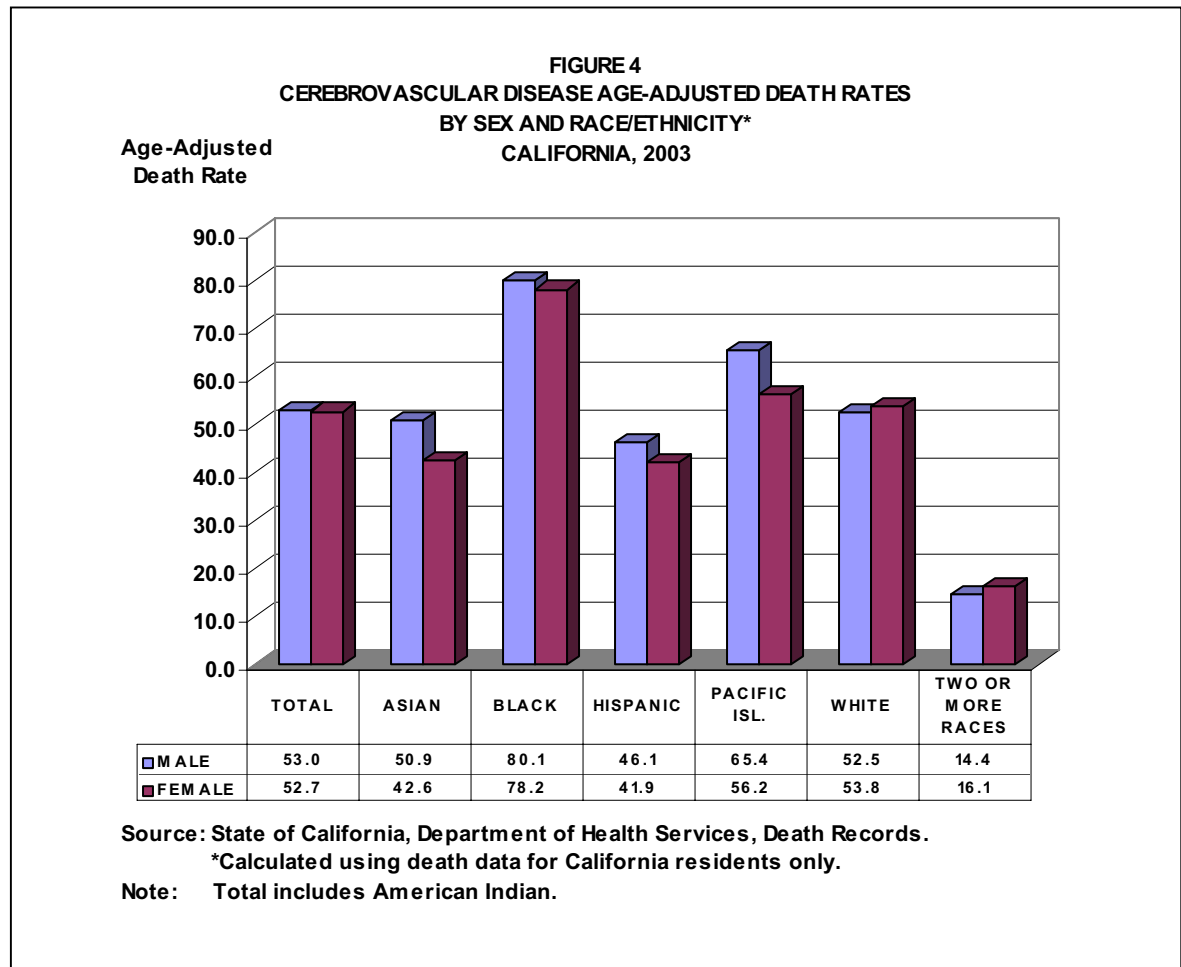
Note: Not shown are unreliable rates for American Indian, Pacific Islander, and Two or More Races.

## Cerebrovascular Disease Age-Adjusted Death Rates

As displayed in **Tables 1-4** (pages 11-18), California's cerebrovascular disease age-adjusted death rate decreased each year from 2000 to 2003. The highest age-adjusted death rate (62.6) per 100,000 population occurred in 2000 and the lowest rate (53.3) occurred in 2003, a difference of 14.9 percent. The decrease in age-adjusted death rates from 2000 to 2003 was statistically significant. California's age-adjusted death rate of 53.3 per 100,000 population was lower than the U.S. age-adjusted death rate of 53.6 for 2003.

Among the race/ethnic groups in 2003, Blacks had the highest age-adjusted death rate (80.0) per 100,000 population, followed by Pacific Islanders (61.1), Whites (53.8), Asians (46.3), Hispanics (44.0), American Indians (22.9), and Two or More Races (15.4). The differences in rates between all the race/ethnic groups were statistically significant except for the differences in combinations between Pacific Islanders with Whites, Hispanics, Blacks, and Asians; Hispanics with Asians; and American Indians with Two or More Races.

**Figure 4** shows males had higher age-adjusted rates than their female counterparts, with the exception of Whites and Two More Races. American Indians were not included because the age-adjusted death rate for American Indian females was unreliable. The gender differences among the race/ethnic groups with reliable rates were statistically significant for Asians and Hispanics, but not for the remaining race/ethnic groups.



