

MORTALITY

IN LOS ANGELES COUNTY



Leading Causes of Death and Premature Death

On a typical day in Los Angeles County in 2001, 164 people died—including 53 deaths from heart disease, nine from lung cancer, and three from firearms. Fourteen people between the ages of 15 and 44 years died, as did three children under the age of 15 years.

Many causes of death, particularly premature death, are preventable. Tobacco use has been shown to be responsible for a large proportion of deaths in the United States.¹ The same is true for the effects of obesity and physical inactivity. Some cancer deaths are preventable by early diagnosis and treatment. Child safety seats and seat belts dramatically have reduced the risk of severe injury and death in a car crash. Alcohol abuse is related to a wide range of adverse outcomes including liver cancer, automobile crashes, and violence; and easy access to firearms facilitates firearm homicides, suicides, and unintentional shootings.

By monitoring mortality trends we can better identify risks to our health, develop programs to reduce the risks of certain diseases, and evaluate the health care needs of our communities. This report summarizes information obtained from death certificates for all Los Angeles County residents who died in 2001.

1. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. *JAMA*. 2004;291:1238-1245.

Key Findings

- In 2001, heart disease (primarily coronary heart disease), cancer, and stroke were the first, second, and third leading causes of death in Los Angeles County among both males and females, among all race/ethnic groups, and among persons aged 65 years and older (Figure 1, 2, 3).
- Lung cancer was the leading cause of cancer death among both males and females, among all race/ethnic groups, and among persons aged 45 years and older (Figure 2, 3, 4).

Heart disease and cancer killed more Angelenos than all other causes of death combined in 2001.

Differences by Age and Gender

- Among teen and young adult males (15-24 years), homicides (intentional injuries), accidents (unintentional injuries), and suicides (self-inflicted injuries) were the three leading causes of death (Figure 5). Homicides and accidents also were among the leading causes of death for young females in the same age group (Figure 5).
- The average age at death was 30 years for a homicide victim and 47 years for an accident victim compared with 71 years for deaths from all causes (Figure 1).
- Breast cancer was the leading cause of mortality for women aged 25-64 years (Figure 5).

Injuries (homicides, accidents, suicides) caused more than three-quarters of all deaths among teen and young adult males.

More than half of the accidental deaths among children aged 1-14 years were motor vehicle injuries in which the child was a passenger in a vehicle that crashed or a pedestrian struck by a vehicle.

- Prematurity and low birth weight were the leading cause of death for children less than 1 year of age (Figure 6).
- Accidents, cancer, and birth defects were the leading causes of death in children aged 1-14 years. Leukemia was the most common cancer. Abnormalities of the heart, circulatory system, intestine, and digestive tract were the most common birth defects.

no years of expected life. For each person who died during the year, we can calculate the expected years of life lost, if any. Then, by adding up the total years of life lost for each cause of death we can identify those causes of death that are responsible for the greatest amount of early, or premature, death. Some causes of death such as homicide, suicide, accidents, and HIV often affect younger persons so are important causes of years of life lost.

Among men, the years of life lost from homicide exceeded that of all other causes of death.

- Among men, the years of life lost from homicide exceeded that of all other causes of death even though homicide ranked seventh in the number of deaths for males and accounted for just 3% of the nearly 30,000 deaths among men (Figure 7).

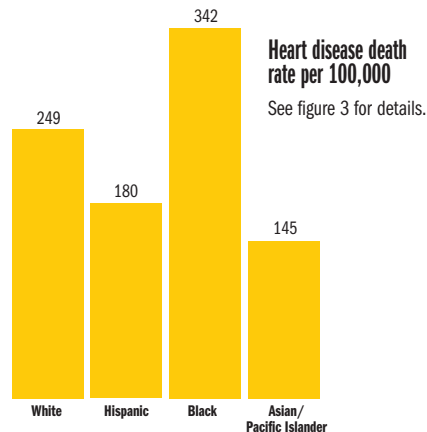
- Homicides, suicides, and accidents combined contributed more than one-third of all the years of life lost among men compared with just one-tenth of the number of deaths among men (Figure 7).
- Among men, the years of life lost from heart disease was almost three times that of women even though the number of heart disease deaths among men and women was nearly equal (Figure 7).
- Overall, HIV was the fifth leading cause of premature death for both blacks and whites, and the seventh leading cause of premature death for Hispanics yet it ranked ninth in the number of deaths for blacks, fifteenth in the number of deaths for whites, and eleventh in the number of deaths for Hispanics (Figure 8). Conversely, pneumonia and influenza were conditions of the elderly ranking among the five leading causes of death for whites and Asian/Pacific Islanders, but causing less premature death (Figure 8).
- For both Hispanics and blacks, homicide was the leading cause of premature death (Figure 8). Collectively, 888 Hispanics and blacks lost 32,626 years of life before age 65 because of homicide.

For both Hispanics and blacks, homicide was the leading cause of premature death. Eight hundred eighty-eight Hispanics and blacks lost 32,626 years of life before age 65 because of homicides.

- Firearms were responsible for 19 deaths among children aged 1–14 years: 18 homicides and one suicide.
- One-third of accidental deaths among children aged 1–4 years were drownings—nearly all in a swimming pool.

Differences by Race/Ethnicity

- There were substantial differences in death rates between race/ethnic groups. Blacks had the highest death rate for all causes of death combined, and substantially higher rates of death from heart disease, cancer, stroke, homicide, HIV infection, and high blood pressure and related kidney disease (Figure 3).
- Black males had the highest mortality rates for lung cancer, colon cancer, and prostate cancer (Figure 4).
- Among children, blacks had the highest death rate (Figure 6).
- The overall death rate among Asian/Pacific Islanders was lower than other race/ethnic groups (Figure 3).



Premature Mortality or Early Death

Simply counting the number of deaths by cause does not provide enough information to make important decisions about the health of our communities. We should also consider the age at which a person dies. In Los Angeles County, the average age at death for whites was 76 years compared with 61 years for Hispanics. We expect that most people will live to reach old age. But some do not. Some die prematurely and when they do, we can measure the impact of different causes on premature death.


















