



# Center for Health Statistics



November 2005

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

## Highlights

- Alzheimer's disease was the eighth leading cause of death in California and in the United States during 2003.
- Over 99 percent of Alzheimer's disease deaths in 2003 occurred among residents aged 65 and older.
- In 2003 California's age-adjusted death rate for Alzheimer's was 19.7, an increase of 17.3 percent over the 2002 rate.
- San Diego (34.2) and Tulare (7.8) Counties had the highest and lowest reliable Alzheimer's age-adjusted death rates, respectively in 2003.

# Alzheimer's Disease Deaths in California, 2000-2003

By Sally Jew-Lochman

## Introduction

Alzheimer's disease is the most common form of dementia, a group of conditions that affects memory, mood, and behavior. This irreversible disease causes a progressive decline in mental function through gradual changes to the brain that eventually destroys brain cells. Age is the greatest risk factor for Alzheimer's disease, although hereditary and environmental factors may also play a role.<sup>1</sup> One in 10 individuals over age 65 and nearly half of those over age 85 are affected by Alzheimer's disease.<sup>2</sup>

In 2000 an estimated 4.5 million Americans had Alzheimer's disease and the number is expected to rise due to the increase in life expectancy and the lack of effective preventative treatment or a cure.<sup>3</sup> By 2050, the number of Americans with Alzheimer's disease could range from 11.3 million to 16 million.<sup>2</sup>

Alzheimer's disease leads to death within an average of eight years from the onset of symptoms as estimated by relatives.<sup>2</sup> In 2003 there were 63,343 deaths in the United States (U.S.) and 6,585 deaths in California due to Alzheimer's disease making it the eighth leading cause of death in both the U.S. and California.<sup>4,5</sup>

This report presents data on California's Alzheimer's disease deaths for 2000 to 2003 with the focus on 2003. It provides analysis of crude and age-adjusted death rates for California residents by sex, age, and race/ethnicity. Alzheimer's disease data are extracted from vital statistics records with deaths attributed to Alzheimer's disease as defined by the International Classification of Diseases, Tenth Revision (ICD-10) code G30 in accordance with the National Center for Health Statistics (NCHS).<sup>6</sup>

<sup>1</sup>Mayo Clinic Staff. (2005). Alzheimer's Disease. MayoClinic.com website at [www.mayoclinic.com](http://www.mayoclinic.com) Accessed September 2005.

<sup>2</sup>Alzheimer's Disease Statistics. Alzheimer's Association website at [www.alz.org](http://www.alz.org). Accessed September 2005.

<sup>3</sup>Herbert, LE, et al. Alzheimer Disease in the US Population: Prevalence Estimates Using the 2000 Census, Archives of Neurology. Vol. 60, No. 8, August 2003.

<sup>4</sup>State of California, Department of Health Services, Death Records 2003.

<sup>5</sup>National Center for Health Statistics. Deaths: Preliminary Data for 2003. National Vital Statistics Reports; Vol 53, No 15. Hyattsville, Maryland. February 2005.

<sup>6</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. October 2002.

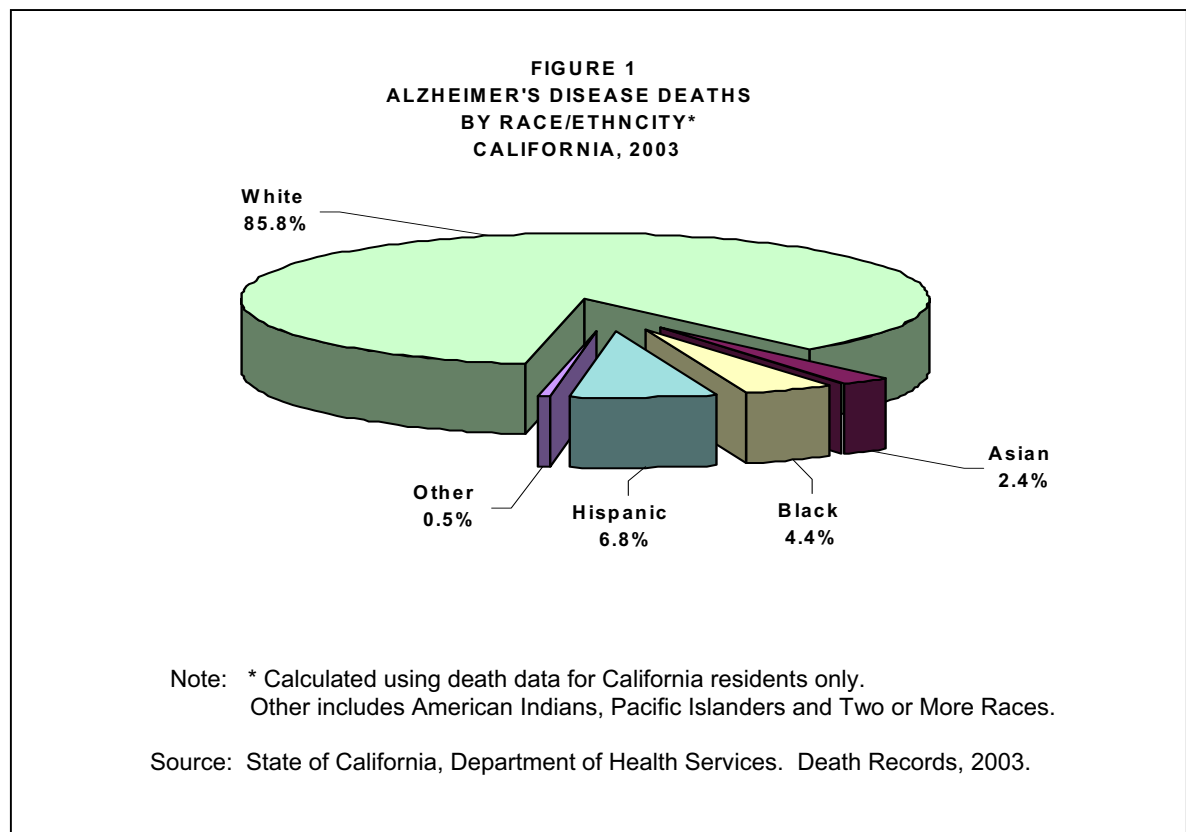
A brief overview of [data limitations](#) and [qualifications](#) is provided at the end of this report.

## Alzheimer's Disease Deaths

**Table 1** (pages 10 to 11) shows Alzheimer's disease death data for 2003 among California residents by race/ethnicity, age, and sex. There were a total of 6,585 deaths due to Alzheimer's disease, of which 4,516 or 68.6 percent occurred among females and 2,069 or 31.4 percent occurred among males. Alzheimer's deaths among women outnumbered deaths among men by a ratio of 2.2 to 1.

Over 99 percent of the deaths attributed to Alzheimer's disease in 2003 occurred among residents aged 65 and older. The proportion of deaths increased with age as follows: 5.3 percent were aged 65 to 74; 32.9 percent were aged 75 to 84; and 60.9 percent were aged 85 and older.

**Figure 1** shows Whites had the highest percentage of Alzheimer's disease deaths with 85.8 percent, followed by Hispanics with 6.8 percent, Blacks with 4.4 percent, Asians at 2.4 percent, and Two or More Races at 0.3 percent.



**Tables 2 through 4** (pages 12 to 14) display Alzheimer's disease death data for 2000 through 2002. The number of deaths increased annually from 4,398 in 2000 to 4,897 in 2001 to 5,405 in 2002 while the ratio of female to male Alzheimer's deaths remained constant at 2.2 to 1.

