Center for
Health Statistics

California Department of Health Services

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DATA SUMMARY
No. DS02-03000

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

Highlights

- **Cancer is the 2nd leading cause of death in California and in the United States.**
- **People age 65 and older had 70% of all cancer deaths in California.**
- **California's age-adjusted death rate for cancer is 179.5.**
- **California did not meet the Year 2010 National Health Objective of an age-adjusted death rate of no more than 159.9 per 100,000 population.**
- **Trinity County has the highest age-adjusted cancer death rate and Lassen the lowest.**

Cancer Deaths California 1999

By Cheryl Wilson

Introduction

In 1999, cancer ranked 2nd among the leading causes of death in California and in the United States, following heart disease. During this year, 23 percent of all deaths in California and in the U.S. were from cancer.[1,2]

Due to the prevalence of cancer in this country, the U.S. Public Health Service established a national health objective for *Healthy People 2010*, seeking to reduce the number of cancer deaths to an age-adjusted rate of no more than 159.9 per 100,000 population.[3]

This report presents data on California's cancer deaths for 1999, and provides analysis of crude and age-adjusted death rates for California residents by sex, age, and race/ethnicity. The cancer data included in this report are extracted from vital statistics records with death attributed to all cancers as defined by ICD-10 codes C00-C97 in accordance with the National Center for Health Statistics Reports.[4]

Cancer Deaths

Table 1 (page 8) shows California's cancer death data for 1999 by race/ethnicity, age, and sex. In 1999, there were 52,880 deaths due to cancer. Of these deaths, 27,065 or 51.2 percent occurred among males and 25,815 or 48.8 percent occurred among females. California's elderly population, age 65 and older, had approximately 70 percent of all cancer deaths.

As shown in **Figure 1** (page 2), the largest percent of cancer deaths (74.4) were among Whites, followed by Hispanics (10.7), Asian/Other (7.5), and Blacks (7.4).

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[1] Riedmiller, K., Bindra K. *Vital Statistics of California*, 1999. Center for Health Statistics, California Department of Health Services.
[2] National Centers for Health Statistics, Deaths: Preliminary Data for 1999, *National Vital Statistics Reports,* DHHS Pub. No. (PHS) 2001-1120, PRS 01-0358 (6/2001).
[3] U.S. Department of Health and Human Services, *Healthy People 2010 Objectives* (*Second Edition, in Two Volumes)*. Washington, D.C., January 2001.
[4] National Center for Health Statistics. *Vital Statistics, Instructions for Classifying the Underlying Cause of Death*. NCHS Instruction Manual, Part 9. Hyattsville, Maryland: Public Health Service, 1999.

Cancer Crude Death Rates

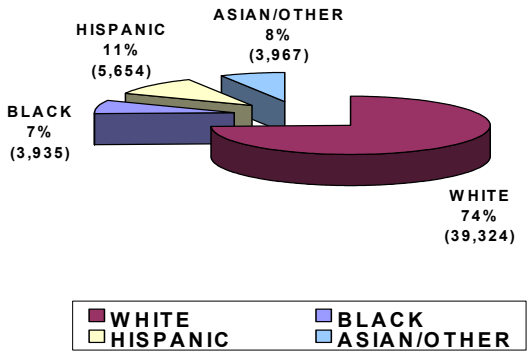
A description of methods and a brief overview of data limitations and qualifications are provided at the end of this report.

As shown in **Table 1** (page 8), California's cancer crude death rate was 155.2 per 100,000 population.

Figure 2 shows that males had a crude death rate of 158.3 per 100,000 population and females had a rate of 152.1. Among the race/ethnic groups, Whites had the highest rate for males (232.6) and females (221.0); followed by Black males (180.2) and females (159.2); and Asian/Other males (106.4) and females (89.3). The lowest rates were among Hispanics, with males having a lower death rate (53.8) than females (55.5).