To measure the impact of premature death we consider how long a person was expected to live. If we expect all people to live to at least 65 years of age, a person who dies at age 60 falls five years short of that expectation and loses five years of expected life, while a person who dies at age 20 loses 45 years of expected life. A person who dies at age 83 exceeds the expectation and loses

- Homicides, accidents, and cancer were the three leading causes of premature death among Hispanics (Figure 8). Although the number of years of life lost was nearly identical for the three causes, the number of cancer deaths was almost four times higher than the number of accident deaths, and almost five times higher than the number of homicide deaths.
- Overall, death rates for the five leading causes of death were low in the West Service Planning Area (Figure 10).
- Heart disease was the leading cause of death and cancer was the second leading cause of death in every health district and service planning area in Los Angeles County (Figure 9, 11). Stroke, emphysema, and pneumonia and influenza also were among the leading causes of death in most health districts and service planning areas.
- In health districts and service planning areas throughout the county, cancer and injuries (homicide, accident, and suicide) were leading causes of premature death (Figure 9, 12).
- Death rates for heart disease, cancer, and stroke were highest in the South Service Planning Area health districts (Figure 13).

Homicide was the leading cause of premature death in health districts in central Los Angeles.

A User's Guide to Color

To make the figures easier to understand and interpret, color codes have been used throughout the report.

 Heart disease	 Liver disease	 Perinatal period condition
 Cancer	 Alzheimer's disease	 Pneumonia and influenza
 Stroke	 HIV	 Benign and non-invasive cancer
 Diabetes	 Birth defect	 Emphysema (including chronic lower respiratory disease)
 Homicide	 Kidney disease	 High blood pressure and related kidney disease
 Suicide	 Unintentional injury (accident)	

Ten leading causes of death

*Per 100,000 adjusted by age. See definition in Technical Notes.

+Excludes persons of unknown age.

Rank	Cause of Death	# of deaths	Death rate*+	Average age at death+
	L.A. County Total	59,774	703	71
1.	Heart disease Coronary heart disease	19,433 (16,828)	230	78
2.	Cancer Lung cancer Colon cancer Breast cancer Pancreatic cancer Uterine and ovarian cancer	13,588 (3,232) (1,423) (1,096) (808) (729)	165	70
3.	Stroke	4,259	50	78
4.	Chronic lower respiratory disease Emphysema	2,931 (2,723)	35	77
5.	Pneumonia and influenza	2,421	28	82
6.	Unintentional injury (accident) Motor vehicle crash Drug overdose	2,021 (890) (492)	22	47
7.	Diabetes	1,890	23	71
8.	Homicide Firearm homicide	1,099 (867)	11	30
9.	Liver disease	1,010	12	58
10.	Alzheimer's disease	905	11	85

Ten leading causes of death among males and females

*Per 100,000 adjusted by age. See definition in Technical Notes.
 +Excludes persons of unknown age.

Males

Rank	Cause of Death	# of deaths	Death rate*+	Average age at death+
L.A. County Total		29,968	841	67
1.	Heart disease Coronary heart disease	9,541 (8,343)	282	74
2.	Cancer Lung cancer Colon cancer Prostate cancer Pancreatic cancer Stomach cancer	6,817 (1,797) (722) (696) (389) (339)	195	70
3.	Stroke	1,691	51	75
4.	Chronic lower respiratory disease Emphysema	1,396 (1,301)	42	75
5.	Unintentional injury (accident) Motor vehicle crash Drug overdose	1,386 (598) (358)	31	45
6.	Pneumonia and influenza	1,065	33	80
7.	Homicide Firearm homicide	937 (783)	18	29
8.	Diabetes	886	25	69
9.	Liver disease	695	17	57
10.	Suicide	608	14	45

Females

Rank	Cause of Death	# of deaths	Death rate*+	Average age at death+
L.A. County Total		29,806	593	75
1.	Heart disease Coronary heart disease	9,892 (8,485)	190	82
2.	Cancer Lung cancer Breast cancer Uterine and ovarian cancer Colon cancer Pancreatic cancer	6,771 (1,435) (1,088) (729) (701) (419)	144	70
3.	Stroke	2,568	50	80
4.	Chronic lower respiratory disease Emphysema	1,535 (1,422)	31	78
5.	Pneumonia and influenza	1,356	25	84
6.	Diabetes	1,004	21	73
7.	Unintentional injury (accident) Motor vehicle crash Drug overdose	635 (292) (134)	13	51
8.	Alzheimer's disease	596	11	86
9.	High blood pressure and related kidney disease	406	8	79
10.	Liver disease	315	7	61

Five leading causes of death by race/ethnicity and by age group

*Per 100,000 adjusted by age. See definition in Technical Notes. Excludes persons of unknown age.
 () Most common cancer type.
 +Per 100,000 age-specific death rate.

Race/Ethnicity

	#1 Cause of death # of deaths / Death rate*	#2 Cause of death # of deaths / Death rate*	#3 Cause of death # of deaths / Death rate*	#4 Cause of death # of deaths / Death rate*	#5 Cause of death # of deaths / Death rate*
White 747 per 100,000	Heart disease 12,129 / 249	Cancer (Lung) 7,761 / 180	Stroke 2,483 / 49	Emphysema 2,085 / 45	Pneumonia and influenza 1,488 / 28
Hispanic 584 per 100,000	Heart disease 3,023 / 180	Cancer (Lung) 2,505 / 126	Stroke 708 / 41	Accident 701 / 20	Diabetes 639 / 35
Black 1,031 per 100,000	Heart disease 2,739 / 342	Cancer (Lung) 1,875 / 232	Stroke 591 / 75	Homicide 361 / 37	Emphysema 324 / 40
Asian/Pacific Islander 473 per 100,000	Heart disease 1,498 / 145	Cancer (Lung) 1,416 / 125	Stroke 472 / 45	Pneumonia and influenza 259 / 27	Emphysema 217 / 21

