



Center for Health Statistics



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

Highlights

- **Suicide was the tenth leading cause of death in California and eleventh in the U.S.**
- **In 2004 firearms accounted for 40.5 percent of total suicide deaths in California.**
- **In 2004 California's age-adjusted death rate of 9.4 deaths per 100,000 population was lower than the U.S. age-adjusted death rate of 10.7.**
- **California did not meet the HP2010 Objective of an age-adjusted death rate of no more than 4.8 deaths per 100,000 population.**

Suicide Deaths California, 2004

By Carol Lau

Introduction

Suicide continued to rank tenth among the leading causes of death in California and eleventh in the United States (U.S.).^{1,2} In 2004 there were 3,364 suicide deaths among California residents, a decrease of 0.9 percent from 3,396 deaths reported in 2003.¹ Data show suicide deaths in the U.S. increased 0.5 percent from 31,484 deaths in 2003 to 31,647 in 2004.^{2,3}

For California residents in 2004, the most frequent methods used to commit suicide were by firearm, hanging, and poisoning. Firearm deaths accounted for 40.5 percent of all suicide deaths followed by hanging at 27.4 percent and poisoning at 19.3 percent.¹ The largest proportion of male suicide deaths (46.6 percent) were by firearms, while females used poisoning (39.1 percent).¹ Some of the other methods used to commit suicide include strangulation, jumping, cutting, and piercing.

Suicide is a complex behavior that has been related to multiple risk factors, which vary with age, gender, and race/ethnicity. A majority of persons (90 percent) who commit suicide often suffer from depression or another diagnosable mental or substance abuse disorder.⁴ "Studies indicate that the most promising way to prevent suicide and suicidal behavior is through the early recognition and treatment of depression and other psychiatric illnesses."⁵

As part of the Healthy People Initiative (HP2010) that was established by the U.S. Public Health Service, one of the objectives was to reduce the number of suicide deaths to an age-adjusted death rate of no more than 5.0 per 100,000 population.⁶ This rate for the suicide objective was changed from 5.0 to 4.8 per 100,000 population as a result of the HP2010 midcourse review.⁷ California with an age-adjusted death rate of 9.4 did not meet this objective.

¹State of California, Department of Health Services. Death Records, 2004.

²National Center for Health Statistics. Deaths: Preliminary Data for 2004

URL: http://www.cdc.gov/nchs/data/hestat/preliminarydeaths04_tables.pdf#1 Accessed April 19, 2006.

³National Center for Health Statistics. Deaths: Final Data for 2003, National Vital Statistics Reports. DHHS Publication No. (PHS) 2006-1120, PRS 06-093, Vol. 54, No. 13. April 2006.

⁴National Institute of Mental Health. Suicide. In Harm's Way: Suicide In America. NIH Publication No. 03-4594. Printed January 2001; Revised April 2003.

⁵United States, Health and Human Services. The Surgeon General's Call to Action to Prevent Suicide, 1999. <http://www.surgeongeneral.gov/library/calltoaction/fact1.htm>

⁶United States Department of Health and Human Services. Healthy People 2010 Objectives (Second Edition, in Two Volumes). Washington, D.C., January 2001.

⁷U.S. Centers for Disease Control and Prevention (CDC), Health People 2010, CDC Wonder website at URL: <http://wonder.cdc.gov/data2010/obj.htm>

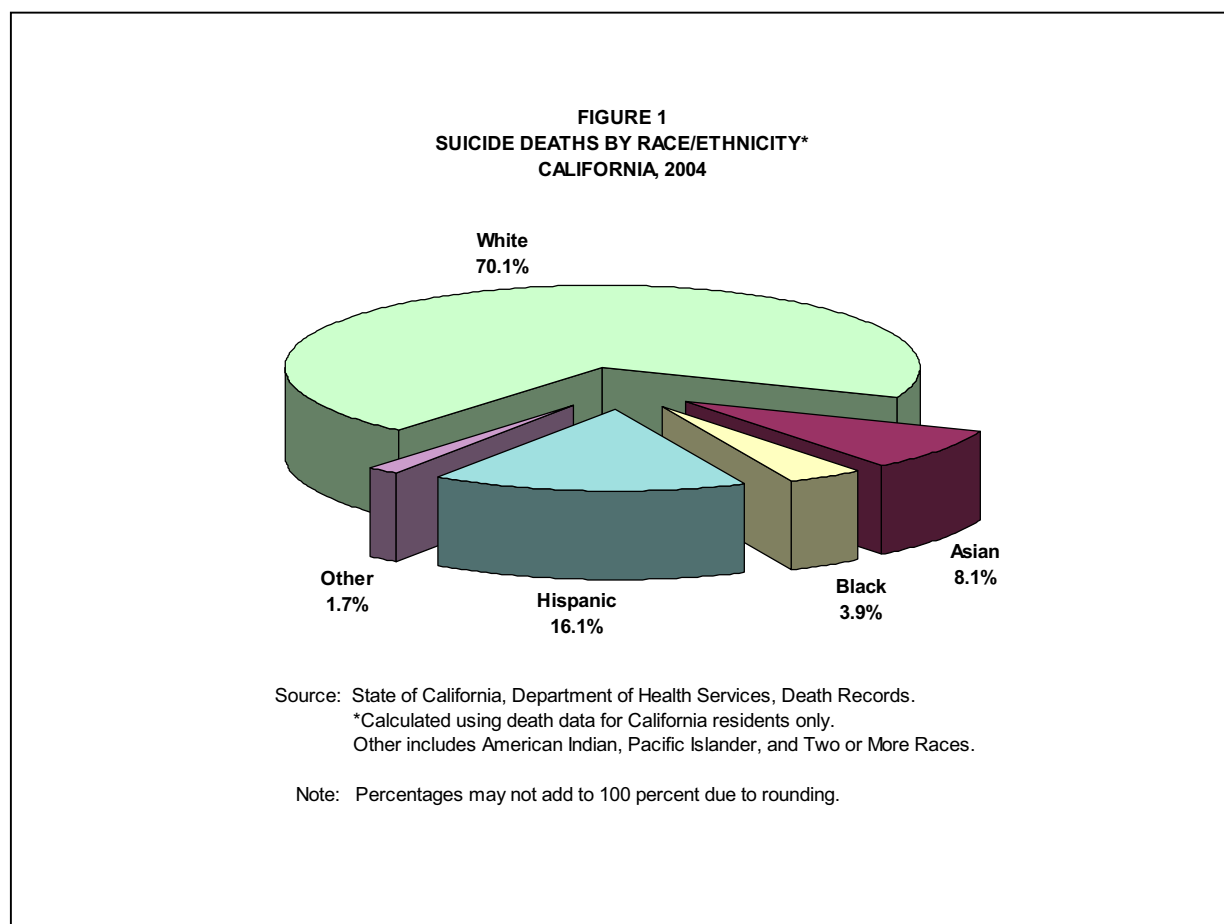
A description of [methods](#) and a brief overview of [data limitations](#) and [qualifications](#) are provided at the end of this report.

