CENTER FOR HEALTH STATISTICS

DATA SUMMARY

REPORT REGISTER NO. DS00-05000
(May 2000)

HOMICIDE DEATHS IN CALIFORNIA, 1998

Introduction

Acts of violence and abusive behavior place a heavy toll on public health and safety. Behind the homicide statistics, people of all ages, race/ethnicity and gender are adversely impacted. Violence produces extensive physical costs and emotional consequences to our society.[1] The widespread nature of these consequences may indicate that interpersonal violence has become a common part of social interaction in many domestic settings, and it may also become the mode of behavior adopted by future generations raised in such settings.[2,3]

According to preliminary U.S. homicide figures from the National Center for Health Statistics, 17,350 people were murdered in 1998, making homicide the 13th leading cause of death in our nation. Homicide was also the second leading cause of death among Americans aged 15-24, and the third leading cause of death among Americans aged 5-14. Moreover, homicide was the leading cause of death in the U.S. among Black males aged 15-24, and the second leading cause of death among Black males aged 25-44 and Black females aged 15-24.[4]

Crime statistics obtained from the U.S. Department of Justice revealed that Blacks were six times more likely than Whites to be murdered, and seven times more likely than Whites to commit murder in 1998. Most of the homicides in our nation were also intraracial from 1976-1998 — 86 percent of White victims were killed by Whites, and 94 percent of Black victims were killed by Blacks. In terms of the methods used to commit homicide, guns by far were the most prevalent mechanism used for killing, especially among teenagers and young adults. Homicide victims 18 years of age had the highest percentage of gun-related deaths — approximately 75 percent.[5]

Recent laws limiting access to handguns, calling for proper gun storage, and increased felony sentences for firearm use appear to be having some impact on gun-related homicides.[6,7] Nevertheless, continual collaboration between law enforcement, public health services and community groups are required to effectively reduce violent and abusive behavior in our society.

The U.S. Public Health Service established a year 2000 national health objective, including six sub-objectives, directed towards the reduction of homicide deaths in our nation. Since 1993, the overall age-adjusted U.S. homicide rate has decreased and the trend indicates national health objective 7.1, which has a target of no more than 7.2 age-adjusted deaths per 100,000 population, will likely be met by the year 2000.[8]

The following study reflects California's latest homicide death data by age, race/ethnicity and sex. The data were compiled using International Classification of Disease – Ninth Revision Codes E960-E969. Also, data from an earlier released Data Summary*, Homicide Deaths, California, 1980-1997*, were referenced in this updated report to examine annual percent changes in the data and to monitor California's progress towards meeting the year 2000 national health objective 7.1.[9]

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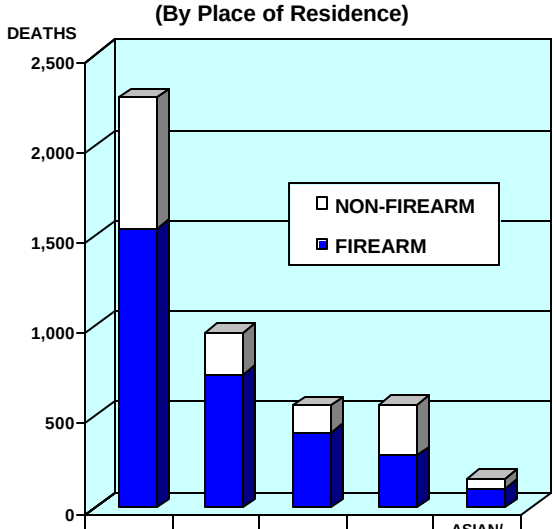
Numbers of Homicide Deaths

In 1998, there were 2,265 homicide deaths among California residents making homicide the 10th leading cause of death in the State. This figure, however, was an 18.5 percent drop from the number of deaths in 1997 (2,780). Of the four race/ethnic groups, Hispanics had the highest number of deaths (970) followed by Whites (573), Blacks (563), and Asian/Other (159). By sex, 81.4 percent of all homicide deaths (1,844) were among males, while 18.6 percent (421) of the deaths were among females, a ratio of over four to one. Most of the 1998 homicide deaths (61.4 percent) were among decedents aged 15-34 (1,390). Consequently, homicide was the second leading cause of death among Californians aged 15-34. Homicide was also the leading cause of death among Black males aged 15-34, Hispanic males aged 15-24, and Black females aged 15-24.

FIGURE 1
FIREARM- RELATED HOMICIDE DEATHS
BY RACE/ETHNICITY
CALIFORNIA, 1998
(By Place of Residence)



	TOTAL	HISPANIC	BLACK	WHITE	ASIAN/ OTHER
NON-FIREARM	720	236	145	287	52
FIREARM	1,545	734	418	286	107

Note: ICD-9 Codes E965.0-E965.4 (Firearm)
ICD-9 Codes E960.0-E964.9 & E965.5-E969.9 (Non-Firearm)
Source: Department of Health Services, Death Records.