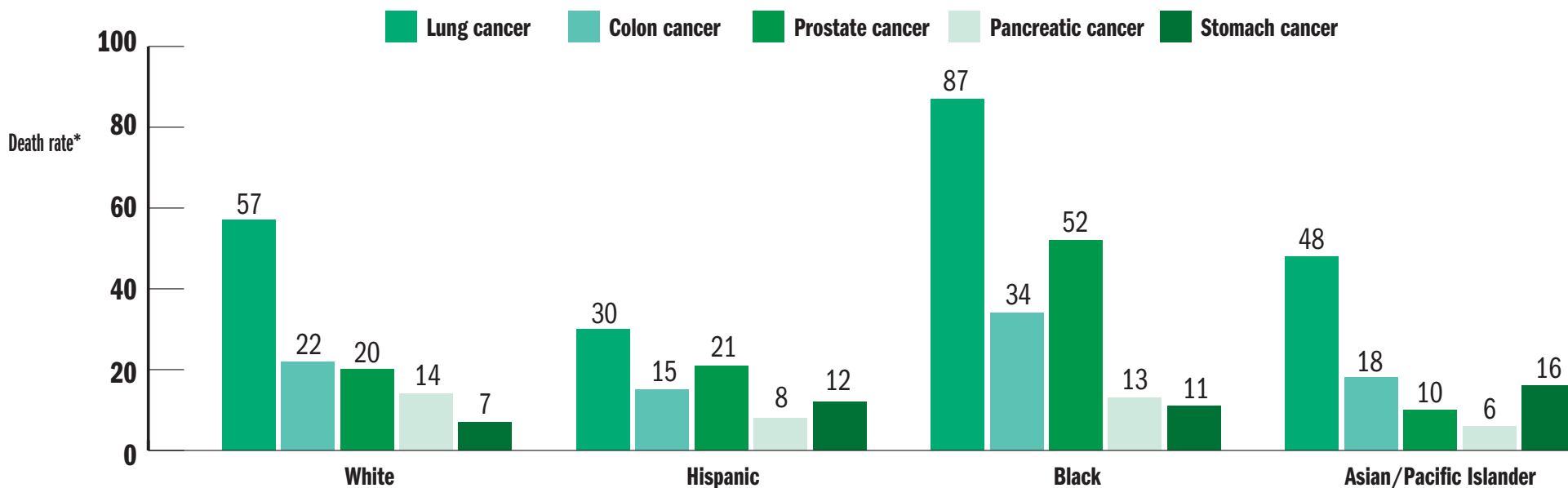
Age Group

	#1 Cause of death # of deaths / Death rate+	#2 Cause of death # of deaths / Death rate+	#3 Cause of death # of deaths / Death rate+	#4 Cause of death # of deaths / Death rate+	#5 Cause of death # of deaths / Death rate+
15-24 years 73 per 100,000	Homicide 456 / 32	Accident 245 / 17	Suicide 79 / 6	Cancer (Leukemia) 62 / 4	Heart disease 32 / 2
25-44 years 127 per 100,000	Accident 665 / 22	Cancer (Breast) 635 / 21	Heart disease 457 / 15	Homicide 439 / 14	Suicide 312 / 10
45-64 years 569 per 100,000	Cancer (Lung) 3,544 / 184	Heart disease 2,771 / 144	Accident 552 / 29	Liver disease 547 / 28	Stroke 473 / 25
65+ years 4,257 per 100,000	Heart disease 16,143 / 1,610	Cancer (Lung) 9,274 / 925	Stroke 3,662 / 365	Emphysema 2,513 / 251	Pneumonia and influenza 2,267 / 226

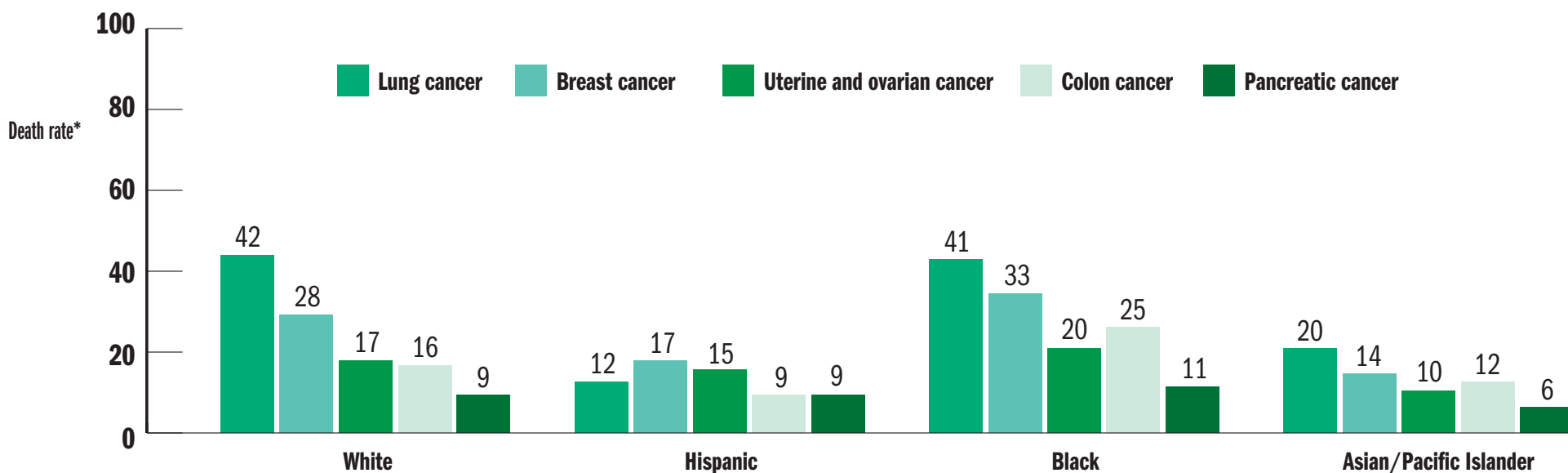
Cancer mortality rates for males and females by race/ethnicity

*Per 100,000 adjusted by age. See definition in Technical Notes. Excludes persons of unknown age.

Males



Females



() Most common cancer type.

