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Premature Mortality in California, 2002

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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 2002 California mortality data for selected causes of death contributing to premature mortality as measured by YPLL-75, and compares 2002 data with 2001 data. Beginning in 1999, cause of death is reported using the Tenth Revision of the International Classification of Diseases (ICD-10). Prior to 1999, premature mortality reports were based on the Ninth Revision of the International Classification of Diseases (ICD-9); therefore no direct comparisons should be made between this report and reports containing data earlier than 1999.

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 increased 0.6 percent from 2001 to 2002. During this time, YPLL-75 declined for 8 of the 15 selected causes of death and increased for 7 (**Table 1**, page 3). Premature mortality declined for sudden infant death syndrome (-14.7 percent), CLRD (-8.8 percent), HIVD (-6.1 percent), and suicide (-4.4 percent). A smaller decrease in premature mortality was seen in congenital malformations (-2.8 percent), chronic liver disease and cirrhosis (-1.5 percent), malignant neoplasms (-0.6 percent), and cerebrovascular diseases (-0.4 percent).

¹ National Center for Health Statistics. Health, United States, 2003 with Chartbook on Trends in the Health of Americans; DHHS Publication Number 2003-1232, September 2003.

Highlights

- €# Total years of potential life lost before age 75 increased 0.6 percent from 2001 to 2002 for California residents.
- €# The largest decline in premature mortality from 2001 to 2002 was in sudden infant death syndrome, a decrease of 14.7 percent.
- €# The largest increase in premature mortality from 2001 to 2002 was in viral hepatitis, an increase of 12.8 percent.

The largest increase in premature mortality from 2001 to 2002 was seen in viral hepatitis (+12.8 percent). Viral hepatitis 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 homicide (+7.8 percent), unintentional injuries (+5.6 percent), and influenza and pneumonia (+5.2 percent). A smaller increase was seen in conditions originating in the perinatal period (+2.2 percent), diseases of heart (+1.2 percent), and diabetes mellitus (+0.1 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 29,984 deaths, representing 434,004 years (21.6 percent) of the total YPLL-75 for California residents during 2002. Deaths attributed to diseases of heart (21,500) ranked second in 2002 and accounted for 291,863 years (14.6 percent) of the total YPLL-75. Unintentional injuries occupied the third rank and accounted for 8,088 deaths and a YPLL-75 of 287,751 years (14.4 percent of the total). Homicide was ranked fourth and accounted for 2,412 deaths and 108,082 years (5.4 percent) of the total YPLL-75.

In 2002, conditions originating in the perinatal period ranked as the fifth leading cause of premature mortality, accounting for 104,803 years (5.2 percent) of the total YPLL-75 and 1,400 deaths. Suicide ranked sixth and accounted for an additional 88,108 years (4.4 percent of the total) YPLL-75 and 2,791 deaths. Congenital malformations ranked seventh and resulted in 74,272 years (3.7 percent) of the total YPLL-75 and 1,214 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 3), deaths due to chronic liver disease and cirrhosis ranked eighth, accounting for 64,258 years (3.2 percent) YPLL-75 and was the underlying cause of 3,162 deaths. Cerebrovascular diseases ranked ninth and accounted for 58,478 years (2.9 percent) YPLL-75 and 4,463 deaths. Diabetes mellitus ranked tenth and accounted for 45,593 years (2.3 percent) YPLL-75 and 3,321 deaths. CLRD ranked eleventh and accounted for an additional 43,871 (2.2 percent of the total) YPLL-75 and 4,293 deaths.

In 2002, HIVD ranked as the twelfth leading cause of premature mortality, accounting for 43,241 years (2.2 percent) of the total 2002 YPLL-75 and was the underlying cause of 1,418 deaths. Deaths due to influenza and pneumonia ranked thirteenth, accounting for 22,388 (1.1 percent) YPLL-75 and 1,564 deaths. Viral hepatitis ranked fourteenth and accounted for 15,117 (0.8 percent) YPLL-75 and 716 deaths. Sudden infant death syndrome ranked fifteenth and accounted for 12,600 (0.6 percent) YPLL-75 and 168 deaths.