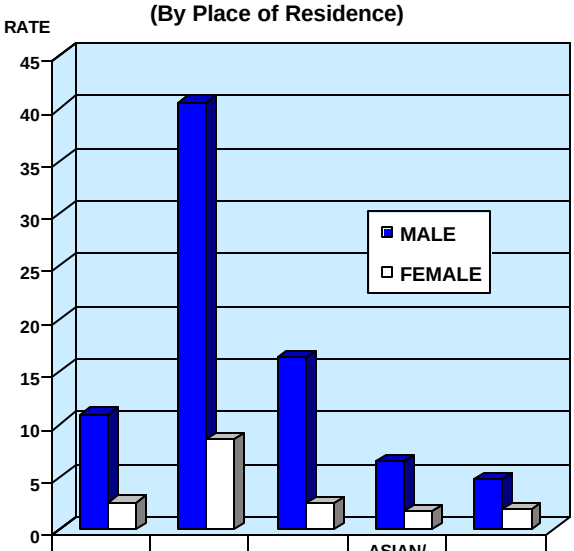
As shown in **Figure 1**, the majority of California's 1998 homicide deaths were committed by a firearm. Of the 2,265 homicides, firearms were used in 68.2 percent of the deaths (1,545). Hispanics had the highest percentage of firearm-related deaths (75.7) followed by Blacks (74.2), Asian/Other (67.3) and Whites (49.9).

Homicide Crude Death Rates

California's 1998 crude death rate due to homicide was 6.8 per 100,000 population, a 19.0 percent decrease from the 1997 rate (8.4). The rate among males declined from 13.9 in 1997 to 11.0 in 1998, a 20.9 percent drop. The female rate declined from 2.9 in 1997 to 2.5 in 1998, a 13.8 percent drop.

Declines were also experienced among the four race/ethnic groups. Blacks had the highest race-specific homicide rate (24.4 per 100,000 population) in 1998, but this rate was 21.8 percent lower than their 1997 rate (31.2). The 1998 rate among Hispanics was 9.7, a 20.5 percent decline from their 1997 rate (12.2). Asian/Other and Whites had the lowest 1998 rates, 4.1 and 3.3 respectively. These rates were 19.6 and 17.5 percent lower than their 1997 rates — Asian/Other (5.1) and Whites (4.0).

FIGURE 2
HOMICIDE DEATH RATES BY SEX AND
RACE/ETHNICITY
CALIFORNIA, 1998
(By Place of Residence)



	TOTAL	BLACK	HISPANIC	ASIAN/ OTHER	WHITE
MALE	11.0	40.6	16.4	6.5	4.8
FEMALE	2.5	8.6	2.5	1.7	1.9

Source: Table 1.

Figure 2 shows Blacks had the highest rate (40.6 per 100,000 population) among males followed by Hispanics (16.4), Asian/Other (6.5)

and Whites (4.8). The ratio between the Black and White male rates was over eight to one. Among females, Blacks also had the highest rate (8.6) followed by Hispanics (2.5), Whites (1.9), and Asian/Other (1.7). The ratio between the Black and Asian/Other female rates was approximately five to one.

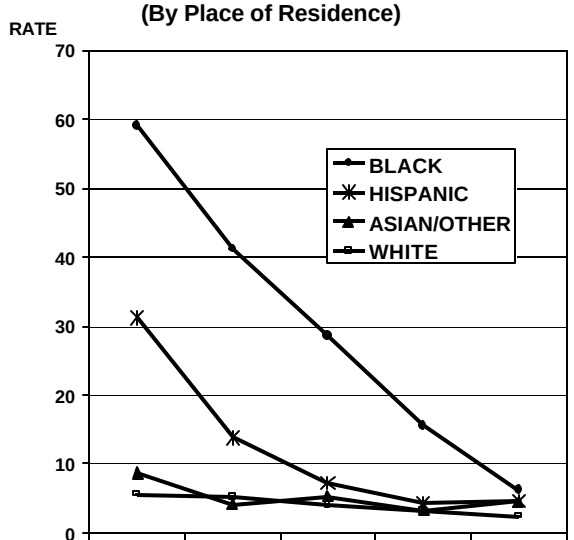
Homicide Age-Specific Death Rates

Californians aged 15-24 had the highest age-specific homicide death rate (19.1 per 100,000 population) in 1998. This rate, however, was 17.0 percent lower than the 1997 rate (23.0). Decedents aged 25-34 also had an elevated rate (10.7) compared to the other age groups in 1998, but this rate was 21.9 percent lower than the 1997 rate (13.7). In contrast, the lowest rate in 1998 was among those aged 5-14 (1.2). The ratio between the rates among decedents aged 15-24 and 5-14 was almost sixteen to one.

