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

Highlights

- Total years of potential life lost before age 75 decreased 1.8 percent from 2003 to 2004 for California residents.
- The largest decline in premature mortality from 2003 to 2004 was in influenza and pneumonia, a decrease of 15.5 percent.
- The largest increases in premature mortality were seen in nephritis and viral hepatitis with increases of 13.8 and 12.8 percent, respectively.

Premature Mortality in California, 2004

By Daniel H. Cox

Introduction

Years of potential life lost before age 75 (YPLL-75) is one of the commonly used measures in public health to reflect the impact of premature mortality on a population.¹ This report summarizes 2004 California mortality data for selected causes of death contributing to premature mortality as measured by YPLL-75, and compares 2004 data with 2003 data. Displayed in **Table 2** (page 3) are 2004 death rates for California residents under age 75. These rates can be used for the purpose of comparison among the reported causes of death.

YPLL-75 reflects the impact of deaths occurring before the age of 75; the younger the decedent the greater the measured impact. An example would be a 29-year-old woman who dies from Human Immunodeficiency Virus Disease (HIVD). This event would be counted as 46 years of potential life lost. A 73-year-old man who dies from Chronic Lower Respiratory Disease (CLRD) would be counted as two years of potential life lost.

The causes of death selected for this report were chosen for their impact on premature mortality in California rather than for the number of deaths or the death rate attributed to each specific cause. Therefore, some of the causes of death reported here are different than what is traditionally presented in other Center for Health Statistics data summaries.

Premature Mortality Data

Total YPLL-75 for California residents decreased 1.8 percent from 2003 to 2004. During this time, YPLL-75 declined for ten of the 16 selected causes of death and increased for six (**Table 1**, page 3). The largest declines in premature mortality were seen in influenza and pneumonia (-15.5 percent) and CLRD (-10.4 percent). Premature mortality also declined for diseases of heart (-7.7 percent), chronic liver disease and cirrhosis (-5.0 percent), sudden infant death syndrome (-2.3 percent), and malignant neoplasms (-1.1 percent). A smaller decrease was seen in HIVD (-0.7 percent), conditions originating in the perinatal period (-0.2 percent), and suicide (-0.1 percent). Due to rounding of percentages to the nearest tenth, cerebrovascular diseases displays in **Table 1** as indicating no percentage change but had an actual decrease of -0.03 percent that is not shown in **Table 1**.

¹ National Center for Health Statistics. Health, United States, 2006 with Chartbook on Trends in the Health of Americans; DHHS Publication Number 2006-1232, November 2006.

The largest increases in premature mortality from 2003 to 2004 were seen in nephritis (+13.8 percent) and viral hepatitis (+12.8 percent). Smaller increases were seen in congenital malformations (+3.0 percent), diabetes mellitus (+2.5 percent), homicide (+0.3 percent), and unintentional injuries (+0.2 percent).

As shown in **Table 2** (page 3), malignant neoplasms (cancers) ranked first in years of potential life lost and accounted for a total of 29,638 deaths, representing 434,249 years (21.2 percent) of the total YPLL-75 for California residents during 2004. YPLL-75 attributed to unintentional injury deaths (8,720) moved from the third rank in 2003 to the second in 2004 and accounted for 303,392 years (14.8 percent) of the total YPLL-75. Diseases of heart moved from the second rank in 2003 to the third rank in 2004 and accounted for 20,589 deaths and a YPLL-75 of 288,145 years (14.1 percent). Homicide ranked fourth and accounted for 2,438 deaths and 109,431 years (5.4 percent) of the total YPLL-75.

In 2004 conditions originating in the perinatal period ranked as the fifth leading cause of premature mortality, accounting for 106,279 years (5.2 percent) of the total YPLL-75 and 1,420 deaths. Suicide ranked sixth and accounted for an additional 96,054 years (4.7 percent) YPLL-75 and 2,986 deaths. Congenital malformations ranked seventh and resulted in 72,969 years (3.6 percent) of the total YPLL-75 and 1,186 deaths. The low number of deaths and high YPLL-75 for conditions originating in the perinatal period and for congenital malformations shows the greater impact these two causes of death have on younger California residents. This is in contrast to malignant neoplasms and diseases of heart, the first and third ranked causes of death respectively, which affect older Californians at higher rates.

As shown in **Table 2**, deaths due to chronic liver disease and cirrhosis ranked eighth, accounting for 63,103 years (3.1 percent) YPLL-75 and was the underlying cause of 3,127 deaths. Cerebrovascular diseases ranked ninth and accounted for 59,834 years (2.9 percent) YPLL-75 and 4,335 deaths. Diabetes mellitus ranked tenth and accounted for 50,952 years (2.5 percent) YPLL-75 and 3,594 deaths. CLRD ranked eleventh and accounted for an additional 43,239 (2.1 percent) YPLL-75 and 4,148 deaths.