This report presents data for California residents on suicide deaths focusing on 2004. The report also provides analysis of crude and age-adjusted death rates for the same period. Suicide data in this report are extracted from vital statistics records with death attributed to suicide as defined by the International Classification of Diseases, Tenth Revision (ICD-10) codes U03, X60-X84, and Y87.0 in accordance with the National Center for Health Statistics (NCHS) Reports.⁷

Suicide Deaths

Table 1 (pages 11 to 12) shows data on suicide deaths for California residents by race/ethnicity, age group, and sex for year 2004. The total number of suicide deaths was 3,364 of which 821 were female (24.4 percent) and 2,543 were male (75.6 percent). The male to female suicide death ratio was 3 to 1.

Figure 1 shows that Whites in 2004 had the highest percentage (70.1 percent) of the total suicide deaths in California, followed by Hispanics (16.1 percent), Asians (8.1 percent), and Blacks (3.9 percent). The three remaining race/ethnic groups shown as other (American Indians, Pacific Islanders, and Two or More Races) accounted for 1.7 percent of the total suicide deaths.



⁷National Center for Health Statistics. Vital Statistics, Instructions for Classifying the Underlying Cause of Death, 2006. NCHS Instruction Manual, Part 2a. Public Health Service, Hyattsville, Maryland.

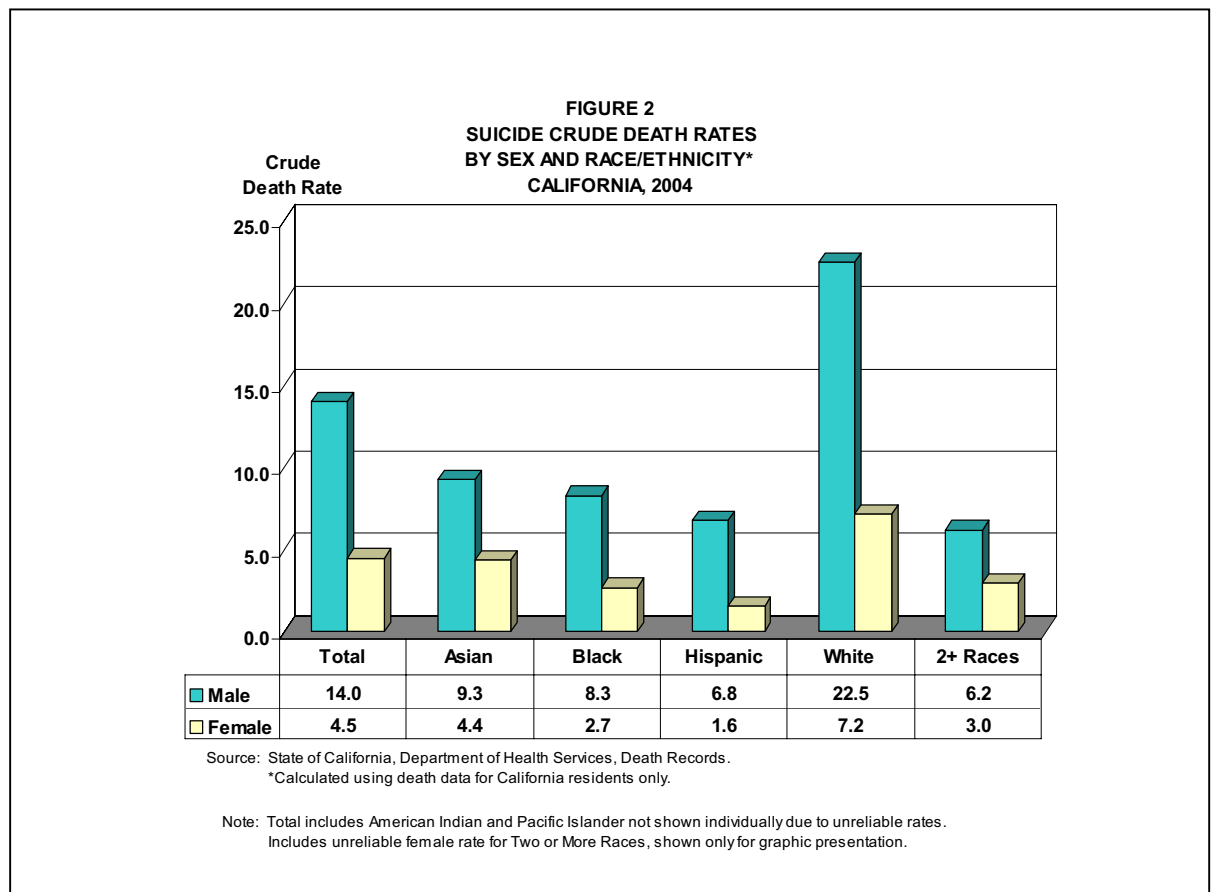
See the [Methodological Approach Section](#) later in this report for an explanation of crude, age-specific, and age-adjusted death rates.

Suicide Crude Death Rates

As shown in **Table 1** (pages 11 to 12), California's suicide crude death rate was 9.2 per 100,000 population for 2004. Comparison with the 9.1 crude rate in 2000 indicates that the rate increase was not statistically significant.⁸

In 2004 Whites had the highest reliable crude death rate (14.8) followed by Asians (6.8), Blacks (5.4), Two or More Races (4.5), and Hispanics (4.2). The crude death rates for American Indians and Pacific Islanders were unreliable.

Figure 2 shows 2004 crude death rates per 100,000 population for California residents by sex and race/ethnicity. A comparison of reliable crude death rates among males in 2004 shows Whites had the highest rate (22.5) followed by Asians (9.3), Blacks (8.3), Hispanics (6.8), and Two or More Races (6.2). Among females, Whites also had the highest reliable crude death rate (7.2) followed by Asians (4.4), Blacks (2.7), and Hispanics (1.6). Reliable crude death rates for males were significantly higher than for females among California residents overall and within each race/ethnic group.