## Cerebrovascular Disease Death Rates for California Counties

**Table 5** (page 19) shows the 2001-2003 average number of cerebrovascular disease deaths with crude and age-adjusted death rates for California and its 58 counties.

The three counties with the highest average number of cerebrovascular disease deaths were Los Angeles County at 4,226.3 or 23.8 percent of the total cerebrovascular disease deaths in California, San Diego County with 1,532.0 deaths or 8.6 percent, and Orange County with 1,351.0 deaths or 7.6 percent.

Among the 46 counties with reliable rates, Nevada County had the highest crude death rate of 98.9 per 100,000 population, which was 2.8 times higher than the lowest rate of 35.0 in Kings County. Among the reliable age-adjusted death rates, San Joaquin County had the highest rate (79.9) and El Dorado County had the lowest rate (45.8).

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

Comparing county age-adjusted death rates with the overall California rate shows three counties (**Table 5**, page 19) had rates that were significantly lower than the State age-adjusted rate of 55.6 deaths per 100,000 population and seven counties had rates significantly higher than the State rate. Eight counties (two with reliable age-adjusted death rates) met the HP2010 Objective of no more than 48.0 age-adjusted cerebrovascular disease deaths per 100,000 population. Twenty-two of California's 58 counties had age-adjusted death rates that were not significantly different from the HP2010 Objective.

## Cerebrovascular Disease Deaths among the Three City Health Jurisdictions

**Table 6** shows the 2001-2003 average number of cerebrovascular disease 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.

Long Beach had the highest average number of

cerebrovascular disease deaths (234.7) followed by Pasadena (93.7) and Berkeley (59.0). The crude death rates were 67.4 per 100,000 population for Pasadena, 56.6 for Berkeley, and 49.6 for Long Beach.

### 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. 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.

**TABLE 6  
CEREBROVASCULAR DISEASE DEATHS  
AMONG THE CITY HEALTH JURISDICTIONS\*  
CALIFORNIA, 2001-2003**

CITY HEALTH JURISDICTION	AVERAGE NUMBER OF DEATHS	2002 POPULATION	CRUDE DEATH RATE
BERKELEY	59.0	104,254	56.6
LONG BEACH	234.7	473,363	49.6
PASADENA	93.7	138,904	67.4

**Note:** Rates are per 100,000 population; ICD-10 codes I60-I69.  
**Source:** State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2005, with 2000 DRU Benchmark, Sacramento, California, May 2005.  
State of California, Department of Health Services, Death Records.

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 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 cerebrovascular disease death data presented in this report are based on the vital statistics records with ICD-10 codes I60-I69 as defined by the NCHS.<sup>2</sup> Deaths by place of residence means that the data include only those deaths occurring among residents of 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 Web site 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

---

<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.

<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.



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

Beginning in 1999 cause of death is 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. California’s population estimates recently added the multirace (Two or More Races) group. 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. population standard 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. Additionally, population data used to calculate city crude rates in **Table 6** (page 7) differ from population data used to calculate county crude rates in **Table 5** (page 19). Caution should be exercised when comparing the crude rates of the three city health jurisdictions with the crude rates of the 58 California counties. Age-adjusted rates for city health jurisdictions were not calculated.

<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, DHHS Pub. No. (PHS) 99-1328, 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>

This Data Summary was prepared by Cheryl Wilson, Office of Health Information and Research, Department of Health Services, 1616 Capitol Avenue, Suite 74.165, MS 5103, P.O. Box 997410, Sacramento, CA 95814, telephone (916) 650-6897, fax (916) 650-6889, [cwilson@dhs.ca.gov](mailto:cwilson@dhs.ca.gov)

---

<sup>15</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>16</sup>Ficenec S, Bindra K, Christensen J. Vital Statistics of California, 2002. Center for Health Statistics, California Department of Health Services, April 2004.

<sup>17</sup>Shippen S, Wilson C. County Health Status Profiles 2005. Center for Health Statistics, California Department of Health Services, April 2005.



