PATTERNS OF MORTALITY IN
LOS ANGELES COUNTY
2008-2017

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Message from the Director

Just as health care providers assess the individual needs of their patients, health departments are responsible for "taking the pulse" of their communities. We at the Los Angeles County Department of Public Health gain valuable insights from our many community partners on the most pressing health challenges facing their communities and the strategies to best address them. In addition, we rely on a variety of data sources to assess the health of the population and the underlying social, economic, and environmental conditions that impact health. One of the most important data sources is the information contained on death certificates, which are recorded for almost all the nearly 60,000 deaths in the county each year.

In this report, *Patterns of Mortality in Los Angeles County*, we describe recent trends in mortality countywide, in specific regions of the county, and in various sub-populations defined by gender, age group, and race/ethnicity. The statistics reveal important patterns that highlight significant inequities in health across our different communities and population groups. In addition, the report indicates that the steady progress made in reducing mortality over past decades has stalled, and in some groups mortality has even increased.

We provide this information with the recognition that the observed patterns of mortality raise as many questions as they answer. Most importantly, how do we more effectively address the longstanding inequities in mortality, and in health overall, seen across the county? How do we return to a path of sustained reductions in mortality and improvements in health? How do we best address the leading causes of mortality and premature mortality in the county population? The answers to these questions have important implications for ensuring that all county residents have the opportunities, resources, and support to achieve optimal health and well-being.

We offer this report with the hope that your perspectives and insights on the findings will help create a deeper understanding of the actions needed to address the observed inequities in our communities, and that the report will support your efforts, and our collective efforts, to maximize the health of our residents.

If you have suggestions, questions, or other feedback, please do not hesitate to contact us at epi@ph.lacounty.gov.

In gratitude,

Barbara Ferrer, PhD, MPH, MEd
Director, Los Angeles County Department of Public Health

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Introduction

Mortality is one of the most fundamental indicators of the health of a population. Although mortality statistics provide a relatively incomplete picture of the overall health of a population, these statistics include important information on the leading causes of death which, in turn, inform health care and public health planning and resource allocations as well as priorities for research and prevention. In addition, these statistics identify populations and communities disproportionately impacted by excess mortality, helping to better focus resources for treatment and prevention, including strategies to address the inequitable societal conditions that contribute to the disproportionately high rates of mortality in some groups. Mortality data also provide important information for identifying and characterizing emerging public health threats. For example, after many decades of steady decline in mortality in the U.S., alarming increases in mortality have been observed in many regions of the nation over the last several years, a trend that has been largely attributed to rising rates of drug overdose deaths and suicides.[1]

In this report, data are presented on the leading causes of death and premature death in Los Angeles County. Premature death is defined as a death before 75 years of age, a standard cut-off used in mortality analyses. Data on mortality trends are presented for the period 2008 through 2017, the last year for which data on all deaths, including deaths among county residents that occurred outside the county, are available. Data are presented for the total county population and are also broken out by gender, age group, race/ethnicity,* and geographic region (as defined by Service Planning Area) to highlight disparities in mortality seen across different populations in the county. The observed disparities are to a large degree fueled by inequitable social, economic, and environmental conditions experienced by these groups. These conditions are frequently referred to as the social determinants of heath.

Key findings are presented in the body of the report. Additional detailed data tables, figures, and technical notes are provided in the appendices.

Trends in Mortality

- From 2008 to 2017, the mortality rate[†] in Los Angeles County decreased by 6.2%, from 629 deaths to 590 deaths per 100,000 population. However, all of this decrease occurred between 2008 and 2012. From 2012 to 2017 the mortality rate did not decline for females, and among males increased 3.1%, from 688 deaths to 709 deaths per 100,000 (Figure 1).

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*Much of this report presents data for four racial/ethnic groups (Latino, white, black, and Asian). Due to small population sizes for Native Hawaiians and other Pacific Islanders and for American Indians/Alaska Natives data for these groups are presented, where possible, as an aggregated four-year estimate (2014-2017).

†All mortality rates are age-adjusted using the 2000 US Standard Population except for the age-specific mortality rates.

- Mortality was higher among males than females throughout the 10-year period. In 2017, the mortality rate for males (709 deaths per 100,000) was 44% higher than the rate for females (492 deaths per 100,000) (Figure 1).

Figure 1: Mortality Rate in Los Angeles County and by Gender, 2008-2017
Mortality Rate Significantly Higher for Males Though Overall Decline in Past 10 Years
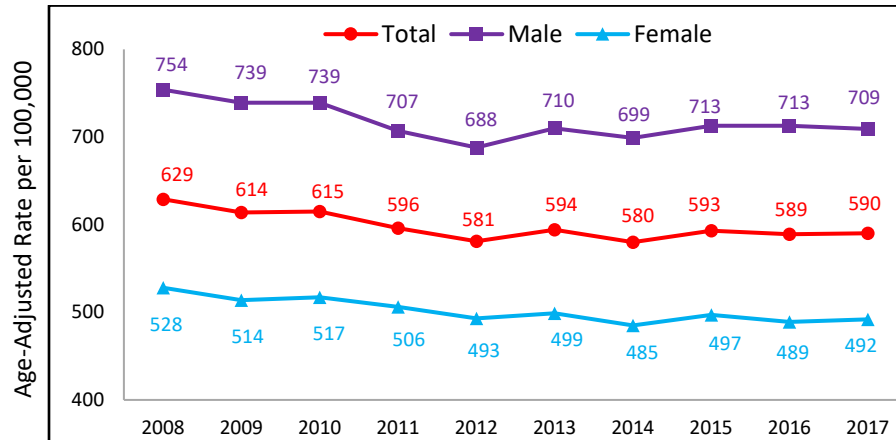
- Wide disparities were also observed by race/ethnicity. Throughout the 10-year period, the mortality rate was highest among blacks, followed by whites, Latinos, and Asians, with no appreciable change in the magnitude of the disparities (Figure 2).

- From 2012 to 2017, the mortality rate increased 6.7% among Latinos, 6.6% among Asians, and 2.3% among blacks (Appendix D, Table D-16).

Figure 2: Mortality Rate in Los Angeles County and by Race/Ethnicity[†], 2008-2017
Mortality Rate Consistently the Highest among Blacks for Past 10 Years
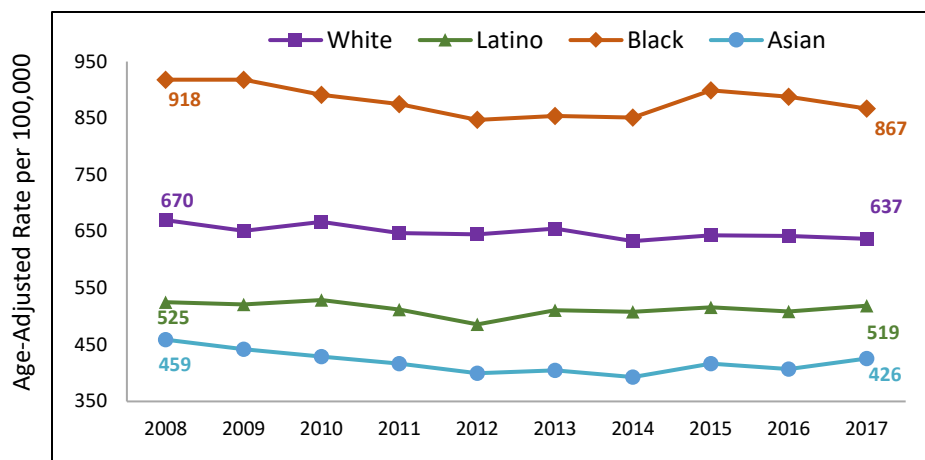
†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiians and other Pacific Islanders). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

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- Although we were unable to reliably track annual trends in deaths among American Indians/Alaska Natives (AIANs) and Native Hawaiians and other Pacific Islanders (NHOPIs) due to small population sizes, the four-year average mortality rates in these two groups were 802 and 991 per 100,000, respectively, in 2014-2017 (Figure 3).

Figure 3: Mortality Rate for Native Hawaiian and Other Pacific Islander and for American Indian/Alaska Native, 2014-2017
Both Groups Have Higher Mortality Rates Compared to LA County Overall
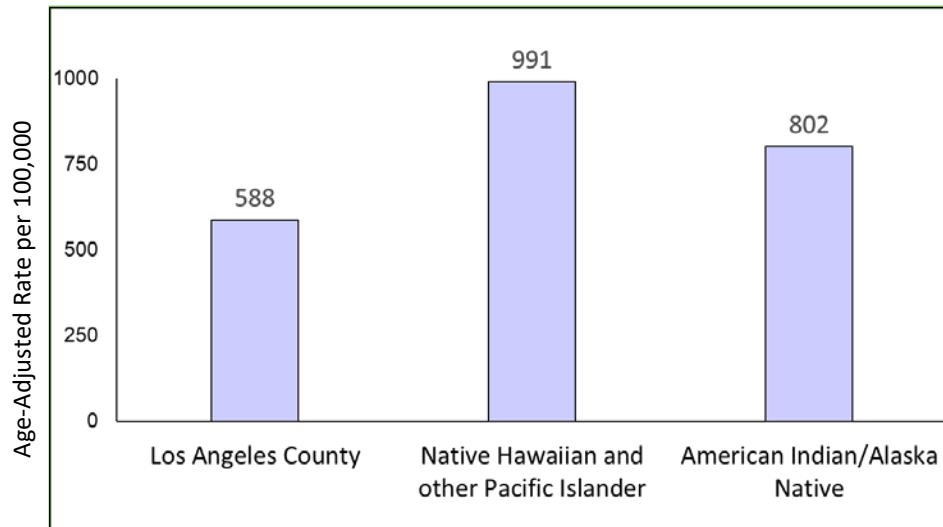
*Because of the small number of annual deaths among Native Hawaiians and other Pacific Islanders and for American Indians/Alaska Natives, a four-year average was calculated from data for 2014-2017; for comparison purposes, the Los Angeles County rate presented here is also a 2014-2017 four-year average.