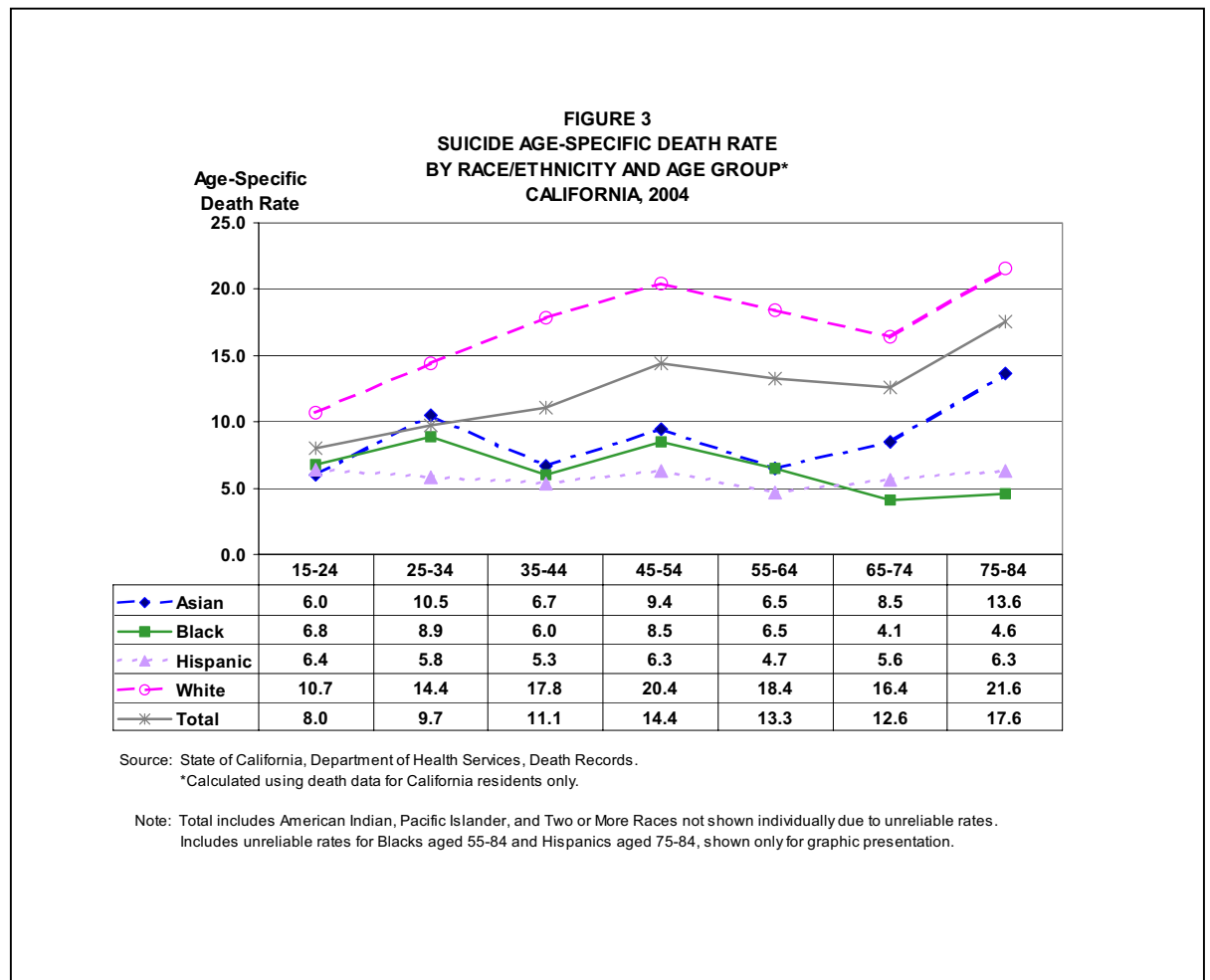
⁸Wilson, C. Suicide Deaths, California 2000-2003. Center for Health Statistics, California Department of Health Services. August 2005.

See the Vital Statistics Query System (VSQ) at our website www.applications.dhs.ca.gov/vsq/default.asp to create your own vital statistics tables.

Age-Specific Death Rates

Table 1 (pages 11 to 12) shows males had higher reliable age-specific death rates than their female counterparts in 2004. Overall, the highest reliable age-specific death rate for males (55.0) occurred in the 85 and older age group and the highest rate for females (8.9) occurred in the 45 to 54 age group. The lowest reliable age-specific death rate for females (3.7) and males (11.9) occurred in the 15 to 24 age group.

Figure 3 displays the suicide age-specific death rates by race/ethnicity and age group in 2004. In all age groups with reliable rates, Whites were more likely to commit suicide than any other race/ethnicity group. Asians tended to have the second highest reliable rates, whereas Hispanics were less likely to commit suicide than any other race/ethnic group, except in age group 15 to 24. The lowest reliable suicide age-specific rate occurred among Hispanics aged 55 to 64 and the highest reliable rate occurred among Whites aged 85 and older (not shown in figure 3). Rates for American Indians, Pacific Islanders, and Two or More Races were unreliable.



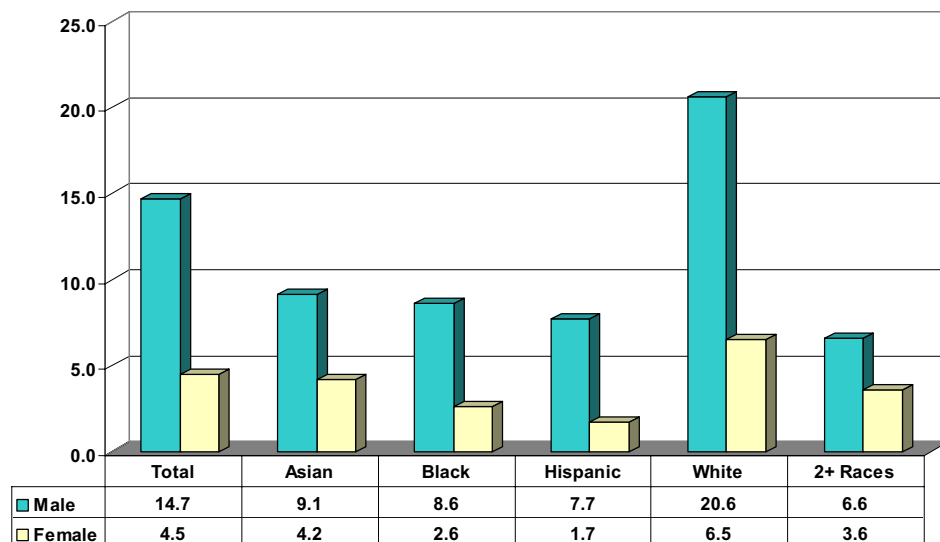
You can read more about crude and age-adjusted death rates on the National Center for Health Statistics Web site at www.cdc.gov/nchs

Suicide Age-Adjusted Death Rates

Table 1 (pages 11 to 12) displays California's suicide age-adjusted death rates by sex and race/ethnicity for 2004. California's age-adjusted death rate of 9.4 per 100,000 population was lower than the U.S. age-adjusted rate of 10.7 in 2004.² During this period Whites had the highest age-adjusted death rate (13.3) followed by Asians (6.5), Blacks (5.5), and Hispanics (4.7).