**TABLE 1 (Continued)**  
**CEREBROVASCULAR DISEASE DEATHS BY RACE/ETHNICITY, AGE, AND SEX**  
**CALIFORNIA, 2003**  
**(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</b>															
UNDER 1	18	10	8	531,434	271,162	260,272	3.4 *	3.7 *	3.1 *	1.8	5.0	1.4	6.0	0.9	5.2
1 - 4	0	0	0	2,008,528	1,026,713	981,815	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	4	2	2	5,420,822	2,777,200	2,643,622	0.1 *	0.1 *	0.1 *	0.0	0.1	0.0	0.2	0.0	0.2
15 - 24	21	10	11	5,160,658	2,691,409	2,469,249	0.4	0.4 *	0.4 *	0.2	0.6	0.1	0.6	0.2	0.7
25 - 34	56	35	21	5,246,137	2,705,863	2,540,274	1.1	1.3	0.8	0.8	1.3	0.9	1.7	0.5	1.2
35 - 44	307	181	126	5,648,662	2,870,936	2,777,726	5.4	6.3	4.5	4.8	6.0	5.4	7.2	3.7	5.3
45 - 54	708	392	316	4,819,832	2,382,693	2,437,139	14.7	16.5	13.0	13.6	15.8	14.8	18.1	11.5	14.4
55 - 64	1,046	580	466	3,146,705	1,520,342	1,626,363	33.2	38.1	28.7	31.2	35.3	35.0	41.3	26.1	31.3
65 - 74	2,218	1,157	1,061	1,997,161	921,535	1,075,626	111.1	125.6	98.6	106.4	115.7	118.3	132.8	92.7	104.6
75 - 84	5,992	2,547	3,445	1,414,654	587,119	827,535	423.6	433.8	416.3	412.8	434.3	417.0	450.7	402.4	430.2
85 & OLDER	7,315	2,180	5,135	540,374	183,447	356,927	1,353.7	1,188.4	1,438.7	1,322.7	1,384.7	1,138.5	1,238.2	1,399.3	1,478.0
UNKNOWN	1	0	1												
TOTAL	17,686	7,094	10,592	35,934,967	17,938,419	17,996,548	49.2	39.5	58.9	48.5	49.9	38.6	40.5	57.7	60.0
AGE-ADJUSTED							53.3	53.0	52.7	52.6	54.1	51.8	54.3	51.7	53.7
<b>PACIFIC ISLANDER</b>															
UNDER 1	0	0	0	1,612	824	788	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	5,968	3,081	2,887	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	0	0	0	20,242	10,342	9,900	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	1	0	1	20,994	10,740	10,254	4.8 *	0.0 +	9.8 *	0.0	14.1	-	-	0.0	28.9
25 - 34	0	0	0	20,422	10,089	10,333	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 - 44	7	5	2	21,047	10,435	10,612	33.3 *	47.9 *	18.8 *	8.6	57.9	5.9	89.9	0.0	45.0
45 - 54	7	2	5	15,034	7,444	7,590	46.6 *	26.9 *	65.9 *	12.1	81.1	0.0	64.1	8.1	123.6
55 - 64	9	6	3	8,688	4,226	4,462	103.6 *	142.0 *	67.2 *	35.9	171.3	28.4	255.6	0.0	143.3
65 - 74	11	8	3	4,924	2,356	2,568	223.4 *	339.6 *	116.8 *	91.4	355.4	104.3	574.9	0.0	249.0
75 - 84	11	4	7	2,147	935	1,212	512.3 *	427.8 *	577.6 *	209.6	815.1	8.6	847.1	149.7	1,005.4
85 & OLDER	1	0	1	785	327	458	127.4 *	0.0 +	218.3 *	0.0	377.1	-	-	0.0	646.3
UNKNOWN	0	0	0												
TOTAL	47	25	22	121,863	60,799	61,064	38.6	41.1	36.0	27.5	49.6	25.0	57.2	21.0	51.1
AGE-ADJUSTED							61.1	65.4	56.2	42.4	79.8	37.8	93.1	31.3	81.0
<b>WHITE</b>															
UNDER 1	4	3	1	168,928	86,181	82,747	2.4 *	3.5 *	1.2 *	0.0	4.7	0.0	7.4	0.0	3.6
1 - 4	0	0	0	608,995	311,436	297,559	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	0	0	0	1,786,666	918,847	867,819	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	10	7	3	1,831,860	947,345	884,515	0.5 *	0.7 *	0.3 *	0.2	0.9	0.2	1.3	0.0	0.7
25 - 34	15	11	4	1,885,206	961,929	923,277	0.8 *	1.1 *	0.4 *	0.4	1.2	0.5	1.8	0.0	0.9
35 - 44	113	64	49	2,579,091	1,318,760	1,260,331	4.4	4.9	3.9	3.6	5.2	3.7	6.0	2.8	5.0
45 - 54	279	157	122	2,633,665	1,323,757	1,309,908	10.6	11.9	9.3	9.4	11.8	10.0	13.7	7.7	11.0
55 - 64	502	269	233	1,933,678	952,538	981,140	26.0	28.2	23.7	23.7	28.2	24.9	31.6	20.7	26.8
65 - 74	1,305	679	626	1,259,989	594,985	665,004	103.6	114.1	94.1	98.0	109.2	105.5	122.7	86.8	101.5
75 - 84	4,400	1,873	2,527	1,003,097	416,813	586,284	438.6	449.4	431.0	425.7	451.6	429.0	469.7	414.2	447.8
85 & OLDER	5,931	1,711	4,220	404,890	134,702	270,188	1,464.8	1,270.2	1,561.9	1,427.6	1,502.1	1,210.0	1,330.4	1,514.8	1,609.0
UNKNOWN	1	0	1												
TOTAL	12,560	4,774	7,786	16,096,065	7,967,293	8,128,772	78.0	59.9	95.8	76.7	79.4	58.2	61.6	93.7	97.9
AGE-ADJUSTED							53.8	52.5	53.8	52.9	54.8	51.0	54.0	52.6	55.1
<b>TWO OR MORE RACES</b>															
UNDER 1	1	0	1	10,512	5,369	5,143	9.5 *	0.0 +	19.4 *	0.0	28.2	-	-	0.0	57.6
1 - 4	0	0	0	107,336	54,939	52,397	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	0	0	0	168,750	85,488	83,262	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	0	0	0	126,962	62,819	64,143	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 - 34	0	0	0	85,304	41,007	44,297	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 - 44	2	1	1	78,644	37,811	40,833	2.5 *	2.6 *	2.4 *	0.0	6.1	0.0	7.8	0.0	7.2
45 - 54	7	3	4	63,278	30,017	33,261	11.1 *	10.0 *	12.0 *	2.9	19.3	0.0	21.3	0.2	23.8
55 - 64	8	4	4	37,843	17,751	20,092	21.1 *	22.5 *	19.9 *	6.5	35.8	0.5	44.6	0.4	39.4
65 - 74	6	3	3	21,434	9,955	11,479	28.0 *	30.1 *	26.1 *	5.6	50.4	0.0	64.2	0.0	55.7
75 - 84	14	5	9	12,660	5,536	7,124	110.6 *	90.3 *	126.3 *	52.7	168.5	11.2	169.5	43.8	208.9
85 & OLDER	14	5	9	4,641	1,681	2,960	301.7 *	297.4 *	304.1 *	143.6	459.7	36.7	558.2	105.4	502.7
UNKNOWN	0	0	0												
TOTAL	52	21	31	717,364	352,373	364,991	7.2	6.0	8.5	5.3	9.2	3.4	8.5	5.5	11.5
AGE-ADJUSTED							15.4	14.4	16.1	11.1	19.6	8.0	20.8	10.4	21.9