In 1998, males aged 15-24 had the highest rate (32.5 per 100,000 population) although this rate was 19.4 percent lower than the 1997 figure (40.3). The highest rate among females (4.7) was also in the 15-24 age group, a 9.3 percent increase from the 1997 rate (4.3). The lowest rates by sex were among decedents aged 5-14 — males (1.4) and females (0.9).

As illustrated in **Figure 3**, Blacks overall had the highest age-specific death rates among the four race/ethnic groups. The highest Black rate in 1998 was among decedents aged 15-24 (59.0 per 100,000 population), a 23.1 percent decline from their 1997 rate (76.7). The lowest reliable Black rate was among decedents aged 45-54 (15.5), a 21.3 percent drop from their 1997 rate (19.7). Hispanics overall had the next highest age-specific rates in 1998. Their highest age-specific rate was among decedents aged 15-24 (31.2), a 13.3 percent decline from the 1997 rate (36.0). The lowest reliable Hispanic rate was among those aged 5-14 (1.5), an 87.5 percent increase from their 1997 rate (0.8). Asian/Other and Whites overall had the lowest age-specific rates. The highest Asian/Other rate was among decedents aged 15-24 (8.7), and the highest White rate was also among decedents aged 15-24 (5.6). These rates were 31.0 and 11.1 percent lower than their respective 1997 rates — Asian/Other (12.6) and Whites (6.3). In 1998, the lowest reliable Asian/Other rate was among decedents aged 25-34 (4.2), and the lowest reliable White rate was among decedents aged 65-74 (2.2). These rates were 30.0 and 21.4 percent lower than their respective 1997 rates — Asian/Other (6.0) and Whites (2.8).

FIGURE 3
HOMICIDE DEATH RATES BY AGE AND RACE/ETHNICITY
CALIFORNIA, 1998
(By Place of Residence)



	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64
BLACK	59.0	41.2	28.6	15.5	6.2
HISPANIC	31.2	13.8	7.3	4.2	4.6
ASIAN/OTHER	8.7	4.2	5.2	3.2	4.6
WHITE	5.6	5.1	4.0	3.1	2.4

Source: Table 1.

Homicide Age-Adjusted Death Rates

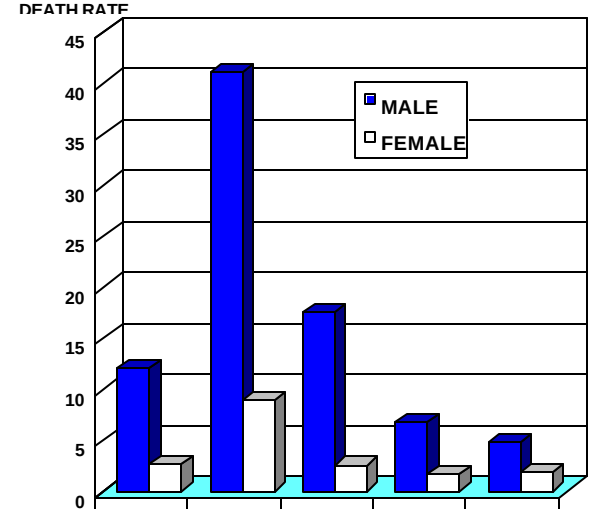
California's age-adjusted death rates due to homicide were relatively similar to the crude death rates. The 1998 age-adjusted death rate in California was 7.5 per 100,000 population, a 19.4 percent decrease from the 1997 rate (9.3). Further, the trend in the homicide age-adjusted death rate has been declining since 1992, and assuming the recent trend continues, California should meet the year 2000 national health objective of no more than 7.2 age-adjusted deaths per 100,000 population.

The male age-adjusted rate also declined from 15.2 in 1997 to 12.0 in 1998, a 21.1 percent

drop. The female rate declined 10.3 percent from 2.9 in 1997 to 2.6 in 1998.

The 1998 age-adjusted death rate among Blacks (25.4 per 100,000 population) dropped 22.1 percent from their 1997 rate (32.6), but continued to be the highest rate among the four race/ethnic groups. Hispanics had the second highest rate (10.4) in 1998, a 20.0 percent decrease from their 1997 rate (13.0). As compared to Blacks and Hispanics, the rates among Asian/Other and Whites were significantly lower. The rate among Asian/Other was 4.2 and the rate among Whites was 3.4 in 1998. These rates were 22.2 and 17.1 percent lower than their 1997 rates — Asian/Other (5.4) and Whites (4.1). The ratio between the Black and White rates was over seven to one.