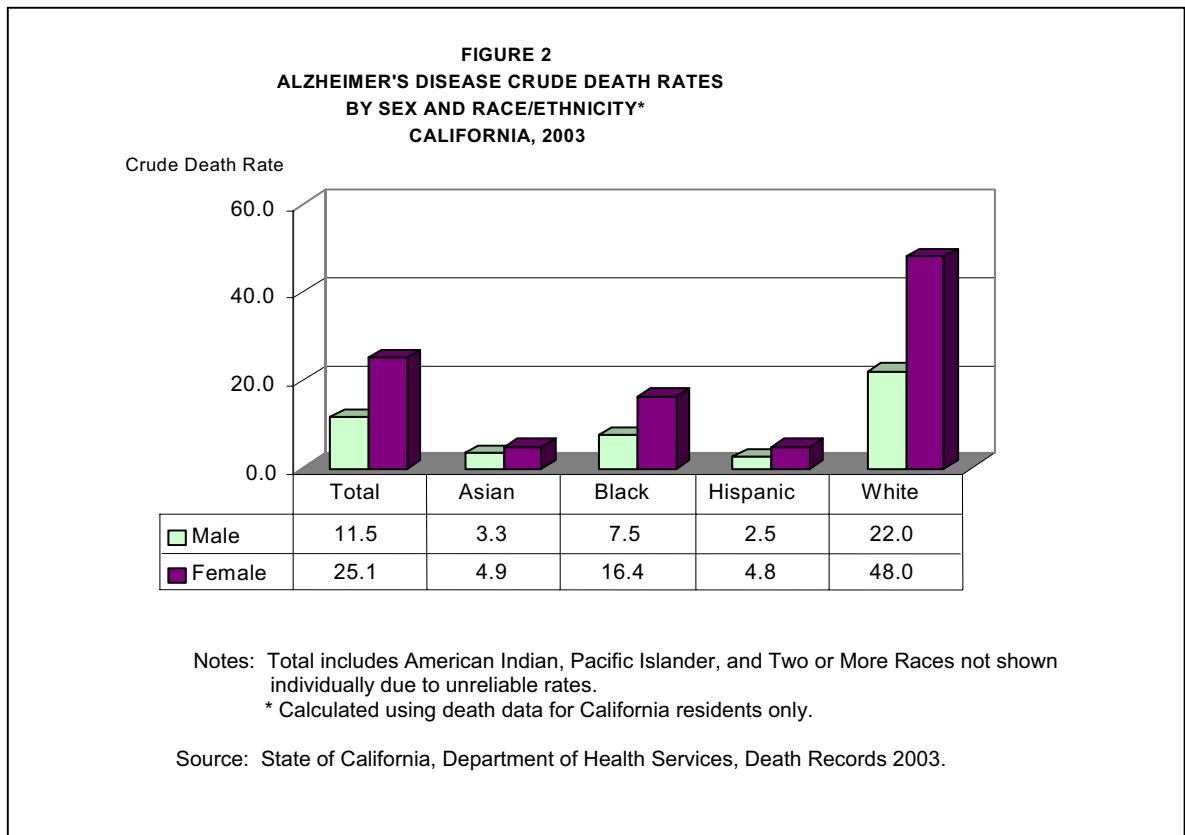
See the [Methodological Approach Section](#) later in this report for an explanation of crude, age-specific, and age-adjusted death rates.

## Alzheimer’s Disease Crude Death Rates

As shown in **Table 1** (pages 10 to 11), California's Alzheimer’s disease crude death rate in 2003 was 18.3 per 100,000 population, a statistically significant increase of 41.9 percent over the 2000 rate of 12.9 (**Table 4**, page 14). The crude death rates of all race/ethnic groups with reliable rates increased significantly during this time period.

In 2003 Whites had the highest crude rate (35.1) followed by Blacks (12.0), Asians (4.1), Hispanics (3.6), and Two or More Races (2.6). Except for the difference in crude rates between Hispanics compared with Asians and Two or More Races, the differences in reliable crude rates among all other race/ethnic groups were significant.

**Figure 2** shows the 2003 overall female crude death rate (25.1) was significantly higher than the male rate (11.5). This pattern of female crude death rates being significantly higher than male crude death rates is evident in each race/ethnic group with reliable rates. The three highest crude death rates were found in White females with 48.0 followed by White males with 22.0 and Black females with 16.4.

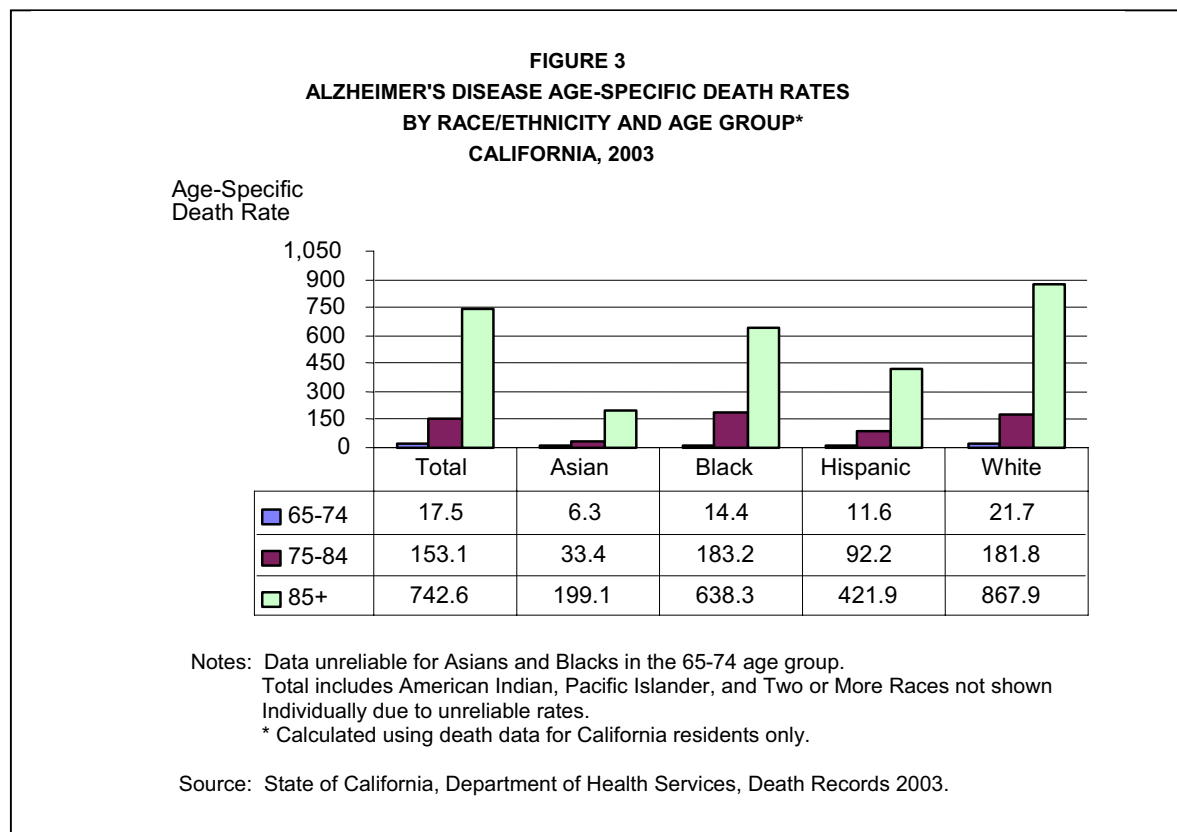


## Alzheimer's Disease Age-Specific Death Rates

See the Vital Statistics Query System (VSQ) at our Web site [www.applications.dhs.ca.gov/vsq/default.asp](http://www.applications.dhs.ca.gov/vsq/default.asp) to create personalized California vital statistics tables.

As Alzheimer's disease deaths occur primarily in persons aged 65 and older, age-specific death rates for younger age groups are seldom reliable due to zero or small numbers of deaths. As shown in **Table 1** (pages 10 to 11), the 2003 overall age-specific death rate is reliable for age groups 55 and older. An examination by race/ethnic group shows reliable age-specific rates for Whites aged 55 and older; Hispanics aged 65 and older; Asians and Blacks aged 75 and older. There were no reliable rates for Two or More Races in any age group.