Note: ICD-10 Codes I60-I69; rates are per 100,000 population.  
Year 2000 U.S. standard population is used for age-adjusted rates.  
American Indian, Asian, Black, Pacific Islander, White, and Two or More Races exclude Hispanic ethnicity.  
Hispanic includes any race category.

\* 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) deaths.

Source: State of California, Department of Finance, Population Projections with Age, Sex and Race/Ethnic Detail, 2000-2050, May 2004.  
State of California, Department of Health Services, Death Records.



**TABLE 2 (Continued)**  
**CEREBROVASCULAR DISEASE DEATHS BY RACE/ETHNICITY, AGE, AND SEX**  
**CALIFORNIA, 2002**  
**(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</b>															
UNDER 1	15	7	8	516,411	263,488	252,923	2.9 *	2.7 *	3.2 *	1.4	4.4	0.7	4.6	1.0	5.4
1 - 4	4	3	1	1,976,342	1,010,549	965,793	0.2 *	0.3 *	0.1 *	0.0	0.4	0.0	0.6	0.0	0.3
5 - 14	13	9	4	5,412,306	2,773,346	2,638,960	0.2 *	0.3 *	0.2 *	0.1	0.4	0.1	0.5	0.0	0.3
15 - 24	22	10	12	5,045,468	2,631,609	2,413,859	0.4	0.4 *	0.5 *	0.3	0.6	0.1	0.6	0.2	0.8
25 - 34	66	39	27	5,288,247	2,724,113	2,564,134	1.2	1.4	1.1	0.9	1.5	1.0	1.9	0.7	1.5
35 - 44	265	147	118	5,607,549	2,846,141	2,761,408	4.7	5.2	4.3	4.2	5.3	4.3	6.0	3.5	5.0
45 - 54	659	355	304	4,679,130	2,308,857	2,370,273	14.1	15.4	12.8	13.0	15.2	13.8	17.0	11.4	14.3
55 - 64	1,031	573	458	2,962,280	1,429,870	1,532,410	34.8	40.1	29.9	32.7	36.9	36.8	43.4	27.2	32.6
65 - 74	2,388	1,187	1,201	1,954,020	896,870	1,057,150	122.2	132.3	113.6	117.3	127.1	124.8	139.9	107.2	120.0
75 - 84	6,038	2,578	3,460	1,383,065	571,663	811,402	436.6	451.0	426.4	425.6	447.6	433.6	468.4	412.2	440.6
85 & OLDER	7,049	2,135	4,914	513,989	171,306	342,683	1,371.4	1,246.3	1,434.0	1,339.4	1,403.4	1,193.4	1,299.2	1,393.9	1,474.1
UNKNOWN	1	0	1												
TOTAL	17,551	7,043	10,508	35,338,807	17,627,812	17,710,995	49.7	40.0	59.3	48.9	50.4	39.0	40.9	58.2	60.5
AGE-ADJUSTED							54.9	55.0	54.2	54.1	55.7	53.7	56.3	53.1	55.2
<b>PACIFIC ISLANDER</b>															
UNDER 1	0	0	0	1,380	704	676	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	6,245	3,232	3,013	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	0	0	0	20,353	10,399	9,954	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	0	0	0	20,827	10,624	10,203	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 - 34	1	0	1	20,421	10,039	10,382	4.9 *	0.0 +	9.6 *	0.0	14.5	-	-	0.0	28.5
35 - 44	4	3	1	20,560	10,290	10,270	19.5 *	29.2 *	9.7 *	0.4	38.5	0.0	62.1	0.0	28.8
45 - 54	2	2	0	14,309	7,090	7,219	14.0 *	28.2 *	0.0 +	0.0	33.3	0.0	67.3	-	-
55 - 64	9	5	4	8,156	3,960	4,196	110.3 *	126.3 *	95.3 *	38.3	182.4	15.6	236.9	1.9	188.8
65 - 74	18	8	10	4,585	2,196	2,389	392.6 *	364.3 *	418.6 *	211.2	573.9	111.9	616.7	159.1	678.0
75 - 84	9	1	8	1,925	831	1,094	467.5 *	120.3 *	731.3 *	162.1	773.0	0.0	356.2	224.5	1,238.0