- The mortality rate among all age groups declined from 2008 to 2017; the largest decline was seen among the 0-17 year age group (Table 1).

Table 1: Crude Mortality Rates & Number of Deaths in Los Angeles County by Age Group
Past 10 Years Saw One-Third Decline in Crude Mortality Rate (CMR) for Ages 0-17 Years

	2008		2017		2008-2017
	# of Deaths	CMR*	# of Deaths	CMR*	CMR % Change
0-17 years	1,201	48	738	32	-33%
18-44 years	3,837	95	3,705	92	-3%
45-64 years	11,439	498	12,388	464	-7%
65+ years	41,042	3,901	46,896	3,564	-9%

* for 100,000 population

- The mortality rate decreased in all eight Services Planning Areas (SPAs) of the county except the Antelope Valley SPA (Table 2).

- In addition, among the SPAs, Antelope Valley (SPA 1) had the highest mortality rate in 2017 (819 deaths per 100,000), followed by the South LA SPA (SPA 6; 735 deaths per 100,000). The West LA SPA (SPA 5) had the lowest mortality rate (476 per 100,000), and also had the largest decrease (11%) in mortality from 2008 to 2017.

Table 2: Mortality Rates & Number of Deaths in Los Angeles County by Service Planning Area
Only the Antelope Valley SPA Had an Increase in Mortality Rate in the Last 10 Years

	2008		2017		2008-2017
	# of Deaths	Death Rate*	# of Deaths	Death Rate*	Death Rate % Change
SPA 1: Antelope Valley	2,165	795.4	2,759	818.5	3%
SPA 2: San Fernando Valley	12,259	603.7	13,840	567.7	-6%
SPA 3: San Gabriel Valley	10,616	594.8	11,841	554.5	-7%
SPA 4: Metro LA	6,210	575.7	6,416	522.8	-9%
SPA 5: West LA	4,112	533.5	4,105	475.6	-11%
SPA 6: South LA	5,614	794.7	6,005	735.0	-8%
SPA 7: East	7,130	619.7	7,817	600.0	-3%
SPA 8: South Bay	9,415	649.6	10,646	636.1	-2%

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

Mortality and Income

In most populations around the world, mortality is inversely related to socioeconomic status, as measured by levels of income, education, or employment. For example, mortality rates are typically higher among populations with lower average incomes than higher average incomes. This relationship reflects a complex array of factors related to privilege, wealth, power, and opportunity as well as access to healthcare and other supportive services.

To assess the relationship between income and mortality in Los Angeles County, all persons who died in 2017 were grouped into four income groups, from lowest to highest, based on the median household income of the census tract in which they resided at the time of their death. This measure of income, while limited, was used because the death certificate data used for the analysis did not include information on an individual's level of income or wealth at the time of death. Results are shown in Figure 4.

Figure 4: Mortality Rates by Race/Ethnicity and Census Tract-Level Median Household Income, 2017

Mortality Rate Was Highest Among Blacks Within All Income Groups
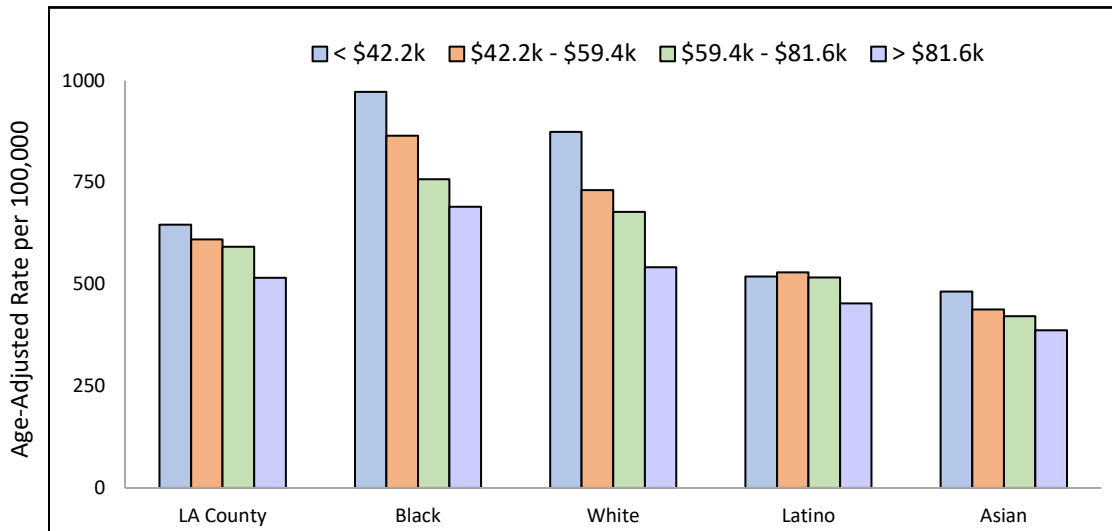
Data sources:
Median Household Income (MHHI): U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates [B19013: MEDIAN HOUSEHOLD INCOME IN THE PAST 12 MONTHS – Universe: Households]
Population: July 1, 2017 Population Estimates, prepared by Hedderson Demographic Services for Los Angeles County Internal Services Department, 5/7/2018

- In the overall county population, mortality was highest among those in the lowest income group (646 deaths per 100,000 population) and steadily decreased to a low of 516 deaths per 100,000 in the highest income group.

- This inverse relationship was seen in all racial/ethnic groups but was most pronounced among blacks and whites.

- Within income groups, large disparities in mortality remained. For example, among populations in the lowest income group, the mortality rate was highest among blacks (972 deaths per 100,000) followed by whites (874 deaths per 100,000), Latinos (519 deaths per 100,000), and Asians (482 deaths per 100,000).

- Mortality among blacks and whites in the highest income group (690 deaths and 542 deaths per 100,000, respectively) was higher than mortality among Latinos and Asians in all income groups, even the lowest (519 deaths and 482 deaths per 100,000, respectively).

Leading Causes of Death

The leading causes of death for 2017 are shown in Table 3. More detailed information on the leading causes of death and the trends are presented in Appendix B (Tables B-1 to B-6) and Appendix D (Tables D-1 to D-16 and Figure D-1). Highlights include the following:

Table 3: Mortality Rates and Number of Deaths for the Top 10 Leading Causes of Death
Largest 10-Year Increase in Mortality Rate was for Alzheimer's Disease & Hypertension

	2008		2017		2008-2017
	# of Deaths	Death Rate*	# of Deaths	Death Rate*	Death Rate % Change
Coronary Heart Disease (CHD)	13,428	145.6	11,211	102.9	-29%
Alzheimer's Disease	2,121	22.6	4,179	38.7	71%
Stroke	3,280	35.9	3,749	35.0	-2%
COPD¥	2,889	32.3	2,927	27.6	-15%
Diabetes Mellitus	2,190	24.2	2,658	24.7	2%
Lung Cancer	2,910	32.9	2,556	24.0	-27%
Pneumonia/Influenza	2,171	23.6	1,957	18.4	-22%
Colorectal Cancer	1,365	15.0	1,449	13.4	-10%
Liver Disease/Cirrhosis	1,134	11.9	1,412	12.5	5%
Hypertension	900	10.1	1,402	13.0	29%

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.
¥Chronic Obstructive Pulmonary Disease

- The leading cause of death¥ in Los Angeles County in 2017 was coronary heart disease, accounting for 11,211 (17.7%) of the 63,429 total deaths that occurred in the county population that year, equating to a mortality rate of 103 deaths per 100,000.

- The next five leading causes of death were Alzheimer's disease (39 deaths per 100,000), stroke (35 deaths per 100,000), chronic obstructive pulmonary disease (28 deaths per 100,000), diabetes (25 deaths per 100,000), and lung cancer (24 deaths per 100,000).

- The mortality rate associated with most of the leading 10 causes of death decreased between 2008 and 2017, with the largest decrease seen for coronary heart disease mortality (29% decrease). A notable exception was Alzheimer's disease, which increased 71% over this 10-year period. Liver disease/cirrhosis increased 5%.

¥ Causes of death are based on the underlying cause of death reported on the death certificate. Additional information regarding this is presented in Appendix A.

- The leading causes of death in 2017 varied by age group (Appendix B, Table B-3). For example,
  - among those 5-14 years of age, motor vehicle crash was the leading cause of death;
  - among those 15-24 years of age, homicide was the leading cause of death;
  - among those 25-44 years of age, drug overdose was the leading cause of death; and
  - among those 45 and older, coronary heart disease was the leading cause of death.