**Figure 3** shows age-specific death rates for age groups 65 to 74, 75 to 84, and 85 and older by race/ethnicity. Whites had the highest reliable rate for the 65 to 74 and 85 and older age groups, 21.7 and 867.9, respectively. Blacks had the highest rate of 183.2 in the 75 to 84 age group. Asians had the lowest rates in all the age groups shown.



The difference between the only reliable death rates in the 65 to 74 age group for Whites (21.7) and Hispanics (11.6) was statistically significant. In the 75 to 84 age group, the reliable death rates among all race/ethnic groups were significantly different from each other except those between Blacks and Whites. The rates for all race/ethnic groups were significantly different from one another among those aged 85 and older.

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

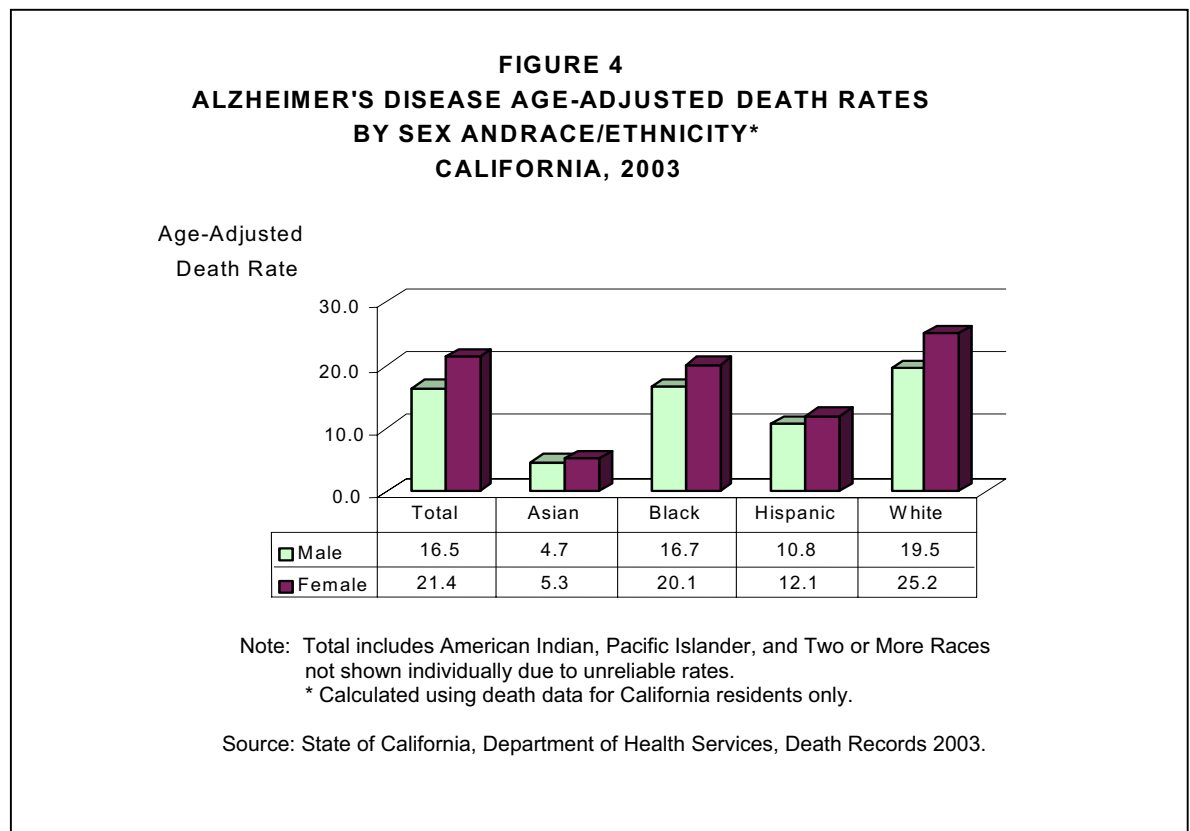
Regardless of race/ethnicity, females overall had a significantly higher age-specific death rate than males in the 75 to 84 and 85 and older age groups. The only significant differences in death rates by gender were found among Whites in these age groups. The age-specific death rate for White females was 191.0 for the 75 to 84 age group and 967.1 for the 85 and older age group compared with their male counterparts at 168.9 and 668.9, respectively.

## Alzheimer's Disease Age-Adjusted Death Rates

In 2003 California's Alzheimer's age-adjusted death rate was 19.7 deaths per 100,000 population, a 17.3 percent increase from the rate of 16.8 in 2002 (**Table 2**, page 12). The rate in the U.S. was 21.8 in 2003, an increase of 5.9 percent from the 2002 rate.<sup>5</sup> Thus, although California's age-adjusted death rate was lower than the U.S. rate in 2003, the annual percentage increase was higher.

**Table 1** (pages 10 to 11) shows 2003 data with the highest reliable age-adjusted death rate of 23.2 occurring among Whites, followed by Blacks with 19.1, Hispanics with 11.6, Two or More Races with 6.4, and Asians with 5.1. Except for the differences in rates between Asians and Two or More Races, the rates were significantly different between all other race/ethnic groups.

**Figure 4** shows the 2003 age-adjusted death rates by gender and race/ethnicity. The difference between California's male (16.5) and female (21.4) age-adjusted death rates was statistically significant. The rates were higher for females than males in all race/ethnic groups but only significantly different among Whites.



For more Data Summary reports, see DHS Center for Health Statistics Web site at: [www.dhs.ca.gov/hisp/chs/OHIR/reports/](http://www.dhs.ca.gov/hisp/chs/OHIR/reports/)

Four years of trend data show the overall Alzheimer's age-adjusted death rate in California increased significantly by 27.9 percent from 2000 (**Table 4**, page 14) to 2003 (**Table 1**, pages 10 to 11). All race/ethnic groups with reliable rates showed an increase with Whites having the largest increase in age-adjusted death rates of 31.8 percent and Asians having the smallest increase of 10.9 percent for these years. The increases were significant among Blacks, Hispanics, and Whites.

## Alzheimer's Disease Death Rates for California Counties

**Table 5** (page 15) shows the average number of Alzheimer's disease deaths during 2001 to 2003 with crude and age-adjusted death rates for California and its 58 counties. County crude and age-adjusted Alzheimer's disease death rates were calculated using 2002 mid-year population denominators and are presented as rates per 100,000 population.

Los Angeles County had the highest average number of deaths (1,055.0) followed by San Diego County (897.3) and Orange County (452.0). Alpine County was the only county without any deaths attributed to Alzheimer's disease from 2001 to 2003.

The highest reliable crude death rate was found in Napa County (48.1) while Tulare County (5.7) had the lowest reliable rate. Reliable age-adjusted rates ranged from a high of 34.2 in San Diego County to a low of 7.8 in Tulare County. Ten counties had age-adjusted rates that were significantly different from the State rate; six county rates were higher and four were lower than the State rate of 17.5.

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

## Alzheimer's Disease Deaths for City Health Jurisdictions

**Table 6** shows the average number of Alzheimer's of disease deaths from 2001 to 2003 and crude death rates for California's three city health jurisdictions.

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

TABLE 6 ALZHEIMER'S DISEASE DEATHS AMONG THE CITY HEALTH JURISDICTIONS* CALIFORNIA, 2001-2003			
CITY HEALTH JURISDICTION	NUMBER OF DEATHS (Average)	2002 POPULATION	CRUDE DEATH RATE
BERKELEY	17.3	104,254	16.6 +
LONG BEACH	49.3	473,363	10.4
PASADENA	29.0	138,904	20.9

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

Long Beach had the highest average number of deaths (49.3) followed by Pasadena (29.0) and Berkeley (17.3). The highest crude death rate among the city health jurisdictions was found in Pasadena with 20.9 per 100,000 population, followed by Berkeley with 16.6 and Long Beach with 10.4. However, the crude death rate for Berkeley was unreliable.