FIGURE 4
HOMICIDE AGE-ADJUSTED DEATH RATES
BY SEX AND RACE/ETHNICITY
CALIFORNIA, 1998
(By Place of Residence)



	TOTAL	BLACK	HISPANIC	ASIAN/ OTHER	WHITE
MALE	12.0	41.1	17.6	6.7	4.9
FEMALE	2.6	9.0	2.6	1.7	1.9

Source: Table 1.

As shown in **Figure 4**, Black males had the highest 1998 age-adjusted rate (41.1) by race/ethnicity and sex. This rate, however, was 23.6 percent lower than their 1997 rate (53.8). The second highest rate was among Hispanic males (17.6) in 1998, a 20.4 percent decline from their 1997 rate (22.1). The rates among Asian/Other and White males were 6.7 and 4.9 respectively. These rates were 21.2 and 19.7 percent lower than their 1997 rates — Asian/Other (8.5) and Whites (6.1). Among females, Blacks also had the highest rate (9.0) in 1998, and was significantly higher than the rates of the other three race/ethnic groups. Nevertheless, this rate was 12.6 percent lower than their 1997 rate (10.3). The rates among the remaining race/ethnic groups were relatively the same in 1998 — Hispanic females (2.6), White females (1.9) and Asian/Other females (1.7).

Homicide Death Data by County

Table 3 (page 9) shows the 1996-1997 three-year annual average death numbers and rates due to homicide for California's 58 counties. Among these counties, Los Angeles County had the highest number of deaths (1,221.7), 45.5 percent of the annual average number of homicide deaths in California (2,684.0). The county with the next closest number of deaths was San Bernardino County (161.0) followed by Alameda County (140.0), and San Diego County (137.7). Alpine, Modoc, and Sierra County had no homicide deaths during this period.

Of the counties with reliable crude death rates, Los Angeles County had the highest rate (12.8 per 100,000 population). Elevated rates were also experienced in San Joaquin County (10.5), Alameda County (10.0), Madera County (10.0), San Bernardino County (10.0), Fresno County (9.9), and Kern County (9.4). Sonoma County had the lowest rate (2.8). The ratio between the rates in Los Angeles County and Sonoma County was over four to one. California's crude death rate was 8.1.

Like the crude death rates, Los Angeles County also had the highest age-adjusted death rate (14.7 per 100,000 population). Compared to other counties, rates in San Joaquin County (11.4), Alameda County (10.9), San Bernardino County (10.8), Fresno County (10.4), and Kern County (10.2) were also high. Lassen County had the lowest rate (2.7) in California. Los Angeles County's age-adjusted death rate was over five times higher than Lassen County's rate. California's age-adjusted death rate was 9.0.

Homicide Death Data by City Health Jurisdiction

Table 1 (below) shows the 1996-1998 three-year annual average homicide death numbers and rates for California's three city health jurisdictions. Among these health jurisdictions, Long Beach had the highest number of homicide deaths (74.0) followed by Pasadena (14.3) and Berkeley (7.3). Long Beach had the only reliable crude death rate (16.8 per 100,000 population).

Age-adjusted death rates by sex and race/ethnicity, and crude death rates by sex, race/ethnicity and age were not calculated because population estimates are not available through the California Department of Finance. In addition, please see the technical notes related to the caution required when comparing crude death rates between city health jurisdictions and county health jurisdictions.

Technical Notes

In accordance with the National Center for Health Statistics, the homicide death data presented in this report are ICD-9 codes E960-E969.

The four race/ethnic groups shown in **Table 2** 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 the "Asian/Other race/ethnic group" includes: Aleut, American Indian, Asian Indian, Asian (specified/unspecified), Cambodian, Chinese, Eskimo, Filipino, Guamanian, Hawaiian, Japanese, Korean, Vietnamese, Other Pacific Islander, Samoan, Thai, and Laotian. 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.[10]

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. Consequently,

TABLE 1
DEATHS DUE TO HOMICIDE
AMONG THE CITY HEALTH JURISDICTIONS
CALIFORNIA, 1996-1998
(By Place of Residence)

CITY HEALTH JURISDICTION	NUMBER OF DEATHS (Average)	1997 POPULATION	CRUDE DEATH RATE	95% CONFIDENCE LIMITS	
				LOWER	UPPER
BERKELEY	7.3	106,300	6.9 *	1.9	11.9
LONG BEACH	74.0	440,900	16.8	13.0	20.6
PASADENA	14.3	138,700	10.3 *	5.0	15.7

Note: Rates are per 100,000 population; ICD-9 codes E960-E969.
* Death rate unreliable (relative standard error is greater than or equal to 23 %)

Source: State of California, Department of Finance, *City/County Population Estimates with Annual Percent Change, January 1, 1997 and 1998* , May 1998.
State of California, Department of Health Services, Death Records.