- Significant disparities in cause-specific mortality rates were observed across gender and racial/ethnic groups (Appendix B, Tables B-1 to B-6; Appendix D, Tables D-1 to D-16). For example, in 2017,
  - coronary heart disease mortality was approximately two times higher among blacks (158 deaths per 100,000) and one and one-half times higher among whites (117 deaths per 100,000) than among Latinos (81 deaths per 100,000), and Asians (75 per 100,000), with the highest rate among black men (202 deaths per 100,000) and the lowest rate among Asian women (57 deaths per 100,000);
  - homicide mortality was higher among men than women for all racial/ethnic groups; and was nearly 20 times higher among black men (38 deaths per 100,000) than among Asian men (2 deaths per 100,000) (Figure 5);

Figure 5: Homicide Mortality Rate by Gender and Race/Ethnicity, 2017
Black Males Homicide Mortality Rate Substantially Higher than Other Groups
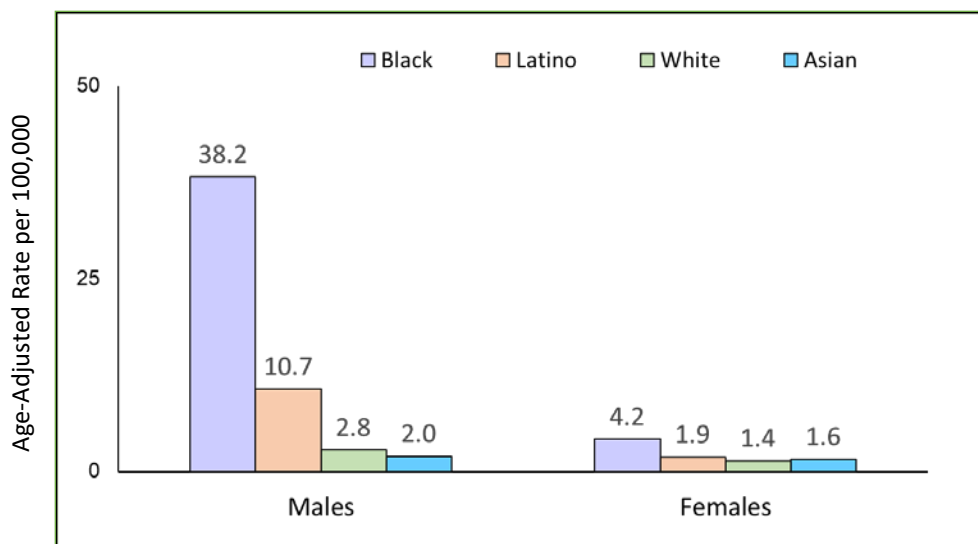
  - liver disease mortality was nearly two times higher among Latinos (19 deaths per 100,000) than among blacks and whites (10 and 11 deaths per 100,000, respectively), and almost five times higher than among Asians (4 deaths per 100,000); among Latinos, the rate was nearly three times higher among men (29 deaths per 100,000) than among women (11 deaths per 100,000);

- the rate of suicide was nearly two times higher among whites (13 deaths per 100,000) than among Asians and blacks (7 deaths per 100,000) and more than two times higher than among Latinos (5 deaths per 100,000). Rates varied by gender and race/ethnicity (Figure 6)

Figure 6: Suicide Mortality Rate by Gender and Race/Ethnicity, 2017
White Males Suicide Mortality Rate Over Twice Most Other Groups
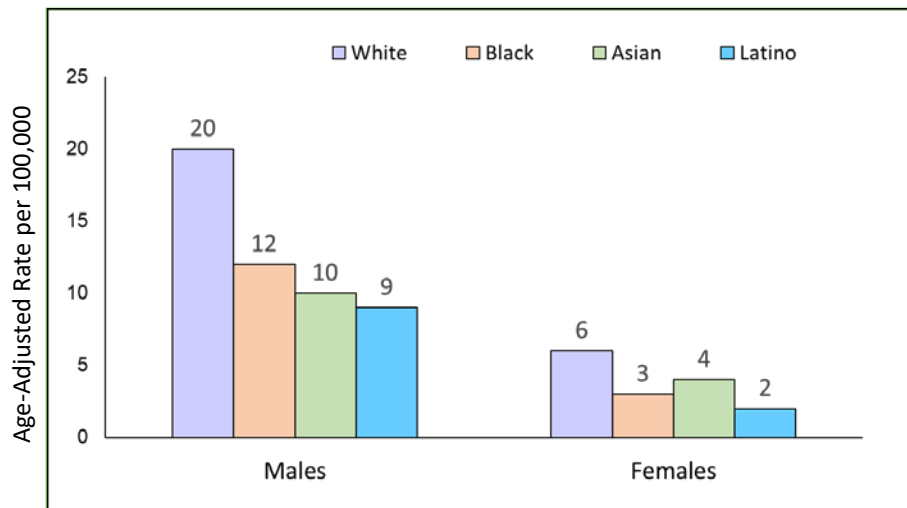
- Similar to other racial/ethnic groups, the leading cause of death for Native Hawaiians and other Pacific Islanders and for American Indians/Alaska Natives was coronary heart disease with 152 and 116 deaths, respectively.*
- The second leading cause of death for Native Hawaiians and other Pacific Islanders was diabetes (52 deaths) and the third leading cause was lung cancer (41 deaths).*
- Stroke was the second leading cause of death (40 deaths) for American Indians/Alaska Natives, and diabetes was the third leading cause of death (38 deaths).*

- Significant disparities in cause-specific mortality were also observed across geographic areas (Appendix D, Tables D-1 to D-16). For example,
    - the rate of homicide was nearly two times higher in the South LA SPA (15 deaths per 100,000) than in any other SPA; and
    - motor vehicle crash mortality was nearly two times higher in the Antelope Valley SPA (23 deaths per 100,000) than in any other SPA.

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*The number of deaths from 2014-2017 were combined due to small sample sizes for Native Hawaiians and other Pacific Islanders (NHOPIs) and for American Indians/Alaska Natives (AIANs).

Leading Causes of Premature Death

The leading causes of premature death, or years of potential life lost (YPLLs) before the age of 75, were assessed for the total county population (Table 4), and by gender, race/ethnicity, and SPA. Detailed results are provided in Appendix C (Tables C-1 to C-5). Highlights are provided below:

Table 4: Years of Potential Life Lost (YPLLs) for the Top 10 Leading Causes of Premature Death, 2017

Unintentional Drug Overdose Was the Second Leading Cause of Premature Death

Rank	Leading Cause of Premature Death	YPLLs
1	CHD	51,515
2	Drug Overdose (Unintentional)	27,743
3	Suicide	26,016
4	Motor Vehicle Crash	25,915
5	Homicide	24,769
6	Liver Disease/Cirrhosis	21,604
7	Diabetes Mellitus	19,102
8	Stroke	16,085
9	Lung Cancer	13,427
10	Breast Cancer	12,224

- The leading cause of premature death in the overall county population was coronary heart disease, followed by drug overdose, suicide, motor vehicle crashes, and homicide.

- The leading causes of premature death varied by gender, race/ethnicity, and geographic region. For example,
  - although coronary heart disease was the leading cause of premature death for both males and females, homicide was the second leading cause among males while breast cancer was the second leading cause among females;
  - coronary heart disease was also the leading cause of premature death among the four racial/ethnic groups examined; however, drug overdose was the second leading cause among whites, homicide the second leading cause among blacks and Latinos, and suicide the second leading cause among Asians;
  - coronary heart disease was the leading cause of premature death for Native Hawaiians and other Pacific Islanders and for American Indians/Alaska Natives;*
  - the second and third leading causes of premature death for Native Hawaiian and other Pacific Islanders were conditions originating in the perinatal period and homicide, respectively;*
  - for American Indians/Alaska Natives, the second leading cause of premature death was drug overdose and the third leading cause was liver disease/cirrhosis;*

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*The number of deaths from 2014-2017 were combined due to small sample sizes for Native Hawaiians and other Pacific Islanders (NHOPIs) and American Indians/Alaska Natives (AIANs).

o among the SPAs, coronary heart disease was the leading cause of premature death in San Fernando Valley (SPA 2), San Gabriel Valley (SPA 3), Metro LA (SPA 4), East (SPA 7), and South Bay (SPA 8), whereas motor vehicle crashes were the leading cause of premature death in Antelope Valley (SPA 1), drug overdose the leading cause in West LA (SPA 5), and homicide the leading cause in South LA (SPA 6).

