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DATA
SUMMARY
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DS05-11000

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

Highlights

- **In 2003 cancer was the second leading cause of death in California and in the United States.**
- **Approximately 86 percent of all cancer deaths in California were among people aged 55 and older in 2003.**
- **Among California residents, Whites had 71.5 percent of all cancer deaths in 2003.**
- **Among the major race/ethnic groups, Blacks had the highest age-adjusted cancer death rate (224.8 deaths per 100,000 population) in 2003.**

Cancer Deaths
California, 2000-2003

By Cheryl Wilson

Introduction

Cancer is characterized as a group of diseases with out-of-control growth and spread of abnormal cells in the body.[1] Cancer is a serious health problem that affects all race/ethnic groups in the United States (U.S.) and ranked second in 2003 among the leading causes of death in the U.S. and in California.[2,3] Each year in the U.S. more than one million people will develop cancer. Although cancer can occur at any age, approximately 76 percent of all cancers are diagnosed in people aged 55 and older. Among Americans, the risk of developing cancer in one's lifetime is about 1 in 2 for men and 1 in 3 for women. Improvements in medical technology have lead to earlier detection and better treatment of most cancers, resulting in more people surviving cancer each year.[1,4]

In 2003 there were 54,307 cancer deaths among California residents, an increase of 0.7 percent from the 53,926 deaths reported in 2002.[3,5] Preliminary data show that in 2003 the number of cancer deaths in the U.S. decreased slightly (0.5 percent) from 557,271 deaths in 2002 to 554,643 deaths in 2003.[2,6]

Due to the prevalence of cancer deaths in this country, the U.S. Public Health Service established a health objective for Healthy People 2010 (HP2010) seeking to reduce the number of cancer deaths to an age-adjusted rate of no more than 159.9 per 100,000 population.[7] California with an age-adjusted rate of 165.1 in 2003 did not meet this objective.

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[1]American Cancer Society, Inc. *Cancer Facts and Figures 2005.* Atlanta: American Cancer Society; 2005. URL: http://www.cancer.org Accessed August 1, 2005.
[2]National Center for Health Statistics. Deaths: Preliminary Data for 2003, *National Vital Statistics Reports,* DHHS Publication No. (PHS) 2005-1120, PRS 05-0162, Vol. 53, No, 15, February 2005.
[3]State of California, Department of Health Services. Death Records, 2003.
[4]Centers for Disease Control: Cancer Prevention and Control, *A National Action Plan for Cancer Survivorship: Advancing Public Health Strategies.* URL: http://www.cdc.gov/cancer/survivorship Accessed August 1, 2005.
[5]State of California, Department of Health Services, Death Records, 2002.
[6]National Center for Health Statistics. Deaths: Final Data for 2002, *National Vital Statistics Reports,* DHHS Publication No. (PHS) 2005-1120, PRS 04-0536, Vol. 53, No. 5, October 2004.
[7]United States Department of Health and Human Services. *Healthy People 2010 Objectives* (Second Edition, in Two Volumes). Washington, D.C., January 2001.

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

This report presents data on California's cancer deaths focusing on 2003 with comparisons of prior periods and includes data tables displaying the number of cancer deaths by race/ethnicity, age, and sex for each year from 2000 to 2003. The report also provides analysis of crude and age-adjusted death rates for California residents with the primary focus on year 2003. The cancer data included in this report are extracted from vital statistics records with deaths attributed to cancer deaths as defined by the International Classification of Diseases, Tenth Revision (ICD-10) codes C00-C97 in accordance with the National Center for Health Statistics (NCHS) Reports.[8]

Cancer Deaths

Tables 1-4 (pages 11-18) display California's cancer death data by race/ethnicity, age group, and sex for years 2000-2003.

Cancer deaths among California residents increased each year from 2000 to 2003. In 2000 (**Table 4**, pages 17-18) there were 53,005 deaths attributed to cancer and in 2003 (**Table 1**, pages 11-12) there were 54,307 deaths, an increase of 2.5 percent.