## **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.

Age-adjusted rates are presented when the single, summary measure is needed, but data analysts should inspect age-specific rates first.<sup>7</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 Alzheimer's disease death data presented in this report are based on the vital statistics records with ICD-10 code G30 as defined by the NCHS.<sup>6</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

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<sup>7</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.

and non-significant differences in rates because CIs may overlap as much as 29 percent and still be significantly different.<sup>8</sup>

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.

Beginning in 1999 cause of death is reported using ICD-10.<sup>9</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>10</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.

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<sup>8</sup>van Belle G. Statistical Rules of Thumb, Rule 2.5. Wiley Publishing. March 2002.

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

<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 Pub. No. (PHS) 99-1328, September 1999.



The 2000 U.S. population standard was used for calculating age-adjustments in accordance with statistical policy implemented by NCHS.<sup>11</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 6) differ from population data used to calculate county crude rates in **Table 5** (page 15). 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.

A more complete explanation of age-adjustment methodology is available in the "Healthy People 2010 Statistical Notes" publication.<sup>12</sup> Detailed information on data quality and limitations is presented in the appendix of the annual report, "Vital Statistics of California."<sup>13</sup> Formulas used to calculate death rates are included in the technical notes of the "County Health Status Profiles" report.<sup>14</sup>

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<sup>11</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.

<sup>12</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>13</sup>Ficenec S, Bindra K, Christensen J. Vital Statistics of California, 2002. Center for Health Statistics, California Department of Health Services, April 2004.

<sup>14</sup>Shippen S, Wilson C. County Health Status Profiles 2005. Center for Health Statistics, California Department of Health Services, April 2005.

**TABLE 1  
ALZHEIMER'S 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<sup>1</sup></b>															
Under 1	0	0	0	531,434	271,162	260,272	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	2,008,528	1,026,713	981,815	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	5,420,822	2,777,200	2,643,622	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	5,160,658	2,691,409	2,469,249	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	5,246,137	2,705,863	2,540,274	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	2	1	1	5,648,662	2,870,936	2,777,726	0.0 *	0.0 *	0.0 *	0.0	0.1	0.0	0.1	0.0	0.1
45 to 54	12	6	6	4,819,832	2,382,693	2,437,139	0.2 *	0.3 *	0.2 *	0.1	0.4	0.1	0.5	0.0	0.4
55 to 64	42	21	21	3,146,705	1,520,342	1,626,363	1.3	1.4	1.3	0.9	1.7	0.8	2.0	0.7	1.8
65 to 74	350	153	197	1,997,161	921,535	1,075,626	17.5	16.6	18.3	15.7	19.4	14.0	19.2	15.8	20.9
75 to 84	2,166	839	1,327	1,414,654	587,119	827,535	153.1	142.9	160.4	146.7	159.6	133.2	152.6	151.7	169.0
85 & Older	4,013	1,049	2,964	540,374	183,447	356,927	742.6	571.8	830.4	719.7	765.6	537.2	606.4	800.5	860.3
Unknown	0	0	0												
Total	6,585	2,069	4,516	35,934,967	17,938,419	17,996,548	18.3	11.5	25.1	17.9	18.8	11.0	12.0	24.4	25.8
Age-Adjusted							19.7	16.5	21.4	19.2	20.2	15.8	17.2	20.8	22.1
<b>ASIAN</b>															
Under 1	0	0	0	49,099	25,103	23,996	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	181,821	93,219	88,602	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	500,584	258,445	242,139	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	547,727	281,307	266,420	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	609,005	297,832	311,173	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	0	0	0	654,269	313,201	341,068	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
45 to 54	0	0	0	590,179	275,078	315,101	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
55 to 64	2	1	1	356,471	166,544	189,927	0.6 *	0.6 *	0.5 *	0.0	1.3	0.0	1.8	0.0	1.6
65 to 74	15	5	10	236,933	103,366	133,567	6.3 *	4.8 *	7.5 *	3.1	9.5	0.6	9.1	2.8	12.1
75 to 84	49	22	27	146,599	62,184	84,415	33.4	35.4	32.0	24.1	42.8	20.6	50.2	19.9	44.0
85 & Older	95	34	61	47,703	19,092	28,611	199.1	178.1	213.2	159.1	239.2	118.2	237.9	159.7	266.7
Unknown	0	0	0												
Total	161	62	99	3,920,390	1,895,371	2,025,019	4.1	3.3	4.9	3.5	4.7	2.5	4.1	3.9	5.9
Age-Adjusted							5.1	4.7	5.3	4.3	5.8	3.5	5.9	4.2	6.3
<b>BLACK</b>															
Under 1	0	0	0	32,376	16,503	15,873	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	122,874	62,658	60,216	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	415,801	211,605	204,196	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	379,857	197,146	182,711	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	329,285	162,507	166,778	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	0	0	0	401,674	200,729	200,945	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
45 to 54	0	0	0	319,425	155,654	163,771	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
55 to 64	0	0	0	190,319	88,453	101,866	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
65 to 74	17	8	9	117,685	53,462	64,223	14.4 *	15.0 *	14.0 *	7.6	21.3	4.6	25.3	4.9	23.2
75 to 84	117	44	73	63,864	24,858	39,006	183.2	177.0	187.2	150.0	216.4	124.7	229.3	144.2	230.1
85 & Older	154	36	118	24,128	7,218	16,910	638.3	498.8	697.8	537.5	739.1	335.8	661.7	571.9	823.7
Unknown	0	0	0												
Total	288	88	200	2,397,288	1,180,793	1,216,495	12.0	7.5	16.4	10.6	13.4	5.9	9.0	14.2	18.7
Age-Adjusted							19.1	16.7	20.1	16.9	21.3	13.1	20.2	17.3	22.9
<b>HISPANIC</b>															
Under 1	0	0	0	265,727	135,553	130,174	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	972,443	496,688	475,755	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	2,487,194	1,271,424	1,215,770	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	2,211,661	1,170,782	1,040,879	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	2,282,378	1,215,342	1,067,036	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	1	0	1	1,872,178	969,722	902,456	0.1 *	0.0 +	0.1 *	0.0	0.2	-	-	0.0	0.3
45 to 54	7	3	4	1,159,100	572,129	586,971	0.6 *	0.5 *	0.7 *	0.2	1.1	0.0	1.1	0.0	1.3
55 to 64	5	3	2	595,540	279,290	316,250	0.8 *	1.1 *	0.6 *	0.1	1.6	0.0	2.3	0.0	1.5
65 to 74	40	13	27	344,493	151,957	192,536	11.6	8.6 *	14.0	8.0	15.2	3.9	13.2	8.7	19.3
75 to 84	166	67	99	180,074	74,189	105,885	92.2	90.3	93.5	78.2	106.2	68.7	111.9	75.1	111.9
85 & Older	231	75	156	54,755	19,164	35,591	421.9	391.4	438.3	367.5	476.3	302.8	479.9	369.5	507.1
Unknown	0	0	0												
Total	450	161	289	12,425,543	6,356,240	6,069,303	3.6	2.5	4.8	3.3	4.0	2.1	2.9	4.2	5.3
Age-Adjusted							11.6	10.8	12.1	10.5	12.7	9.1	12.6	10.7	13.5

Note: Rates are per 100,000 population. ICD-10 code G30.

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.

<sup>1</sup> Includes deaths for American Indian (11) and Pacific Islander (5) not individually shown due to unreliable rates.