Discussion

These findings indicate both favorable and unfavorable recent trends in mortality in Los Angeles County. On the positive side, mortality for many of the leading causes of death have declined in recent years. Of note, mortality from coronary heart disease, the leading cause of death in the county population, declined by approximately one-third between 2008-2017. This pattern has also been observed nationally and has been attributed to improved medical care for those with heart disease, more aggressive treatment of risk factors such as high blood pressure and elevated cholesterol and other lipid levels, and successful primary prevention efforts focused on reducing smoking, increasing physical activity, and improving nutrition.[2] The decline in lung cancer mortality also reflects successful prevention efforts that have greatly reduced rates of smoking, though concern remains that the recent proliferation of electronic cigarette use (i.e., vaping) among youth and young adults may produce a new generation addicted to nicotine.[3]

Despite these positive trends, the historical decline in overall mortality in the county population appears to have stalled since 2012 and in some groups mortality is even increasing. Further research is needed to better understand the factors contributing to this lack of continued progress in reducing mortality. Studies suggest that illicit and prescription drug misuse and mental health conditions have contributed to a recent increase in mortality in some regions of the country.[4,5,6] In Los Angeles County, drug misuse is also a likely contributing factor, as the rate of drug overdose deaths increased 28% between 2008 and 2017. In addition, both the number and the rate of deaths associated with homelessness have increased across the county in recent years.[7]

Though mortality has declined in the county for many of the leading causes of death, there has been a lack of progress in reducing the large, long-standing disparities in mortality seen across demographic groups. These disparities stem from systemic inequities, in many cases rooted in racism, that persist in many of our institutions and have led to these profound health inequities. For example, inequities in access to high-quality education and employment opportunities as well as discriminatory housing practices have created socioeconomic inequities that, in turn, have contributed to the disproportionately high rates of mortality among blacks and Native Americans.[8,9] Studies have shown that negative social experiences, such as discrimination, are also linked to higher mortality rates.[10] Poor health outcomes and disproportionately high mortality rates among Native Hawaiians and other Pacific Islanders also have been attributed to socioeconomic disadvantages and historical trauma resulting from colonization.[11,12] The relatively low mortality rate among Latinos, despite having a high level of

poverty, has been observed throughout the southwest U.S. and has been referred to as the Latino health paradox,[13] thought in part to reflect a generally strong health profile among immigrant Latinos. However, high rates of obesity and diabetes among both U.S.-born and immigrant Latinos in the county[14] threaten to eliminate this health advantage in the coming decades.

Large disparities in mortality across geographic regions of the county have also persisted over the past decade, with the highest mortality rates seen in the Antelope Valley and South Los Angeles SPAs. However, the patterns of mortality across these regions differ. For example, although the rate of homicide decreased 29% countywide from 2008 to 2017, the rate remained two times higher in the South Los Angeles SPA than in any other SPA. In the Antelope Valley SPA, the mortality rate associated with motor vehicle crashes was two times higher than in any other SPA, possibly reflecting longer distances traveled at high speeds on open highways among residents of this SPA relative to other SPAs.

Another concerning trend is the rise in Alzheimer's disease mortality. Because the mortality rates were age-adjusted, the rising rate cannot be attributed to the aging of the county population. The high rate could, in part, reflect an increased awareness of and screening for Alzheimer's disease in the senior population, as well as increased reporting of Alzheimer's disease on death certificates. These issues notwithstanding, the rising mortality associated with Alzheimer's disease in the county, along with the aging of the county's population, suggest that meeting the health care and social service needs of those with this condition will be a major challenge in the coming years.

Health equity is when everyone has access to the goods, services, resources and power they need for optimal health and well-being

This analysis has several important limitations. First, the statistics on leading causes of death are based on what was reported as the underlying cause of death on the death certificate and do not include other conditions listed as contributing causes of death. In addition, the analysis does not account for conditions that rarely appear on deaths certificates but, nonetheless, are important sources of morbidity, such as depression and other mental health conditions. Second, the analyses by race/ethnicity were done using very broad racial/ethnic categories to ensure large enough numbers of deaths in each group to allow for analysis of trends. However, these analyses do not account for the considerable ethnic variation in mortality within these groups, particularly among Asians and Latinos.[15] Third, though the analysis showed an inverse relationship between neighborhood income and mortality in each of the racial/ethnic groups examined, a more detailed assessment of the relationship between economic, social, and environmental factors and mortality could not be done because of limited data. These factors are known to be strong predictors of life expectancy and important contributors to the significant health inequities seen across many populations.[10,16,17,18]

Despite these limitations, the results highlight important trends and disparities in mortality that should be considered in planning and prioritizing healthcare services and community health improvement efforts. The perspectives of community organizations and residents will be important for better understanding the factors contributing to the large and unremitting health inequities reflected in these mortality statistics and to more effectively mobilize efforts to address these factors.

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APPENDIX A

TECHNICAL NOTES

When a death occurs in California, state law requires that a death certificate be registered within eight days of death and before a decedent is buried or cremated. The death certificate is a legal document that serves as a permanent record of the death of an individual. To complete a certificate of death, the funeral director or medical facility collects identifying and demographic information about the decedent from family members and medical records. The decedent's physician or the coroner provides information about the medical conditions or events that precipitated the death. When the death certificate is complete, it is registered with the local registrar using the Electronic Death Registration System.[1] Then, the local registrar submits the document to the State Registrar of Vital Records. State records are then aggregated by the National Center for Health Statistics to create an annual national mortality database. There is a delay of about two years before the annual national mortality database is available for use, although the use of electronic death registration systems are helping to shorten this timeframe. Errors, omissions, and inaccuracies can occur when the death certificate is completed and later when it is processed. This report summarizes information obtained from certificates of death (Figure A-1) for all Los Angeles County residents who died in 2017 and mortality trends for 2008 through 2017. While it cannot provide information about every cause of death, it lays the groundwork for future analyses and provides valuable information for public health and medical research, evaluation of prevention and intervention programs, community needs assessments, policy development, and program planning. Certificates of death data represent an important endpoint in the spectrum of disease and help us to better understand the burden of disease in our community. Because certificates of death are required by state law, they provide a readily available, and consistently and continuously collected, source of information on a wide range of health conditions.

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[1] The Electronic Death Registration System (EDRS) is an Internet system for death certificate origination and registration that enables coroners, funeral directors, doctors, and hospitals to submit death certificates for registration 24 hours per day. This results in improved efficiency, faster registration, and improved data quality. EDRS was first implemented in Los Angeles County in October 2007.

Figure A-1: Sample California Certificate of Death

PREMATURE DEATH: WHAT IS IT?

For this report, we defined premature death as death that occurred before 75 years of age, a standard cut-off used in public health. In 2017, 44% of the people who died were less than 75 years of age.

MEASURES

This report provides the numbers of deaths, death rates, and years of potential life lost (YPLL; before age 75) for the leading causes of death and premature death for 2017 and the ten-year period of 2008 through 2017 for Los Angeles County residents. The variables included in the analysis are age at death, gender, race/ethnicity, Service Planning Area of residence, and underlying cause of death. To protect the identity of decedents, the exact number of deaths was not provided if there were fewer than five deaths in a particular group.

If we expect everyone to live to at least 75 years of age, then people who die younger are considered to have died prematurely. For example, a person who died at 63 years of age lost 12 years of expected life, while a person who died at age 80 did not lose any years of expected life. For everyone who died during the year, we calculated the years of expected life that were lost if they died before 75. By adding up the total YPLL for each cause of death, we identified those causes of death responsible for the greatest amount of premature death.

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 for analysis.[2] The cause-of-death groups were based on categories developed by the National Center for Health Statistics.[3] A full list of the causes of death in this report is provided in Tables A-1a and A-1b. To identify the leading causes of death, cause-of-death groups were ranked by the number of deaths in each group. If two groups had the same number of deaths, then the cause of death that resulted in the most YPLL was ranked first. To identify the leading causes of premature death, the groups were ranked by the YPLL in each group. If two causes of death resulted in the same number of YPLL, then the group that resulted in the greatest number of deaths was ranked first.

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 do not reflect the full impact of certain diseases and conditions.[4]

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[2] International statistical classification of diseases and related health problems, tenth revision. Geneva: World Health Organization, 1996.

[3] National Center for Health Statistics, National Vital Statistics System. ICD–10 cause-of-death lists for tabulating mortality statistics (updated September 2018 to include WHO updates to ICD–10 for data year 2017). NCHS Instruction Manual, part 9. Hyattsville, MD. 2018.

[4] Redelings MD, Sorvillo F, Simon P. A comparison of underlying cause and multiple causes of death: U.S. vital statistics, 2000-2001. *Epidemiology*. 2006 Jan;17(1):100-3.

Table A-1a: ICD Codes for Leading Causes of Death

No.	Cause of death	ICD10 codes
1	Accidental discharge of firearms	W32, W33, W34.
2	Accidental drowning and submersion	W65, W66, W67, W68, W69, W70, W73, W74.
3	Accidental exposure to smoke, fire and flames	X00, X01, X02, X03, X04, X05, X06, X08, X09.
4	Accidental poisoning and exposure to noxious substances excluding drug overdose	X46, X47, X48, X49.
5	Acute and rapidly progressive nephritic and nephrotic syndrome	N00, N01, N04.
6	Acute bronchitis and bronchiolitis	J20, J21.
7	Acute poliomyelitis	A80.
8	Acute rheumatic fever and chronic rheumatic heart diseases	I00, I01, I02, I05, I06, I07, I08, I09.
9	All other and unspecified malignant neoplasms	C17, C23, C24, C26, C30, C31, C37, C38, C39, C40, C41, C44, C45, C46, C47, C48, C49, C51, C52, C57, C58, C60, C62, C63, C66, C68, C69, C73, C74, C75, C76, C77, C78, C79, C80, C97.
10	Alzheimer's disease	G30.
11	Anemias	D50, D51, D52, D53, D55, D56, D57, D58, D59, D60, D61, D62, D63, D64.
12	Aortic aneurysm and dissection	I71.
13	Arthropod-borne viral encephalitis	A83, A84, A85.2.
14	Asthma	J45, J46.
15	Atherosclerosis	I70.
16	Breast cancer	C50.
17	Certain conditions originating in the perinatal period	P00.0, P00.1, P00.2, P00.3, P00.4, P00.5, P00.6, P00.7, P00.8, P00.9, P01.0, P01.1, P01.2, P01.3, P01.4, P01.5, P01.6, P01.7, P01.8, P01.9, P02.0, P02.1, P02.2, P02.3, P02.4, P02.5, P02.6, P02.7, P02.8, P02.9, P03, P04, P05, P07.0, P07.1, P07.2, P07.3, P08, P10, P11, P12, P13, P14, P15, P20, P21, P22, P23, P24, P25, P26, P27, P28.0, P28.1, P28.2, P28.3, P28.4, P28.5, P28.8, P28.9, P29, P35, P36, P37, P38, P39, P50, P51, P52, P53, P54, P55, P56, P57, P58, P59, P60, P61, P70.0, P70.1, P70.2, P70.3, P70.4, P70.8, P70.9, P71, P72, P74, P75, P76, P77, P78, P80, P81, P83.0, P83.1, P83.2, P83.3, P83.4, P83.5, P83.6, P83.8, P83.9, P90, P91, P92, P93, P94, P95, P96.
18	Certain other intestinal infections	A04, A07, A08, A09.
19	CHD (Coronary heart disease)	I20, I21, I22, I23, I24, I25.0, I25.1, I25.2, I25.3, I25.4, I25.5, I25.6, I25.8, I25.9.
20	Cholelithiasis and other disorders of gallbladder	K80, K81, K82.
21	Chronic glomerulonephritis, nephritis and nephritis not specified as acute or chronic, and renal sclerosis unspecified	N02, N03, N05, N06, N07, N26.
22	Colorectal Cancer	C18, C19, C20, C21.