In 2004 HIVD ranked as the twelfth leading cause of premature mortality, accounting for 39,948 years (2.0 percent) of the total 2004 YPLL-75 and was the underlying cause of 1,365 deaths. YPLL-75 due to influenza and pneumonia deaths ranked thirteenth, accounting for 22,610 (1.1 percent) YPLL-75 and 1,543 deaths. Nephritis ranked fourteenth and accounted for 15,244 (0.7 percent) YPLL-75 and 952 deaths. Viral hepatitis and sudden infant death syndrome changed places from 2003 to 2004. Viral hepatitis moved up to the fifteenth rank and accounted for 13,503 (0.7 percent) YPLL-75 and 650 deaths. Sudden infant death syndrome moved down to the sixteenth rank accounting for 12,825 (0.6 percent) YPLL-75 and 171 deaths.

Comprehensive reports for many of the cause of death categories presented here are available from the Center for Health Statistics, California Department of Health Services.

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TABLE 1
ESTIMATED YEARS OF POTENTIAL LIFE LOST BEFORE AGE 75 (YPLL-75)
BY SELECTED CAUSES OF DEATH, CALIFORNIA 2003 and 2004
(By Place of Residence)

SELECTED CAUSES OF DEATH	ICD-10 CODES	2003 YPLL-75	2004 YPLL-75	NUMERIC DIFFERENCE	PERCENT CHANGE
TOTAL		2,080,377	2,043,624	-36,753	-1.8
Malignant Neoplasms	C00-C97	439,002	434,249	-4,753	-1.1
Unintentional Injuries	V01-X59,Y85-Y86	302,904	303,392	488	0.2
Diseases of Heart	I00-I09,I11,I13,I20-I51	312,340	288,145	-24,195	-7.7
Homicide	U01-U02,X85-Y09,Y87.1	109,123	109,431	308	0.3
Conditions Originating in the Perinatal Period	P00-P96	106,449	106,279	-170	-0.2
Suicide	U03,X60-X84,Y87.0	96,133	96,054	-79	-0.1
Congenital Malformations	Q00-Q99	70,820	72,969	2,149	3.0
Chronic Liver Disease and Cirrhosis	K70,K73-K74	66,425	63,103	-3,322	-5.0
Cerebrovascular Diseases	I60-I69	59,851	59,834	-17	0.0 *
Diabetes Mellitus	E10-E14	49,729	50,952	1,223	2.5
Chronic Lower Respiratory Diseases	J40-J47	48,236	43,239	-4,997	-10.4
Human Immunodeficiency Virus Disease	B20-B24	40,242	39,948	-294	-0.7
Influenza and Pneumonia	J10-J18	26,754	22,610	-4,144	-15.5
Nephritis, Nephrotic Syndrome and Nephrosis	N00-N07,N17-N19,N25-N27	13,401	15,244	1,843	13.8
Viral Hepatitis	B15-B19	11,967	13,503	1,536	12.8
Sudden Infant Death Syndrome	R95	13,125	12,825	-300	-2.3
All Other Causes	Residual	313,876	311,847		

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

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

TABLE 2
DEATHS UNDER AGE 75, RATES AND ESTIMATED YEARS OF POTENTIAL LIFE LOST BEFORE AGE 75 (YPLL-75)
BY SELECTED CAUSES OF DEATH, CALIFORNIA 2004
(By Place of Residence)

SELECTED CAUSES OF DEATH	ICD-10 CODES	DEATHS	RATE*	YPLL-75	RANK
TOTAL		101,772	295.8	2,043,624	
Malignant Neoplasms	C00-C97	29,638	86.1	434,249	1
Unintentional Injuries	V01-X59,Y85-Y86	8,720	25.3	303,392	2
Diseases of Heart	I00-I09,I11,I13,I20-I51	20,589	59.8	288,145	3
Homicide	U01-U02,X85-Y09,Y87.1	2,438	7.1	109,431	4
Conditions Originating in the Perinatal Period	P00-P96	1,420	4.1	106,279	5
Suicide	U03,X60-X84,Y87.0	2,986	8.7	96,054	6
Congenital Malformations	Q00-Q99	1,186	3.4	72,969	7
Chronic Liver Disease and Cirrhosis	K70,K73-K74	3,127	9.1	63,103	8
Cerebrovascular Diseases	I60-I69	4,335	12.6	59,834	9
Diabetes Mellitus	E10-E14	3,594	10.4	50,952	10
Chronic Lower Respiratory Diseases	J40-J47	4,148	12.1	43,239	11
Human Immunodeficiency Virus Disease	B20-B24	1,365	4.0	39,948	12
Influenza and Pneumonia	J10-J18	1,543	4.5	22,610	13
Nephritis, Nephrotic Syndrome and Nephrosis	N00-N07,N17-N19,N25-N27	952	2.8	15,244	14
Viral Hepatitis	B15-B19	650	1.9	13,503	15
Sudden Infant Death Syndrome	R95	171	0.5	12,825	16
All Other Causes	Residual	14,910	43.3	311,847	

* Cause-specific death rates are per 100,000 population under age 75 (n=34,409,231).

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