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 1 (Continued)**  
**ALZHEIMER'S 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<sup>1</sup></b>															
Under 1	0	0	0	531,434	271,162	260,272	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	2,008,528	1,026,713	981,815	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	5,420,822	2,777,200	2,643,622	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	5,160,658	2,691,409	2,469,249	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	5,246,137	2,705,863	2,540,274	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	2	1	1	5,648,662	2,870,936	2,777,726	0.0 *	0.0 *	0.0 *	0.0	0.1	0.0	0.1	0.0	0.1
45 to 54	12	6	6	4,819,832	2,382,693	2,437,139	0.2 *	0.3 *	0.2 *	0.1	0.4	0.1	0.5	0.0	0.4
55 to 64	42	21	21	3,146,705	1,520,342	1,626,363	1.3	1.4	1.3	0.9	1.7	0.8	2.0	0.7	1.8
65 to 74	350	153	197	1,997,161	921,535	1,075,626	17.5	16.6	18.3	15.7	19.4	14.0	19.2	15.8	20.9
75 to 84	2,166	839	1,327	1,414,654	587,119	827,535	153.1	142.9	160.4	146.7	159.6	133.2	152.6	151.7	169.0
85 & Older	4,013	1,049	2,964	540,374	183,447	356,927	742.6	571.8	830.4	719.7	765.6	537.2	606.4	800.5	860.3
Unknown	0	0	0												
Total	6,585	2,069	4,516	35,934,967	17,938,419	17,996,548	18.3	11.5	25.1	17.9	18.8	11.0	12.0	24.4	25.8
Age-Adjusted							19.7	16.5	21.4	19.2	20.2	15.8	17.2	20.8	22.1
<b>WHITE</b>															
Under 1	0	0	0	168,928	86,181	82,747	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	608,995	311,436	297,559	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	1,786,666	918,847	867,819	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	1,831,860	947,345	884,515	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	1,885,206	961,929	923,277	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	1	1	0	2,579,091	1,318,760	1,260,331	0.0 *	0.1 *	0.0 +	0.0	0.1	0.0	0.2	-	-
45 to 54	5	3	2	2,633,665	1,323,757	1,309,908	0.2 *	0.2 *	0.2 *	0.0	0.4	0.0	0.5	0.0	0.4
55 to 64	33	16	17	1,933,678	952,538	981,140	1.7	1.7 *	1.7 *	1.1	2.3	0.9	2.5	0.9	2.6
65 to 74	274	125	149	1,259,989	594,985	665,004	21.7	21.0	22.4	19.2	24.3	17.3	24.7	18.8	26.0
75 to 84	1,824	704	1,120	1,003,097	416,813	586,284	181.8	168.9	191.0	173.5	190.2	156.4	181.4	179.8	202.2
85 & Older	3,514	901	2,613	404,890	134,702	270,188	867.9	668.9	967.1	839.2	896.6	625.2	712.6	930.0	1,004.2
Unknown	0	0	0												
Total	5,651	1,750	3,901	16,096,065	7,967,293	8,128,772	35.1	22.0	48.0	34.2	36.0	20.9	23.0	46.5	49.5
Age-Adjusted							23.2	19.5	25.2	22.6	23.8	18.6	20.4	24.4	26.0
<b>TWO OR MORE RACES</b>															
Under 1	0	0	0	10,512	5,369	5,143	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	107,336	54,939	52,397	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	168,750	85,488	83,262	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	126,962	62,819	64,143	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	85,304	41,007	44,297	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	0	0	0	78,644	37,811	40,833	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
45 to 54	0	0	0	63,278	30,017	33,261	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
55 to 64	0	0	0	37,843	17,751	20,092	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
65 to 74	3	2	1	21,434	9,955	11,479	14.0 *	20.1 *	8.7 *	0.0	29.8	0.0	47.9	0.0	25.8
75 to 84	4	1	3	12,660	5,536	7,124	31.6 *	18.1 *	42.1 *	0.6	62.6	0.0	53.5	0.0	89.8
85 & Older	12	2	10	4,641	1,681	2,960	258.6 *	119.0 *	337.8 *	112.3	404.9	0.0	283.9	128.4	547.2
Unknown	0	0	0												
Total	19	5	14	717,364	352,373	364,991	2.6	1.4 *	3.8 *	1.5	3.8	0.2	2.7	1.8	5.8
Age-Adjusted							6.4	4.0 *	7.7 *	3.5	9.2	0.5	7.5	3.7	11.8

Note : Rates are per 100,000 population. ICD-10 code G30.

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.

<sup>1</sup> Includes deaths for American Indian (11) and Pacific Islander (5) not individually shown due to unreliable rates.

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**  
**ALZHEIMER'S 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<sup>1</sup></b>																
Under 1	0	0	0	516,411	263,488	252,923	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	1,976,342	1,010,549	965,793	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	5,412,306	2,773,346	2,638,960	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	5,045,468	2,631,609	2,413,859	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	5,288,247	2,724,113	2,564,134	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	5,607,549	2,846,141	2,761,408	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	6	2	4	4,679,130	2,308,857	2,370,273	0.1 *	0.1 *	0.2 *	0.0	0.2	0.0	0.2	0.0	0.3	0.3
55 to 64	40	23	17	2,962,280	1,429,870	1,532,410	1.4	1.6	1.1 *	0.9	1.8	1.0	2.3	0.6	1.6	1.6
65 to 74	288	130	158	1,954,020	896,870	1,057,150	14.7	14.5	14.9	13.0	16.4	12.0	17.0	12.6	17.3	17.3
75 to 84	1,866	691	1,175	1,383,065	571,663	811,402	134.9	120.9	144.8	128.8	141.0	111.9	129.9	136.5	153.1	153.1
85 & Older	3,205	834	2,371	513,989	171,306	342,683	623.6	486.8	691.9	602.0	645.1	453.8	519.9	664.0	719.7	719.7
Unknown	0	0	0													
Total	5,405	1,680	3,725	35,338,807	17,627,812	17,710,995	15.3	9.5	21.0	14.9	15.7	9.1	10.0	20.4	21.7	21.7
Age-Adjusted							16.8	14.1	18.3	16.4	17.3	13.4	14.8	17.7	18.9	18.9
<b>ASIAN</b>																
Under 1	0	0	0	45,926	23,458	22,468	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	178,330	91,534	86,796	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	507,351	262,076	245,275	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	557,144	284,561	272,583	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	644,621	313,918	330,703	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	659,156	314,894	344,262	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	0	0	0	578,796	268,890	309,906	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
55 to 64	2	2	0	337,662	157,274	180,388	0.6 *	1.3 *	0.0 +	0.0	1.4	0.0	3.0	-	-	-
65 to 74	5	0	5	233,048	101,009	132,039	2.1 *	0.0 +	3.8 *	0.3	4.0	-	-	0.5	7.1	7.1
75 to 84	43	16	27	137,756	58,678	79,078	31.2	27.3 *	34.1	21.9	40.5	13.9	40.6	21.3	47.0	47.0
85 & Older	81	26	55	41,956	16,705	25,251	193.1	155.6	217.8	151.0	235.1	95.8	215.5	160.2	275.4	275.4
Unknown	0	0	0													
Total	131	44	87	3,921,746	1,892,997	2,028,749	3.3	2.3	4.3	2.8	3.9	1.6	3.0	3.4	5.2	5.2
Age-Adjusted							4.6	3.7	5.2	3.8	5.4	2.6	4.9	4.1	6.2	6.2
<b>BLACK</b>																
Under 1	0	0	0	27,144	13,839	13,305	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	126,271	64,316	61,955	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	411,254	209,155	202,099	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	358,775	185,649	173,126	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	327,826	161,945	165,881	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	395,874	197,451	198,423	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	0	0	0	304,136	147,575	156,561	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
55 to 64	1	0	1	179,445	83,390	96,055	0.6 *	0.0 +	1.0 *	0.0	1.6	-	-	0.0	3.1	3.1
65 to 74	21	13	8	113,055	51,054	62,001	18.6	25.5 *	12.9 *	10.6	26.5	11.6	39.3	4.0	21.8	21.8
75 to 84	81	27	54	62,587	24,248	38,339	129.4	111.3	140.8	101.2	157.6	69.3	153.4	103.3	178.4	178.4
85 & Older	132	23	109	23,307	6,933	16,374	566.4	331.7	665.7	469.7	663.0	196.2	467.3	540.7	790.7	790.7
Unknown	0	0	0													
Total	235	63	172	2,329,674	1,145,555	1,184,119	10.1	5.5	14.5	8.8	11.4	4.1	6.9	12.4	16.7	16.7
Age-Adjusted							15.9	11.8	17.6	13.8	17.9	8.9	14.8	14.9	20.2	20.2
<b>HISPANIC</b>																
Under 1	0	0	0	256,278	130,761	125,517	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	950,953	485,542	465,411	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	2,449,592	1,252,436	1,197,156	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	2,147,131	1,140,661	1,006,470	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	2,222,788	1,182,208	1,040,580	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	1,788,037	924,255	863,782	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	0	0	0	1,086,080	535,046	551,034	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
55 to 64	6	4	2	554,789	259,751	295,038	1.1 *	1.5 *	0.7 *	0.2	1.9	0.0	3.0	0.0	1.6	1.6
65 to 74	25	14	11	330,157	145,276	184,881	7.6	9.6 *	5.9 *	4.6	10.5	4.6	14.7	2.4	9.5	9.5
75 to 84	115	43	72	167,231	68,658	98,573	68.8	62.6	73.0	56.2	81.3	43.9	81.3	56.2	89.9	89.9
85 & Older	173	47	126	49,930	17,160	32,770	346.5	273.9	384.5	294.9	398.1	195.6	352.2	317.4	451.6	451.6
Unknown	0	0	0													
Total	319	108	211	12,002,966	6,141,754	5,861,212	2.7	1.8	3.6	2.4	2.9	1.4	2.1	3.1	4.1	4.1
Age-Adjusted							9.1	7.8	9.7	8.0	10.1	6.3	9.3	8.4	11.0	11.0
<b>WHITE</b>																
Under 1	0	0	0	150,846	76,936	73,910	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	613,463	314,208	299,255	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	1,819,031	935,673	883,358	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	1,802,388	930,873	871,515	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	1,956,447	999,574	956,873	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	2,625,877	1,342,353	1,283,524	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	6	2	4	2,599,031	1,304,396	1,294,635	0.2 *	0.2 *	0.3 *	0.0	0.4	0.0	0.4	0.0	0.6	0.6
55 to 64	31	17	14	1,825,358	898,529	926,829	1.7	1.9 *	1.5 *	1.1	2.3	1.0	2.8	0.7	2.3	2.3
65 to 74	234	102	132	1,242,058	582,927	659,131	18.8	17.5	20.0	16.4	21.3	14.1	20.9	16.6	23.4	23.4
75 to 84	1,617	603	1,014	996,270	411,887	584,383	162.3	146.4	173.5	154.4	170.2	134.7	158.1	162.8	184.2	184.2
85 & Older	2,807	736	2,071	391,271	127,805	263,466	717.4	575.9	786.1	690.9	743.9	534.3	617.5	752.2	819.9	819.9
Unknown	0	0	0													
Total	4,695	1,460	3,235	16,022,040	7,925,161	8,096,879	29.3	18.4	40.0	28.5	30.1	17.5	19.4	38.6	41.3	41.3
Age-Adjusted							19.8	16.8	21.5	19.3	20.4	16.0	17.7	20.7	22.2	22.2

