



Center for Health Statistics



October 2005

DATA SUMMARY
No. DS05-10001

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

Highlights

- Total years of potential life lost before age 75 increased 3.8 percent from 2002 to 2003 for California residents.
- The largest decline in premature mortality from 2002 to 2003 was in viral hepatitis, a decrease of 20.8 percent.
- The largest increase in premature mortality from 2002 to 2003 was in influenza and pneumonia, an increase of 19.5 percent.

Premature Mortality in California, 2003

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 2003 California mortality data for selected causes of death contributing to premature mortality as measured by YPLL-75, and compares 2003 data with 2002 data.

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 man who dies from Human Immunodeficiency Virus Disease (HIVD). This event would be counted as 46 years of potential life lost. A 73-year-old woman 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 increased 3.8 percent from 2002 to 2003. During this time, YPLL-75 declined for three of the 16 selected causes of death and increased for 13 (**Table 1**, page 4). Premature mortality declined for viral hepatitis (-20.8 percent), HIVD (-6.9 percent), and congenital malformations (-4.6 percent).

The largest increase in premature mortality from 2002 to 2003 was seen in influenza and pneumonia (+19.5 percent). This was followed by CLRD (+9.9 percent), suicide (+9.1 percent), diabetes mellitus (+9.1 percent), diseases of heart (+7.0 percent), and nephritis (+6.5 percent). Nephritis as a cause of death was not incorporated in earlier premature mortality reports but is now included because of its increasing impact on YPLL-75. Premature mortality also increased for unintentional injuries (+5.3 percent), sudden infant

¹ National Center for Health Statistics. Health, United States, 2004 with Chartbook on Trends in the Health of Americans; DHHS Publication Number 2004-1232, September 2004.

death syndrome (+4.2 percent), chronic liver disease and cirrhosis (+3.4 percent), and cerebrovascular diseases (+2.3 percent). A smaller increase was seen in conditions originating in the perinatal period (+1.6 percent), malignant neoplasms (+1.2 percent), and homicide (+1.0 percent).

As shown in **Table 2** (page 4), malignant neoplasms (cancers) ranked first in years of potential life lost and accounted for a total of 29,918 deaths, representing 439,002 years (21.1 percent) of the total YPLL-75 for California residents during 2003. Deaths attributed to diseases of heart (21,942) ranked second in 2003 and accounted for 312,340 years (15.0 percent) of the total YPLL-75. Unintentional injuries occupied the third rank and accounted for 8,642 deaths and a YPLL-75 of 302,904 years (14.6 percent of the total). Homicide was ranked fourth and accounted for 2,436 deaths and 109,123 years (5.2 percent) of the total YPLL-75.

In 2003 conditions originating in the perinatal period ranked as the fifth leading cause of premature mortality, accounting for 106,449 years (5.1 percent) of the total YPLL-75 and 1,422 deaths. Suicide ranked sixth and accounted for an additional 96,133 years (4.6 percent of the total) YPLL-75 and 2,986 deaths. Congenital malformations ranked seventh and resulted in 70,820 years (3.4 percent) of the total YPLL-75 and 1,154 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 second ranked causes of death, which affect older Californians at higher rates.

As shown in **Table 2** (page 4), deaths due to chronic liver disease and cirrhosis ranked eighth, accounting for 66,425 years (3.2 percent) YPLL-75 and was the underlying cause of 3,279 deaths. Cerebrovascular diseases ranked ninth and accounted for 59,851 years (2.9 percent) YPLL-75 and 4,378 deaths. Diabetes mellitus ranked tenth and accounted for 49,729 years (2.4 percent) YPLL-75 and 3,498 deaths. CLRD ranked eleventh and accounted for an additional 48,236 (2.3 percent of the total) YPLL-75 and 4,577 deaths.

In 2003 HIVD ranked as the twelfth leading cause of premature mortality, accounting for 40,242 years (1.9 percent) of the total 2003 YPLL-75 and was the underlying cause of 1,345 deaths. Deaths due to influenza and pneumonia ranked thirteenth, accounting for 26,754 (1.3 percent) YPLL-75 and 1,707 deaths. Nephritis ranked fourteenth and accounted for 13,401 (0.6 percent) YPLL-75 and 919 deaths. Sudden infant death syndrome ranked fifteenth and accounted for 13,125 (0.6 percent) YPLL-75 and 175 deaths. Deaths due to viral hepatitis ranked sixteenth, accounting for 11,967 (0.6 percent) YPLL-75 and 567 deaths.