From 2000 to 2003 cancer deaths were higher for California male residents than for California female residents. Cancer deaths among California male residents increased each year from 2000 to 2003, ranging from 26,759 cancer deaths in 2000 to 27,495 deaths in 2003, a difference of 2.8 percent. Cancer deaths among California female residents, however, varied from 2000 to 2003. The lowest number of female cancer deaths was 26,246 occurring in 2000 and the highest number was 26,812 occurring in 2003, a difference of 2.2 percent.

In 2003 California residents aged 55 and older accounted for 85.9 percent of all cancer deaths. From 2000 to 2002 the percentage of cancer deaths among California residents aged 55 and older ranged from 86.0 in 2000 and in 2002 to 85.5 in 2001. In 2003 males aged 55 and older accounted for 86.5 percent of all male cancer deaths while females aged 55 and older had 85.2 percent of all female cancer deaths.

As shown in **Figure 1** (page 3), Whites had the highest percent (71.5) of the total cancer deaths, followed by Hispanics (12.3 percent), Asians (7.8 percent), and Blacks (7.5 percent). The three remaining race/ethnic groups (American Indians, Pacific Islanders, and Two or More Races) combined had 0.9 percent of the total cancer deaths in 2003.

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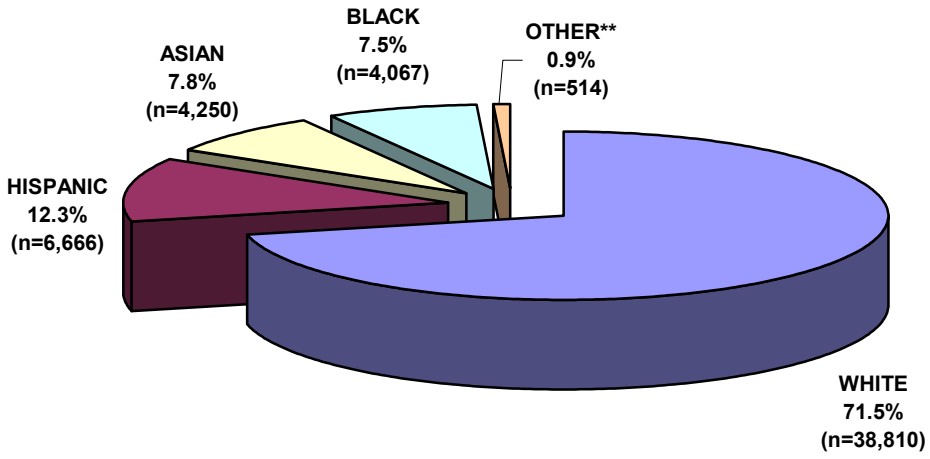
[8] National Center for Health Statistics. *Vital Statistics, Instructions for Classifying the Underlying Cause of Death.* NCHS Instruction Manual, Part 9. Public Health Service. Hyattsville, Maryland, 1999.

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

FIGURE 1
CANCER DEATHS BY RACE/ETHNICITY*
CALIFORNIA, 2003
(n=54,307)



Source: State of California, Department of Health Services, Death Records.
***Calculated using death data for California residents only.**
****Other race groups include American Indian (178), Pacific Islander (150), and Two or More Races (186).**

Cancer Crude Death Rates

As shown in **Tables 1-4** (pages 11-18), California's cancer crude death rate decreased each year from 2000 to 2003. In 2000 the crude death rate was 155.7 per 100,000 population and in 2003 the rate was 151.1, a decrease of 3.0 percent. The difference in crude death rates from 2000 to 2003 was statistically significant.