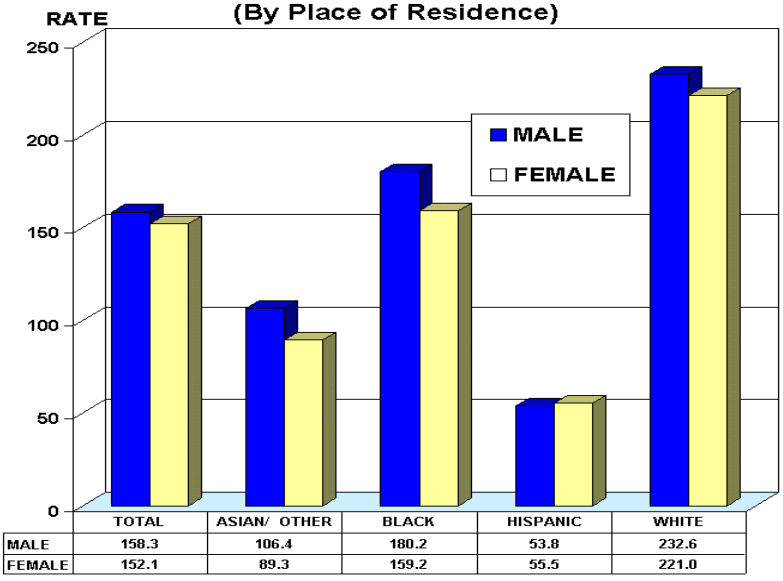
The rate differences between males and females within their race/ethnic groups were statistically significant for Whites, Blacks, and Asian/Other, but not for Hispanics.

FIGURE 1
CANCER DEATHS BY RACE/ETHNICITY
CALIFORNIA, 1999
(By Place of Residence)
(n=52,880)



Source: State of California, Department of Health Services. Table 1, Deaths Due to Cancer by Race/Ethnicity, Age, and Sex, California, 1999.

FIGURE 2
CANCER CRUDE DEATH RATES BY
SEX AND RACE/ETHNICITY
CALIFORNIA, 1999
(By Place of Residence)



	TOTAL	ASIAN/ OTHER	BLACK	HISPANIC	WHITE
MALE	158.3	106.4	180.2	53.8	232.6
FEMALE	152.1	89.3	159.2	55.5	221.0

Source: State of California, Department of Health Services. Table 1, Deaths Due to Cancer by Race/Ethnicity, Age, and Sex, California, 1999.

Cancer Age-Specific Death Rates

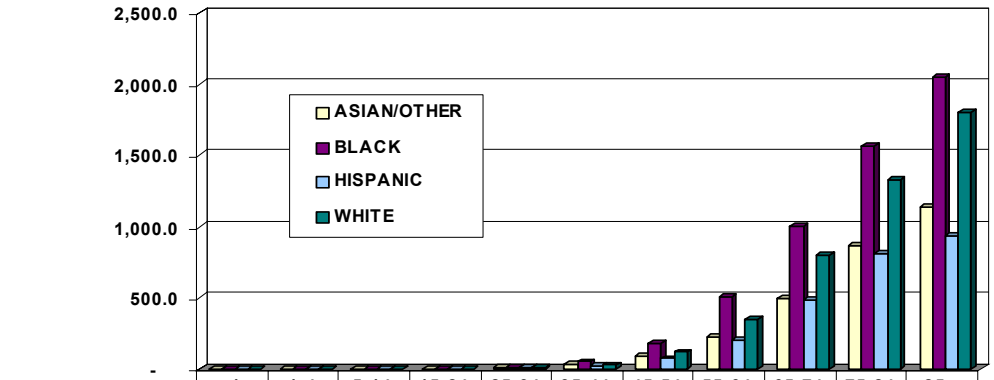
Table 1 (page 8) shows that California residents' cancer death rates increased with age for all race/ethnicities.

As shown in **Figure 3** (page 3), age-specific death rates among each of the race/ethnic groups

See the Methodological Approach Section later in this report for an explanation of crude and age-specific death rates.

increased dramatically after age 34. Hispanics had the lowest rates among the race/ethnic groups for all age groups over age 35 and Blacks had the highest rates.

FIGURE 3
CANCER AGE-SPECIFIC DEATH RATES
BY RACE/ETHNICITY AND AGE
CALIFORNIA 1999
(By Place of Residence)



	<1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
ASIAN/OTHER	3.0	0.8	2.5	4.8	11.6	33.0	89.4	230.8	500.0	863.0	1,142.2
BLACK	0.0	1.3	4.4	4.3	10.0	52.3	184.1	505.7	1,007.1	1,560.7	2,047.9
HISPANIC	1.5	3.0	3.2	5.8	9.7	22.8	75.1	204.9	490.2	808.1	938.6
WHITE	1.1	1.6	2.4	4.5	9.0	30.6	120.7	345.7	804.0	1,333.4	1,800.0

Source: State of California, Department of Health Services. Table 1, Deaths Due to Cancer by Race/Ethnicity, Age, and Sex, California, 1999.