85 & OLDER	6	3	3	643	261	382	933.1 *	1,149.4 *	785.3 *	186.5	1,679.8	0.0	2,450.1	0.0	1,674.0
UNKNOWN	0	0	0												
TOTAL	49	22	27	119,404	59,626	59,778	41.0	36.9	45.2	29.5	52.5	21.5	52.3	28.1	62.2
AGE-ADJUSTED							76.7	66.8 *	83.8	53.8	99.6	36.1	97.6	50.9	116.7
<b>WHITE</b>															
UNDER 1	2	0	2	150,846	76,936	73,910	1.3 *	0.0 +	2.7 *	0.0	3.2	-	-	0.0	6.5
1 - 4	2	2	0	613,463	314,208	299,255	0.3 *	0.6 *	0.0 +	0.0	0.8	0.0	1.5	-	-
5 - 14	4	3	1	1,819,031	935,673	883,358	0.2 *	0.3 *	0.1 *	0.0	0.4	0.0	0.7	0.0	0.3
15 - 24	6	3	3	1,802,388	930,873	871,515	0.3 *	0.3 *	0.3 *	0.1	0.6	0.0	0.7	0.0	0.7
25 - 34	11	4	7	1,956,447	999,574	956,873	0.6 *	0.4 *	0.7 *	0.2	0.9	0.0	0.8	0.2	1.3
35 - 44	106	56	50	2,625,877	1,342,353	1,283,524	4.0	4.2	3.9	3.3	4.8	3.1	5.3	2.8	5.0
45 - 54	272	146	126	2,599,031	1,304,396	1,294,635	10.5	11.2	9.7	9.2	11.7	9.4	13.0	8.0	11.4
55 - 64	518	283	235	1,825,358	898,529	926,829	28.4	31.5	25.4	25.9	30.8	27.8	35.2	22.1	28.6
65 - 74	1,444	736	708	1,242,058	582,927	659,131	116.3	126.3	107.4	110.3	122.3	117.1	135.4	99.5	115.3
75 - 84	4,497	1,923	2,574	996,270	411,887	584,383	451.4	466.9	440.5	438.2	464.6	446.0	487.7	423.4	457.5
85 & OLDER	5,738	1,697	4,041	391,271	127,805	263,466	1,466.5	1,327.8	1,533.8	1,428.6	1,504.4	1,264.6	1,391.0	1,486.5	1,581.1
UNKNOWN	1	0	1												
TOTAL	12,601	4,853	7,748	16,022,040	7,925,161	8,096,879	78.6	61.2	95.7	77.3	80.0	59.5	63.0	93.6	97.8
AGE-ADJUSTED							55.4	55.0	55.0	54.4	56.4	53.4	56.5	53.7	56.2
<b>TWO OR MORE RACES</b>															
UNDER 1	0	0	0	33,862	17,293	16,569	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	1	1	0	90,955	46,504	44,451	1.1 *	2.2 *	0.0 +	0.0	3.3	0.0	6.4	-	-
5 - 14	0	0	0	165,720	83,871	81,849	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	0	0	0	121,398	59,842	61,556	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 - 34	0	0	0	83,608	40,226	43,382	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 - 44	3	1	2	78,501	37,691	40,810	3.8 *	2.7 *	4.9 *	0.0	8.1	0.0	7.9	0.0	11.7
45 - 54	2	1	1	60,838	28,791	32,047	3.3 *	3.5 *	3.1 *	0.0	7.8	0.0	10.3	0.0	9.2
55 - 64	2	1	1	35,340	16,631	18,709	5.7 *	6.0 *	5.3 *	0.0	13.5	0.0	17.8	0.0	15.8
65 - 74	2	0	2	20,524	9,487	11,037	9.7 *	0.0 +	18.1 *	0.0	23.3	-	-	0.0	43.2
75 - 84	6	4	2	11,725	5,056	6,669	51.2 *	79.1 *	30.0 *	10.2	92.1	1.6	156.6	0.0	71.6
85 & OLDER	4	1	3	3,997	1,427	2,570	100.1 *	70.1 *	116.7 *	2.0	198.1	0.0	207.4	0.0	248.8
UNKNOWN	0	0	0												
TOTAL	20	9	11	706,468	346,819	359,649	2.8	2.6 *	3.1 *	1.6	4.1	0.9	4.3	1.3	4.9
AGE-ADJUSTED							6.1 *	6.2 *	6.0 *	3.3	8.9	1.8	10.6	2.4	9.7

Note: ICD-10 Codes I60-I69; rates are per 100,000 population.  
Year 2000 U.S. standard population is used for age-adjusted rates.  
American Indian, Asian, Black, Pacific Islander, White, and Two or More Races exclude Hispanic ethnicity.  
Hispanic includes any race category.