No.	Cause of death	ICD10 codes
23	Complications of medical and surgical care	Y40, Y41, Y42, Y43, Y44, Y45, Y46, Y47, Y48, Y49, Y50, Y51, Y52, Y53, Y54, Y55, Y56, Y57, Y58, Y59, Y60, Y61, Y62, Y63, Y64, Y65, Y66, Y69, Y70, Y71, Y72, Y73, Y74, Y75, Y76, Y77, Y78, Y79, Y80, Y81, Y82, Y83, Y84, Y88.
24	Congenital malformations, deformations and chromosomal abnormalities	Q00, Q01, Q02, Q03, Q04, Q05, Q06, Q07, Q10, Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q20, Q21, Q22, Q23, Q24, Q25, Q26, Q27, Q28, Q30, Q31, Q32, Q33, Q34, Q35, Q36, Q37, Q38, Q39, Q40, Q41, Q42, Q43, Q44, Q45, Q50, Q51, Q52, Q53, Q54, Q55, Q56, Q60, Q61, Q62, Q63, Q64, Q65, Q66, Q67, Q68, Q69, Q70, Q71, Q72, Q73, Q74, Q75, Q76, Q77, Q78, Q79, Q80, Q81, Q82, Q83, Q84, Q85, Q86, Q87, Q89, Q90, Q91.0, Q91.1, Q91.2, Q91.3, Q91.4, Q91.5, Q91.6, Q91.7, Q92, Q93, Q95, Q96, Q97, Q98, Q99.
25	COPD (Chronic obstructive pulmonary disease)	J40, J41, J42, J43, J44.
26	Diabetes mellitus	E10, E11, E12, E13, E14.
27	Discharge of firearms, undetermined intent	Y22, Y23, Y24.
28	Diseases of appendix	K35, K36, K37, K38.
29	Drug overdose (Unintentional)	X40, X41, X42, X43, X44, X45.
30	Falls	W00, W01, W02, W03, W04, W05, W06, W07, W08, W09, W10, W11, W12, W13, W14, W15, W16, W17, W18, W19.
31	Hernia	K40, K41, K42, K43, K44, K45, K46.
32	HIV (Human immunodeficiency virus)	B20, B21, B22, B23, B24.
33	Hodgkin's disease	C81.
34	Homicide	U01.0, U01.1, U01.2, U01.3, U01.4, U01.5, U01.6, U01.7, U01.8, U01.9, U02, X85, X86, X87, X88, X89, X90, X91, X92, X93, X94, X95, X96, X97, X98, X99, Y00, Y01, Y02, Y03, Y04, Y05, Y06, Y07, Y08, Y09, Y87.1.
35	Hyperplasia of prostate	N40.
36	Hypertension	I10, I12, I15.
37	Hypertensive heart and renal disease	I13.
38	Hypertensive heart disease	I11.
39	In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior	D00, D01, D02, D03, D04, D05, D06, D07, D08, D09, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48.
40	Infections of kidney	N10, N11, N12, N13.6, N15.1.
41	Inflammatory diseases of female pelvic organs	N70, N71, N72, N73, N74, N75, N76.
42	Legal intervention	Y35, Y89.0.
43	Leukemia	C91, C92, C93, C94, C95.
44	Liver disease/cirrhosis	K70, K73, K74.

No.	Cause of death	ICD10 codes
45	Lung Cancer	C33, C34.
46	Malaria	B50, B51, B52, B53, B54.
47	Malignant melanoma of skin	C43.
48	Malignant neoplasm of bladder	C67.
49	Malignant neoplasm of cervix uteri	C53.
50	Malignant neoplasm of esophagus	C15.
51	Malignant neoplasm of larynx	C32.
52	Malignant neoplasm of ovary	C56.
53	Malignant neoplasm of pancreas	C25.
54	Malignant neoplasm of stomach	C16.
55	Malignant neoplasms of corpus uteri and uterus, part unspecified	C54, C55.
56	Malignant neoplasms of kidney and renal pelvis	C64, C65.
57	Malignant neoplasms of lip, oral cavity and pharynx	C00, C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C11, C12, C13, C14.
58	Malignant neoplasms of liver and intrahepatic bile ducts	C22.
59	Malignant neoplasms of meninges, brain and other parts of central nervous system	C70, C71, C72.
60	Malnutrition	E40, E41, E42, E43, E44, E45, E46.
61	Measles	B05.
62	Meningitis	G00, G03.
63	Meningococcal infection	A39.
64	Motor vehicle crash	V02, V03, V04, V09.0, V09.2, V12, V13, V14, V19.0, V19.1, V19.2, V19.4, V19.5, V19.6, V20, V21, V22, V23, V24, V25, V26, V27, V28, V29, V30, V31, V32, V33, V34, V35, V36, V37, V38, V39, V40, V41, V42, V43, V44, V45, V46, V47, V48, V49, V50, V51, V52, V53, V54, V55, V56, V57, V58, V59, V60, V61, V62, V63, V64, V65, V66, V67, V68, V69, V70, V71, V72, V73, V74, V75, V76, V77, V78, V79, V80.3, V80.4, V80.5, V81.0, V81.1, V82.0, V82.1, V83, V84, V85, V86, V87.0, V87.1, V87.2, V87.3, V87.4, V87.5, V87.6, V87.7, V87.8, V88.0, V88.1, V88.2, V88.3, V88.4, V88.5, V88.6, V88.7, V88.8, V89.0, V89.2.
65	Multiple myeloma and immunoproliferative neoplasms	C88, C90.
66	Non-Hodgkin's lymphoma	C82, C83, C84, C85.
67	Operations of war and their sequelae	Y36, Y89.1.
68	Other and unspecified events of undetermined intent and their sequelae	Y10, Y11, Y12, Y13, Y14, Y15, Y16, Y17, Y18, Y19, Y20, Y21, Y25, Y26, Y27, Y28, Y29, Y30, Y31, Y32, Y33, Y34, Y87.2, Y89.9.
69	Other and unspecified infectious and parasitic diseases and their sequelae	A00, A05, A20, A21, A22, A23, A24, A25, A26, A27, A28, A30, A31, A32, A33, A34, A35, A36, A42, A43, A44, A48, A49, A54, A55, A56, A57, A58, A59, A60, A63, A64, A65, A66, A67, A68, A69, A70, A71, A74,