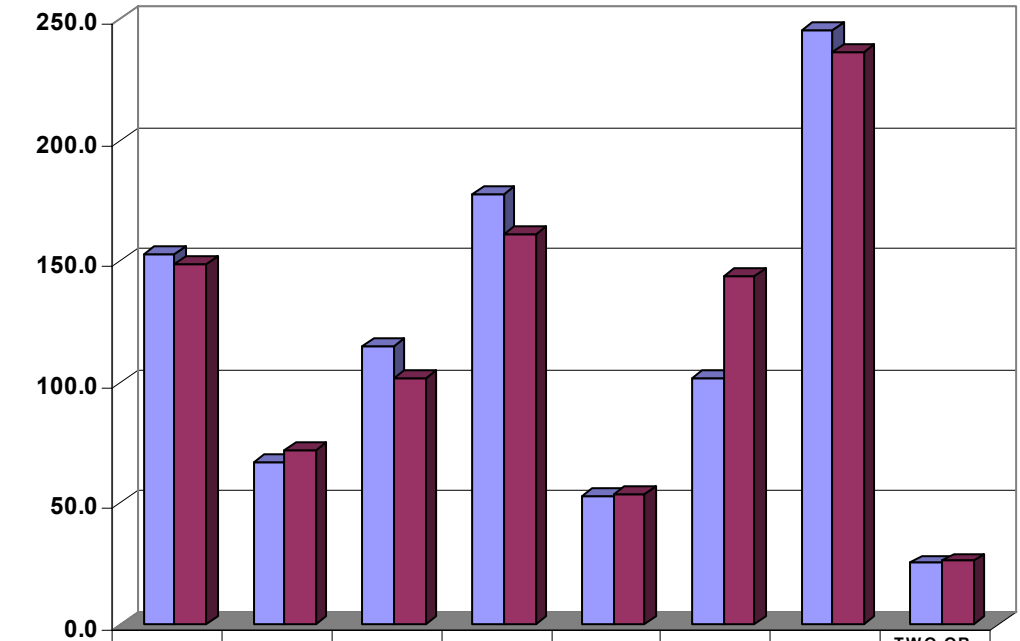
In 2003 Whites had the highest crude death rate (241.1), followed by Blacks (169.7), Pacific Islanders (123.1), Asians (108.4), American Indians (69.4), Hispanics (53.6), and Two or More Races (25.9).

Figure 2 (page 4) shows California male residents had a crude death rate of 153.3 per 100,000 population, and females had a crude death rate of 149.0. The difference in crude death rates between California male residents and California female residents was statistically significant.

A comparison of reliable crude death rates among males in 2003 shows Whites had the highest rate (245.8), followed by Blacks (178.1), Asians (115.2), Pacific Islanders (102.0), American Indians (66.9), Hispanics (53.3), and Two or More Races (25.5). Among females, Whites also had the highest reliable crude death rate (236.5), followed by Blacks (161.4), Pacific Islanders (144.1), Asians (102.0), American Indians (71.8), Hispanics (54.0), and Two or More Races (26.3).

See the Vital Statistics Query System (VSQ) at our Web site www.applications.dhs.ca.gov/vsq/default.asp to create your own vital statistics tables by cancer type (ICD-10).

FIGURE 2
CANCER CRUDE DEATH RATES
BY SEX AND RACE/ETHNICITY*
CALIFORNIA, 2003



	TOTAL	AMER. INDIAN	ASIAN	BLACK	HISPANIC	PACIFIC ISLANDER	WHITE	TWO OR MORE RACES
MALE	153.3	66.9	115.2	178.1	53.3	102.0	245.8	25.5
FEMALE	149.0	71.8	102.0	161.4	54.0	144.1	236.5	26.3

Source: State of California, Department of Health Services, Death Records.
***Calculated using death data for California residents only.**

Cancer Age-Specific Death Rates

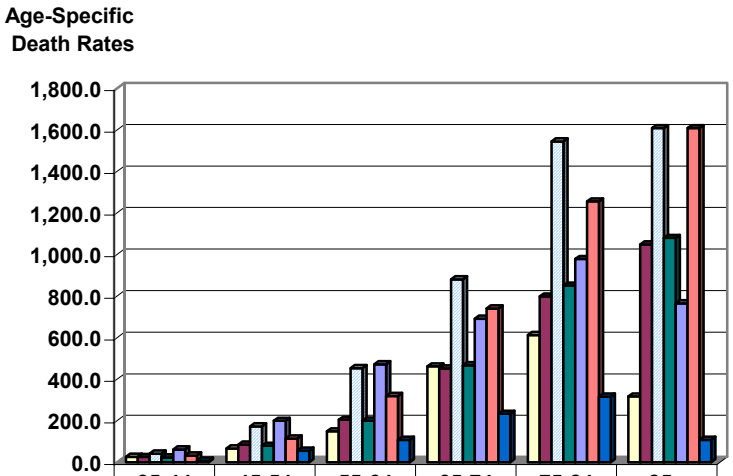
Table 1 (pages 11-12) shows that among California residents in 2003, reliable age-specific death rates increased with the age of the decedent beginning with the age group 1 to 4. The lowest reliable rate occurred in the 1 to 4 age group (2.9 deaths per 100,000 population) and the highest rate occurred in the 85 and older age group (1,482.5).