Males

	#1 Cause of death	#2 Cause of death	#3 Cause of death
15–24 years			
White	Accident	Suicide	Homicide
Hispanic	Homicide	Accident	Suicide
Black	Homicide	Accident	Suicide
Asian/Pacific Islander	Homicide	Accident	Suicide

25–44 years

White	Accident	Heart disease	Suicide
Hispanic	Accident	Homicide	Cancer (Leukemia)
Black	Homicide	Heart disease	HIV
Asian/Pacific Islander	Cancer (Liver)	Heart disease	Suicide

45–64 years

White	Heart disease	Cancer (Lung)	Accident
Hispanic	Heart disease	Cancer (Lung)	Liver disease
Black	Heart disease	Cancer (Lung)	Accident
Asian/Pacific Islander	Cancer (Lung)	Heart disease	Stroke

65+ years

White	Heart disease	Cancer (Lung)	Stroke
Hispanic	Heart disease	Cancer (Lung)	Stroke
Black	Heart disease	Cancer (Lung)	Stroke
Asian/Pacific Islander	Heart disease	Cancer (Lung)	Stroke

Females

	#1 Cause of death	#2 Cause of death	#3 Cause of death
15–24 years			
White	Accident	Homicide	Cancer (Lymphoma)
Hispanic	Accident	Homicide	Cancer (Leukemia)
Black	Homicide	Accident	Heart disease
Asian/Pacific Islander	Accident	Cancer (N/A)	Homicide

25–44 years

White	Cancer (Breast)	Accident	Heart disease
Hispanic	Cancer (Breast)	Accident	Heart disease
Black	Cancer (Breast)	Heart disease	Accident
Asian/Pacific Islander	Cancer (Breast)	Accident	Heart disease

45–64 years

White	Cancer (Lung)	Heart disease	Emphysema
Hispanic	Cancer (Breast)	Heart disease	Diabetes
Black	Cancer (Breast)	Heart disease	Stroke
Asian/Pacific Islander	Cancer (Breast)	Heart disease	Stroke

65+ years

White	Heart disease	Cancer (Lung)	Stroke
Hispanic	Heart disease	Cancer (Lung)	Stroke
Black	Heart disease	Cancer (Lung)	Stroke
Asian/Pacific Islander	Heart disease	Cancer (Lung)	Stroke

*For children less than 1 year of age, more detailed descriptions of perinatal period conditions and birth defects are provided.

Children

Death rate **#1 Cause of death (# of deaths)** **#2 Cause of death (# of deaths)** **#3 Cause of death (# of deaths)** **#4 Cause of death (# of deaths)** **#5 Cause of death (# of deaths)**

Race/Ethnicity

White 45 per 100,000	Perinatal period condition (75)	Birth defect (43)	Accident (20)	Cancer (10)	Heart disease (7)
Hispanic 49 per 100,000	Perinatal period condition (234)	Birth defect (169)	Accident (59)	Cancer (47)	Heart disease (18)
Black 92 per 100,000	Perinatal period condition (85)	Birth defect (33)	Accident (18)	Homicide (15)	Cancer (9)
Asian/Pacific Islander 42 per 100,000	Perinatal period condition (31)	Birth defect (21)	Accident (8)	Cancer (7)	Pneumonia and influenza (2)

Gender

Males 55 per 100,000	Perinatal period condition (221)	Birth defect (148)	Accident (63)	Cancer (32)	Homicide (21)
Females 48 per 100,000	Perinatal period condition (207)	Birth defect (118)	Accident (42)	Cancer (41)	Homicide (17)

Age Group

Less than 1 year* 566 per 100,000	Prematurity/low birth weight (141)	Heart defect (82)	Perinatal period condition (70)	Birth asphyxia (27) and Bacterial infection (27)	Newborn affected by pregnancy complications (25)
1-4 years 26 per 100,000	Accident (43)	Birth defect (32)	Cancer (22)	Homicide (12)	Heart disease (6)
5-14 years 14 per 100,000	Accident (56)	Cancer (49)	Birth defect (20)	Homicide (15)	Heart disease (11)

*Excludes infants less than 1 year of age and persons of unknown age.

Ten leading causes of death

Ten leading causes of premature death*

Ten leading causes of death

Ten leading causes of premature death*

Rank	Cause of Death	# of deaths	Cause of death rank	Cause of death	Years of life lost
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Rank	Cause of Death	# of deaths	Cause of death rank	Cause of death	Years of life lost
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Males

Females

1.	Heart disease	9,541	7.	Homicide	33,731
2.	Cancer	6,817	5.	Accident	31,040
3.	Stroke	1,691	1.	Heart disease	27,589
4.	Emphysema	1,396	2.	Cancer	26,196
5.	Accident	1,386	10.	Suicide	13,097
6.	Pneumonia and influenza	1,065	11.	HIV	9,997
7.	Homicide	937	9.	Liver disease	7,343
8.	Diabetes	886	3.	Stroke	4,099
9.	Liver disease	695	8.	Diabetes	3,365
10.	Suicide	608	21.	Birth defect	3,124

1.	Heart disease	9,892	2.	Cancer	29,104
2.	Cancer	6,771	7.	Accident	12,225
3.	Stroke	2,568	1.	Heart disease	10,927
4.	Emphysema	1,535	13.	Homicide	4,472
5.	Pneumonia and influenza	1,356	3.	Stroke	3,645
6.	Diabetes	1,004	14.	Suicide	3,118
7.	Accident	635	6.	Diabetes	2,723
8.	Alzheimer's disease	596	10.	Liver disease	2,525
9.	High blood pressure and related kidney disease	406	18.	Birth defect	2,236
10.	Liver disease	315	4.	Emphysema	2,182

*Excludes infants less than 1 year of age and persons of unknown age.

Ten leading causes of death

Rank	Cause of Death	# of deaths
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White

1.	Heart disease	12,129
2.	Cancer	7,761
3.	Stroke	2,483
4.	Emphysema	2,085
5.	Pneumonia and influenza	1,488
6.	Accident	864
7.	Diabetes	775
8.	Alzheimer's disease	719
9.	Suicide	443
10.	Liver disease	416

Ten leading causes of premature death*

Rank	Cause of death	Years of life lost
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2.	Cancer	21,180
1.	Heart disease	16,102
6.	Accident	14,588
9.	Suicide	7,736
15.	HIV	3,798
18.	Homicide	3,564
10.	Liver disease	3,523
3.	Stroke	2,070
4.	Emphysema	1,950
7.	Diabetes	1,870

Black

1.	Heart disease	2,739
2.	Cancer	1,875
3.	Stroke	591
4.	Homicide	361
5.	Emphysema	324
6.	Diabetes	308
7.	Accident	300
8.	Pneumonia and influenza	270
9.	HIV	170
10.	High blood pressure and related kidney disease	149

4.	Homicide	13,019
1.	Heart disease	10,160
2.	Cancer	8,534
7.	Accident	6,872
9.	HIV	3,777
3.	Stroke	1,763
5.	Emphysema	1,509
14.	Suicide	1,348
6.	Diabetes	1,339
18.	Birth defect	976

Ten leading causes of death

Rank	Cause of Death	# of deaths
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Hispanic