The highest reliable age-specific death rates occurred among decedents in the age group 85 and older for all major race/ethnic groups, while the lowest reliable rates varied by race/ethnicity and age. **Table 1** (page 8) shows Whites had the lowest rate among decedents in the age group 5 to14 (2.4 per 100,000 population). Hispanics' lowest rate occurred in the 1 to 4 year age group (3.0). The lowest rate for Asian/Other was in the 15 to 24 year-old group (4.8), and the lowest rate for Blacks was in the 25 to 35 year age group (10.0).

Table 1 (page 8) shows Black males in the age group 85 and older had the highest reliable age-specific death rate (3,373.4 per 100,000 population), and White males in the age group 5 to14 had the lowest rate (2.8). Similarly, among females, Blacks in the age group 85 and older had the highest death rate at 1,501.7, and Whites in the 5 to 14 age group had the lowest (1.9).

Cancer Age-Adjusted Death Rates

In 1999, California's age-adjusted death rate of 179.5 per 100,000 population was higher than the *Healthy People 2010* National Health Objective of 159.9, but lower than the U.S. age-adjusted rate of 202.3.[2,3,5]

Please note that due to the use of Year 2000 Standard U.S. population for age-adjusting, rates in this report are not comparable to rates in former reports.

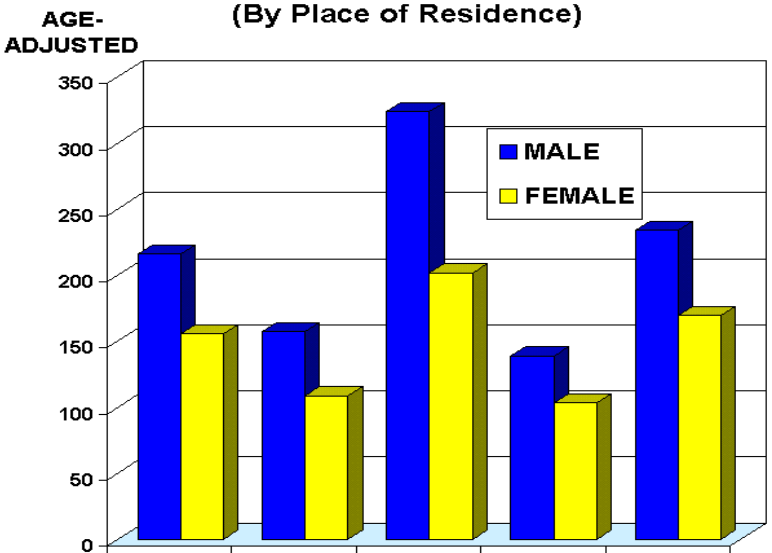
[5] Klein RJ, Schoenborn, CA. *Healthy People 2010 Statistical Notes: Age Adjustment using the 2000 Projected U.S. Population*. National Center for Health Statistics, DHHS Publication, No 20. January 2001.

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

Figure 4 shows age-adjusted cancer death rates for 1999 among California residents by race/ethnicity and sex.

Males had higher age-adjusted death rates than females in California and among the major race/ethnic groups. The age-adjusted death rate of 216.0 among all California males was significantly higher than the 155.4 rate for females. Among males, Blacks had the highest death rate (323.8 per 100,000 population), followed by Whites (233.8), Asian/Other (156.9), and Hispanics (138.7). Similarly, Black females had the highest female rate (201.8), followed by Whites (169.2), Asian/Other (108.3), and Hispanics (103.1). The differences among males and females within the major race/ethnic groups were statistically significant.

FIGURE 4
CANCER AGE-ADJUSTED DEATH RATES
BY SEX AND RACE/ETHNICITY
CALIFORNIA, 1999
(By Place of Residence)



	TOTAL	ASIAN/ OTHER	BLACK	HISPANIC	WHITE
MALE	216.0	156.9	323.8	138.7	233.8
FEMALE	155.4	108.3	201.8	103.1	169.2

Source: State of California, Department of Health Services. Table 1, Deaths Due to Cancer by Race/Ethnicity, Age, and Sex, California, 1999.

Cancer Death Rates for California Counties

Table 2 (page 9) shows the number of cancer deaths, crude death rates, and age-adjusted rates for California and by county.

Among the counties with reliable death rates, Trinity County had the highest crude rate (314.5) per 100,000 population and Kings County had the lowest rate (111.6). Trinity County had the highest reliable age-adjusted death rate (242.5), and Lassen County had the lowest rate (130.5).