Figure 4 shows suicide age-adjusted death rates by race/ethnicity and sex. In 2004 the age-adjusted death rate among California male residents was 14.7 per 100,000 population, which was significantly higher than the female rate of 4.5. Among males Whites had the highest rate (20.6) followed by Asians (9.1), Blacks (8.6), Hispanics (7.7), and Two or More Races (6.6). Among females, Whites had the highest rate (6.5) followed by Asians (4.2), Blacks (2.6), and Hispanics (1.7). The age-adjusted death rate for males was 3.3 times higher than that of females.

FIGURE 4
SUICIDE AGE-ADJUSTED DEATH RATES
BY SEX AND RACE/ETHNICITY*
CALIFORNIA, 2004

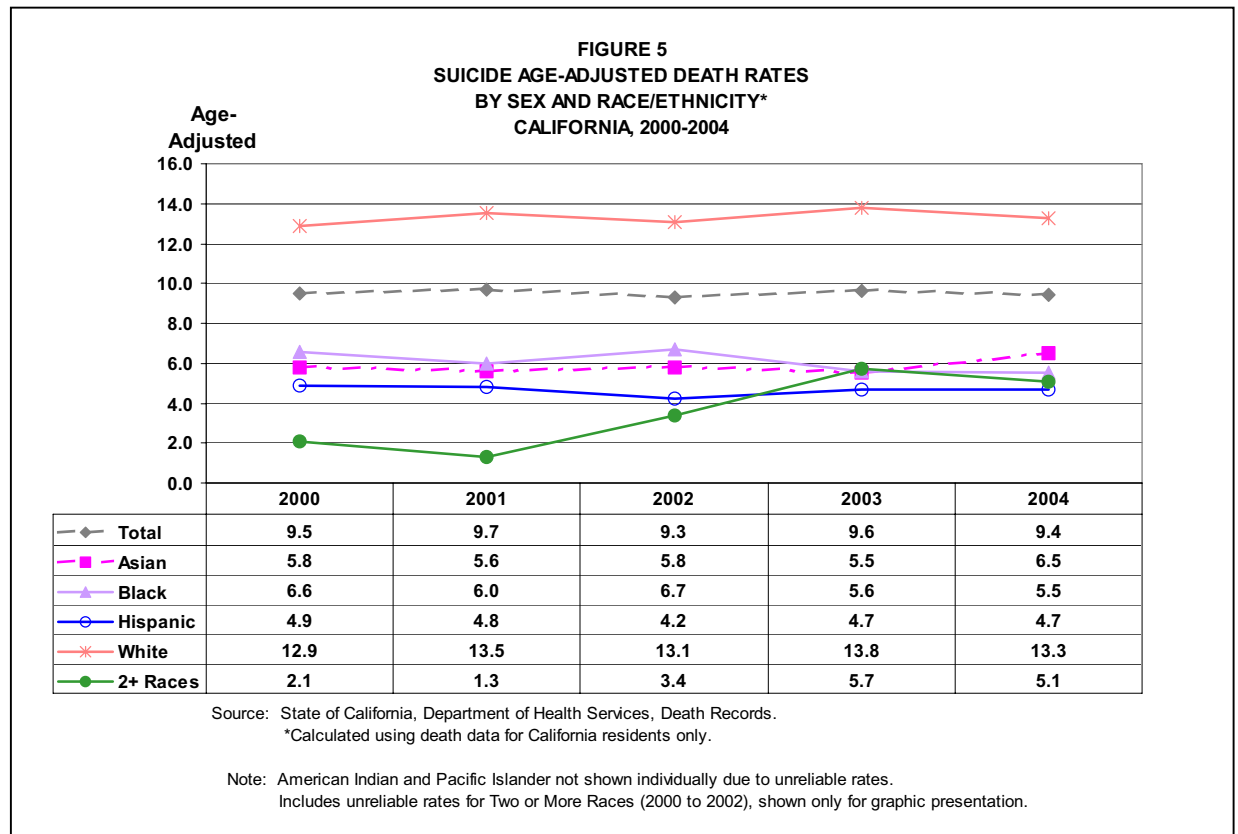


Source: State of California, Department of Health Services, Death Records.

*Calculated using death data for California residents only.

Note: Total includes American Indian and Pacific Islander not shown individually due to unreliable rates. Includes unreliable female rate for Two or More Races, shown only for graphic presentation.

Overall the reliable age-adjusted rates remained relatively the same within each race/ethnic group from 2000 to 2004. As shown in **Figure 5**, the total age-adjusted death rate decreased 1.1 percent from 9.5 deaths per 100,000 population in 2000 to 9.4 in 2004.^{1,8} A decrease in rates was also seen in Hispanics and Blacks but increases were noted for Asians and Whites. For Asians, the difference in age-adjusted rates between 2000 to 2004 was significant.



Suicide Death Rates for California Counties

Table 2 (page 13) shows the number of suicide deaths averaged over a three-year period from 2002 to 2004 with crude and age-adjusted death rates for California and its 58 counties.

The three counties with the highest average number of deaths were Los Angeles County at (716.7) followed by San Diego County (315.0) and Orange County (246.3).

Among the 29 counties with reliable rates, Humboldt County had the highest crude and age-adjusted death rates per 100,000 population at 19.8 and 19.2, respectively. Los Angeles County had the lowest reliable crude and age-adjusted death rates at 7.1 and 7.4, respectively.

Comparing county age-adjusted death rates with the overall California rate shows five counties (**Table 2**, page 13) had age-adjusted rates that were significantly different than the State age-adjusted rate of 9.4 deaths per 100,000 population. None of the 58 counties met the HP2010 Objective of no more than 4.8 age-adjusted suicide deaths per 100,000 population.

Figure 6 (page 14) shows a thematic map of the 2002-2004 age-adjusted death rates for all California counties. The Jenks natural breaks classification was used to determine the four interval breaks of reliable rates.

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

Suicide Death Data Among the Three City Health Jurisdictions

Table 3 shows the three-year average (2002 to 2004) number of suicide deaths with 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 deaths (43.7) followed by Pasadena (12.0) and Berkeley (9.3).