Note : Rates are per 100,000 population. ICD-10 code G30.

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.

<sup>1</sup> Includes deaths for American Indian (13), Pacific Islanders (4), and Two or More Races (8) not individually shown due to unreliable rates.

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 3  
ALZHEIMER'S DISEASE DEATHS  
BY RACE/ETHNICITY, AGE, AND SEX  
CALIFORNIA, 2001  
(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	518,927	264,741	254,186	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	1,960,105	1,002,866	957,239	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	5,377,327	2,755,213	2,622,114	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	4,956,819	2,584,393	2,372,426	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	5,284,524	2,720,908	2,563,616	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	2	2	0	5,566,274	2,820,571	2,745,703	0.0 *	0.1 *	0.0 +	0.0	0.1	0.0	0.2	-	-
45 to 54	5	4	1	4,552,753	2,244,282	2,308,471	0.1 *	0.2 *	0.0 *	0.0	0.2	0.0	0.4	0.0	0.1
55 to 64	44	14	30	2,774,474	1,337,024	1,437,450	1.6	1.0 *	2.1	1.1	2.1	0.5	1.6	1.3	2.8
65 to 74	280	127	153	1,920,122	876,170	1,043,952	14.6	14.5	14.7	12.9	16.3	12.0	17.0	12.3	17.0
75 to 84	1,699	661	1,038	1,341,150	551,924	789,226	126.7	119.8	131.5	120.7	132.7	110.6	128.9	123.5	139.5
85 & Older	2,867	719	2,148	477,265	155,766	321,499	600.7	461.6	668.1	578.7	622.7	427.8	495.3	639.9	696.4
Unknown	0	0	0												
Total	4,897	1,527	3,370	34,729,740	17,313,858	17,415,882	14.1	8.8	19.4	13.7	14.5	8.4	9.3	18.7	20.0
Age-Adjusted							16.1	13.6	17.4	15.7	16.6	12.9	14.3	16.8	18.0
<b>ASIAN</b>															
Under 1	0	0	0	47,353	24,180	23,173	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	175,354	90,196	85,158	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	506,076	261,333	244,743	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	558,118	283,682	274,436	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	652,150	316,603	335,547	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	0	0	0	654,655	311,736	342,919	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
45 to 54	0	0	0	559,132	259,407	299,725	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
55 to 64	1	0	1	317,844	147,600	170,244	0.3 *	0.0 +	0.6 *	0.0	0.9	-	-	0.0	1.7
65 to 74	8	1	7	226,106	97,488	128,618	3.5 *	1.0 *	5.4 *	1.1	6.0	0.0	3.0	1.4	9.5
75 to 84	39	20	19	127,700	54,562	73,138	30.5	36.7	26.0	21.0	40.1	20.6	52.7	14.3	37.7
85 & Older	68	24	44	36,199	14,378	21,821	187.9	166.9	201.6	143.2	232.5	100.1	233.7	142.1	261.2
Unknown	0	0	0												
Total	116	45	71	3,860,687	1,861,165	1,999,522	3.0	2.4	3.6	2.5	3.6	1.7	3.1	2.7	4.4
Age-Adjusted							4.5	4.3	4.7	3.7	5.4	3.0	5.6	3.6	5.8
<b>BLACK</b>															
Under 1	0	0	0	28,498	14,527	13,971	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	129,558	65,928	63,630	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	405,206	205,997	199,209	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	341,761	176,140	165,621	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	328,784	162,827	165,957	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	0	0	0	390,384	194,372	196,012	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
45 to 54	0	0	0	289,801	140,000	149,801	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
55 to 64	1	1	0	170,354	79,371	90,983	0.6 *	1.3 *	0.0 +	0.0	1.7	0.0	3.7	-	-
65 to 74	19	11	8	108,917	48,723	60,194	17.4	22.6 *	13.3 *	9.6	25.3	9.2	35.9	4.1	22.5
75 to 84	90	33	57	60,927	23,448	37,479	147.7	140.7	152.1	117.2	178.2	92.7	188.8	112.6	191.6
85 & Older	103	20	83	21,657	6,331	15,326	475.6	315.9	541.6	383.7	567.4	177.5	454.4	425.1	658.1
Unknown	0	0	0												
Total	213	65	148	2,275,847	1,117,664	1,158,183	9.4	5.8	12.8	8.1	10.6	4.4	7.2	10.7	14.8
Age-Adjusted							15.2	12.8	16.1	13.2	17.2	9.6	16.0	13.5	18.7
<b>HISPANIC</b>															
Under 1	0	0	0	253,961	129,573	124,388	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	938,287	479,043	459,244	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	2,385,392	1,219,250	1,166,142	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	2,090,373	1,113,138	977,235	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	2,148,856	1,142,461	1,006,395	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	1	1	0	1,698,401	876,555	821,846	0.1 *	0.1 *	0.0 +	0.0	0.2	0.0	0.3	-	-
45 to 54	2	2	0	1,013,711	498,885	514,826	0.2 *	0.4 *	0.0 +	0.0	0.5	0.0	1.0	-	-
55 to 64	3	0	3	515,325	240,811	274,514	0.6 *	0.0 +	1.1 *	0.0	1.2	-	-	0.0	2.3
65 to 74	24	8	16	315,002	138,023	176,979	7.6	5.8 *	9.0 *	4.6	10.7	1.8	9.8	4.6	13.5
75 to 84	104	50	54	153,901	62,845	91,056	67.6	79.6	59.3	54.6	80.6	57.5	101.6	43.5	75.1
85 & Older	125	30	95	44,732	15,161	29,571	279.4	197.9	321.3	230.5	328.4	127.1	268.7	256.7	385.9
Unknown	0	0	0												
Total	259	91	168	11,557,941	5,915,745	5,642,196	2.2	1.5	3.0	2.0	2.5	1.2	1.9	2.5	3.4
Age-Adjusted							8.0	7.1	8.3	7.0	8.9	5.6	8.6	7.1	9.6
<b>WHITE</b>															
Under 1	0	0	0	153,306	78,168	75,138	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	624,482	320,442	304,040	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	0	0	0	1,862,124	957,903	904,221	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 to 24	0	0	0	1,796,019	926,636	869,383	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
25 to 34	0	0	0	2,022,119	1,034,396	987,723	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
35 to 44	1	1	0	2,687,568	1,372,319	1,315,249	0.0 *	0.1 *	0.0 +	0.0	0.1	0.0	0.2	-	-
45 to 54	3	2	1	2,585,433	1,296,139	1,289,294	0.1 *	0.2 *	0.1 *	0.0	0.2	0.0	0.4	0.0	0.2
55 to 64	38	13	25	1,711,671	840,997	870,674	2.2	1.5 *	2.9	1.5	2.9	0.7	2.4	1.7	4.0
65 to 74	228	107	121	1,236,729	576,477	660,252	18.4	18.6	18.3	16.0	20.8	15.0	22.1	15.1	21.6
75 to 84	1,462	558	904	981,305	403,775	577,530	149.0	138.2	156.5	141.3	156.6	126.7	149.7	146.3	166.7
85 & Older	2,560	644	1,916	368,575	117,768	250,807	694.6	546.8	763.9	667.7	721.5	504.6	589.1	729.7	798.1
Unknown	0	0	0												
Total	4,292	1,325	2,967	16,029,331	7,925,020	8,104,311	26.8	16.7	36.6	26.0	27.6	15.8	17.6	35.3	37.9
Age-Adjusted							18.9	16.1	20.3	18.3	19.5	15.2	16.9	19.6	21.1