The Year 2010 National Health Objective to reduce all cancer deaths to an age-adjusted rate of no more than 159.9 deaths per 100,000 population was met by 7 counties (4 with reliable age-adjusted death rates), but not California as a whole, which had an age-adjusted death rate of 179.5.

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

Cancer Deaths among the Three Local City Health Jurisdictions

Table 3 shows the 1999 cancer deaths and crude death rates for California's three local (city) health jurisdictions.

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

TABLE 3
CANCER DEATHS
AMONG THE LOCAL CITY HEALTH JURISDICTIONS
CALIFORNIA, 1999
(By Place of Residence)

CITY HEALTH JURISDICTION	NUMBER OF DEATHS	1999 POPULATION	CRUDE DEATH RATE
BERKELEY	151	103,500	145.9
LONG BEACH	671	467,400	143.6
PASADENA	251	135,500	185.2

Note: Rates are per 100,000 population; ICD-10 codes C00-C97.
Sources: State of California, Department of Finance, E-4 Historical City/County Population Estimates 1991-2000, with 1990 Census Counts, September 2001. State of California, Department of Health Services, Death Records.

Long Beach had the highest number of deaths due to cancer (671), followed by Pasadena (251), and Berkeley (151). Among the crude death rates, Pasadena had a rate of 185.2 per 100,000 population, Berkeley (145.9), and Long Beach (143.6).

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 age compositions of various populations, they do not provide a statistically valid method for comparing geographic areas or multiple reporting periods. Age-specific death rates are the number of deaths per 100,000 population in a specific age group and are used along with standard population proportions to develop a weighted average rate. This 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 comparisons of different race/ethnic groups, sexes, and geographic areas, and for measuring death rates over time. The 2000 United States (standard million) population is used as the basis for age-adjustment in this report.

Data Limitations and Qualifications

The cancer death data presented in this report are for malignant neoplasms, including neoplasms of lymphatic and hematopoietc tissues (ICD-10 codes C00-C97) in accordance with the National Center for Health Statistics.[6]

[6]Kochanek KD, Smith BL, Anderson RN. Deaths: Preliminary Data for 1999. *National Vital Statistics Reports*; vol 49, no 3. Hyattsville, Maryland: National Center for Health Statistics. 2001.

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

For more information about cancer, see DHS Cancer Control Branch's web site at www.dhs.cahwnet.gov/ps/cdic/cdicindex.htm#ccb

The term "significant" within the text means that the variance is statistically significant based on the difference between two independent rates ($p < .05$).

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

Beginning in 1999, cause of death is reported using the 10th Revision of the *International Classification of Diseases* (ICD-10).[7] Cause of death for 1979 through 1998 was coded using the 9th Revision of the *International Classification of Diseases* (ICD-9). Depending on the specific cause of death, the number of deaths and death rate are not comparable between ICD-9 and ICD-10. Therefore, our analyses involve only ICD-9 data (1979-1998) on prior reports and only ICD-10 data for this report (1999 and later), and do not combine both ICD-9 and ICD-10 data.

Unreliable rates have increased on Tables 2 and 3 because of the small numbers associated with one year of data. Three-year average numbers using ICD-10 coding for cause of death will reduce this problem when the data are available in 2002.

The four race/ethnic groups presented in the tables are mutually exclusive. White, Black, and Asian/Other exclude Hispanic ethnicity, while Hispanic includes any race/ethnic group. In order to remain consistent with the population data obtained from the Department of Finance, the "White race/ethnic group" includes: White, Other (specified), Not Stated, and Unknown, and "Asian/Other race/ethnic group" includes: Aleut, American Indian, Asian Indian, Asian (specified/unspecified), Cambodian, Chinese, Eskimo, Filipino, Guamanian, Hawaiian, Japanese, Korean, Laotian, Other Pacific Islander, Samoan. Thai, and Vietnamese. In addition, caution should be exercised in the interpretation of mortality data by race/ethnicity. Misclassification of race/ethnicity on the death certificate may contribute to death rates that may be underestimated among Hispanics and Asian/Other.[8]

Effective with 1999 mortality data, the standard population for calculating age-adjustments was changed from 1940 to the year 2000 population (standard million) in accordance with new statistical policy implemented by the National Center for Health Statistics. The new population standard affects measurement of mortality trends and group comparisons. Of particular note are the effects on race comparison of mortality.[6] Age-adjusted rates presented in this report are not comparable to rates calculated with different population standards.