CITY HEALTH JURISDICTION	NUMBER OF DEATHS (Average)	2003 POPULATION	CRUDE DEATH RATE
BERKELEY	9.3	104,195	9.0 +
LONG BEACH	43.7	481,015	9.1
PASADENA	12.0	142,214	8.4 +

Note: Rates are per 100,000 population; ICD-10 codes U03, X60-64, Y87.0.
*Calculated using death data for California residents only.
+Death rate unreliable (relative standard error is greater than or equal to 23 percent).

Source: State of California, Department of Finance, E-4 population. Estimates for Cities, counties and the State, 2001-2006, with 2000 DRU Benchmark, May 2006.
State of California, Department of Health Services, Death Records.

Long Beach had the only reliable crude death rate at 9.1 per 100,000 population.

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.⁹ 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

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

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

Data Limitations and Qualifications

The suicide death data presented in this report are based on the vital statistics records with ICD-10 codes U03, X60-X84, Y87.0 as defined by the NCHS.² 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.¹⁰

The county or State age-adjusted mortality rates that equaled or surpassed the HP2010 objective target rate would be 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.¹¹ See the guidelines for HP2010 objectives on the NCHS website at <http://www.cdc.gov/nchs/hphome.htm>

As with any vital statistics data, caution needs to be exercised when analyzing small numbers, including the rates derived from them. Death rates calculated from a small number of deaths and/or population tend to be unreliable and subject to significant variation. To assist the reader, the 95 percent CIs are provided in the data tables as a tool for measuring the reliability of death rates. Rates with a relative standard error (coefficient of variation) greater than or equal to 23 percent are indicated with an asterisk (*). The CIs represent the range of values likely to contain the “true” value 95 percent of the time.

Beginning in 1999 cause of death is reported using ICD-10.¹² 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

¹⁰van Belle G. Statistical Rules of Thumb, Rule 2.5. Wiley Publishing. March 2002

¹¹Keppel 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.

¹²World Health Organization. International Statistical Classification of Diseases and Related Health Problems. Tenth Revision. Geneva: World Health Organization. 1992.

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.¹³ 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.¹⁴ 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 3** (page 7) differ from population data used to calculate county crude rates in **Table 2** (page 13). 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.¹⁵ Detailed information on data quality and limitations is presented in the appendix of the annual report, "Vital Statistics of California."¹⁶

¹³Rosenberg 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.

¹⁴Anderson 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.

¹⁵Klein 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.

¹⁶Ficenec S, Bindra K, Christensen J. Vital Statistics of California, 2003. Center for Health Statistics, California Department of Health Services, August 2005.

Formulas used to calculate death rates are included in the technical notes of the "County Health Status Profiles" report.¹⁷

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¹⁷Shippen S, Wilson C. County Health Status Profiles 2005. Center for Health Statistics, California Department of Health Services, April 2006.