Among males and females in California, males had higher reliable age-specific death rates in the 1 to 4 through the 25 to 34, and 55 and older age groups, whereas females had higher reliable rates in the 35 to 44 and 45 to 54 age groups. The lowest reliable rate for males (3.2) and for females (2.6) occurred in the 1 to 4 age group.

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

As shown in **Figure 3**, age-specific death rates increased for all race/ethnic groups. Among the specific age groups, Blacks had the highest reliable rates in the 35 to 44 and 65 and older age groups, and Pacific Islanders had the highest reliable rates in the 45 to 54 and 55 to 64 age groups. Whites had the second highest reliable rates in the 35 to 44 and 65 and older age groups. Hispanics had the lowest reliable rate in the 35 to 44 age group, Two or More Races had the lowest reliable rates in the 45 through 84 age groups, and Asians had the lowest rate in the 85 and older age group.

FIGURE 3
CANCER DEATH RATES
BY RACE/ETHNICITY AND AGE*
CALIFORNIA, 2003



	35-44	45-54	55-64	65-74	75-84	85+
AMERICAN INDIAN	26.3	66.4	149.0	461.4	611.6	316.8
ASIAN	25.8	84.6	204.5	451.6	797.4	1,048.2
BLACK	41.6	172.5	452.9	880.3	1,543.9	1,608.1
HISPANIC	23.0	79.4	200.2	467.4	849.7	1,079.4
PACIFIC ISLANDER	61.8	199.5	471.9	690.5	978.1	764.3
WHITE	32.7	114.1	319.1	739.4	1,255.5	1,607.8
TWO OR MORE RACES	7.6	55.3	108.3	233.3	316.0	107.7

Source: State of California, Department of Health Services, Death Records.
*Calculated using death data for California residents only.
Note: American Indian, Pacific Islander, and Two or More Races had unreliable rates in the 35 to 44 and 85 and older age groups.

Cancer Age-Adjusted Death Rates

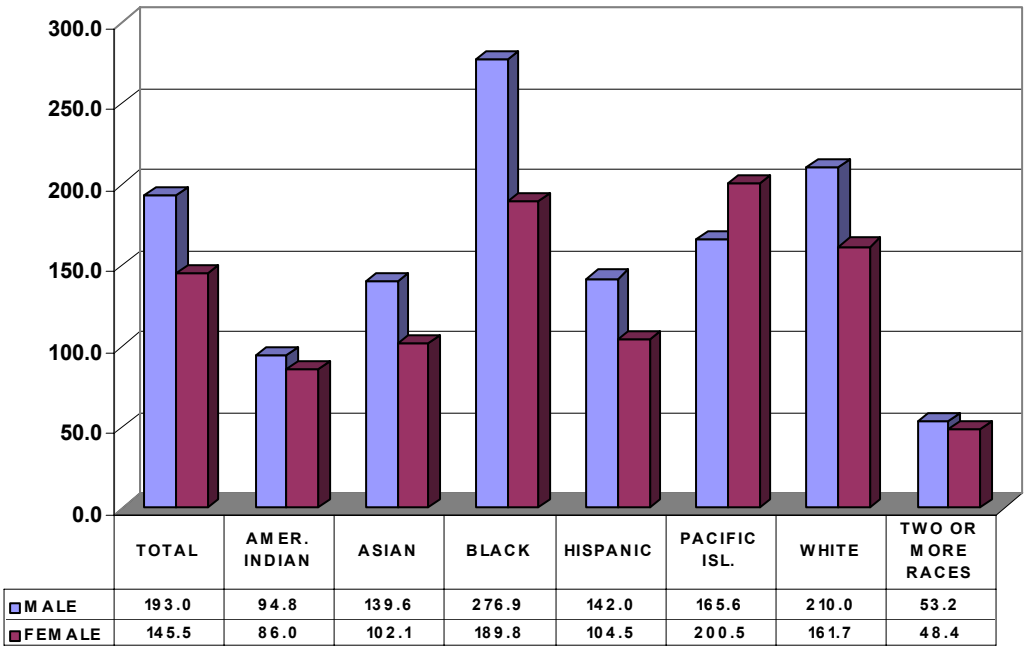
As shown in **Tables 1-4** (pages 11-18), California's age-adjusted death rate decreased each year from 2000 to 2003. In 2000 California's age-adjusted death rate was 179.6 per 100,000 population and in 2003 the rate was 165.1, a decrease of 8.1 percent. The difference between rates in 2000 and 2003 was statistically significant. From 2000 to 2003, California did not meet the Healthy People 2010 National Health Objective of reducing the number of cancer deaths to an age-adjusted rate of no more than 159.9 per 100,000 population.[7] In 2003 California's age-adjusted death rate of 165.1 was lower than the U.S. age-adjusted death rate of 189.3 per 100,000 population.