Tables 1 and 3 present three-year annual average death data to increase the reliability of the data by county and city health jurisdiction. Also, 95 percent confidence intervals and an indicator, "*" (asterisk), denoting rates that have a relative standard error (coefficient of variation) greater than or equal to 23 percent are provided in the data tables as a tool for measuring the reliability of the death rates.

The method used to analyze vital statistics data is also 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, on the other hand, show the actual rate of dying in a given population, but the age composition of that population is not taken into consideration. Since age is a significant factor when analyzing death rates, the process of age-adjusting the rates removes the effect of age among the various populations under examination. Age-adjusted death rates, in most cases, are the preferred rates to use when comparing rates over time, between various race/ethnic groups, sexes, and geographic areas. The 1940 United States (standard million) population was used as the basis for age-adjusting in this report.

In addition, the methodology used by the Department of Finance to compile the population data in **Table 1** differs from the methodology used to compile the population data used in **Table 3**. Consequently, caution should be exercised when comparing the crude rates among the three city health jurisdictions in **Table 1** with the rates among the 58 California counties in **Table 3**. Information related to the various methodologies used by the Department of Finance to compile population data for California can be found at *http://www.dof.ca.gov/html/Demograp/druhpar.htm*.

For a complete explanation of the age-adjusting methodology see the *Healthy People 2000 Statistical Notes* publication.[11] Also, detailed information on data quality and limitations and the formulas used to calculate vital statistics rates are presented in the appendix of the *Vital Statistics of California*[12] and on the Department of Health Services, Center for Health Statistics Home Page [www.dhs.ca.gov/org/hisp/chs/chsindex.htm].