In addition, the population data used to calculate the crude rates in Table 3 differ from the population data used to calculate the crude rates in Table 2. Consequently, caution should be exercised when comparing the crude rates among the three local city health

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[7]World Health Organization. *International Statistical Classification of Diseases and Related Health Problems. Tenth Revision*. Geneva: World Health Organization. 1992.

[8]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.

jurisdictions with the rates among the 58 California counties. Age-adjusted rates for local city health jurisdictions were not calculated.

For a more complete explanation of the age-adjustment methodology used in this report, see the *Healthy People 2010 Statistical Notes* publication.[5] Detailed information on data quality and limitations is presented in the appendix of the annual report, *Vital Statistics of California.*[1] Formulas used to calculate death rates are included in the technical notes of the *County Health Status Profiles* report.[9]

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[9]Schmidt, C. *County Health Status Profiles 2001*. Center for Health Statistics, California Department of Health Services, April 2001.

TABLE 1
DEATHS DUE TO CANCER BY RACE/ETHNICITY, AGE, AND SEX
CALIFORNIA, 1999
(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
TOTAL															
UNDER 1	8	7	1	553,480	283,033	270,447	1.4 *	2.5 *	0.4 *	0.4	2.4	0.6	4.3	0.0	1.1
1 - 4	47	22	25	2,218,731	1,134,840	1,083,891	2.1	1.9	2.3	1.5	2.7	1.1	2.7	1.4	3.2
5 - 14	156	79	77	5,438,254	2,785,041	2,653,213	2.9	2.8	2.9	2.4	3.3	2.2	3.5	2.3	3.6
15 - 24	223	138	85	4,490,994	2,331,075	2,159,919	5.0	5.9	3.9	4.3	5.6	4.9	6.9	3.1	4.8
25 - 34	492	246	246	5,088,372	2,693,838	2,394,534	9.7	9.1	10.3	8.8	10.5	8.0	10.3	9.0	11.6
35 - 44	1,722	783	939	5,703,159	2,911,607	2,791,552	30.2	26.9	33.6	28.8	31.6	25.0	28.8	31.5	35.8
45 - 54	4,763	2,353	2,410	4,284,494	2,127,558	2,156,936	111.2	110.6	111.7	108.0	114.3	106.1	115.1	107.3	116.2
55 - 64	8,394	4,404	3,990	2,647,776	1,289,251	1,358,525	317.0	341.6	293.7	310.2	323.8	331.5	351.7	284.6	302.8
65 - 74	14,246	7,720	6,526	1,945,679	889,827	1,055,852	732.2	867.6	618.1	720.2	744.2	848.2	886.9	603.1	633.1
75 - 84	15,755	8,111	7,644	1,272,523	519,523	753,000	1,238.1	1,561.2	1,015.1	1,218.8	1,257.4	1,527.3	1,595.2	992.4	1,037.9
85 & OLDER	7,071	3,200	3,871	429,016	134,219	294,797	1,648.2	2,384.2	1,313.1	1,609.8	1,686.6	2,301.6	2,466.8	1,271.7	1,354.5
UNKNOWN	3	2	1												