Note: Rates are per 100,000 population. ICD-10 code G30.

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.

<sup>1</sup> Includes deaths for American Indian (9), Pacific Islanders (2), and Two or More Races (6) not individually shown due to unreliable rates.

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**  
**ALZHEIMER'S 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<sup>1</sup></b>																
Under 1	0	0	0	491,073	251,541	239,532	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	1,990,873	1,018,496	972,377	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	5,310,526	2,720,715	2,589,811	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	4,860,696	2,532,547	2,328,149	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	5,245,273	2,702,010	2,543,263	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	5,499,218	2,780,657	2,718,561	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	9	5	4	4,376,695	2,156,077	2,220,618	0.2 *	0.2 *	0.2 *	0.1	0.3	0.0	0.4	0.0	0.4	0.4
55 to 64	31	12	19	2,641,560	1,270,830	1,370,730	1.2	0.9 *	1.4	0.8	1.6	0.4	1.5	0.8	2.0	2.0
65 to 74	279	126	153	1,894,010	858,793	1,035,217	14.7	14.7	14.8	13.0	16.5	12.1	17.2	12.4	17.1	17.1
75 to 84	1,522	581	941	1,294,989	530,932	764,057	117.5	109.4	123.2	111.6	123.4	100.5	118.3	115.3	131.0	131.0
85 & Older	2,556	663	1,893	438,285	139,496	298,789	583.2	475.3	633.6	560.6	605.8	439.1	511.5	605.0	662.1	662.1
Unknown	1	1	0													
Total	4,398	1,388	3,010	34,043,198	16,962,094	17,081,104	12.9	8.2	17.6	12.5	13.3	7.8	8.6	17.0	18.3	18.3
Age-Adjusted							15.4	13.4	16.5	15.0	15.9	12.6	14.1	15.9	17.1	17.1
<b>ASIAN</b>																
Under 1	0	0	0	42,844	21,965	20,879	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	177,521	91,373	86,148	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	498,621	257,574	241,047	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	552,160	279,314	272,846	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	642,906	311,655	331,251	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	639,658	302,953	336,705	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	0	0	0	528,556	245,171	283,385	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
55 to 64	2	1	1	300,494	138,840	161,654	0.7 *	0.7 *	0.6 *	0.0	1.6	0.0	2.1	0.0	1.8	1.8
65 to 74	4	0	4	217,029	93,082	123,947	1.8 *	0.0 +	3.2 *	0.0	3.6	-	1.8	0.1	6.4	6.4
75 to 84	30	12	18	116,423	49,861	66,562	25.8	24.1 *	27.0 *	16.5	35.0	10.4	37.7	14.5	39.5	39.5
85 & Older	64	24	40	30,080	12,023	18,057	212.8	199.6	221.5	160.6	264.9	119.8	279.5	152.9	290.2	290.2
Unknown	0	0	0													
Total	100	37	63	3,746,292	1,803,811	1,942,481	2.7	2.1	3.2	2.1	3.2	1.4	2.7	2.4	4.0	4.0
Age-Adjusted							4.6	4.2	4.9	3.7	5.6	2.9	5.6	3.7	6.1	6.1
<b>BLACK</b>																
Under 1	0	0	0	29,741	15,112	14,629	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	132,430	67,365	65,065	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	397,484	201,951	195,533	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	326,641	167,718	158,923	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	331,100	165,044	166,056	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	383,161	190,459	192,702	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	0	0	0	274,820	132,042	142,778	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
55 to 64	0	0	0	164,079	76,569	87,510	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
65 to 74	26	16	10	105,017	46,402	58,615	24.8	34.5 *	17.1 *	15.2	34.3	17.6	51.4	6.5	27.6	27.6
75 to 84	91	32	59	58,654	22,382	36,272	155.1	143.0	162.7	123.3	187.0	93.4	192.5	121.2	204.2	204.2
85 & Older	79	19	60	19,689	5,604	14,085	401.2	339.0	426.0	312.8	489.7	186.6	491.5	318.2	533.8	533.8
Unknown	0	0	0													
Total	196	67	129	2,222,816	1,090,648	1,132,168	8.8	6.1	11.4	7.6	10.1	4.7	7.6	9.4	13.4	13.4
Age-Adjusted							14.8	13.9	15.0	12.7	16.9	10.5	17.4	12.4	17.6	17.6
<b>HISPANIC</b>																
Under 1	0	0	0	237,496	121,585	115,911	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	948,679	484,068	464,611	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	2,299,957	1,175,384	1,124,573	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	2,027,816	1,080,868	946,948	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	2,060,173	1,095,849	964,324	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	1,604,089	826,047	778,042	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	5	4	1	941,053	462,923	478,130	0.5 *	0.9 *	0.2 *	0.1	1.0	0.0	1.7	0.0	0.6	0.6
55 to 64	2	1	1	481,558	224,626	256,932	0.4 *	0.4 *	0.4 *	0.0	1.0	0.0	1.3	0.0	1.2	1.2
65 to 74	30	13	17	300,409	131,275	169,134	10.0	9.9 *	10.1 *	6.4	13.6	4.5	15.3	5.3	14.8	14.8
75 to 84	98	33	65	141,486	57,595	83,891	69.3	57.3	77.5	55.6	83.0	37.7	76.8	58.6	96.3	96.3
85 & Older	131	36	95	40,269	13,429	26,840	325.3	268.1	353.9	269.6	381.0	180.5	355.6	282.8	425.1	425.1
Unknown	0	0	0													
Total	266	87	179	11,082,985	5,673,649	5,409,336	2.4	1.5	3.3	2.1	2.7	1.2	1.9	2.8	3.8	3.8
Age-Adjusted							8.9	7.5	9.7	7.8	10.0	5.9	9.2	8.3	11.1	11.1
<b>WHITE</b>																
Under 1	0	0	0	155,299	79,680	75,619	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	644,970	331,193	313,777	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	1,904,163	979,233	924,930	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	0	0	0	1,794,122	925,355	868,767	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
25 to 34	0	0	0	2,083,017	1,066,877	1,016,140	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
35 to 44	0	0	0	2,742,427	1,398,317	1,344,110	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
45 to 54	4	1	3	2,535,616	1,269,871	1,265,745	0.2 *	0.1 *	0.2 *	0.0	0.3	0.0	0.2	0.0	0.5	0.5
55 to 64	25	10	15	1,641,307	804,962	836,345	1.5	1.2 *	1.8 *	0.9	2.1	0.5	2.0	0.9	2.7	2.7
65 to 74	218	97	121	1,240,624	573,721	666,903	17.6	16.9	18.1	15.2	19.9	13.5	20.3	14.9	21.4	21.4
75 to 84	1,299	502	797	962,896	394,629	568,267	134.9	127.2	140.3	127.6	142.2	116.1	138.3	130.5	150.0	150.0
85 & Older	2,277	584	1,693	343,548	106,876	236,672	662.8	546.4	715.3	635.6	690.0	502.1	590.7	681.3	749.4	749.4
Unknown	1	1	0													
Total	3,824	1,195	2,629	16,047,989	7,930,714	8,117,275	23.8	15.1	32.4	23.1	24.6	14.2	15.9	31.1	33.6	33.6
Age-Adjusted							17.6	15.4	18.8	17.1	18.2	14.5	16.3	18.0	19.5	19.5