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TABLE 2
DEATHS DUE TO HOMICIDE BY RACE/ETHNICITY, AGE, AND SEX
CALIFORNIA, 1998
(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	30	19	11	550,947	281,755	269,192	5.4	6.7	4.1 *	3.5	7.4	3.7	9.8	1.7	6.5
1 - 4	43	25	18	2,229,538	1,140,456	1,089,082	1.9	2.2	1.7 *	1.4	2.5	1.3	3.1	0.9	2.4
5 - 14	63	39	24	5,282,789	2,704,271	2,578,518	1.2	1.4	0.9	0.9	1.5	1.0	1.9	0.6	1.3
15 - 24	836	738	98	4,373,982	2,272,297	2,101,685	19.1	32.5	4.7	17.8	20.4	30.1	34.8	3.7	5.6
25 - 34	554	471	83	5,197,303	2,751,105	2,446,198	10.7	17.1	3.4	9.8	11.5	15.6	18.7	2.7	4.1
35 - 44	376	289	87	5,617,073	2,862,096	2,754,977	6.7	10.1	3.2	6.0	7.4	8.9	11.3	2.5	3.8
45 - 54	171	131	40	4,120,181	2,045,268	2,074,913	4.2	6.4	1.9	3.5	4.8	5.3	7.5	1.3	2.5
55 - 64	84	68	16	2,538,804	1,235,786	1,303,018	3.3	5.5	1.2 *	2.6	4.0	4.2	6.8	0.6	1.8
65 - 74	54	34	20	1,947,086	886,040	1,061,046	2.8	3.8	1.9	2.0	3.5	2.5	5.1	1.1	2.7
75 - 84	35	19	16	1,238,074	503,707	734,367	2.8	3.8	2.2 *	1.9	3.8	2.1	5.5	1.1	3.2
85 & OLDER	10	3	7	410,629	127,382	283,247	2.4 *	2.4 *	2.5 *	0.9	3.9	0.0	5.0	0.6	4.3
UNKNOWN	9	8	1												
TOTAL	2,265	1,844	421	33,506,406	16,810,163	16,696,243	6.8	11.0	2.5	6.5	7.0	10.5	11.5	2.3	2.8
AGE-ADJUSTED							7.5	12.0	2.6	7.2	7.8	11.5	12.6	2.4	2.9
WHITE															
UNDER 1	9	6	3	188,706	96,547	92,159	4.8 *	6.2 *	3.3 *	1.7	7.9	1.2	11.2	0.0	6.9
1 - 4	12	6	6	780,142	400,282	379,860	1.5 *	1.5 *	1.6 *	0.7	2.4	0.3	2.7	0.3	2.8
5 - 14	14	9	5	2,195,054	1,128,210	1,066,844	0.6 *	0.8 *	0.5 *	0.3	1.0	0.3	1.3	0.1	0.9
15 - 24	110	86	24	1,952,242	1,018,041	934,201	5.6	8.4	2.6	4.6	6.7	6.7	10.2	1.5	3.6
25 - 34	121	90	31	2,370,868	1,215,142	1,155,726	5.1	7.4	2.7	4.2	6.0	5.9	8.9	1.7	3.6
35 - 44	121	85	36	3,053,743	1,551,684	1,502,059	4.0	5.5	2.4	3.3	4.7	4.3	6.6	1.6	3.2
45 - 54	78	60	18	2,505,375	1,253,333	1,252,042	3.1	4.8	1.4 *	2.4	3.8	3.6	6.0	0.8	2.1
55 - 64	40	30	10	1,634,947	803,700	831,247	2.4	3.7	1.2 *	1.7	3.2	2.4	5.1	0.5	1.9
65 - 74	30	16	14	1,339,182	615,503	723,679	2.2	2.6 *	1.9 *	1.4	3.0	1.3	3.9	0.9	2.9
75 - 84	23	11	12	929,526	376,867	552,659	2.5	2.9 *	2.2 *	1.5	3.5	1.2	4.6	0.9	3.4
85 & OLDER	9	3	6	308,218	89,940	218,278	2.9 *	3.3 *	2.7 *	1.0	4.8	0.0	7.1	0.5	4.9
UNKNOWN	6	5	1												
TOTAL	573	407	166	17,258,003	8,549,249	8,708,754	3.3	4.8	1.9	3.0	3.6	4.3	5.2	1.6	2.2
AGE-ADJUSTED							3.4	4.9	1.9	3.1	3.7	4.4	5.4	1.6	2.2
BLACK															
UNDER 1	9	4	5	37,800	19,338	18,462	23.8 *	20.7 *	27.1 *	8.3	39.4	0.4	41.0	3.3	50.8
1 - 4	10	7	3	154,807	78,713	76,094	6.5 *	8.9 *	3.9 *	2.5	10.5	2.3	15.5	0.0	8.4
5 - 14	13	9	4	406,196	205,648	200,548	3.2 *	4.4 *	2.0 *	1.5	4.9	1.5	7.2	0.0	3.9
15 - 24	206	176	30	348,911	184,486	164,425	59.0	95.4	18.2	51.0	67.1	81.3	109.5	11.7	24.8
25 - 34	154	132	22	373,822	194,662	179,160	41.2	67.8	12.3	34.7	47.7	56.2	79.4	7.1	17.4