TOTAL	52,880	27,065	25,815	34,072,478	17,099,812	16,972,666	155.2	158.3	152.1	153.9	156.5	156.4	160.2	150.2	154.0
AGE-ADJUSTED							179.5	216.0	155.4	178.0	181.1	213.4	218.6	153.5	157.3
ASIAN/OTHER															
UNDER 1	2	1	1		33,636	32,096	3.0 *	3.0 *	3.1 *	0.0	7.3	0.0	8.8	0.0	9.2
1 - 4	2	0	2	260,730	133,774	126,956	0.8 *	0.0 +	1.6 *	0.0	1.8	-	-	0.0	3.8
5 - 14	16	6	10	637,566	327,540	310,026	2.5 *	1.8 *	3.2 *	1.3	3.7	0.4	3.3	1.2	5.2
15 - 24	28	22	6	584,065	299,316	284,749	4.8	7.4	2.1 *	3.0	6.6	4.3	10.4	0.4	3.8
25 - 34	74	39	35	635,628	321,836	313,792	11.6	12.1	11.2	9.0	14.3	8.3	15.9	7.5	14.8
35 - 44	226	100	126	685,240	331,715	353,525	33.0	30.1	35.6	28.7	37.3	24.2	36.1	29.4	41.9
45 - 54	473	224	249	528,902	250,278	278,624	89.4	89.5	89.4	81.4	97.5	77.8	101.2	78.3	100.5
55 - 64	693	378	315	300,304	142,774	157,530	230.8	264.8	200.0	213.6	247.9	238.1	291.4	177.9	222.0
65 - 74	1,047	577	470	209,410	91,786	117,624	500.0	628.6	399.6	469.7	530.3	577.3	679.9	363.5	435.7
75 - 84	1,004	546	458	116,337	50,337	66,000	863.0	1,084.7	693.9	809.6	916.4	993.7	1,175.7	630.4	757.5
85 & OLDER	402	234	168	35,195	15,278	19,917	1,142.2	1,531.6	843.5	1,030.6	1,253.9	1,335.4	1,727.9	715.9	971.1
UNKNOWN	0	0	0												
TOTAL	3,967	2,127	1,840	4,059,109	1,998,270	2,060,839	97.7	106.4	89.3	94.7	100.8	101.9	111.0	85.2	93.4
AGE-ADJUSTED							129.7	156.9	108.3	125.6	133.8	150.1	163.8	103.3	113.3
BLACK															
UNDER 1	0	0	0	37,436	19,147	18,289	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	2	1	1	150,150	76,493	73,657	1.3 *	1.3 *	1.4 *	0.0	3.2	0.0	3.9	0.0	4.0
5 - 14	18	6	12	412,399	208,881	203,518	4.4 *	2.9 *	5.9 *	2.3	6.4	0.6	5.2	2.6	9.2
15 - 24	15	10	5	352,398	186,295	166,103	4.3 *	5.4 *	3.0 *	2.1	6.4	2.0	8.7	0.4	5.6
25 - 34	36	19	17	361,723	189,557	172,166	10.0	10.0	9.9 *	6.7	13.2	5.5	14.5	5.2	14.6
35 - 44	203	87	116	387,780	188,667	199,113	52.3	46.1	58.3	45.1	59.6	36.4	55.8	47.7	68.9
45 - 54	505	259	246	274,298	129,075	145,223	184.1	200.7	169.4	168.0	200.2	176.2	225.1	148.2	190.6
55 - 64	832	454	378	164,532	76,514	88,018	505.7	593.4	429.5	471.3	540.0	538.8	647.9	386.2	472.8
65 - 74	1,045	568	477	103,767	44,942	58,825	1,007.1	1,263.9	810.9	946.0	1,068.1	1,159.9	1,367.8	738.1	883.6
75 - 84	917	488	429	58,756	22,082	36,674	1,560.7	2,209.9	1,169.8	1,459.7	1,661.7	2,013.9	2,406.0	1,059.1	1,280.5
85 & OLDER	362	174	188	17,677	5,158	12,519	2,047.9	3,373.4	1,501.7	1,836.9	2,258.8	2,872.2	3,874.6	1,287.1	1,716.4
UNKNOWN	0	0	0												
TOTAL	3,935	2,066	1,869	2,320,916	1,146,811	1,174,105	169.5	180.2	159.2	164.2	174.8	172.4	187.9	152.0	166.4