1.	Heart disease	3,023
2.	Cancer	2,505
3.	Stroke	708
4.	Accident	701
5.	Diabetes	639
6.	Homicide	527
7.	Liver disease	458
8.	Pneumonia and influenza	398
9.	Emphysema	300
10.	Perinatal period condition	236

Ten leading causes of premature death*

Rank	Cause of death	Years of life lost
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6.	Homicide	19,607
4.	Accident	18,898
2.	Cancer	18,867
1.	Heart disease	9,347
10.	Suicide	5,540
7.	Liver disease	5,135
11.	HIV	4,120
3.	Stroke	2,911
16.	Birth defect	2,481
5.	Diabetes	2,432

Asian/Pacific Islander

1.	Heart disease	1,498
2.	Cancer	1,416
3.	Stroke	472
4.	Pneumonia and influenza	259
5.	Emphysema	217
6.	Diabetes	164
7.	Accident	152
8.	Kidney disease	81
9.	Suicide	78
10.	High blood pressure and related kidney disease	53

2.	Cancer	6,626
7.	Accident	2,776
1.	Heart disease	2,775
9.	Suicide	1,550
11.	Homicide	1,521
3.	Stroke	996
20.	Birth defect	606
6.	Diabetes	427
5.	Emphysema	378
14.	Benign and non-invasive cancer	199



Health District and Service Planning Area (SPA) Boundaries

SPA 1 Antelope Valley

SPA 2 San Fernando

SPA 3 San Gabriel

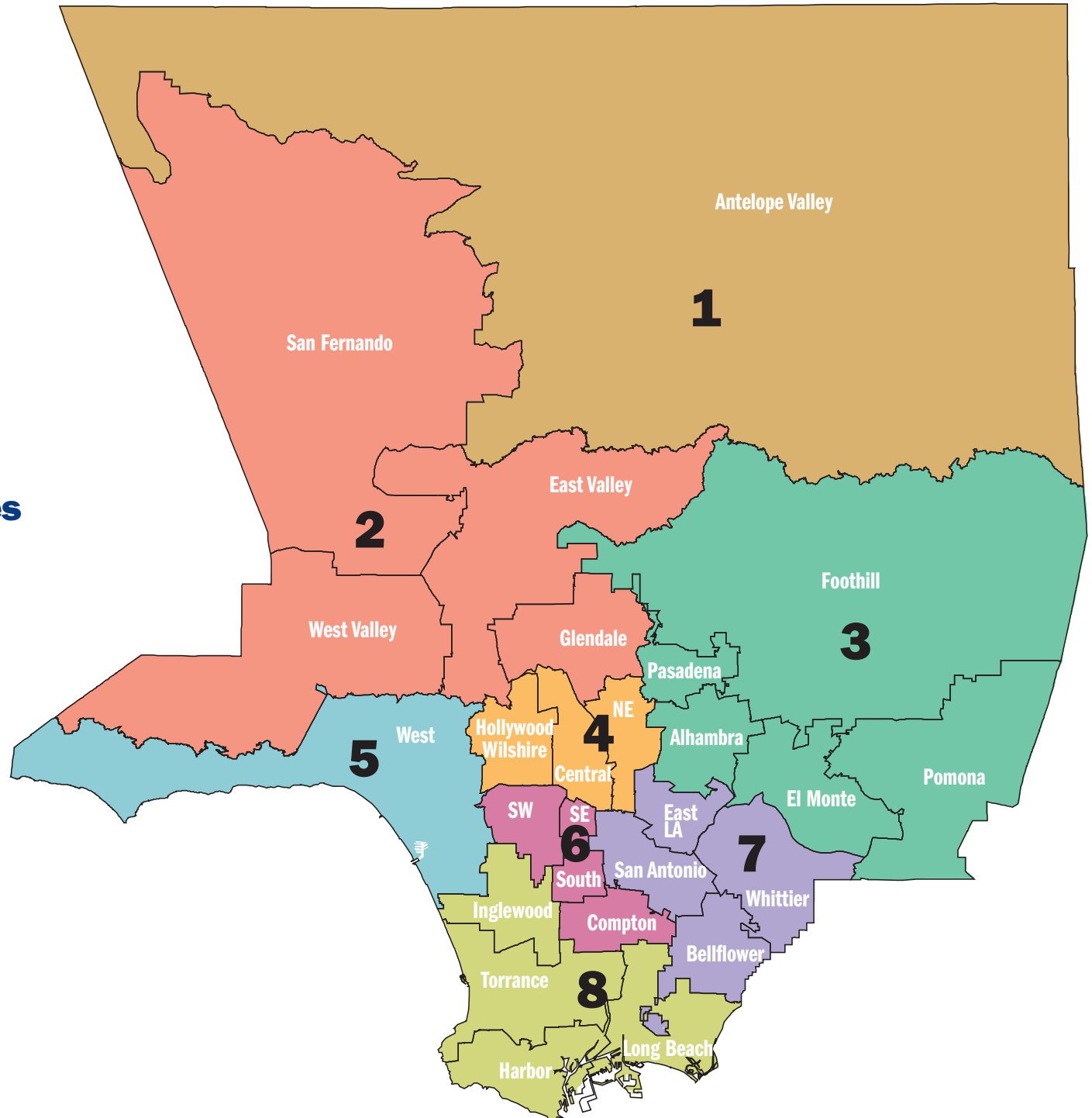
SPA 4 Metro

SPA 5 West

SPA 6 South

SPA 7 East

SPA 8 South Bay includes Catalina Island



Health Districts are outlined and labeled.

*Includes persons with unknown residence.
+Excludes infants less than one year of age and persons of unknown age.