35 - 44	110	86	24	384,318	186,863	197,455	28.6	46.0	12.2	23.3	34.0	36.3	55.8	7.3	17.0
45 - 54	41	31	10	263,770	124,020	139,750	15.5	25.0	7.2 *	10.8	20.3	16.2	33.8	2.7	11.6
55 - 64	10	9	1	160,600	74,971	85,629	6.2 *	12.0 *	1.2 *	2.4	10.1	4.2	19.8	0.0	3.5
65 - 74	5	5	0	103,589	44,721	58,868	4.8 *	11.2 *	0.0 +	0.6	9.1	1.4	21.0	-	-
75 - 84	5	4	1	57,742	21,647	36,095	8.7 *	18.5 *	2.8 *	1.1	16.2	0.4	36.6	0.0	8.2
85 & OLDER	0	0	0	17,597	5,173	12,424	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
UNKNOWN	0	0	0												
TOTAL	563	463	100	2,309,152	1,140,242	1,168,910	24.4	40.6	8.6	22.4	26.4	36.9	44.3	6.9	10.2
AGE-ADJUSTED							25.4	41.1	9.0	23.3	27.6	37.4	44.9	7.2	10.8
HISPANIC															
UNDER 1	10	7	3	260,318	133,045	127,273	3.8 *	5.3 *	2.4 *	1.5	6.2	1.4	9.2	0.0	5.0
1 - 4	19	11	8	1,038,698	529,865	508,833	1.8	2.1 *	1.6 *	1.0	2.7	0.8	3.3	0.5	2.7
5 - 14	32	17	15	2,067,406	1,055,483	1,011,923	1.5	1.6 *	1.5 *	1.0	2.1	0.8	2.4	0.7	2.2
15 - 24	471	434	37	1,508,352	779,987	728,365	31.2	55.6	5.1	28.4	34.0	50.4	60.9	3.4	6.7
25 - 34	253	228	25	1,829,028	1,026,089	802,939	13.8	22.2	3.1	12.1	15.5	19.3	25.1	1.9	4.3
35 - 44	110	91	19	1,511,127	801,005	710,122	7.3	11.4	2.7	5.9	8.6	9.0	13.7	1.5	3.9
45 - 54	36	29	7	853,827	432,421	421,406	4.2	6.7	1.7 *	2.8	5.6	4.3	9.1	0.4	2.9
55 - 64	21	19	2	457,988	221,673	236,315	4.6	8.6	0.8 *	2.6	6.5	4.7	12.4	0.0	2.0
65 - 74	10	8	2	301,747	137,112	164,635	3.3 *	5.8 *	1.2 *	1.3	5.4	1.8	9.9	0.0	2.9
75 - 84	4	2	2	142,013	57,843	84,170	2.8 *	3.5 *	2.4 *	0.1	5.6	0.0	8.2	0.0	5.7
85 & OLDER	1	0	1	52,047	17,887	34,160	1.9 *	0.0 +	2.9 *	0.0	5.7	-	-	0.0	8.7
UNKNOWN	3	3	0												
TOTAL	970	849	121	10,022,551	5,192,410	4,830,141	9.7	16.4	2.5	9.1	10.3	15.3	17.5	2.1	3.0
AGE-ADJUSTED							10.4	17.6	2.6	9.8	11.1	16.4	18.8	2.1	3.0
ASIAN/OTHER															
UNDER 1	2	2	0	64,123	32,825	31,298	3.1 *	6.1 *	0.0 +	0.0	7.4	0.0	14.5	-	-
1 - 4	2	1	1	255,891	131,596	124,295	0.8 *	0.8 *	0.8 *	0.0	1.9	0.0	2.2	0.0	2.4
5 - 14	4	4	0	614,133	314,930	299,203	0.7 *	1.3 *	0.0 +	0.0	1.3	0.0	2.5	-	-
15 - 24	49	42	7	564,477	289,783	274,694	8.7	14.5	2.5 *	6.3	11.1	10.1	18.9	0.7	4.4
25 - 34	26	21	5	623,585	315,212	308,373	4.2	6.7	1.6 *	2.6	5.8	3.8	9.5	0.2	3.0
35 - 44	35	27	8	667,885	322,544	345,341	5.2	8.4	2.3 *	3.5	7.0	5.2	11.5	0.7	3.9
45 - 54	16	11	5	497,209	235,494	261,715	3.2 *	4.7 *	1.9 *	1.6	4.8	1.9	7.4	0.2	3.6
55 - 64	13	10	3	285,269	135,442	149,827	4.6 *	7.4 *	2.0 *	2.1	7.0	2.8	12.0	0.0	4.3
65 - 74	9	5	4	202,568	88,704	113,864	4.4 *	5.6 *	3.5 *	1.5	7.3	0.7	10.6	0.1	7.0
75 - 84	3	2	1	108,793	47,350	61,443	2.8 *	4.2 *	1.6 *	0.0	5.9	0.0	10.1	0.0	4.8
85 & OLDER	0	0	0	32,767	14,382	18,385	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
UNKNOWN	0	0	0												
TOTAL	159	125	34	3,916,700	1,928,262	1,988,438	4.1	6.5	1.7	3.4	4.7	5.3	7.6	1.1	2.3
AGE-ADJUSTED							4.2	6.7	1.7	3.5	4.9	5.5	7.9	1.1	2.3