AGE-ADJUSTED							248.3	323.8	201.8	240.4	256.3	308.9	338.7	192.5	211.0
HISPANIC															
UNDER 1	4	4	0	263,940	134,897	129,043	1.5 *	3.0 *	0.0 +	0.0	3.0	0.1	5.9	-	-
1 - 4	31	15	16	1,043,348	532,534	510,814	3.0	2.8 *	3.1 *	1.9	4.0	1.4	4.2	1.6	4.7
5 - 14	70	35	35	2,187,045	1,117,326	1,069,719	3.2	3.1	3.3	2.5	4.0	2.1	4.2	2.2	4.4
15 - 24	90	53	37	1,555,795	803,837	751,958	5.8	6.6	4.9	4.6	7.0	4.8	8.4	3.3	6.5
25 - 34	176	84	92	1,812,547	1,014,469	798,078	9.7	8.3	11.5	8.3	11.1	6.5	10.1	9.2	13.9
35 - 44	360	147	213	1,581,171	842,312	738,859	22.8	17.5	28.8	20.4	25.1	14.6	20.3	25.0	32.7
45 - 54	685	325	360	912,180	462,923	449,257	75.1	70.2	80.1	69.5	80.7	62.6	77.8	71.9	88.4
55 - 64	986	527	459	481,158	233,374	247,784	204.9	225.8	185.2	192.1	217.7	206.5	245.1	168.3	202.2
65 - 74	1,518	820	698	309,686	140,820	168,866	490.2	582.3	413.3	465.5	514.8	542.4	622.2	382.7	444.0
75 - 84	1,229	655	574	152,091	62,846	89,245	808.1	1,042.2	643.2	762.9	853.2	962.4	1,122.0	590.6	695.8
85 & OLDER	505	220	285	53,802	18,170	35,632	938.6	1,210.8	799.8	856.8	1,020.5	1,050.8	1,370.8	707.0	892.7
UNKNOWN	0	0	0												
TOTAL	5,654	2,885	2,769	10,352,763	5,363,508	4,989,255	54.6	53.8	55.5	53.2	56.0	51.8	55.8	53.4	57.6
AGE-ADJUSTED							117.6	138.7	103.1	114.4	120.9	133.2	144.2	99.1	107.1
WHITE															
UNDER 1	2	2	0	186,372	95,353	91,019	1.1 *	2.1 *	0.0 +	0.0	2.6	0.0	5.0	-	-
1 - 4	12	6	6	764,503	392,039	372,464	1.6 *	1.5 *	1.6 *	0.7	2.5	0.3	2.8	0.3	2.9
5 - 14	52	32	20	2,201,244	1,131,294	1,069,950	2.4	2.8	1.9	1.7	3.0	1.8	3.8	1.1	2.7
15 - 24	90	53	37	1,998,736	1,041,627	957,109	4.5	5.1	3.9	3.6	5.4	3.7	6.5	2.6	5.1
25 - 34	206	104	102	2,278,474	1,167,976	1,110,498	9.0	8.9	9.2	7.8	10.3	7.2	10.6	7.4	11.0
35 - 44	933	449	484	3,048,968	1,548,913	1,500,055	30.6	29.0	32.3	28.6	32.6	26.3	31.7	29.4	35.1
45 - 54	3,100	1545	1,555	2,569,114	1,285,282	1,283,832	120.7	120.2	121.1	116.4	124.9	114.2	126.2	115.1	127.1
55 - 64	5,883	3045	2,838	1,701,782	836,589	865,193	345.7	364.0	328.0	336.9	354.5	351.0	376.9	316.0	340.1
65 - 74	10,636	5755	4,881	1,322,816	612,279	710,537	804.0	939.9	686.9	788.8	819.3	915.6	964.2	667.7	706.2
75 - 84	12,605	6422	6,183	945,339	384,258	561,081	1,333.4	1,671.3	1,102.0	1,310.1	1,356.7	1,630.4	1,712.1	1,074.5	1,129.4
85 & OLDER	5,802	2572	3,230	322,342	95,613	226,729	1,800.0	2,690.0	1,424.6	1,753.6	1,846.3	2,586.0	2,794.0	1,375.5	1,473.7
UNKNOWN	3	2	1	0											
TOTAL	39,324	19,987	19,337	17,339,690	8,591,223	8,748,467	226.8	232.6	221.0	224.5	229.0	229.4	235.9	217.9	224.1
AGE-ADJUSTED							194.5	233.8	169.2	192.6	196.4	230.6	237.1	166.8	171.6