\* 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) deaths.

Source: State of California, Department of Finance, Population Projections with Age, Sex and Race/Ethnic Detail, 2000-2050, May 2004.  
State of California, Department of Health Services, Death Records.









**TABLE 4 (Continued)**  
**CEREBROVASCULAR DISEASE DEATHS BY RACE/ETHNICITY, AGE, AND SEX**  
**CALIFORNIA, 2000**  
**(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</b>															
UNDER 1	11	5	6	491,073	251,541	239,532	2.2 *	2.0 *	2.5 *	0.9	3.6	0.2	3.7	0.5	4.5
1 - 4	4	1	3	1,990,873	1,018,496	972,377	0.2 *	0.1 *	0.3 *	0.0	0.4	0.0	0.3	0.0	0.7
5 - 14	5	2	3	5,310,526	2,720,715	2,589,811	0.1 *	0.1 *	0.1 *	0.0	0.2	0.0	0.2	0.0	0.2
15 - 24	23	9	14	4,860,696	2,532,547	2,328,149	0.5	0.4 *	0.6 *	0.3	0.7	0.1	0.6	0.3	0.9
25 - 34	74	43	31	5,245,273	2,702,010	2,543,263	1.4	1.6	1.2	1.1	1.7	1.1	2.1	0.8	1.6
35 - 44	273	144	129	5,499,218	2,780,657	2,718,561	5.0	5.2	4.7	4.4	5.6	4.3	6.0	3.9	5.6
45 - 54	662	365	297	4,376,695	2,156,077	2,220,618	15.1	16.9	13.4	14.0	16.3	15.2	18.7	11.9	14.9
55 - 64	1,156	636	520	2,641,560	1,270,830	1,370,730	43.8	50.0	37.9	41.2	46.3	46.2	53.9	34.7	41.2
65 - 74	2,510	1,264	1,246	1,894,010	858,793	1,035,217	132.5	147.2	120.4	127.3	137.7	139.1	155.3	113.7	127.0
75 - 84	6,237	2,699	3,538	1,294,989	530,932	764,057	481.6	508.4	463.1	469.7	493.6	489.2	527.5	447.8	478.3
85 & OLDER	7,135	2,097	5,038	438,285	139,496	298,789	1,627.9	1,503.3	1,686.1	1,590.2	1,665.7	1,438.9	1,567.6	1,639.6	1,732.7
UNKNOWN	0	0	0												
TOTAL	18,090	7,265	10,825	34,043,198	16,962,094	17,081,104	53.1	42.8	63.4	52.4	53.9	41.8	43.8	62.2	64.6
AGE-ADJUSTED							62.6	63.6	61.1	61.7	63.5	62.1	65.1	59.9	62.2
<b>PACIFIC ISLANDER</b>															
UNDER 1	1	0	1	1,549	808	741	64.6 *	0.0 +	135.0 *	0.0	191.1	-	-	0.0	399.5
1 - 4	0	0	0	6,723	3,451	3,272	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	0	0	0	19,919	10,178	9,741	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	0	0	0	19,722	10,093	9,629	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 - 34	1	0	1	19,378	9,582	9,796	5.2 *	0.0 +	10.2 *	0.0	15.3	-	-	0.0	30.2
35 - 44	3	1	2	18,657	9,368	9,289	16.1 *	10.7 *	21.5 *	0.0	34.3	0.0	31.6	0.0	51.4
45 - 54	4	2	2	12,625	6,288	6,337	31.7 *	31.8 *	31.6 *	0.6	62.7	0.0	75.9	0.0	75.3
55 - 64	9	6	3	6,958	3,397	3,561	129.3 *	176.6 *	84.2 *	44.8	213.9	35.3	318.0	0.0	179.6
65 - 74	11	5	6	3,792	1,804	1,988	290.1 *	277.2 *	301.8 *	118.7	461.5	34.2	520.1	60.3	543.3
75 - 84	6	3	3	1,472	624	848	407.6 *	480.8 *	353.8 *	81.5	733.8	0.0	1,024.8	0.0	754.1