Leading Causes of Death

Service Planning Area	#1 Cause of death (# of deaths)	#2 Cause of death (# of deaths)	#3 Cause of death (# of deaths)	#4 Cause of death (# of deaths)	#5 Cause of death (# of deaths)
L.A. County Total*	Heart disease (19,433)	Cancer (13,588)	Stroke (4,259)	Emphysema (2,931)	Pneumonia & influenza (2,421)
Antelope Valley	Heart disease (552)	Cancer (410)	Emphysema (144)	Stroke (110)	Accident (102)
San Fernando Valley	Heart disease (4,095)	Cancer (2,944)	Stroke (866)	Emphysema (559)	Pneumonia and influenza (496)
San Gabriel	Heart disease (3,628)	Cancer (2,509)	Stroke (749)	Pneumonia and influenza (529)	Emphysema (521)
Metro	Heart disease (2,163)	Cancer (1,450)	Stroke (475)	Pneumonia and influenza (335)	Emphysema (288)
West	Heart disease (1,343)	Cancer (1,057)	Stroke (368)	Pneumonia and influenza (206)	Emphysema (198)
South	Heart disease (1,923)	Cancer (1,305)	Stroke (434)	Homicide (337)	Accident (239)
East	Heart disease (2,360)	Cancer (1,622)	Stroke (493)	Emphysema (378)	Diabetes (337)
South Bay	Heart disease (3,204)	Cancer (2,229)	Stroke (733)	Emphysema (596)	Pneumonia and influenza (316)

Leading Causes of Premature Death*

Service Planning Area	#1 Cause of premature death	#2 Cause of premature death	#3 Cause of premature death	#4 Cause of premature death	#5 Cause of premature death
L.A. County Total*	Cancer	Accident	Heart disease	Homicide	Suicide
Antelope Valley	Accident	Cancer	Heart disease	Suicide	Homicide
San Fernando Valley	Cancer	Accident	Heart disease	Homicide	Suicide
San Gabriel	Cancer	Accident	Heart disease	Homicide	Suicide
Metro	Cancer	Accident	Homicide	Heart disease	HIV
West	Cancer	Heart disease	Accident	Homicide	Suicide
South	Homicide	Cancer	Heart disease	Accident	HIV
East	Cancer	Accident	Heart disease	Homicide	Suicide
South Bay	Cancer	Heart disease	Accident	Homicide	Suicide

Death rate and ranking of the five leading causes of death by SPA of residence

*Per 100,000 adjusted by age. See definition in Technical Notes. Excludes persons of unknown age.

Death rate ranking	Heart disease (Death rate*)	Cancer (Death rate*)	Stroke (Death rate*)	Emphysema (Death rate*)	Pneumonia and influenza (Death rate*)
1. Lowest death rate	West (170)	Metro (149)	West (45)	West (26)	South Bay (24)
2.	Metro (213)	West (151)	San Gabriel (46)	Metro (29)	West (25)
3.	San Fernando Valley (220)	San Gabriel (157)	Metro (46)	San Fernando Valley (31)	East (25)
4.	San Gabriel (220)	East (158)	San Fernando Valley (46)	San Gabriel (32)	San Fernando Valley (26)
5.	East (233)	San Fernando Valley (163)	East (48)	South (36)	Antelope Valley (29)
6.	South Bay (246)	South Bay (171)	Antelope Valley (53)	East (37)	San Gabriel (32)
7.	Antelope Valley (262)	Antelope Valley (183)	South Bay (56)	South Bay (46)	Metro (32)
8. Highest death rate	South (311)	South (209)	South (70)	Antelope Valley (68)	South (33)



Five leading causes of death by health district of residence

*Includes persons with unknown residence.

Leading Causes of Death

Health District	#1 Cause of death (# of deaths)	#2 Cause of death (# of deaths)	#3 Cause of death (# of deaths)	#4 Cause of death (# of deaths)	#5 Cause of death (# of deaths)
L.A. County Total*	Heart disease (19,433)	Cancer (13,588)	Stroke (4,259)	Emphysema (2,931)	Pneumonia & influenza (2,421)
Alhambra	Heart disease (805)	Cancer (573)	Stroke (199)	Pneumonia and influenza (143)	Emphysema (125)
Antelope Valley	Heart disease (552)	Cancer (410)	Emphysema (144)	Stroke (110)	Accident (102)
Bellflower	Heart disease (736)	Cancer (533)	Stroke (144)	Emphysema (127)	Diabetes (88)
Central	Heart disease (562)	Cancer (377)	Stroke (131)	Emphysema (102)	Pneumonia and influenza (93)
Compton	Heart disease (449)	Cancer (337)	Stroke (120)	Homicide (90)	Emphysema (70)
East Los Angeles	Heart disease (380)	Cancer (216)	Stroke (99)	Diabetes (73)	Emphysema (45)
East Valley	Heart disease (815)	Cancer (593)	Stroke (173)	Emphysema (124)	Accident (98)
El Monte	Heart disease (656)	Cancer (499)	Stroke (127)	Pneumonia and influenza (99)	Emphysema (98)
Foothill	Heart disease (750)	Cancer (479)	Stroke (140)	Pneumonia and influenza (103)	Emphysema (94)
Glendale	Heart disease (793)	Cancer (619)	Stroke (205)	Pneumonia and influenza (128)	Emphysema (114)
Harbor	Heart disease (390)	Cancer (312)	Stroke (101)	Emphysema (62)	Pneumonia and influenza (44)
Hollywood-Wilshire	Heart disease (1,121)	Cancer (708)	Stroke (239)	Pneumonia and influenza (162)	Emphysema (120)
Inglewood	Heart disease (726)	Cancer (527)	Stroke (165)	Emphysema (106)	Diabetes (100)
Long Beach	Heart disease (1,124)	Cancer (664)	Emphysema (247)	Stroke (217)	Accident (108)
Northeast	Heart disease (480)	Cancer (365)	Stroke (105)	Diabetes (97)	Pneumonia and influenza (80)
Pasadena	Heart disease (383)	Cancer (256)	Stroke (70)	Pneumonia and influenza (50)	Emphysema (38)
Pomona	Heart disease (1,034)	Cancer (702)	Stroke (213)	Emphysema (166)	Pneumonia and influenza (134)
San Antonio	Heart disease (570)	Cancer (393)	Stroke (104)	Emphysema (102)	Diabetes (90)
San Fernando	Heart disease (711)	Cancer (517)	Stroke (138)	Emphysema (93)	Accident (84)
South	Heart disease (304)	Cancer (207)	Stroke (73)	Homicide (68)	Diabetes (53)
Southeast	Heart disease (230)	Cancer (153)	Homicide (50)	Stroke (44)	Diabetes (32)
Southwest	Heart disease (940)	Cancer (608)	Stroke (197)	Homicide (129)	Pneumonia and influenza (110)
Torrance	Heart disease (964)	Cancer (726)	Stroke (250)	Emphysema (181)	Pneumonia and influenza (94)
West	Heart disease (1,343)	Cancer (1,057)	Stroke (368)	Pneumonia and influenza (206)	Emphysema (198)
West Valley	Heart disease (1,776)	Cancer (1,215)	Stroke (350)	Emphysema (228)	Pneumonia and influenza (211)
Whittier	Heart disease (674)	Cancer (480)	Stroke (146)	Emphysema (104)	Diabetes (86)

+Excludes infants less than one year of age and persons of unknown age.
*Includes persons with unknown residence.