Note: Rates are per 100,000 population; ICD-10 Codes C00-C97. *
White, Black, and Asian/Other exclude Hispanic ethnicity.

Death rate unreliable, relative standard error is greater than or equal to 23%.
+ Standard error indeterminate, death rate based on no (zero) deaths.
- Confidence limit is not calculated for no (zero) deaths.

Sources: State of California, Department of Finance, 1999 Population Projections with Age, Sex and Race/Ethnic Detail, May, 2000.
State of California, Department of Health Services, Death Records.

TABLE 2
DEATHS DUE TO CANCER
CALIFORNIA COUNTIES, 1999
(By Place of Residence)

COUNTY	1999 DEATHS	PERCENT	1999 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
CALIFORNIA	52,880	100.0	34,072,478	155.2	179.5	178.0	181.1
ALAMEDA	2,326	4.4	1,448,643	160.6	184.9	177.3	192.4
ALPINE	1	a	1,226	81.6 *	84.7 *	0.0	250.6
AMADOR	79	0.1	34,410	229.6	157.7	122.3	193.0
BUTTE	519	1.0	204,216	254.1	197.7	180.3	215.1
CALAVERAS	120	0.2	40,597	295.6	204.1	167.1	241.1
COLUSA	34	0.1	20,091	169.2	170.2	112.8	227.6
CONTRA COSTA	1,571	3.0	921,662	170.5	176.9	168.1	185.7
DEL NORTE	54	0.1	30,358	177.9	163.1	119.3	206.9
EL DORADO	302	0.6	156,996	192.4	187.3	166.0	208.6
FRESNO	1,191	2.3	800,121	148.9	182.7	172.3	193.1
GLENN	52	0.1	28,438	182.9	174.3	126.7	221.9
HUMBOLDT	266	0.5	127,658	208.4	209.8	184.6	235.0
IMPERIAL	184	0.3	150,381	122.4	159.9	136.7	183.0
INYO	54	0.1	18,348	294.3	206.1	150.4	261.9
KERN	1,022	1.9	662,472	154.3	186.3	174.9	197.8
KINGS	138	0.3	123,683	111.6	169.0	140.5	197.4
LAKE	144	0.3	58,335	246.9	162.5	134.9	190.0
LASSEN	40	0.1	35,208	113.6	130.5	90.0	171.0
LOS ANGELES	13,457	25.4	9,727,841	138.3	174.3	171.3	177.3
MADERA	193	0.4	121,779	158.5	170.9	146.7	195.0
MARIN	440	0.8	247,073	178.1	171.5	155.4	187.5
MARIPOSA	38	0.1	16,339	232.6	160.6	108.5	212.7
MENDOCINO	193	0.4	88,978	216.9	200.4	172.1	228.7
MERCED	313	0.6	210,707	148.5	198.4	176.3	220.4
MODOC	19	a	10,384	183.0	133.8 *	73.2	194.4
MONO	12	a	10,730	111.8 *	124.0 *	51.4	196.5
MONTEREY	552	1.0	395,133	139.7	175.1	160.5	189.7
NAPA	274	0.5	125,123	219.0	180.3	158.8	201.9
NEVADA	242	0.5	94,014	257.4	178.5	155.7	201.2
ORANGE	4,012	7.6	2,787,593	143.9	184.5	178.7	190.2
PLACER	492	0.9	233,836	210.4	213.0	194.2	231.9
PLUMAS	62	0.1	20,714	299.3	204.1	152.3	256.0
RIVERSIDE	2,720	5.1	1,519,469	179.0	179.1	172.3	185.9
SACRAMENTO	2,106	4.0	1,189,056	177.1	200.5	191.9	209.1
SAN BENITO	74	0.1	50,087	147.7	169.6	130.8	208.3
SAN BERNARDINO	2,317	4.4	1,688,984	137.2	191.9	184.0	199.7
SAN DIEGO	4,592	8.7	2,884,572	159.2	186.8	181.3	192.2
SAN FRANCISCO	1,535	2.9	788,975	194.6	166.6	158.2	175.0
SAN JOAQUIN	937	1.8	566,793	165.3	184.8	172.9	196.6
SAN LUIS OBISPO	462	0.9	247,880	186.4	168.6	153.0	184.2
SAN MATEO	1,263	2.4	735,381	171.7	169.6	160.2	179.0
SANTA BARBARA	635	1.2	408,292	155.5	161.0	148.5	173.6
SANTA CLARA	2,219	4.2	1,732,034	128.1	162.2	155.4	169.1
SANTA CRUZ	339	0.6	255,825	132.5	144.7	129.2	160.2
SHASTA	395	0.7	171,211	230.7	204.9	184.6	225.2
SIERRA	11	a	3,427	321.0 *	206.9 *	83.3	330.6
SISKIYOU	115	0.2	44,847	256.4	201.5	164.1	238.9
SOLANO	587	1.1	392,201	149.7	197.1	180.9	213.3
SONOMA	929	1.8	450,187	206.4	196.9	184.2	209.6
STANISLAUS	776	1.5	446,056	174.0	203.7	189.3	218.0
SUTTER	133	0.3	79,992	166.3	164.6	136.6	192.6
TEHAMA	156	0.3	55,806	279.5	222.4	186.9	257.9
TRINITY	42	0.1	13,353	314.5	242.5	168.5	316.6
TULARE	537	1.0	371,640	144.5	175.6	160.7	190.4
TUOLUMNE	139	0.3	54,631	254.4	194.6	161.7	227.5
VENTURA	1,106	2.1	744,825	148.5	175.4	165.0	185.8
YOLO	238	0.5	160,805	148.0	185.7	162.1	209.4
YUBA	121	0.2	63,062	191.9	236.1	194.0	278.2

Note: Rates are per 100,000 population; ICD-10 codes C00-C97.
* Death rate unreliable (relative standard error is greater than or equal to 23%).
a Represents a percentage of more than zero but less than 0.05.

Sources: State of California, Department of Finance, Race/Ethnic Population Estimates by County with Age and Sex Detail, 1970-1999, May 2000.
State of California, Department of Health Services, Death Records.