23

No.	Cause of death	ICD10 codes
		A75, A77, A78, A79, A81, A82, A85.0, A85.1, A85.8, A86, A87, A88, A89, A92, A93, A94, A95, A96, A97, A98, A99, B00, B01, B02, B03, B04, B06, B07, B08, B09, B25, B26, B27, B30, B33, B34, B35, B36, B37, B38, B39, B40, B41, B42, B43, B44, B45, B46, B47, B48, B49, B55, B56, B57, B58, B59, B60, B64, B65, B66, B67, B68, B69, B70, B71, B72, B73, B74, B75, B76, B77, B78, B79, B80, B81, B82, B83, B85, B86, B87, B88, B89, B90, B91, B92, B93, B94, B95, B96, B97, B98, B99.
70	Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue	C96.
71	Other and unspecified non-transport accidents and their sequelae	W20, W21, W22, W23, W24, W25, W26, W27, W28, W29, W30, W31, W35, W36, W37, W38, W39, W40, W41, W42, W43, W44, W45, W46, W49, W50, W51, W52, W53, W54, W55, W56, W57, W58, W59, W60, W64, W75, W76, W77, W78, W79, W80, W81, W83, W84, W85, W86, W87, W88, W89, W90, W91, W92, W93, W94, W99, X10, X11, X12, X13, X14, X15, X16, X17, X18, X19, X20, X21, X22, X23, X24, X25, X26, X27, X28, X29, X30, X31, X32, X33, X34, X35, X36, X37, X38, X39, X50, X51, X52, X53, X54, X57, X58, X59, Y86.
72	Bronchiectasis	J47.
73	Other complications of pregnancy, childbirth and the puerperium	O10, O11, O12, O13, O14, O15, O16, O20, O21, O22, O23, O24, O25, O26, O28, O29, O30, O31, O32, O33, O34, O35, O36, O40, O41, O42, O43, O44, O45, O46, O47, O48, O60, O61, O62, O63, O64, O65, O66, O67, O68, O69, O70, O71, O72, O73, O74, O75, O80, O81, O82, O83, O84, O85, O86, O87, O88, O89, O90, O91, O92, O94, O95, O96, O97, O98, O99.
74	Other diseases of arteries, arterioles and capillaries	I72, I73, I74, I75, I76, I77, I78.
75	Other diseases of respiratory system	J00, J01, J02, J03, J04, J05, J06, J30, J31, J32, J33, J34, J35, J36, J37, J38, J39, J67, J70, J80, J81, J82, J84, J85, J86, J90, J91, J92, J93, J94, J95, J96, J98.
76	Other disorders of circulatory system	I80, I81, I82, I83, I85, I86, I87, I88, I89, I95, I97, I98, I99.
77	Other disorders of kidney	N25, N27.
78	Other heart diseases	I26, I27, I28, I30, I31, I32, I33, I34, I35, I36, I37, I38, I39, I40, I42, I43, I44, I45, I46, I47, I48, I49, I50, I51.
79	Other nutritional deficiencies	E50, E51, E52, E53, E54, E55, E56, E58, E59, E60, E61, E63, E64.
80	Other tuberculosis	A17, A18, A19.
81	Parkinson's disease	G20, G21.
82	Peptic ulcer	K25, K26, K27, K28.
83	Pneumoconioses and chemical effects	J60, J61, J62, J63, J64, J65, J66, J68.
84	Pneumonia/Influenza	J09, J10, J11, J12, J13, J14, J15, J16, J17, J18.
85	Pneumonitis due to solids and liquids	J69.
86	Pregnancy with abortive outcome	O00, O01, O02, O03, O04, O05, O06, O07.
87	Prostate cancer	C61.
88	Renal failure	N17, N18, N19.
89	Residual	D65, D66, D67, D68, D69, D70, D71, D72, D73, D74, D75, D76, D77, D80, D81, D82, D83, D84, D85, D86, D89, E00, E01, E02, E03, E04, E05, E06, E07, E15, E16, E20, E21, E22, E23, E24, E25, E26, E27, E28, E29, E30, E31, E32, E34.0, E34.1, E34.2, E34.3, E34.4, E34.5, E34.8, E34.9, E65, E66, E67, E68,

No.	Cause of death	ICD10 codes
		E70, E71, E72, E73, E74, E75, E76, E77, E78, E79, E80, E83, E84, E85, E86, E87, E88, E89, E90, F00, F01, F02, F03, F04, F05, F06, F07, F09, F10, F11, F12, F13, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23, F24, F25, F28, F29, F30, F31, F32, F33, F34, F38, F39, F40, F41, F42, F43, F44, F45, F48, F50, F51, F52, F53, F54, F55, F59, F60, F61, F62, F63, F64, F65, F66, F68, F69, F70, F71, F72, F73, F79, F80, F81, F82, F83, F84, F88, F89, F90, F91, F92, F93, F94, F95, F98, F99, G04, G05, G06, G07, G08, G09, G10, G11, G12.0, G12.1, G12.2, G12.8, G12.9, G13, G14, G23, G24, G25, G31, G32, G35, G36, G37, G40, G41, G43, G44, G45, G46, G47, G50, G51, G52, G53, G54, G55, G56, G57, G58, G59, G60, G61, G62, G63, G64, G70, G71, G72, G73, G80, G81, G82, G83, G90, G91, G92, G93.0, G93.1, G93.2, G93.3, G93.4, G93.5, G93.6, G93.7, G93.8, G93.9, G94, G95, G96, G97, G98, G99, H00, H01, H02, H03, H04, H05, H06, H10, H11, H13, H15, H16, H17, H18, H19, H20, H21, H22, H25, H26, H27, H28, H30, H31, H32, H33, H34, H35, H36, H40, H42, H43, H44, H45, H46, H47, H48, H49, H50, H51, H52, H53, H54, H55, H56, H57, H58, H59, H60, H61, H62, H65, H66, H67, H68, H69, H70, H71, H72, H73, H74, H75, H80, H81, H82, H83, H90, H91, H92, H93, K00, K01, K02, K03, K04, K05, K06, K07, K08, K09, K10, K11, K12, K13, K14, K20, K21, K22, K29, K30, K31, K50, K51, K52, K55, K56, K57, K58, K59, K60, K61, K62, K63, K64, K65, K66, K71, K72, K75, K76, K83, K85, K86, K87, K90, K91, K92, K93, L00, L01, L02, L03, L04, L05, L08, L10, L11, L12, L13, L14, L20, L21, L22, L23, L24, L25, L26, L27, L28, L29, L30, L40, L41, L42, L43, L44, L45, L50, L51, L52, L53, L54, L55, L56, L57, L58, L59, L60, L62, L63, L64, L65, L66, L67, L68, L70, L71, L72, L73, L74, L75, L80, L81, L82, L83, L84, L85, L86, L87, L88, L89, L90, L91, L92, L93, L94, L95, L97, L98, L99, M00, M01, M02, M03, M05, M06, M07, M08, M09, M10, M11, M12, M13, M14, M15, M16, M17, M18, M19, M20, M21, M22, M23, M24, M25, M30, M31, M32, M33, M34, M35, M36, M40, M41, M42, M43, M45, M46, M47, M48, M49, M50, M51, M53, M54, M60, M61, M62, M63, M65, M66, M67, M68, M70, M71, M72, M73, M75, M76, M77, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M99, N13.0, N13.1, N13.2, N13.3, N13.4, N13.5, N13.7, N13.8, N13.9, N14.0, N14.1, N14.2, N14.3, N14.4, N15.0, N15.8, N15.9, N20, N21, N22, N23, N28, N29, N30, N31, N32, N33, N34, N35, N36, N37, N39, N41, N42, N43, N44, N45, N46, N47, N48, N49, N50, N51, N60, N61, N62, N63, N64, N80, N81, N82, N83, N84, N85, N86, N87, N88, N89, N90, N91, N92, N93, N94, N95, N96, N97, N98.
90	Respiratory tuberculosis	A16.
91	Salmonella infections	A01, A02.
92	Scarlet fever and erysipelas	A38, A46.
93	Septicemia	A40, A41.
94	Shigellosis and amebiasis	A03, A06.
95	Stroke	I60, I61, I62, I63, I64, I65, I66, I67, I68, I69.
96	Suicide	U03, X60, X61, X62, X63, X64, X65, X66, X67, X68, X69, X70, X71, X72, X73, X74, X75, X76, X77, X78, X79, X80, X81, X82, X83, X84, Y87.0.
97	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00, R01, R02, R03, R04, R05, R06, R07, R09, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R25, R26, R27, R29, R30, R31, R32, R33, R34, R35, R36, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R98, R99.
98	Syphilis	A50, A51, A52, A53.
99	Unintentional injury: Other land transport	V01, V05, V06, V09.1, V09.3, V09.9, V10, V11, V15, V16, V17, V18, V19.3, V19.8, V19.9, V80.0, V80.1, V80.2, V80.6, V80.7, V80.8, V80.9, V81.2, V81.3, V81.4, V81.5, V81.6, V81.7, V81.8, V81.9, V82.2, V82.3, V82.4, V82.5, V82.6, V82.7, V82.8, V82.9, V87.9, V88.9, V89.1, V89.3, V89.9.
100	Unintentional injury: Water, air and space, and other transport	V90, V91, V92, V93, V94, V95, V96, V97, V98, V99, Y85.
101	Unspecified acute lower respiratory infection	J22, U04.

No.	Cause of death	ICD10 codes
102	Viral hepatitis	B15, B16, B17, B18, B19.
103	Whooping cough	A37.

†Derived with modification from *TABLE B. LIST OF 113 SELECTED CAUSES OF DEATH and ENTEROCOLITIS DUE TO CLOSTRIDIUM DIFFICILE.*
Reference: *Instruction Manual, Part 9, ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics (Updated September 2018 to include WHO updates to ICD-10 for data year 2017)*. Vital Statistics Data Preparation, U.S. DEPARTMENT of HEALTH AND HUMAN SERVICES, Centers for Disease Control and Prevention, National Center for Health Statistics, Hyattsville, Maryland, September 2018.