From 2002 to 2003 there were no changes in rank for the first thirteen causes of death. Viral hepatitis moved from the fourteenth rank in 2002 down to the sixteenth rank in 2003. Nephritis, a new addition to the premature mortality report this year, moved from the sixteenth rank in 2002 into the fourteenth rank in 2003. Sudden infant death syndrome was in the fifteenth rank in both 2002 and 2003.

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.

Some of the earlier reports on this subject are available online at www.dhs.ca.gov/ohir/

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TABLE 1
ESTIMATED YEARS OF POTENTIAL LIFE LOST BEFORE AGE 75 (YPLL-75)
BY SELECTED CAUSES OF DEATH, CALIFORNIA 2002 and 2003
(By Place of Residence)

SELECTED CAUSES OF DEATH	ICD-10 CODES	2002 YPLL-75	2003 YPLL-75	NUMERIC DIFFERENCE	PERCENT CHANGE
TOTAL		2,004,642	2,080,377	75,735	3.8
Malignant Neoplasms	C00-C97	434,004	439,002	4,998	1.2
Diseases of Heart	I00-I09,I11,I13,I20-I51	291,863	312,340	20,477	7.0
Unintentional Injuries	V01-X59,Y85-Y86	287,751	302,904	15,153	5.3
Homicide	U01-U02,X85-Y09,Y87.1	108,082	109,123	1,041	1.0
Conditions Originating in the Perinatal Period	P00-P96	104,803	106,449	1,646	1.6
Suicide	U03,X60-X84,Y87.0	88,108	96,133	8,025	9.1
Congenital Malformations	Q00-Q99	74,272	70,820	-3,452	-4.6
Chronic Liver Disease and Cirrhosis	K70,K73-K74	64,258	66,425	2,167	3.4
Cerebrovascular Diseases	I60-I69	58,478	59,851	1,373	2.3
Diabetes Mellitus	E10-E14	45,593	49,729	4,136	9.1
Chronic Lower Respiratory Diseases	J40-J47	43,871	48,236	4,365	9.9
Human Immunodeficiency Virus Disease	B20-B24	43,241	40,242	-2,999	-6.9
Influenza and Pneumonia	J10-J18	22,388	26,754	4,366	19.5
Nephritis, Nephrotic Syndrome and Nephrosis	N00-N07,N17-N19,N25-N27	12,579	13,401	822	6.5
Sudden Infant Death Syndrome	R95	12,600	13,125	525	4.2
Viral Hepatitis	B15-B19	15,117	11,967	-3,150	-20.8
All Other Causes	Residual	297,634	313,876		

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

TABLE 2
DEATHS, RATES AND ESTIMATED YEARS OF POTENTIAL LIFE LOST BEFORE AGE 75 (YPLL-75)
BY SELECTED CAUSES OF DEATH, CALIFORNIA 2003
(By Place of Residence)

SELECTED CAUSES OF DEATH	ICD-10 CODES	DEATHS	RATE*	YPLL-75	RANK
TOTAL		103,968	306.0	2,080,377	
Malignant Neoplasms	C00-C97	29,918	88.0	439,002	1
Diseases of Heart	I00-I09,I11,I13,I20-I51	21,942	64.6	312,340	2
Unintentional Injuries	V01-X59,Y85-Y86	8,642	25.4	302,904	3
Homicide	U01-U02,X85-Y09,Y87.1	2,436	7.2	109,123	4
Conditions Originating in the Perinatal Period	P00-P96	1,422	4.2	106,449	5
Suicide	U03,X60-X84,Y87.0	2,986	8.8	96,133	6
Congenital Malformations	Q00-Q99	1,154	3.4	70,820	7
Chronic Liver Disease and Cirrhosis	K70,K73-K74	3,279	9.6	66,425	8
Cerebrovascular Diseases	I60-I69	4,378	12.9	59,851	9
Diabetes Mellitus	E10-E14	3,498	10.3	49,729	10
Chronic Lower Respiratory Diseases	J40-J47	4,577	13.5	48,236	11
Human Immunodeficiency Virus Disease	B20-B24	1,345	4.0	40,242	12
Influenza and Pneumonia	J10-J18	1,707	5.0	26,754	13
Nephritis, Nephrotic Syndrome and Nephrosis	N00-N07,N17-N19,N25-N27	919	2.7	13,401	14
Sudden Infant Death Syndrome	R95	175	0.5	13,125	15
Viral Hepatitis	B15-B19	567	1.7	11,967	16
All Other Causes	Residual	15,023	44.2	313,876	

* Cause-specific death rates are per 100,000 population under age 75 (n=33,979,939).

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