As displayed in **Table 1** (pages 11-12), Blacks had the highest age-adjusted death rate (224.8 deaths per 100,000 population), followed by Pacific Islanders (182.7), Whites (181.4), Hispanics (120.0), Asians (118.1), American Indians (89.8), and Two or More Races (50.6). The differences in age-adjusted death rates between the race/ethnic groups were statistically significant, except for the differences between Asians and Hispanics, and Pacific Islanders and Whites.

Figure 4 shows cancer age-adjusted death rates among California residents by race/ethnicity and sex. In 2003 the age-adjusted death rate among males in California was significantly higher than the rate for females. The male age-adjusted death rate of 193.0 per 100,000 population was 1.3 times higher than the female rate of 145.5.

Among the race/ethnic groups, males had higher age-adjusted death rates than their female counterparts, with the exception of Pacific Islanders. In 2003 the differences in age-adjusted death rates between males and females within their respective race/ethnic groups were statistically significant for Asians, Blacks, Hispanics, and Whites.

FIGURE 4
CANCER AGE-ADJUSTED DEATH RATES
BY SEX AND RACE/ETHNICITY*
CALIFORNIA, 2003



	TOTAL	AMER. INDIAN	ASIAN	BLACK	HISPANIC	PACIFIC ISL.	WHITE	TWO OR MORE RACES
MALE	193.0	94.8	139.6	276.9	142.0	165.6	210.0	53.2
FEMALE	145.5	86.0	102.1	189.8	104.5	200.5	161.7	48.4

Source: State of California, Department of Health Services, Death Records.
***Calculated using death data for California residents only.**

Cancer Death Rates for California Counties

Table 5 (page 19) shows the number of cancer deaths averaged over a three-year period from 2001 to 2003 with crude and age-adjusted death rates for California and its 58 counties.

For more data, see DHS Office of Health Information and Research, Home Page at www.dhs.ca.gov/ohir/

The three counties with the highest average number of cancer deaths were Los Angeles County at 13,581.7 or 25.1 percent of all cancer deaths in California, San Diego County with 4,655.0 deaths or 8.6 percent, and Orange County with 4,081.3 deaths or 7.6 percent.

Among the 55 counties with reliable crude death rates, Lake County had the highest rate, 312.4 deaths per 100,000 population, which was 3.0 times higher than the lowest rate of 104.3 in San Benito County. Yuba County had the highest reliable age-adjusted death rate of 226.0 and was 1.6 times higher than the lowest rate of 145.3 for San Benito County.

Comparing county age-adjusted death rates with the overall California rate shows two counties (**Table 5**, page 19) had rates significantly lower than the state age-adjusted death rate of 169.7 deaths per 100,000 population and 12 counties had rates significantly higher than the state rate. Ten counties (8 with reliable age-adjusted deaths rates) met the HP2010 Objective of no more than 159.9 age-adjusted cancer deaths per 100,000 population, and 27 counties had age-adjusted death rates that were not significantly different from the HP2010 Objective.

Cancer Deaths among the Three City Health Jurisdictions

Table 6 shows the three-year average (2001 to 2003) number of cancer deaths and crude death rates for California's three city health jurisdictions.

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

Long Beach had the highest average number of deaths (659.3), followed by Pasadena (261.7), and Berkeley (159.3).