Note : Rates are per 100,000 population. ICD-10 code G30.

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.

<sup>1</sup> Includes deaths for American Indian (8), Pacific Islanders (3), and Two or More Races (1) not individually shown due to unreliable rates.

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  
ALZHEIMER'S DISEASE DEATHS  
CALIFORNIA, 2001-2003  
(By Place of Residence)

COUNTY	2001-2003 DEATHS (Average)	PERCENT	2002 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
CALIFORNIA	5,629.0	100.0	35,338,807	15.9	17.5	17.1	18.0
ALAMEDA	200.0	3.6	1,488,074	13.4	15.8	13.6	18.0
ALPINE	0.0	0.0	1,292	0.0 +	0.0 +	-	-
AMADOR	9.7	0.2	36,637	26.4 *	21.1 *	7.7	34.4
BUTTE	51.3	0.9	209,770	24.5	17.3	12.5	22.0
CALAVERAS	8.7	0.2	42,524	20.4 *	16.9 *	5.6	28.3
COLUSA	4.0	0.1	19,635	20.4 *	22.2 *	0.4	44.0
CONTRA COSTA	162.0	2.9	989,807	16.4	16.9	14.3	19.5
DEL NORTE	3.7	0.1	27,982	13.1 *	13.6 *	0.0	27.5
EL DORADO	33.7	0.6	165,463	20.3	23.1	15.3	30.9
FRESNO	109.7	1.9	836,207	13.1	16.4	13.3	19.4
GLENN	5.0	0.1	26,969	18.5 *	16.5 *	2.0	31.0
HUMBOLDT <sup>1</sup>	38.3	0.7	128,492	29.8	29.8	20.3	39.2
IMPERIAL	12.0	0.2	149,360	8.0 *	12.0 *	5.1	18.8
INYO	1.7	a	18,456	9.0 *	4.9 *	0.0	12.4
KERN	97.3	1.7	697,856	13.9	16.0	12.8	19.2
KINGS	10.7	0.2	135,123	7.9 *	13.8 *	5.5	22.1
LAKE	10.3	0.2	61,352	16.8 *	11.9 *	4.7	19.2
LASSEN	4.3	0.1	34,129	12.7 *	17.8 *	1.0	34.7
LOS ANGELES <sup>1</sup>	1,055.0	18.7	9,889,170	10.7	11.6	10.9	12.3
MADERA	29.3	0.5	129,585	22.6	23.2	14.8	31.6
MARIN <sup>1</sup>	35.0	0.6	250,179	14.0	11.1	7.4	14.7
MARIPOSA	2.0	a	17,589	11.4 *	8.8 *	0.0	21.1
MENDOCINO	9.3	0.2	88,353	10.6 *	9.8 *	3.5	16.1
MERCED	27.0	0.5	223,904	12.1	18.2	11.3	25.1
MODOC	3.3	0.1	9,400	35.5 *	25.4 *	0.0	52.7
MONO	0.3	a	13,441	2.5 *	7.6 *	0.0	33.4
MONTEREY	49.0	0.9	413,819	11.8	14.7	10.6	18.8
NAPA <sup>1</sup>	62.0	1.1	128,966	48.1	31.2	23.3	39.0
NEVADA	23.0	0.4	96,045	23.9	17.9	10.6	25.2
ORANGE	452.0	8.0	2,959,646	15.3	19.0	17.3	20.8
PLACER	69.7	1.2	273,338	25.5	23.0	17.6	28.4
PLUMAS	2.7	a	21,117	12.6 *	8.5 *	0.0	18.7
RIVERSIDE <sup>1</sup>	341.0	6.1	1,682,408	20.3	20.5	18.3	22.7
SACRAMENTO	207.0	3.7	1,302,647	15.9	17.3	15.0	19.7
SAN BENITO	4.0	0.1	55,955	7.1 *	11.4 *	0.2	22.5
SAN BERNARDINO	227.3	4.0	1,816,398	12.5	20.3	17.7	23.0
SAN DIEGO <sup>1</sup>	897.3	15.9	2,944,585	30.5	34.2	32.0	36.4
SAN FRANCISCO <sup>1</sup>	136.7	2.4	788,292	17.3	14.4	12.0	16.8
SAN JOAQUIN	103.0	1.8	607,896	16.9	22.1	17.8	26.4
SAN LUIS OBISPO <sup>1</sup>	82.0	1.5	255,449	32.1	26.5	20.8	32.2
SAN MATEO	149.3	2.7	711,793	21.0	19.2	16.1	22.2
SANTA BARBARA	90.3	1.6	408,471	22.1	19.9	15.8	24.0
SANTA CLARA	216.7	3.8	1,717,059	12.6	16.3	14.2	18.5
SANTA CRUZ	38.0	0.7	259,164	14.7	15.9	10.8	21.0
SHASTA	39.3	0.7	172,130	22.9	14.5	9.9	19.1
SIERRA	1.0	a	3,524	28.4 *	16.1 *	0.0	48.0
SISKIYOU	12.3	0.2	44,628	27.6 *	18.8 *	8.3	29.3
SOLANO	88.0	1.6	411,498	21.4	21.5	17.0	26.1
SONOMA	127.3	2.3	470,723	27.1	21.7	17.9	25.5
STANISLAUS	78.0	1.4	477,919	16.3	18.6	14.5	22.7
SUTTER	8.0	0.1	82,696	9.7 *	10.3 *	3.1	17.4
TEHAMA	12.0	0.2	57,649	20.8 *	13.4 *	5.8	21.0
TRINITY	3.0	0.1	13,271	22.6 *	16.3 *	0.0	34.9
TULARE <sup>1</sup>	21.7	0.4	383,164	5.7	7.8	4.5	11.1
TUOLUMNE	14.3	0.3	56,545	25.3 *	19.0 *	9.1	28.8
VENTURA	107.0	1.9	788,282	13.6	15.4	12.5	18.3
YOLO <sup>1</sup>	38.3	0.7	180,193	21.3	29.0	19.8	38.2
YUBA	4.0	0.1	62,788	6.4 *	8.3 *	0.1	16.6

Note : Rates are per 100,000 population. ICD-10 code G30.

Year 2000 U.S. Population Standard is used for age-adjusted rates.

+ Standard error indeterminate, death rate based on no (zero) deaths.

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

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

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

- 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.