Table A-1b: ICD Codes for Leading Causes of Infant Death

No.	Cause of infant death	ICD10 codes
1	Accidental discharge of firearms	W32, W33, W34.
2	Accidental drowning and submersion	W65, W66, W67, W68, W69, W70, W73, W74.
3	Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract	W78, W79, W80.
4	Accidental poisoning and exposure to noxious substances	X40, X41, X42, X43, X44, X45, X46, X47, X48, X49.
5	Accidental suffocation and strangulation in bed	W75.
6	Accidents caused by exposure to smoke, fire and flames	X00, X01, X02, X03, X04, X05, X06, X08, X09.
7	Acute bronchitis and acute bronchiolitis	J20, J21.
8	Acute poliomyelitis	A80.
9	Acute upper respiratory infections	J00, J01, J02, J03, J04, J05, J06.
10	All other and unspecified diseases of digestive system	K00, K01, K02, K03, K04, K05, K06, K07, K08, K09, K10, K11, K12, K13, K14, K20, K21, K22, K23, K25, K26, K27, K28, K30, K31, K35, K36, K37, K38, K57, K58, K59, K60, K61, K62, K63, K64, K65, K66, K67, K70, K71, K72, K73, K74, K75, K76, K77, K80, K81, K82, K83, K85, K86, K87, K90, K91, K92.
11	All other and unspecified infectious and parasitic diseases	A20, A21, A22, A23, A24, A25, A26, A27, A28, A30, A31, A32, A38, A42, A43, A44, A46, A48, A49, A51, A52, A53, A55, A56, A57, A58, A59, A60, A63, A64, A65, A66, A67, A68, A69, A70, A71, A74, A75, A77, A78, A79, B35, B36, B38, B39, B40, B41, B42, B43, B44, B45, B46, B47, B48, B49, B55, B56, B57, B58, B60, B64, B65, B66, B67, B68, B69, B70, B71, B72, B73, B74, B75, B76, B77, B78, B79, B80, B81, B82, B83, B85, B86, B87, B88, B89, B90, B91, B92, B94, B95, B96, B97, B98, B99.
12	All other diseases (Residual)	F01, F02, F03, F04, F05, F06, F07, F08, F09, F10, F11, F12, F13, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23, F24, F25, F28, F29, F30, F31, F32, F33, F34, F38, F39, F40, F41, F42, F43, F44, F45, F48, F50, F51, F52, F53, F54, F55, F59, F60, F61, F62, F63, F64, F65, F66, F68, F69, F70, F71, F72, F73, F78, F79, F80, F81, F82, F83, F84, F88, F89, F90, F91, F92, F93, F94, F95, F98, F99, G99, H00, H01, H02, H03, H04, H05, H06, H10, H11, H13, H15, H16, H17, H18, H19, H20, H21, H22, H25, H26, H27, H28, H30, H31, H32, H33, H34, H35, H36, H40, H42, H43, H44, H45, H46, H47, H48, H49, H50, H51, H52, H53, H54, H55, H56, H57, L00, L01, L02, L03, L04, L05, L06, L08, L10, L11, L12, L13, L14, L20, L21, L22, L23, L24, L25, L26, L27, L28, L29, L30, L40, L41, L42, L43, L44, L45, L50, L51, L52, L53, L54, L55, L56, L57, L58, L59, L60, L62, L63, L64, L65, L66, L67, L68, L69, L70, L71, L72, L73, L74, L75, L80, L81, L82, L83, L84, L85, L86, L87, L88, L89, L90, L91, L92, L93, L94, L95, L97, L98, L99, M00, M01, M02, M03, M05, M06, M07, M08, M09, M10, M11, M12, M13, M14, M15, M16, M17, M18, M19, M20, M21, M22, M23, M24, M25, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M41, M42, M43, M45, M46, M47, M48, M49, M50, M51, M53, M54, M60, M61, M62, M63, M65, M66, M67, M68, M70, M71, M72, M73, M75, M76, M77, M78, M79, M80, M81, M82, M83, M84, M85, M86, M87, M88, M89, M90, M91, M92, M93, M94, M95, M96, M99, Y85, R54.
13	All other diseases of circulatory system	I00, I01, I02, I05, I06, I07, I08, I09, I10, I11, I12, I13, I15, I20, I21, I22, I23, I24, I25.0, I25.1, I25.2, I25.3, I25.4, I25.5, I25.6, I25.8, I25.9, I31, I34, I35, I36, I37, I38, I44, I45, I47, I48, I49, I50, I51, I70, I71, I72, I73, I74, I77, I78, 179, I80, I81, I82, I83, I85, I86, I87, I88, I89, I95, I96, I97, I98, I99.
14	All other endocrine, nutritional and metabolic diseases	E00, E01, E02, E03, E04, E05, E06, E07, E10, E11, E12, E13, E14, E15, E16, E20, E21, E22, E23, E24, E25, E26, E27, E28, E29, E30, E31, E32, E34.0, E34.1, E34.2, E34.4, E34.5, E34.8, E34.9, E65, E66, E67, E68, E70, E71, E72, E73, E74, E75, E76, E77, E78, E79, E80, E83, E85, E88.
15	All other infections specific to the perinatal period	P35, P37, P39.
16	All other respiratory conditions originating in the perinatal period	P28.2, P28.3, P28.4, P28.5, P28.8, P28.9.
17	Anemias	D50, D51, D52, D53, D55, D56, D57, D58, D59, D60, D61, D62, D63, D64.
18	Anencephaly and similar malformations	Q00.
19	Anoxic brain damage, not elsewhere classified	G93.1.
20	Assault (homicide) by discharge of firearms	U01.4, X93, X94, X95.

No.	Cause of infant death	ICD10 codes
21	Assault (homicide) by hanging, strangulation and suffocation	X91.
22	Assault (homicide) by other and unspecified means	U01.0, U01.1, U01.2, U01.3, U01.5, U01.6, U01.7, U01.8, U01.9, X85, X86, X87, X88, X89, X90, X92, X96, X97, X98, X99, Y00, Y01, Y02, Y03, Y04, Y05, Y08, Y09.
23	Asthma	J45, J46.
24	Atelectasis	P28.0, P28.1.
25	Bacterial sepsis of newborn	P36.
26	Birth asphyxia	P21.
27	Birth trauma	P10, P11, P12, P13, P14, P15.
28	Bronchitis, chronic and unspecified	J40, J41, J42.
29	Candidiasis	B37.
30	Cardiac arrest	I46.
31	Cardiomyopathy	I42.
32	Cerebrovascular diseases	I60, I61, I62, I63, I64, I65, I66, I67, I68, I69.
33	Certain disorders involving the immune mechanism	D80, D81, D82, D83, D84, D86, D89.
34	Certain intestinal infectious diseases	A00, A01, A02, A03, A04, A05, A06, A07, A08.
35	Chronic respiratory disease originating in the perinatal period	P27.
36	Complications of medical and surgical care	Y40, Y41, Y42, Y43, Y44, Y45, Y46, Y47, Y48, Y49, Y50, Y51, Y52, Y53, Y54, Y55, Y56, Y57, Y58, Y59, Y60, Y61, Y62, Y63, Y64, Y65, Y66, Y69, Y70, Y71, Y72, Y73, Y74, Y75, Y76, Y77, Y78, Y79, Y80, Y81, Y82, Y83, Y84.
37	Congenital hydrocephalus	Q03.
38	Congenital malformations and deformations of musculoskeletal system, limbs and integument	Q65, Q66, Q67, Q68, Q69, Q70, Q71, Q72, Q73, Q74, Q75, Q76, Q77, Q78, Q79, Q80, Q81, Q82, Q83, Q84, Q85.
39	Congenital malformations of digestive system	Q35, Q36, Q37, Q38, Q39, Q40, Q41, Q42, Q43, Q44, Q45.
40	Congenital malformations of genitourinary system	Q50, Q51, Q52, Q53, Q54, Q55, Q56, Q60, Q61, Q62, Q63, Q64.
41	Congenital malformations of heart	Q20, Q21, Q22, Q23, Q24.
42	Congenital malformations of respiratory system	Q30, Q31, Q32, Q33, Q34.
43	Congenital pneumonia	P23.
44	Congenital syphilis	A50.
45	Cystic fibrosis	E84.
46	Diarrhea and gastroenteritis of infectious origin	A09.
47	Diphtheria	A36.
48	Diseases of the ear and mastoid process	H60, H61, H62, H65, H66, H67, H68, H69, H70, H71, H72, H73, H74, H75, H80, H81, H82, H83, H90, H91, H92, H93.
49	Disorders related to long gestation and high birth weight	P08.
50	Down syndrome	Q90.
51	Edward syndrome	Q91.0, Q91.1, Q91.2, Q91.3.
52	Extremely low birth weight or extreme immaturity	P07.0, P07.2.

No.	Cause of infant death	ICD10 codes
53	Falls	W00, W01, W02, W03, W04, W05, W06, W07, W08, W09, W10, W11, W12, W13, W14, W15, W16, W17, W18, W19.
54	Gastritis, duodenitis, and noninfective enteritis and colitis	K29, K50, K51, K52, K55.
55	Gonococcal infection	A54.
56	Hematological disorders	P60, P61.
57	Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice	P55, P56, P57, P58, P59.
58	Hemorrhagic conditions and other diseases of blood and blood-forming organs	D65, D66, D67, D68, D69, D70, D71, D72, D73, D74, D75, D76.
59	Hemorrhagic disease of newborn	P53.
60	Hernia of abdominal cavity and intestinal obstruction without hernia	K40, K41, K42, K43, K44, K45, K46, K56.
61	Hodgkin disease and non-Hodgkin lymphomas	C81, C82, C83, C84, C85.
62	Human immunodeficiency virus (HIV) disease	B20, B21, B22, B23, B24.
63	Hydrops fetalis not due to hemolytic disease	P83.2.
64	In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior	D00, D01, D02, D03, D04, D05, D06, D07, D09, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48.
65	Infantile cerebral palsy	G80.
66	Infantile spinal muscular atrophy, type I (Werdnig-Hoffman)	G12.0.
67	Influenza	J09, J10, J11.
68	Interstitial emphysema and related conditions originating in the perinatal period	P25.
69	Intrauterine hypoxia	P20.
70	Leukemia	C91, C92, C93, C94, C95.
71	Malaria	B50, B51, B52, B53, B54.
72	Measles	B05.
73	Meningitis	G00, G03.
74	Meningococcal infection	A39.
75	Motor vehicle accidents	V02, V03, V04, V09.0, V09.2, V12, V13, V14, V19.0, V19.1, V19.2, V19.4, V19.5, V19.6, V20, V21, V22, V23, V24, V25, V26, V27, V28, V29, V30, V31, V32, V33, V34, V35, V36, V37, V38, V39, V40, V41, V42, V43, V44, V45, V46, V47, V48, V49, V50, V51, V52, V53, V54, V55, V56, V57, V58, V59, V60, V61, V62, V63, V64, V65, V66, V67, V68, V69, V70, V71, V72, V73, V74, V75, V76, V77, V78, V79, V80.3, V80.4, V80.5, V81.0, V81.1, V82.0, V82.1, V83, V84, V85, V86, V87.0, V87.1, V87.2, V87.3, V87.4, V87.5, V87.6, V87.7, V87.8, V88.0, V88.1, V88.2, V88.3, V88.4, V88.5, V88.6, V88.7, V88.8, V89.0, V89.2.
76	Mumps	B26.
77	Necrotizing enterocolitis of newborn	P77.
78	Neglect, abandonment and other maltreatment syndromes	Y06, Y07.
79	Neonatal aspiration syndromes	P24.
80	Neonatal hemorrhage	P50, P51, P52, P54.
81	Newborn affected by chorioamnionitis	P02.7.