**TABLE 1
SUICIDE DEATHS
BY RACE/ETHNICITY, AGE, AND SEX
CALIFORNIA, 2004
(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	
TOTAL¹																
Under 1	0	0	0	534,769	272,800	261,969	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	2,047,621	1,045,813	1,001,808	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	25	18	7	5,369,098	2,750,853	2,618,245	0.5	0.7 *	0.3 *	0.3	0.6	0.4	1.0	0.1	0.5	
15 to 24	423	329	94	5,294,261	2,757,217	2,537,044	8.0	11.9	3.7	7.2	8.8	10.6	13.2	3.0	4.5	
25 to 34	505	396	109	5,231,086	2,701,183	2,529,903	9.7	14.7	4.3	8.8	10.5	13.2	16.1	3.5	5.1	
35 to 44	629	476	153	5,672,590	2,883,426	2,789,164	11.1	16.5	5.5	10.2	12.0	15.0	18.0	4.6	6.4	
45 to 54	709	487	222	4,931,148	2,440,823	2,490,325	14.4	20.0	8.9	13.3	15.4	18.2	21.7	7.7	10.1	
55 to 64	439	328	111	3,303,083	1,594,612	1,708,471	13.3	20.6	6.5	12.0	14.5	18.3	22.8	5.3	7.7	
65 to 74	256	203	53	2,025,575	936,610	1,088,965	12.6	21.7	4.9	11.1	14.2	18.7	24.7	3.6	6.2	
75 to 84	250	201	49	1,420,413	590,956	829,457	17.6	34.0	5.9	15.4	19.8	29.3	38.7	4.3	7.6	
85 & Older	126	103	23	546,767	187,361	359,406	23.0	55.0	6.4	19.0	27.1	44.4	65.6	3.8	9.0	
Unknown	2	2	0													
Total	3,364	2,543	821	36,376,411	18,161,654	18,214,757	9.2	14.0	4.5	8.9	9.6	13.5	14.5	4.2	4.8	
Age-Adjusted							9.4	14.7	4.5	9.0	9.7	14.1	15.3	4.2	4.8	
ASIAN																
Under 1	0	0	0	48,115	24,552	23,563	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	188,290	96,379	91,911	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	0	0	0	498,432	257,125	241,307	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
15 to 24	34	25	9	567,146	291,640	275,506	6.0	8.6	3.3 *	4.0	8.0	5.2	11.9	1.1	5.4	
25 to 34	65	42	23	618,710	302,916	315,794	10.5	13.9	7.3	8.0	13.1	9.7	18.1	4.3	10.3	
35 to 44	45	29	16	671,272	321,320	349,952	6.7	9.0	4.6 *	4.7	8.7	5.7	12.3	2.3	6.8	
45 to 54	57	41	16	609,567	284,594	324,973	9.4	14.4	4.9 *	6.9	11.8	10.0	18.8	2.5	7.3	
55 to 64	25	17	8	385,197	179,303	205,894	6.5	9.5 *	3.9 *	3.9	9.0	5.0	14.0	1.2	6.6	
65 to 74	21	15	6	245,629	107,974	137,655	8.5	13.9 *	4.4 *	4.9	12.2	6.9	20.9	0.9	7.8	
75 to 84	21	11	10	154,086	64,809	89,277	13.6	17.0 *	11.2 *	7.8	19.5	6.9	27.0	4.3	18.1	
85 & Older	6	2	4	50,569	20,013	30,556	11.9 *	10.0 *	13.1 *	2.4	21.4	0.0	23.8	0.3	25.9	
Unknown	0	0	0													
Total	274	182	92	4,037,013	1,950,625	2,086,388	6.8	9.3	4.4	6.0	7.6	8.0	10.7	3.5	5.3	
Age-Adjusted							6.5	9.1	4.2	5.8	7.3	7.8	10.5	3.3	5.0	
BLACK																
Under 1	0	0	0	32,707	16,671	16,036	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	122,652	62,561	60,091	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	2	1	1	408,879	208,120	200,759	0.5 *	0.5 *	0.5 *	0.0	1.2	0.0	1.4	0.0	1.5	
15 to 24	27	21	6	395,238	205,416	189,822	6.8	10.2	3.2 *	4.3	9.4	5.9	14.6	0.6	5.7	
25 to 34	29	24	5	326,490	160,606	165,884	8.9	14.9	3.0 *	5.6	12.1	9.0	20.9	0.4	5.7	
35 to 44	24	16	8	399,615	199,186	200,429	6.0	8.0 *	4.0 *	3.6	8.4	4.1	12.0	1.2	6.8	
45 to 54	28	18	10	329,298	160,793	168,505	8.5	11.2 *	5.9 *	5.4	11.7	6.0	16.4	2.3	9.6	
55 to 64	13	11	2	199,142	92,418	106,724	6.5 *	11.9 *	1.9 *	3.0	10.1	4.9	18.9	0.0	4.5	
65 to 74	5	4	1	121,222	55,208	66,014	4.1 *	7.2 *	1.5 *	0.5	7.7	0.1	14.3	0.0	4.5	
75 to 84	3	3	0	64,749	25,309	39,440	4.6 *	11.9 *	0.0 +	0.0	9.9	0.0	25.3	-	-	
85 & Older	1	1	0	25,074	7,615	17,459	4.0 *	13.1 *	0.0 +	0.0	11.8	0.0	38.9	-	-	
Unknown	0	0	0													
Total	132	99	33	2,425,066	1,193,903	1,231,163	5.4	8.3	2.7	4.5	6.4	6.7	9.9	1.8	3.6	
Age-Adjusted							5.5	8.6	2.6	4.5	6.4	6.8	10.3	1.7	3.5	
HISPANIC																
Under 1	0	0	0	273,401	139,443	133,958	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	1,003,339	512,381	490,958	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	11	8	3	2,503,684	1,279,931	1,223,753	0.4 *	0.6 *	0.2 *	0.2	0.7	0.2	1.1	0.0	0.5	
15 to 24	146	116	30	2,275,634	1,199,542	1,076,092	6.4	9.7	2.8	5.4	7.5	7.9	11.4	1.8	3.8	
25 to 34	136	120	16	2,332,753	1,244,497	1,088,256	5.8	9.6	1.5 *	4.9	6.8	7.9	11.4	0.7	2.2	
35 to 44	104	85	19	1,954,969	1,014,652	940,317	5.3	8.4	2.0	4.3	6.3	6.6	10.2	1.1	2.9	
45 to 54	77	57	20	1,228,904	607,654	621,250	6.3	9.4	3.2	4.9	7.7	6.9	11.8	1.8	4.6	
55 to 64	30	22	8	636,784	298,857	337,927	4.7	7.4	2.4 *	3.0	6.4	4.3	10.4	0.7	4.0	
65 to 74	20	19	1	357,389	157,978	199,411	5.6	12.0	0.5 *	3.1	8.0	6.6	17.4	0.0	1.5	
75 to 84	12	10	2	190,758	78,695	112,063	6.3 *	12.7 *	1.8 *	2.7	9.8	4.8	20.6	0.0	4.3	
85 & Older	6	5	1	58,423	20,677	37,746	10.3 *	24.2 *	2.6 *	2.1	18.5	3.0	45.4	0.0	7.8	
Unknown	1	1	0													
Total	543	443	100	12,816,038	6,554,307	6,261,731	4.2	6.8	1.6	3.9	4.6	6.1	7.4	1.3	1.9	
Age-Adjusted							4.7	7.7	1.7	4.2	5.1	6.9	8.6	1.4	2.1	
WHITE																
Under 1	0	0	0	164,750	84,066	80,684	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
1 to 4	0	0	0	617,372	315,162	302,210	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-	-
5 to 14	10	8	2	1,722,936	886,271	836,665	0.6 *	0.9 *	0.2 *	0.2	0.9	0.3	1.5	0.0	0.6	
15 to 24	199	153	46	1,856,335	960,424	895,911	10.7	15.9	5.1	9.2	12.2	13.4	18.5	3.7	6.6	
25 to 34	261	202	59	1,808,165	922,586	885,579	14.4	21.9	6.7	12.7	16.2	18.9	24.9	5.0	8.4	
35 to 44	445	339	106	2,502,123	1,278,269	1,223,854	17.8	26.5	8.7	16.1	19.4	23.7	29.3	7.0	10.3	
45 to 54	539	366	173	2,639,194	1,328,451	1,310,743	20.4	27.6	13.2	18.7	22.1	24.7	30.4	11.2	15.2	
55 to 64	369	277	92	2,005,398	987,820	1,017,578	18.4	28.0	9.0	16.5	20.3	24.7	31.3	7.2	10.9	
65 to 74	207	162	45	1,260,712	596,472	664,240	16.4	27.2	6.8	14.2	18.7	23.0	31.3	4.8	8.8	
75 to 84	213	176	37	988,209	412,295	575,914	21.6	42.7	6.4	18.7	24.4	36.4	49.0	4.4	8.5	
85 & Older	113	95	18	402,581	135,267	267,314	28.1	70.2	6.7 *	22.9	33.2	56.1	84.4	3.6	9.8	
Unknown	1	1	0													
Total	2,357	1,779	578	15,967,775	7,907,083	8,060,692	14.8	22.5	7.2	14.2	15.4	21.5	23.5	6.6	7.8	
Age-Adjusted							13.3	20.6	6.5	12.7	<					