The crude death rates were 188.4 per 100,000 population for Pasadena, 152.8 for Berkeley, and 139.3 for Long Beach.

TABLE 6
CANCER INJURY DEATHS
AMONG THE CITY HEALTH JURISDICTIONS*
CALIFORNIA, 2001-2003

CITY HEALTH JURISDICTION	AVERAGE NUMBER OF DEATHS	2002 POPULATION	CRUDE DEATH RATE
BERKELEY	159.3	104,254	152.8
LONG BEACH	659.3	473,363	139.3
PASADENA	261.7	138,904	188.4

Note: Rates are per 100,000 population; ICD-10 codes C00-C97.
***Calculated using death data for California residents only.**
Source: State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2005, with 2000 DRU Benchmark, Sacramento, California, May 2005.
State of California, Department of Health Services, Death Records.

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 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 cancer death data presented in this report are based on the vital statistics records with ICD-10 codes I60-I69 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 were noted as achieved, regardless of rate reliability. Readers are cautioned that measuring progress toward target attainment for a HP2010 objective

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

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

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 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

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[11] Keppel KG, et al. Measuring Progress in Healthy People 2010. Healthy People 2010 Statistical Notes, No. 25. National Center for Health Statistics. Hyattsville, Maryland. September 2004.

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

[13] 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 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 6** (page 7) differ from population data used to calculate county crude rates in **Table 5** (page 19). Caution should be exercised when comparing the crude rates of the three city health jurisdictions with the crude rates of the 58 California counties. Age-adjusted rates for city health jurisdictions were not calculated.

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

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[14] 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.

[15] 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.

[16] Ficenec S, Bindra K, Christensen J. Vital Statistics of California, 2002. Center for Health Statistics, California Department of Health Services, April 2004.