Leading Causes of Premature Death*

Health District	#1 Cause of premature death	#2 Cause of premature death	#3 Cause of premature death	#4 Cause of premature death	#5 Cause of premature death
L.A. County Total*	Cancer	Accident	Heart disease	Homicide	Suicide
Alhambra	Cancer	Accident	Heart disease	Homicide	Suicide
Antelope Valley	Accident	Cancer	Heart disease	Suicide	Homicide
Bellflower	Cancer	Accident	Heart disease	Homicide	Suicide
Central	Cancer	Accident	Homicide	Heart disease	HIV
Compton	Homicide	Cancer	Accident	Heart disease	HIV
East Los Angeles	Cancer	Accident	Heart disease	Homicide	Liver disease
East Valley	Cancer	Accident	Homicide	Heart disease	Suicide
El Monte	Cancer	Accident	Homicide	Heart disease	Suicide
Foothill	Cancer	Heart disease	Accident	Homicide	Suicide
Glendale	Cancer	Accident	Heart disease	Suicide	Homicide
Harbor	Cancer	Accident	Heart disease	Homicide	Suicide
Hollywood-Wilshire	Cancer	Accident	Heart disease	Homicide	HIV
Inglewood	Homicide	Cancer	Heart disease	Accident	Suicide
Long Beach	Cancer	Heart disease	Accident	Homicide	HIV
Northeast	Cancer	Homicide	Accident	Heart disease	HIV
Pasadena	Cancer	Heart disease	Accident	Suicide	Homicide
Pomona	Cancer	Accident	Heart disease	Suicide	Homicide
San Antonio	Cancer	Homicide	Accident	Heart disease	Suicide
San Fernando	Cancer	Accident	Heart disease	Homicide	Suicide
South	Homicide	Cancer	Heart disease	Accident	Stroke
Southeast	Homicide	Cancer	Heart disease	Accident	HIV
Southwest	Homicide	Heart disease	Cancer	Accident	HIV
Torrance	Cancer	Heart disease	Accident	Suicide	Homicide
West	Cancer	Heart disease	Accident	Homicide	Suicide
West Valley	Cancer	Accident	Heart disease	Homicide	Suicide
Whittier	Cancer	Heart disease	Accident	Homicide	Suicide

*Per 100,000 adjusted by age. See definition in Technical Notes. Excludes persons of unknown age.

Death rate ranking	Heart disease (Death rate*)	Cancer (Death rate*)	Stroke (Death rate*)	Emphysema (Death rate*)	Pneumonia and influenza (Death rate*)
1. Lowest death rate	West (170)	East Los Angeles (129)	San Antonio (41)	Hollywood-Wilshire (25)	Whittier (22)
2.	Alhambra (188)	Central (141)	El Monte (42)	Pasadena (26)	Torrance (22)
3.	Glendale (189)	Alhambra (147)	Pasadena (42)	West (26)	Harbor (23)
4.	Harbor (199)	San Antonio (151)	Northeast (43)	Northeast (26)	East Los Angeles (23)
5.	Northeast (201)	West (151)	Foothill (43)	East Los Angeles (26)	South (24)
6.	Central (205)	Northeast (151)	West Valley (44)	Glendale (28)	San Fernando (24)
7.	Whittier (221)	Hollywood-Wilshire (152)	West (46)	West Valley (29)	East Valley (24)
8.	Hollywood-Wilshire (222)	Pomona (156)	San Fernando (46)	Southwest (30)	West (25)
9.	West Valley (222)	Harbor (157)	Hollywood-Wilshire (46)	Southeast (30)	Long Beach (25)
10.	Torrance (222)	West Valley (158)	Alhambra (47)	Alhambra (31)	West Valley (26)
11.	East Los Angeles (225)	El Monte (159)	Whittier (47)	Foothill (31)	Bellflower (26)
12.	San Antonio (226)	Glendale (160)	Central (48)	San Fernando (31)	Pasadena (27)
13.	El Monte (230)	Foothill (160)	Glendale (48)	Harbor (31)	Inglewood (28)
14.	Foothill (231)	Whittier (161)	Pomona (48)	Whittier (33)	San Antonio (28)
15.	Pasadena (232)	San Fernando (163)	Bellflower (49)	El Monte (34)	Southeast (29)
16.	Pomona (233)	Torrance (164)	East Valley (50)	Central (36)	Glendale (29)
17.	San Fernando (236)	East Valley (176)	Harbor (52)	East Valley (37)	Antelope Valley (29)
18.	East Valley (238)	Long Beach (177)	Antelope Valley (53)	Pomona (38)	Hollywood-Wilshire (29)
19.	Bellflower (252)	Bellflower (177)	Long Beach (55)	Inglewood (39)	Pomona (30)
20.	Antelope Valley (262)	Pasadena (178)	East Los Angeles (58)	South (39)	Foothill (31)
21.	Inglewood (264)	Inglewood (182)	Torrance (58)	San Antonio (41)	Compton (32)
22.	Long Beach (283)	Antelope Valley (183)	Inglewood (61)	Torrance (42)	Northeast (32)
23.	Southwest (304)	Southwest (201)	Southeast (63)	Bellflower (43)	Alhambra (32)
24.	Compton (306)	Southeast (206)	Southwest (63)	Compton (46)	Central (33)
25.	Southeast (323)	Compton (213)	South (77)	Long Beach (64)	Southwest (34)
26. Highest death rate	South (338)	South (225)	Compton (78)	Antelope Valley (68)	El Monte (36)