**TABLE 1 (Continued)
SUICIDE DEATHS
BY RACE/ETHNICITY, AGE, AND SEX
CALIFORNIA, 2004
(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
TOTAL¹															
Under 1	0	0	0	534,769	272,800	261,969	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	2,047,621	1,045,813	1,001,808	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	25	18	7	5,369,098	2,750,853	2,618,245	0.5	0.7 *	0.3 *	0.3	0.6	0.4	1.0	0.1	0.5
15 to 24	423	329	94	5,294,261	2,757,217	2,537,044	8.0	11.9	3.7	7.2	8.8	10.6	13.2	3.0	4.5
25 to 34	505	396	109	5,231,086	2,701,183	2,529,903	9.7	14.7	4.3	8.8	10.5	13.2	16.1	3.5	5.1
35 to 44	629	476	153	5,672,590	2,883,426	2,789,164	11.1	16.5	5.5	10.2	12.0	15.0	18.0	4.6	6.4
45 to 54	709	487	222	4,931,148	2,440,823	2,490,325	14.4	20.0	8.9	13.3	15.4	18.2	21.7	7.7	10.1
55 to 64	439	328	111	3,303,083	1,594,612	1,708,471	13.3	20.6	6.5	12.0	14.5	18.3	22.8	5.3	7.7
65 to 74	256	203	53	2,025,575	936,610	1,088,965	12.6	21.7	4.9	11.1	14.2	18.7	24.7	3.6	6.2
75 to 84	250	201	49	1,420,413	590,956	829,457	17.6	34.0	5.9	15.4	19.8	29.3	38.7	4.3	7.6
85 & Older	126	103	23	546,767	187,361	359,406	23.0	55.0	6.4	19.0	27.1	44.4	65.6	3.8	9.0
Unknown	2	2	0												
Total	3,364	2,543	821	36,376,411	18,161,654	18,214,757	9.2	14.0	4.5	8.9	9.6	13.5	14.5	4.2	4.8
Age-Adjusted							9.4	14.7	4.5	9.0	9.7	14.1	15.3	4.2	4.8
TWO OR MORE RACES															
Under 1	0	0	0	10,725	5,479	5,246	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 to 4	0	0	0	99,863	51,049	48,814	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 to 14	1	0	1	171,009	86,842	84,167	0.6 *	0.0 +	1.2 *	0.0	1.7	-	-	0.0	3.5
15 to 24	12	10	2	132,609	65,842	66,767	9.0 *	15.2 *	3.0 *	3.9	14.2	5.8	24.6	0.0	7.1
25 to 34	8	6	2	87,030	41,857	45,173	9.2 *	14.3 *	4.4 *	2.8	15.6	2.9	25.8	0.0	10.6
35 to 44	8	4	4	78,882	37,944	40,938	10.1 *	10.5 *	9.8 *	3.1	17.2	0.2	20.9	0.2	19.3
45 to 54	3	2	1	65,728	31,245	34,483	4.6 *	6.4 *	2.9 *	0.0	9.7	0.0	15.3	0.0	8.6
55 to 64	1	0	1	40,271	18,874	21,397	2.5 *	0.0 +	4.7 *	0.0	7.4	-	-	0.0	13.8
65 to 74	0	0	0	22,432	10,465	11,967	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
75 to 84	0	0	0	13,515	5,955	7,560	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
85 & Older	0	0	0	5,380	1,984	3,396	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
Unknown	0	0	0												
Total	33	22	11	727,444	357,536	369,908	4.5	6.2	3.0 *	3.0	6.1	3.6	8.7	1.2	4.7
Age-Adjusted							5.1	6.6	3.6 *	3.3	6.9	3.7	9.5	1.4	5.8

Note : Rates are per 100,000 population. ICD-10 codes U03, X60-X84, Y87.0.

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.

Deaths reported under Two or More Races are not duplicated in single race/ethnic groups.

* 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.

¹ Includes deaths for American Indian (17), and Pacific Islanders (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 2
SUICIDE DEATHS
CALIFORNIA, 2002-2004
(By Place of Residence)

COUNTY	2002-2004 DEATHS (AVERAGE)	PERCENT	2003 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
CALIFORNIA	3,323.3	100.0	35,934,967	9.2	9.4	9.1	9.7
ALAMEDA	128.3	3.9	1,495,367	8.6	8.6	7.1	10.1
ALPINE	0.3	a	1,268	26.3 *	30.5 *	0.0	133.8
AMADOR	6.3	0.2	37,074	17.1 *	15.5 *	2.9	28.1
BUTTE ¹	36.3	1.1	212,473	17.1	16.5	11.0	22.0
CALAVERAS	8.3	0.3	43,566	19.1 *	18.4 *	4.9	31.8
COLUSA	1.3	a	20,026	6.7 *	7.6 *	0.0	20.5
CONTRA COSTA	100.0	3.0	1,003,704	10.0	9.9	8.0	11.9
DEL NORTE	6.0	0.2	28,192	21.3 *	20.1 *	4.0	36.2
EL DORADO	21.7	0.7	168,227	12.9	12.1	6.9	17.3
FRESNO	70.3	2.1	855,469	8.2	8.8	6.7	10.9
GLENN	5.0	0.2	27,626	18.1 *	18.3 *	2.1	34.5
HUMBOLDT ¹	25.7	0.8	129,515	19.8	19.2	11.7	26.8
IMPERIAL	9.0	0.3	153,673	5.9 *	6.6 *	2.2	11.0
INYO	5.0	0.2	18,617	26.9 *	25.9 *	1.8	50.0
KERN	73.0	2.2	717,332	10.2	10.9	8.4	13.5
KINGS	13.7	0.4	138,763	9.8 *	10.4 *	4.7	16.1
LAKE	12.0	0.4	62,359	19.2 *	17.7 *	7.3	28.2
LASSEN	5.0	0.2	34,633	14.4 *	14.7 *	1.6	27.8
LOS ANGELES ¹	716.7	21.6	10,047,236	7.1	7.4	6.8	7.9
MADERA	9.7	0.3	133,965	7.2 *	7.8 *	2.8	12.7
MARIN	33.7	1.0	250,252	13.5	11.7	7.7	15.8
MARIPOSA	3.7	0.1	17,886	20.5 *	21.0 *	0.0	43.5
MENDOCINO	17.0	0.5	89,156	19.1 *	17.9 *	9.3	26.6
MERCED	18.7	0.6	230,696	8.1 *	9.1 *	4.9	13.3
MODOC	2.0	0.1	9,541	21.0 *	18.6 *	0.0	45.8
MONO	1.7	0.1	13,443	12.4 *	13.3 *	0.0	33.6
MONTEREY	38.3	1.2	418,842	9.2	9.7	6.6	12.8
NAPA	11.0	0.3	130,920	8.4 *	8.0 *	3.2	12.8
NEVADA	15.3	0.5	96,923	15.8 *	15.3 *	7.3	23.4
ORANGE	246.3	7.4	3,001,146	8.2	8.5	7.4	9.5
PLACER	38.3	1.2	285,336	13.4	13.4	9.1	17.8
PLUMAS	5.7	0.2	21,181	26.8 *	26.2 *	2.9	49.4
RIVERSIDE	166.7	5.0	1,758,719	9.5	9.8	8.3	11.3
SACRAMENTO ¹	158.0	4.8	1,331,563	11.9	12.0	10.1	13.9
SAN BENITO	4.7	0.1	56,605	8.2 *	8.5 *	0.7	16.3
SAN BERNARDINO	180.7	5.4	1,869,219	9.7	10.8	9.2	12.4
SAN DIEGO	315.0	9.5	2,989,178	10.5	10.6	9.4	11.8
SAN FRANCISCO	93.7	2.8	786,980	11.9	10.7	8.5	13.0
SAN JOAQUIN	61.7	1.9	625,702	9.9	10.6	7.9	13.3
SAN LUIS OBISPO	31.0	0.9	257,452	12.0	11.4	7.3	15.4
SAN MATEO	58.3	1.8	712,772	8.2	7.8	5.8	9.8
SANTA BARBARA	38.3	1.2	412,069	9.3	9.2	6.3	12.2
SANTA CLARA	138.7	4.2	1,723,819	8.0	8.1	6.8	9.5
SANTA CRUZ	34.0	1.0	259,220	13.1	13.2	8.7	17.7
SHASTA ¹	31.7	1.0	175,421	18.1	17.7	11.4	24.1
SIERRA	0.3	a	3,563	9.4 *	7.5 *	0.0	32.9
SISKIYOU	10.0	0.3	45,081	22.2 *	20.2 *	6.7	33.7
SOLANO	35.0	1.1	416,406	8.4	8.5	5.7	11.3
SONOMA	63.7	1.9	473,274	13.5	12.8	9.6	16.0
STANISLAUS	54.3	1.6	489,491	11.1	11.7	8.6	14.9
SUTTER	11.0	0.3	84,978	12.9 *	13.2 *	5.4	21.0
TEHAMA	8.3	0.3	58,665	14.2 *	13.2 *	3.9	22.5
TRINITY	2.3	0.1	13,579	17.2 *	17.6 *	0.0	40.9
TULARE	33.0	1.0	392,989	8.4	9.0	5.9	12.1
TUOLUMNE	14.0	0.4	57,120	24.5 *	21.5 *	9.9	33.0
VENTURA	66.7	2.0	799,114	8.3	8.5	6.5	10.6
YOLO	16.0	0.5	183,602	8.7 *	9.5 *	4.7	14.2
YUBA	11.0	0.3	63,979	17.2 *	18.7 *	7.6	29.8