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

TABLE 1
CANCER 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
TOTAL															
UNDER 1	12	6	6	531,434	271,162	260,272	2.3 *	2.2 *	2.3 *	1.0	3.5	0.4	4.0	0.5	4.1
1 - 4	59	33	26	2,008,528	1,026,713	981,815	2.9	3.2	2.6	2.2	3.7	2.1	4.3	1.6	3.7
5 - 14	188	105	83	5,420,822	2,777,200	2,643,622	3.5	3.8	3.1	3.0	4.0	3.1	4.5	2.5	3.8
15 - 24	238	145	93	5,160,658	2,691,409	2,469,249	4.6	5.4	3.8	4.0	5.2	4.5	6.3	3.0	4.5
25 - 34	472	252	220	5,246,137	2,705,863	2,540,274	9.0	9.3	8.7	8.2	9.8	8.2	10.5	7.5	9.8
35 - 44	1,640	693	947	5,648,662	2,870,936	2,777,726	29.0	24.1	34.1	27.6	30.4	22.3	25.9	31.9	36.3
45 - 54	5,067	2,472	2,595	4,819,832	2,382,693	2,437,139	105.1	103.7	106.5	102.2	108.0	99.7	107.8	102.4	110.6
55 - 64	9,072	4,719	4,353	3,146,705	1,520,342	1,626,363	288.3	310.4	267.7	282.4	294.2	301.5	319.2	259.7	275.6
65 - 74	13,170	7,006	6,164	1,997,161	921,535	1,075,626	659.4	760.3	573.1	648.2	670.7	742.5	778.1	558.8	587.4
75 - 84	16,378	8,462	7,916	1,414,654	587,119	827,535	1,157.7	1,441.3	956.6	1,140.0	1,175.5	1,410.6	1,472.0	935.5	977.6
85 & OLDER	8,011	3,602	4,409	540,374	183,447	356,927	1,482.5	1,963.5	1,235.3	1,450.0	1,515.0	1,899.4	2,027.6	1,198.8	1,271.7
UNKNOWN	0	0	0												
TOTAL	54,307	27,495	26,812	35,934,967	17,938,419	17,996,548	151.1	153.3	149.0	149.9	152.4	151.5	155.1	147.2	150.8
AGE-ADJUSTED							165.1	193.0	145.5	163.7	166.5	190.7	195.4	143.7	147.2
AMERICAN INDIAN															
UNDER 1	0	0	0	3,180	1,629	1,551	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	9,091	4,692	4,399	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	0	0	0	41,585	21,049	20,536	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	1	1	0	41,597	21,270	20,327	2.4 *	4.7 *	0.0 +	0.0	7.1	0.0	13.9	-	-
25 - 34	1	0	1	34,537	17,157	17,380	2.9 *	0.0 +	5.8 *	0.0	8.6	-	-	0.0	17.0
35 - 44	11	3	8	41,759	20,278	21,481	26.3 *	14.8 *	37.2 *	10.8	41.9	0.0	31.5	11.4	63.0
45 - 54	26	10	16	39,151	18,614	20,537	66.4	53.7 *	77.9 *	40.9	91.9	20.4	87.0	39.7	116.1
55 - 64	36	21	15	24,166	11,540	12,626	149.0	182.0	118.8 *	100.3	197.6	104.1	259.8	58.7	178.9
65 - 74	54	27	27	11,703	5,454	6,249	461.4	495.0	432.1	338.3	584.5	308.3	681.8	269.1	595.0
75 - 84	38	18	20	6,213	2,604	3,609	611.6	691.2 *	554.2	417.2	806.1	371.9	1,010.6	311.3	797.0
85 & OLDER	11	4	7	3,472	1,263	2,209	316.8 *	316.7 *	316.9 *	129.6	504.0	6.3	627.1	82.1	551.6
UNKNOWN	0	0	0												
TOTAL	178	84	94	256,454	125,550	130,904	69.4	66.9	71.8	59.2	79.6	52.6	81.2	57.3	86.3
AGE-ADJUSTED							89.8	94.8	86.0	76.1	103.5	73.4	116.1	68.1	103.9
ASIAN															
UNDER 1	3	1	2	49,099	25,103	23,996	6.1 *	4.0 *	8.3 *	0.0	13.0	0.0	11.8	0.0	19.9
1 - 4	6	3	3	181,821	93,219	88,602	3.3 *	3.2 *	3.4 *	0.7	5.9	0.0	6.9	0.0	7.2
5 - 14	17	8	9	500,584	258,445	242,139	3.4 *	3.1 *	3.7 *	1.8	5.0	1.0	5.2	1.3	6.1
15 - 24	22	11	11	547,727	281,307	266,420	4.0	3.9 *	4.1 *	2.3	5.7	1.6	6.2	1.7	6.6
25 - 34	66	37	29	609,005	297,832	311,173	10.8	12.4	9.3	8.2	13.5	8.4	16.4	5.9	12.7
35 - 44	169	71	98	654,269	313,201	341,068	25.8	22.7	28.7	21.9	29.7	17.4	27.9	23.0	34.4
45 - 54	499	224	275	590,179	275,078	315,101	84.6	81.4	87.3	77.1	92.0	70.8	92.1	77.0	97.6
55 - 64	729	379	350	356,471	166,544	189,927	204.5	227.6	184.3	189.7	219.4	204.7	250.5	165.0	203.6