From 2001 to 2002 there were no changes in rank for the first three causes of death; malignant neoplasms, diseases of heart, and unintentional injuries. Homicide moved from the fifth rank in 2001 up to the fourth rank in 2002 and conditions originating in the perinatal period moved from the fourth rank down to the fifth. There were no changes among the sixth, seventh, eighth and ninth rankings occupied by suicide, congenital malformations, chronic liver disease and cirrhosis, and cerebrovascular diseases in that order. From 2001 to 2002, diabetes mellitus moved from the twelfth rank up to the tenth rank and CLRD and HIVD moved down one rank each to the eleventh and twelfth spots

Some of the [earlier reports](#) on this subject are available online.

respectively. Influenza and pneumonia remained in the thirteenth rank over the two-year period. Viral hepatitis moved from the fifteenth rank in 2001 up to the fourteenth rank in 2002, which in turn moved sudden infant death syndrome from the fourteenth rank down to the fifteenth.

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

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TABLE 1
ESTIMATED YEARS OF POTENTIAL LIFE LOST BEFORE AGE 75 (YPLL-75)
BY SELECTED CAUSES OF DEATH, CALIFORNIA 2001 and 2002
(By Place of Residence)

SELECTED CAUSES OF DEATH	ICD-10 CODES	2001 YPLL-75	2002 YPLL-75	NUMERIC DIFFERENCE	PERCENT CHANGE
TOTAL		1,993,191	2,004,642	11,451	0.6
Malignant Neoplasms	C00-C97	436,435	434,004	-2,431	-0.6
Diseases of Heart	I00-I09,I11,I13,I20-I51	288,467	291,863	3,396	1.2
Unintentional Injuries	V01-X59,Y85-Y86	272,552	287,751	15,199	5.6
Homicide	U01-U02,X85-Y09,Y87.1	100,270	108,082	7,812	7.8
Conditions Originating in the Perinatal Period	P00-P96	102,522	104,803	2,281	2.2
Suicide	U03,X60-X84,Y87.0	92,120	88,108	-4,012	-4.4
Congenital Malformations	Q00-Q99	76,414	74,272	-2,142	-2.8
Chronic Liver Disease and Cirrhosis	K70,K73-K74	65,258	64,258	-1,000	-1.5
Cerebrovascular Diseases	I60-I69	58,701	58,478	-223	-0.4
Diabetes Mellitus	E10-E14	45,562	45,593	31	0.1
Chronic Lower Respiratory Diseases	J40-J47	48,122	43,871	-4,251	-8.8
Human Immunodeficiency Virus Disease	B20-B24	46,056	43,241	-2,815	-6.1
Influenza and Pneumonia	J10-J18	21,282	22,388	1,106	5.2
Viral Hepatitis	B15-B19	13,397	15,117	1,720	12.8
Sudden Infant Death Syndrome	R95	14,775	12,600	-2,175	-14.7
All Other Causes	Residual	311,258	310,213		

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 2002
(By Place of Residence)

SELECTED CAUSES OF DEATH	ICD-10 CODES	DEATHS	RATE*	YPLL-75	RANK
TOTAL		101,482	303.5	2,004,642	
Malignant Neoplasms	C00-C97	29,984	89.7	434,004	1
Diseases of Heart	I00-I09,I11,I13,I20-I51	21,500	64.3	291,863	2
Unintentional Injuries	V01-X59,Y85-Y86	8,088	24.2	287,751	3
Homicide	U01-U02,X85-Y09,Y87.1	2,412	7.2	108,082	4
Conditions Originating in the Perinatal Period	P00-P96	1,400	4.2	104,803	5
Suicide	U03,X60-X84,Y87.0	2,791	8.3	88,108	6
Congenital Malformations	Q00-Q99	1,214	3.6	74,272	7
Chronic Liver Disease and Cirrhosis	K70,K73-K74	3,162	9.5	64,258	8
Cerebrovascular Diseases	I60-I69	4,463	13.3	58,478	9
Diabetes Mellitus	E10-E14	3,321	9.9	45,593	10
Chronic Lower Respiratory Diseases	J40-J47	4,293	12.8	43,871	11
Human Immunodeficiency Virus Disease	B20-B24	1,418	4.2	43,241	12
Influenza and Pneumonia	J10-J18	1,564	4.7	22,388	13
Viral Hepatitis	B15-B19	716	2.1	15,117	14
Sudden Infant Death Syndrome	R95	168	0.5	12,600	15
All Other Causes	Residual	14,988	44.8	310,213	

* Cause-specific death rates are per 100,000 population under age 75 (n=33,441,753).

Source: State of California, Department of Finance; 2002 Population: Population Projections by Age, Race/Ethnicity, and Sex, May 2004.
State of California, Department of Health Services, Death Records.