Population estimates for Los Angeles County, 2001

Los Angeles County	Age Group (years)											All ages
	Less than 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
White	27,636	110,774	328,575	319,883	408,669	514,914	483,976	329,144	247,205	218,415	94,058	3,083,249
Hispanic	91,612	366,332	916,268	770,300	810,956	641,423	397,722	203,832	122,092	64,348	20,705	4,405,590
Black	13,534	54,600	167,433	135,397	132,450	155,977	120,394	78,170	52,522	32,034	12,209	954,720
Asian/Pacific Islander	13,383	53,827	158,577	185,166	204,650	207,581	189,520	111,623	76,173	46,951	13,631	1,261,082
American Indian/Alaska Native	147	1,790	4,403	4,048	4,476	4,967	4,215	2,672	1,334	676	288	29,016
All races	146,312	587,323	1,575,256	1,414,794	1,561,201	1,524,862	1,195,827	725,441	499,326	362,424	140,891	9,733,657

Males	Age Group (years)											All ages
	Less than 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
White	14,152	56,748	168,289	162,477	209,758	269,147	245,859	162,317	114,800	90,558	30,066	1,524,171
Hispanic	46,924	187,629	468,068	399,672	421,389	325,970	189,900	92,928	51,207	25,084	6,642	2,215,413
Black	6,927	27,950	84,419	65,737	59,787	71,625	54,195	34,698	22,796	12,121	3,398	443,653
Asian/Pacific Islander	6,861	27,592	81,952	93,390	97,472	96,317	86,809	51,887	33,489	20,104	5,378	601,251
American Indian/Alaska Native	82	910	2,277	2,004	2,198	2,492	1,981	1,229	646	287	93	14,199
All races	74,946	300,829	805,005	723,280	790,604	765,551	578,744	343,059	222,938	148,154	45,577	4,798,687

Females	Age Group (years)											All ages
	Less than 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
White	13,484	54,026	160,286	157,406	198,911	245,767	238,117	166,827	132,405	127,857	63,992	1,559,078
Hispanic	44,688	178,703	448,200	370,628	389,567	315,453	207,822	110,904	70,885	39,264	14,063	2,190,177
Black	6,607	26,650	83,014	69,660	72,663	84,352	66,199	43,472	29,726	19,913	8,811	511,067
Asian/Pacific Islander	6,522	26,235	76,625	91,776	107,178	111,264	102,711	59,736	42,684	26,847	8,253	659,831
American Indian/Alaska Native	65	880	2,126	2,044	2,278	2,475	2,234	1,443	688	389	195	14,817
All races	71,366	286,494	770,251	691,514	770,597	759,311	617,083	382,382	276,388	214,270	95,314	4,934,970

United States standard population, 2000

United States	Age Group (years)											All ages
	Less than 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
All races	13,818	55,317	145,565	138,646	135,573	162,613	134,834	87,247	66,037	44,842	15,508	1,000,000

Los Angeles County Source: PEPS 2001 (Estimates), October 2002, WRMA (John Hedderson).
 United States Source: Anderson RN, Rosenberg HM. Age standardization of death rates: Implementation of the year 2000 standard. National Vital Statistics Reports; Vol. 47 No. 3. Hyattsville, Maryland: National Center for Health Statistics, 1998.

MORTALITY

IN LOS ANGELES COUNTY

2001

Leading Causes of Death and Premature Death

This report is the first in a series of annual mortality reports. Your comments will help us to make future reports more informative and useful. Please take a moment to complete the following evaluation and return it by fax or mail. Thank you for your assistance.

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Technical Notes

Mortality Reporting

When a death occurs in California, state law requires that a certificate of death be filed within eight days of death and before a decedent is buried or cremated. The certificate of death is a legal document that serves as a permanent record of the death of an individual and it provides valuable information for public health and medical research, evaluation of prevention and intervention programs, community needs assessments, policy development, and program planning.

To complete a certificate of death, the funeral director collects identifying and demographic information about the decedent from several sources including family members and medical records. The decedent's physician or the coroner, when applicable, provides information about the medical conditions or events that precipitated the death. When the certificate of death is complete it is filed with the local registrar. The local registrar in turn files the document with the State Registrar of Vital Records. State records are aggregated by the National Center for Health Statistics to create a national mortality database. Errors, omissions, and inaccuracies can occur when the death certificate is completed and later when it is processed. Some of these errors are detected and corrected; others are not.

Measures

This report provides the number of deaths, death rates standardized by age, average age at death, and years of potential life lost before age 65 for all residents of Los Angeles County and for population subgroups. Calculations of years of potential life lost were limited to persons who were at least 1 year of age at the time of death.

Infants less than 1 year of age were excluded because prevention of infant mortality differs considerably from prevention of other causes of early mortality.

A standardized coding system, the International Classification of Diseases (ICD), was used to classify causes of death and to group similar causes of death into categories used for analysis.² Cause of death groups developed by the National Center for Health Statistics were used to group causes of death into 50 categories. The ten leading causes of death were selected from the 50 categories based on the number of deaths in each group.³

When a person dies it is likely that several factors or conditions contributed to the death. For this report, we analyzed the underlying cause of death, which is the condition that most directly caused the death. By using a single cause of death rather than considering all the conditions present at the time of death the number of deaths and rates in this report represent the minimum impact of certain diseases and conditions. The variables included in the analysis were age at death, gender, race/ethnicity, underlying cause of death, and service planning area and health district of residence.

Definitions

Death Rate

The death rate is the number of deaths divided by the population at risk. Death rates make comparisons between different population groups more meaningful. This type of rate is also called the crude death rate.

Death Rate (Adjusted by Age)

There are age-related differences in the rate at which most health conditions occur. Some conditions are more common among young people while others are more common among older people. Because of differences in the death rate among different population groups it is difficult to compare the crude death rate of populations that have different age structures. To control for differences in the age structure of the populations being compared, the death rates for each population group are applied to a *standard* population to create a comparable summary measure of mortality. In this report death rates adjusted by age were calculated using the 2000 standard population published by the National Center for Health Statistics.⁴ All rates were rounded to the nearest whole number. Rankings were assigned before the rates were rounded, therefore, rates that appear the same differ by a fractional amount.

2. *International statistical classification of diseases and related health problems, tenth revision*. Geneva: World Health Organization, 1992.

3. *Instruction manual, Part 9. ICD-10 cause-of-death lists for tabulating mortality statistics*. Available at: http://www.cdc.gov/nchs/data/dvs/im9_2002.pdf.

4. Anderson RN, Rosenberg HM. *Age standardization of death rates: Implementation of the year 2000 standard*. *National Vital Statistics Reports*; Vol. 47 No. 3. Hyattsville, Maryland: National Center for Health Statistics, 1998.