65 - 74	1,070	575	495	236,933	103,366	133,567	451.6	556.3	370.6	424.5	478.7	510.8	601.7	338.0	403.2
75 - 84	1,169	614	555	146,599	62,184	84,415	797.4	987.4	657.5	751.7	843.1	909.3	1,065.5	602.8	712.2
85 & OLDER	500	261	239	47,703	19,092	28,611	1,048.2	1,367.1	835.3	956.3	1,140.0	1,201.2	1,532.9	729.4	941.2
UNKNOWN	0	0	0												
TOTAL	4,250	2,184	2,066	3,920,390	1,895,371	2,025,019	108.4	115.2	102.0	105.1	111.7	110.4	120.1	97.6	106.4
AGE-ADJUSTED							118.1	139.6	102.1	114.5	121.6	133.7	145.6	97.7	106.5
BLACK															
UNDER 1	0	0	0	32,376	16,503	15,873	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	5	3	2	122,874	62,658	60,216	4.1 *	4.8 *	3.3 *	0.5	7.6	0.0	10.2	0.0	7.9
5 - 14	17	12	5	415,801	211,605	204,196	4.1 *	5.7 *	2.4 *	2.1	6.0	2.5	8.9	0.3	4.6
15 - 24	19	12	7	379,857	197,146	182,711	5.0	6.1 *	3.8 *	2.8	7.3	2.6	9.5	1.0	6.7
25 - 34	36	17	19	329,285	162,507	166,778	10.9	10.5 *	11.4	7.4	14.5	5.5	15.4	6.3	16.5
35 - 44	167	61	106	401,674	200,729	200,945	41.6	30.4	52.8	35.3	47.9	22.8	38.0	42.7	62.8
45 - 54	551	275	276	319,425	155,654	163,771	172.5	176.7	168.5	158.1	186.9	155.8	197.6	148.6	188.4
55 - 64	862	471	391	190,319	88,453	101,866	452.9	532.5	383.8	422.7	483.2	484.4	580.6	345.8	421.9
65 - 74	1,036	583	453	117,685	53,462	64,223	880.3	1,090.5	705.4	826.7	933.9	1,002.0	1,179.0	640.4	770.3
75 - 84	986	506	480	63,864	24,858	39,006	1,543.9	2,035.6	1,230.6	1,447.5	1,640.3	1,858.2	2,212.9	1,120.5	1,340.7
85 & OLDER	388	163	225	24,128	7,218	16,910	1,608.1	2,258.2	1,330.6	1,448.1	1,768.1	1,911.6	2,604.9	1,156.7	1,504.4
UNKNOWN	0	0	0												
TOTAL	4,067	2,103	1,964	2,397,288	1,180,793	1,216,495	169.7	178.1	161.4	164.4	174.9	170.5	185.7	154.3	168.6
AGE-ADJUSTED							224.8	276.9	189.8	217.8	231.9	264.5	289.3	181.3	198.3
HISPANIC															
UNDER 1	3	1	2	265,727	135,553	130,174	1.1 *	0.7 *	1.5 *	0.0	2.4	0.0	2.2	0.0	3.7
1 - 4	31	19	12	972,443	496,688	475,755	3.2	3.8	2.5 *	2.1	4.3	2.1	5.5	1.1	3.9
5 - 14	94	51	43	2,487,194	1,271,424	1,215,770	3.8	4.0	3.5	3.0	4.5	2.9	5.1	2.5	4.6
15 - 24	104	68	36	2,211,661	1,170,782	1,040,879	4.7	5.8	3.5	3.8	5.6	4.4	7.2	2.3	4.6
25 - 34	161	86	75	2,282,378	1,215,342	1,067,036	7.1	7.1	7.0	6.0	8.1	5.6	8.6	5.4	8.6
35 - 44	430	182	248	1,872,178	969,722	902,456	23.0	18.8	27.5	20.8	25.1	16.0	21.5	24.1	30.9
45 - 54	920	434	486	1,159,100	572,129	586,971	79.4	75.9	82.8	74.2	84.5	68.7	83.0	75.4	90.2
55 - 64	1,192	624	568	595,540	279,290	316,250	200.2	223.4	179.6	188.8	211.5	205.9	241.0	164.8	194.4
65 - 74	1,610	874	736	344,493	151,957	192,536	467.4	575.2	382.3	444.5	490.2	537.0	613.3	354.6	409.9
75 - 84	1,530	783	747	180,074	74,189	105,885	849.7	1,055.4	705.5	807.1	892.2	981.5	1,129.3	654.9	756.1
85 & OLDER	591	264	327	54,755	19,164	35,591	1,079.4	1,377.6	918.8	992.3	1,166.4	1,211.4	1,543.8	819.2	1,018.4
UNKNOWN	0	0	0												
TOTAL	6,666	3,386	3280	12,425,543	6,356,240	6,069,303	53.6	53.3	54.0	52.4	54.9	51.5	55.1	52.2	55.9
AGE-ADJUSTED							120.0	142.0	104.5	116.9	123.0	136.8	147.3	100.8	108.3

Note: ICD-10 Codes C00-C97; rates are per 100,000 population.
Year 2000 U.S. standard population is used for age-adjusted rates.
American Indian, Asian, Black, Pacific Islander, White, and Two or More Races exclude Hispanic ethnicity.
Hispanic includes any race category.

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

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