Note : Rates are per 100,000 population. ICD-10 codes U03, X60-X84, Y87.0.

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

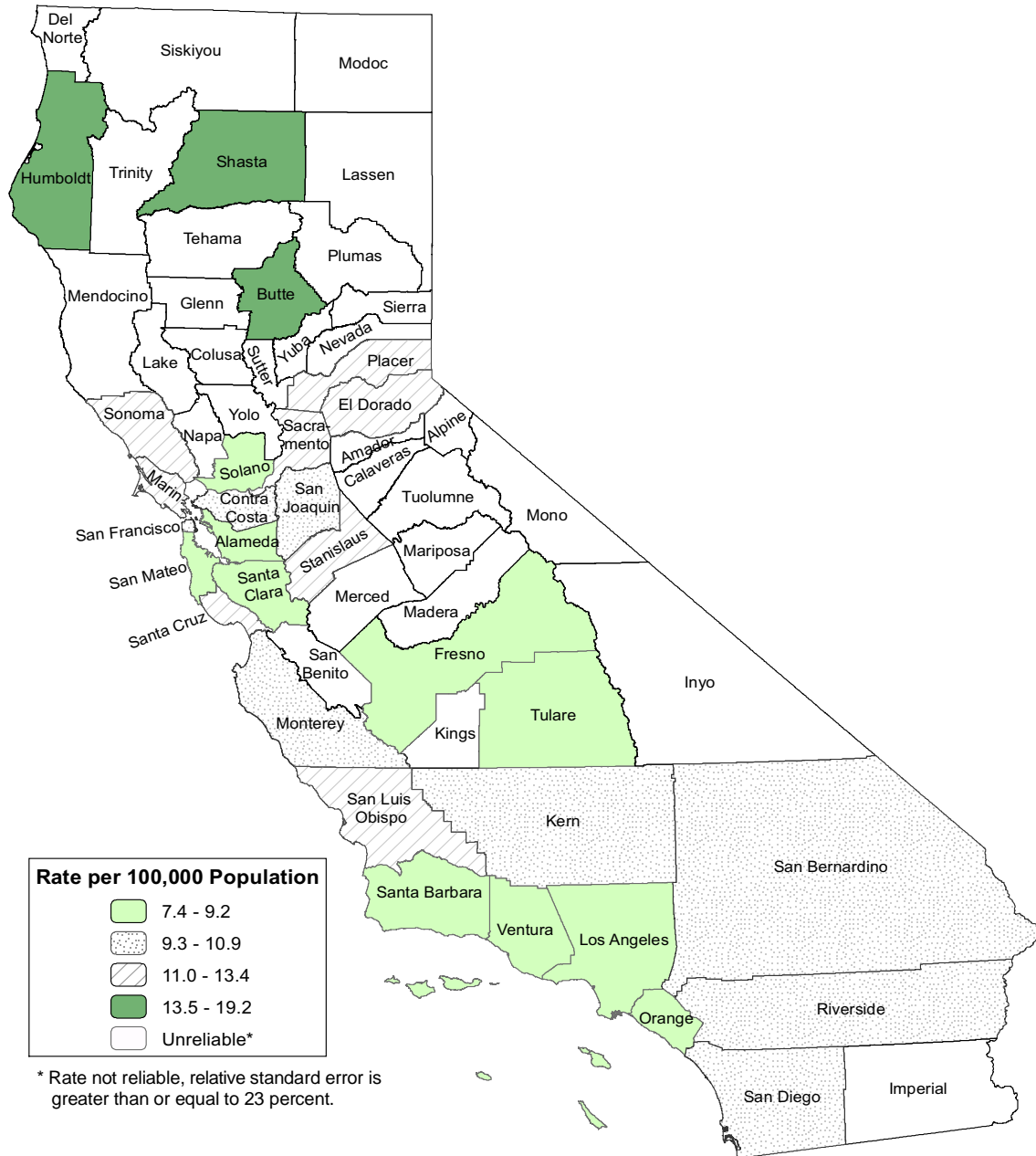
* Death rate unreliable, relative standard error is greater than or equal to 23 percent.

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

¹ County age-adjusted rate is significantly different from the state age-adjusted rate.

Source: State of California, Department of Finance; 2003 Population: Population Projections by Age, Race/Ethnicity and Sex, May 2004.
State of California, Department of Health Services, Death Records.

Figure 6
Deaths Due to Suicide
Age-Adjusted Death Rates
California Counties, 2002-2004



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