Note: Rates are per 100,000 population; ICD-9 Codes E960-E969.
White, Black, and Asian/Other exclude Hispanic ethnicity.
Hispanic includes any race category.

* 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.

Source: State of California, Department of Finance, 1998 Population Projections by Age, Sex and Race/Ethnic Groups, December, 1998.
State of California, Department of Health Services, Death Records.

TABLE 3
DEATHS DUE TO HOMICIDE
CALIFORNIA COUNTIES, 1996-1998
(By Place of Residence)

COUNTY	1996-1998 DEATHS (AVERAGE)	PERCENT	1997 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
CALIFORNIA	2,684.0	100.0	32,956,695	8.1	9.0	8.6	9.3
ALAMEDA	140.3	5.2	1,398,421	10.0	10.9	9.1	12.8
ALPINE	0.0	0.0	1,174	0.0 +	0.0 +	-	-
AMADOR	0.7	a	33,472	2.0 *	3.0 *	0.0	10.3
BUTTE	10.0	0.4	198,459	5.0 *	5.8 *	2.1	9.5
CALAVERAS	1.0	a	37,916	2.6 *	2.7 *	0.0	8.0
COLUSA	1.0	a	18,530	5.4 *	6.0 *	0.0	17.7
CONTRA COSTA	70.0	2.6	896,206	7.8	8.9	6.8	11.0
DEL NORTE	2.3	0.1	28,413	8.2 *	7.8 *	0.0	18.2
EL DORADO	3.0	0.1	147,409	2.0 *	1.8 *	0.0	4.1
FRESNO	77.0	2.9	778,674	9.9	10.4	8.0	12.7
GLENN	1.0	a	26,856	3.7 *	2.7 *	0.0	8.7
HUMBOLDT	5.0	0.2	126,137	4.0 *	4.4 *	0.5	8.2
IMPERIAL	10.3	0.4	142,759	7.2 *	7.4 *	2.8	12.0
INYO	0.3	a	18,272	1.8 *	3.5 *	0.0	15.4
KERN	59.3	2.2	634,404	9.4	10.2	7.6	12.8
KINGS	9.0	0.3	117,793	7.6 *	7.5 *	2.6	12.4
LAKE	3.7	0.1	55,047	6.7 *	7.0 *	0.0	15.3
LASSEN	1.0	a	33,861	3.0 *	2.7	0.0	8.1
LOS ANGELES	1,221.7	45.5	9,524,613	12.8	14.7	13.8	15.5
MADERA	11.3	0.4	113,525	10.0	10.5 *	4.3	16.7
MARIN	3.0	0.1	243,214	1.2 *	1.6 *	0.0	3.6
MARIPOSA	1.3	a	15,957	8.4 *	11.8 *	0.0	32.3
MENDOCINO	8.0	0.3	85,966	9.3 *	9.5 *	2.7	16.3
MERCED	14.0	0.5	201,905	6.9	7.4	3.5	11.3
MODOC	0.0	0.0	10,140	0.0 +	0.0 +	-	-
MONO	0.3	a	10,531	3.2 *	3.5 *	0.0	15.4
MONTEREY	32.3	1.2	377,744	8.6	9.5	6.2	12.9
NAPA	2.0	0.1	121,239	1.6 *	2.1 *	0.0	5.0
NEVADA	3.0	0.1	88,356	3.4 *	4.2 *	0.0	9.3
ORANGE	107.0	4.0	2,705,313	4.0	4.6	3.7	5.5
PLACER	5.3	0.2	215,634	2.5 *	2.4 *	0.3	4.6
PLUMAS	1.3	a	20,402	6.5 *	7.5 *	0.0	21.3
RIVERSIDE	113.7	4.2	1,423,699	8.0	8.9	7.2	10.5
SACRAMENTO	92.0	3.4	1,146,825	8.0	9.0	7.1	10.9
SAN BENITO	0.7	a	46,121	1.4 *	1.7 *	0.0	5.8
SAN BERNARDINO	161.0	6.0	1,617,262	10.0	10.8	9.1	12.5
SAN DIEGO	137.7	5.1	2,763,401	5.0	5.0	4.2	5.9
SAN FRANCISCO	52.3	1.9	777,368	6.7	7.5	5.2	9.7
SAN JOAQUIN	56.7	2.1	542,196	10.5	11.4	8.4	14.5
SAN LUIS OBISPO	6.7	0.2	234,813	2.8 *	2.9 *	0.6	5.2
SAN MATEO	27.0	1.0	711,699	3.8	4.1	2.5	5.8
SANTA BARBARA	16.0	0.6	400,751	4.0	4.0	2.0	6.0
SANTA CLARA	50.7	1.9	1,671,414	3.0	3.4	2.4	4.3
SANTA CRUZ	8.7	0.3	247,216	3.5 *	3.7 *	1.1	6.3
SHASTA	9.0	0.3	163,351	5.5 *	5.7 *	1.8	9.5
SIERRA	0.0	0.0	3,406	0.0 +	0.0 +	-	-
SISKIYOU	2.0	0.1	44,186	4.5 *	5.0 *	0.0	12.2
SOLANO	23.0	0.9	378,664	6.1	6.6	3.8	9.3
SONOMA	12.0	0.4	432,771	2.8	3.1	1.3	4.9
STANISLAUS	32.7	1.2	425,407	7.7	8.2	5.3	11.0
SUTTER	4.0	0.1	76,004	5.3 *	5.3 *	0.0	10.7
TEHAMA	3.3	0.1	54,702	6.1 *	7.8 *	0.0	16.3
TRINITY	1.3	a	13,230	10.1 *	12.5 *	0.0	36.1
TULARE	27.0	1.0	358,337	7.5	8.2	5.1	11.3
TUOLUMNE	1.0	a	52,280	1.9 *	1.5 *	0.0	5.0
VENTURA	30.7	1.1	727,154	4.2	4.7	3.0	6.4
YOLO	6.0	0.2	154,850	3.9 *	4.0 *	0.8	7.2
YUBA	3.3	0.1	61,246	5.4 *	5.8 *	0.0	12.1

Note: Rates are per 100,000 population; ICD-9 codes E960-E969.
+ Standard error is indeterminate, death rate based on no (zero) deaths.
* 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.

Source: State of California, Department of Finance, 1997 Population Projections by Age, Sex and Race/Ethnic Groups, December, 1998.
State of California, Department of Health Services, Death Records.