85 & OLDER	4	3	1	405	147	258	987.7 *	2,040.8 *	387.6 *	19.8	1,955.6	0.0	4,350.2	0.0	1,147.3
UNKNOWN	0	0	0												
TOTAL	39	20	19	111,200	55,740	55,460	35.1	35.9	34.3	24.1	46.1	20.2	51.6	18.9	49.7
AGE-ADJUSTED							72.5	92.9 *	60.2 *	47.0	98.1	44.6	141.3	30.8	89.5
<b>WHITE</b>															
UNDER 1	3	1	2	155,299	79,680	75,619	1.9 *	1.3 *	2.6 *	0.0	4.1	0.0	3.7	0.0	6.3
1 - 4	0	0	0	644,970	331,193	313,777	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	1	0	1	1,904,163	979,233	924,930	0.1 *	0.0 +	0.1 *	0.0	0.2	-	-	0.0	0.3
15 - 24	9	4	5	1,794,122	925,355	868,767	0.5 *	0.4 *	0.6 *	0.2	0.8	0.0	0.9	0.1	1.1
25 - 34	20	11	9	2,083,017	1,066,877	1,016,140	1.0	1.0 *	0.9 *	0.5	1.4	0.4	1.6	0.3	1.5
35 - 44	87	37	50	2,742,427	1,398,317	1,344,110	3.2	2.6	3.7	2.5	3.8	1.8	3.5	2.7	4.8
45 - 54	297	166	131	2,535,616	1,269,871	1,265,745	11.7	13.1	10.3	10.4	13.0	11.1	15.1	8.6	12.1
55 - 64	602	328	274	1,641,307	804,962	836,345	36.7	40.7	32.8	33.7	39.6	36.3	45.2	28.9	36.6
65 - 74	1,571	794	777	1,240,624	573,721	666,903	126.6	138.4	116.5	120.4	132.9	128.8	148.0	108.3	124.7
75 - 84	4,745	2,012	2,733	962,896	394,629	568,267	492.8	509.8	480.9	478.8	506.8	487.6	532.1	462.9	499.0
85 & OLDER	5,820	1,656	4,164	343,548	106,876	236,672	1,694.1	1,549.5	1,759.4	1,650.6	1,737.6	1,474.8	1,624.1	1,706.0	1,812.8
UNKNOWN	0	0	0												
TOTAL	13,155	5,009	8,146	16,047,989	7,930,714	8,117,275	82.0	63.2	100.4	80.6	83.4	61.4	64.9	98.2	102.5
AGE-ADJUSTED							62.3	62.0	61.7	61.2	63.3	60.3	63.7	60.3	63.0
<b>TWO OR MORE RACES</b>															
UNDER 1	0	0	0	22,030	11,299	10,731	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	70,383	35,859	34,524	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	0	0	0	159,161	80,445	78,716	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	0	0	0	110,712	53,977	56,735	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 - 34	0	0	0	80,840	38,958	41,882	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 - 44	4	1	3	77,748	37,181	40,567	5.1 *	2.7 *	7.4 *	0.1	10.2	0.0	8.0	0.0	15.8
45 - 54	1	1	0	55,803	26,327	29,476	1.8 *	3.8 *	0.0 +	0.0	5.3	0.0	11.2	-	-
55 - 64	1	1	0	31,014	14,674	16,340	3.2 *	6.8 *	0.0 +	0.0	9.5	0.0	20.2	-	-
65 - 74	4	3	1	18,728	8,608	10,120	21.4 *	34.9 *	9.9 *	0.4	42.3	0.0	74.3	0.0	29.2
75 - 84	8	2	6	9,868	4,142	5,726	81.1 *	48.3 *	104.8 *	24.9	137.2	0.0	115.2	20.9	188.6
85 & OLDER	8	3	5	2,876	969	1,907	278.2 *	309.6 *	262.2 *	85.4	470.9	0.0	659.9	32.4	492.0
UNKNOWN	0	0	0												
TOTAL	26	11	15	639,163	312,439	326,724	4.1	3.5 *	4.6 *	2.5	5.6	1.4	5.6	2.3	6.9
AGE-ADJUSTED							10.7	10.8 *	10.6 *	6.4	15.0	3.9	17.8	5.1	16.1

Note: ICD-10 Codes I60-I69; rates are per 100,000 population.  
Year 2000 U.S. standard population is used for age-adjusted rates.  
American Indian, Asian, Black, Pacific Islander, White, and Two or More Races exclude Hispanic ethnicity.  
Hispanic includes any race category.

\* 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) deaths.

Source: State of California, Department of Finance, Population Projections with Age, Sex and Race/Ethnic Detail, 2000-2050, May 2004.  
State of California, Department of Health Services, Death Records.

**TABLE 5**  
**DEATHS DUE TO CEREBROVASCULAR DISEASE**  
**CALIFORNIA COUNTIES, 2001-2003**  
**(By Place of Residence)**

COUNTY	2001-2003 DEATHS (AVERAGE)	PERCENT	2002 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
<b>HEALTHY PEOPLE 2010 NATIONAL OBJECTIVE:</b>					<b>48.0</b>		
CALIFORNIA	17,771.7	100.0	35,338,807	50.3	55.6	54.8	56.4
ALAMEDA <sup>1</sup>	806.7	4.5	1,488,074	54.2	63.6	59.2	68.0
ALPINE	1.0	a	1,292	77.4 *	97.5 *	0.0	288.5
AMADOR	32.3	0.2	36,637	88.3	66.1	43.2	89.1
BUTTE	173.0	1.0	209,770	82.5	61.3	52.1	70.5
CALAVERAS	33.3	0.2	42,524	78.4	60.4	39.6	81.2
COLUSA <sup>2</sup>	6.3	a	19,635	32.3 *	35.4 *	7.8	63.0
CONTRA COSTA	571.7	3.2	989,807	57.8	60.1	55.1	65.0
DEL NORTE <sup>2</sup>	12.7	0.1	27,982	45.3 *	44.9 *	20.1	69.7
EL DORADO <sup>2</sup>	70.7	0.4	165,463	42.7	45.8	35.0	56.5
FRESNO <sup>1</sup>	451.0	2.5	836,207	53.9	67.2	61.0	73.4
GLENN	14.3	0.1	26,969	53.1 *	49.8 *	24.0	75.7
HUMBOLDT	71.7	0.4	128,492	55.8	55.7	42.8	68.6
IMPERIAL	66.3	0.4	149,360	44.4	61.1	46.2	76.0
INYO	16.0	0.1	18,456	86.7 *	50.4 *	25.6	75.3
KERN	309.7	1.7	697,856	44.4	51.6	45.8	57.4
KINGS	47.3	0.3	135,123	35.0	58.1	41.4	74.8
LAKE	59.3	0.3	61,352	96.7	68.6	51.1	86.1
LASSEN <sup>2</sup>	11.3	0.1	34,129	33.2 *	44.4 *	18.3	70.4
LOS ANGELES <sup>1,2</sup>	4,226.3	23.8	9,889,170	42.7	47.7	46.3	49.2
MADERA	60.3	0.3	129,585	46.6	48.8	36.5	61.1
MARIN	162.3	0.9	250,179	64.9	52.1	44.0	60.2
MARIPOSA	12.7	0.1	17,589	72.0 *	53.9 *	24.0	83.8
MENDOCINO	66.7	0.4	88,353	75.5	70.0	53.2	86.9
MERCED <sup>1</sup>	120.7	0.7	223,904	53.9	77.9	63.9	91.9
MODOC	8.3	a	9,400	88.7 *	64.5 *	20.4	108.6
MONO <sup>2</sup>	3.0	a	13,441	22.3 *	33.1 *	0.0	74.2
MONTEREY	198.3	1.1	413,819	47.9	58.7	50.5	66.9
NAPA	126.3	0.7	128,966	98.0	68.1	56.0	80.2
NEVADA <sup>1</sup>	95.0	0.5	96,045	98.9	74.2	59.2	89.2
ORANGE	1,351.0	7.6	2,959,646	45.6	56.2	53.2	59.2
PLACER	184.0	1.0	273,338	67.3	61.0	52.2	69.8
PLUMAS <sup>2</sup>	12.7	0.1	21,117	60.0 *	39.3 *	17.6	60.9
RIVERSIDE	979.3	5.5	1,682,408	58.2	58.8	55.1	62.4
SACRAMENTO <sup>1</sup>	798.0	4.5	1,302,647	61.3	67.0	62.4	71.7
SAN BENITO	19.7	0.1	55,955	35.1	53.6	29.7	77.5
SAN BERNARDINO	722.3	4.1	1,816,398	39.8	60.5	56.0	64.9
SAN DIEGO	1,532.0	8.6	2,944,585	52.0	58.3	55.4	61.2
SAN FRANCISCO	542.7	3.1	788,292	68.8	59.9	54.8	64.9
SAN JOAQUIN <sup>1</sup>	380.7	2.1	607,896	62.6	79.9	71.8	87.9
SAN LUIS OBISPO	161.3	0.9	255,449	63.2	52.4	44.3	60.5
SAN MATEO	428.0	2.4	711,793	60.1	55.7	50.4	61.0
SANTA BARBARA	239.0	1.3	408,471	58.5	54.1	47.2	60.9
SANTA CLARA <sup>1</sup>	694.0	3.9	1,717,059	40.4	50.9	47.1	54.7
SANTA CRUZ	116.0	0.7	259,164	44.8	48.5	39.6	57.5
SHASTA	127.3	0.7	172,130	74.0	51.9	42.7	61.1
SIERRA <sup>2</sup>	1.7	a	3,524	47.3 *	27.8 *	0.0	70.9
SISKIYOU	34.3	0.2	44,628	76.9	54.0	35.6	72.3
SOLANO	219.3	1.2	411,498	53.3	56.3	48.8	63.8
SONOMA	341.7	1.9	470,723	72.6	61.0	54.4	67.5
STANISLAUS	242.0	1.4	477,919	50.6	58.3	51.0	65.7
SUTTER	47.0	0.3	82,696	56.8	59.6	42.5	76.7
TEHAMA	49.7	0.3	57,649	86.2	58.6	42.0	75.1
TRINITY	8.7	a	13,271	65.3 *	48.2 *	15.9	80.5
TULARE <sup>1</sup>	197.3	1.1	383,164	51.5	69.2	59.5	78.8
TUOLUMNE	38.7	0.2	56,545	68.4	50.1	34.2	65.9
VENTURA <sup>1</sup>	346.0	1.9	788,282	43.9	49.4	44.2	54.6
YOLO	87.7	0.5	180,193	48.7	64.6	51.1	78.2
YUBA	35.0	0.2	62,788	55.7	69.3	46.1	92.4

Note: ICD-10 codes I60-I69; rates are per 100,000 population.

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

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

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

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

Source: State of California, Department of Finance, Population Estimates with Age, Sex, and Race/Ethnicity Detail, May 2004.  
State of California, Department of Health Services, Death Records.