No.	Cause of infant death	ICD10 codes
82	Newborn affected by complications involving cord	P02.4, P02.5, P02.6.
83	Newborn affected by complications involving placenta	P02.0, P02.1, P02.2, P02.3.
84	Newborn affected by incompetent cervix	P01.0.
85	Newborn affected by maternal hypertensive disorders	P00.0.
86	Newborn affected by multiple pregnancy	P01.5.
87	Newborn affected by noxious influences transmitted via placenta or breast milk	P04.
88	Newborn affected by other and unspecified abnormalities of membranes	P02.8, P02.9.
89	Newborn affected by other complications of labor and delivery	P03.
90	Newborn affected by other maternal complications of pregnancy	P01.2, P01.3, P01.4, P01.6, P01.7, P01.8, P01.9.
91	Newborn affected by other maternal conditions which may be unrelated to present pregnancy	P00.1, P00.2, P00.3, P00.4, P00.5, P00.6, P00.7, P00.8, P00.9.
92	Newborn affected by premature rupture of membranes	P01.1.
93	Nutritional deficiencies	E40, E41, E42, E43, E44, E45, E46, E50, E51, E52, E53, E54, E55, E56, E58, E59, E60, E61, E63, E64.
94	Omphalitis of newborn with or without mild hemorrhage	P38.
95	Other accidental suffocation and strangulation.	W76, W77, W81, W84.
96	Other and unspecified accidents	W20, W21, W22, W23, W24, W25, W26, W27, W28, W29, W30, W31, W35, W36, W37, W38, W39, W40, W41, W42, W43, W44, W45, W46, W49, W50, W51, W52, W53, W54, W55, W56, W57, W58, W59, W60, W64, W85, W86, W87, W88, W89, W90, W91, W92, W93, W94, W99, X10, X11, X12, X13, X14, X15, X16, X17, X18, X19, X20, X21, X22, X23, X24, X25, X26, X27, X28, X29, X30, X31, X32, X33, X34, X35, X36, X37, X38, X39, X50, X51, X52, X53, X54, X57, X58, X59.
97	Other and unspecified diseases of genitourinary system	N00, N01, N02, N03, N04, N05, N06, N07, N08, N10, N11, N12, N13.0, N13.1, N13.2, N13.3, N13.4, N13.5, N13.6, N13.7, N13.8, N13.9, N14.0, N14.1, N14.2, N14.3, N14.4, N15.0, N15.1, N15.8, N15.9, N20, N21, N22, N23, N26, N28, N29, N30, N31, N32, N33, N34, N35, N36, N37, N39, N40, N41, N42, N43, N44, N45, N46, N47, N48, N49, N50, N51, N60, N61, N62, N63, N64, N70, N71, N72, N73, N74, N75, N76, N77, N80, N81, N82, N83, N84, N85, N86, N87, N88, N89, N90, N91, N92, N93, N94, N95.
98	Other and unspecified diseases of respiratory system	J22, J30, J31, J32, J33, J34, J35, J36, J37, J38, J39, J43, J44, J47, J60, J61, J62, J63, J64, J65, J66, J67, J68, J70, J80, J81, J82, J84, J85, J86, J90, J91, J92, J93, J94, J95, J96, J98, U04.
99	Other and unspecified malignant neoplasms	C00, C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C30, C31, C32, C33, C34, C37, C38, C39, C40, C41, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C88, C90, C96, C97.
100	Other and unspecified transport accidents	V01, V05, V06, V09.1, V09.3, V09.9, V10, V11, V15, V16, V17, V18, V19.3, V19.8, V19.9, V80.0, V80.1, V80.2, V80.6, V80.7, V80.8, V80.9, V81.2, V81.3, V81.4, V81.5, V81.6, V81.7, V81.8, V81.9, V82.2, V82.3, V82.4, V82.5, V82.6, V82.7, V82.8, V82.9, V87.9, V88.9, V89.1, V89.3, V89.9, V90, V91, V92, V93, V94, V95, V96, V97, V98, V99.
101	Other and unspecified viral diseases	A81, A82, A83, A84, A85.0, A85.1, A85.2, A85.8, A86, A87, A88, A89, A92, A93, A94, A95, A96, A97, A98, A99, B00, B02, B03, B04, B06, B07, B08, B09, B15, B16, B17, B18, B19, B25, B27, B30, B33, B34.
102	Other chromosomal abnormalities, not elsewhere classified	Q92, Q93, Q95, Q96, Q97, Q98, Q99.
103	Other congenital malformations and deformations	Q10, Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q86, Q87, Q88, Q89.
104	Other congenital malformations of circulatory system	Q25, Q26, Q27, Q28.

No.	Cause of infant death	ICD10 codes
105	Other congenital malformations of nervous system	Q01, Q02, Q04, Q06, Q07.
106	Other diseases of nervous system	G04, G06, G07, G08, G09, G10, G11, G12.1, G12.2, G12.8, G12.9, G20, G21, G23, G24, G25, G26, G30, G31, G32, G35, G36, G37, G40, G41, G43, G44, G45, G46, G47, G50, G51, G52, G53, G54, G55, G56, G57, G58, G59, G60, G61, G62, G63, G64, G70, G71, G72, G81, G82, G83, G90, G91, G92, G93.0, G93.2, G93.3, G93.4, G93.5, G93.6, G93.7, G93.8, G93.9, G95, G96, G97, G98.
107	Other external causes	Y10, Y11, Y12, Y13, Y14, Y15, Y16, Y17, Y18, Y19, Y20, Y21, Y22, Y23, Y24, Y25, Y26, Y27, Y28, Y29, Y30, Y31, Y32, Y33, Y34, Y35, Y36.
108	Other low birth weight or preterm	P07.1, P07.3.
109	Other perinatal conditions	P29, P70.3, P70.4, P70.8, P70.9, P71, P72, P74, P75, P76, P78, P80, P81, P83.0, P83.1, P83.3, P83.4, P83.5, P83.6, P83.8, P83.9, P90, P91, P92, P93, P94, P95, P96.
110	Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00, R01, R02, R03, R04, R05, R06, R07, R08, R09, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R25, R26, R27, R29, R30, R31, R32, R33, R34, R35, R36, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R89, R90, R91, R92, R93, R94, R96, R98, R99.
111	Patau syndrome	Q91.4, Q91.5, Q91.6, Q91.7.
112	Pericarditis, endocarditis and myocarditis	I30, I33, I40.
113	Pneumocystosis	B59.
114	Pneumonia	J12, J13, J14, J15, J16, J17, J18.
115	Pneumonitis due to solids and liquids	J69.
116	Pulmonary heart disease and diseases of pulmonary circu1ation	I26, I27, I28.
117	Pulmonary hemorrhage originating in the perinatal period	P26.
118	Renal failure and other disorders of kidney	N17, N18, N19, N25, N27.
119	Respiratory distress of newborn	P22.
120	Septicemia	A40, A41.
121	Short stature, not elsewhere classified	E34.3.
122	Slow fetal growth and fetal malnutrition	P05.
123	Spina bifida	Q05.
124	Sudden infant death syndrome	R95.
125	Syndrome of infant of a diabetic mother and neonatal diabetes mellitus	P70.0, P70.1, P70.2.
126	Tetanus	A33, A35.
127	Tuberculosis	A16, A17, A18, A19.
128	Varicella (chickenpox)	B01.
129	Volume depletion, disorders of fluid, electrolyte and acid-base balance	E86, E87.
130	Whooping cough	A37.

DEFINITIONS

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

- **Age-specific death rate:** The number of deaths in a specific age group divided by the population at risk in that age group.

- **Age-adjusted death rate:** There are age-related differences in the rates at which most health conditions occur. Some conditions are more common among young people, while others are more common among older people. Age adjustment is a technique for removing the effects of age from crude rates so they can be compared. Age adjustment is used to compare two or more populations at one point in time or one population at two or more points in time. To control for differences in the age distribution of the populations being compared, the age-specific death rates for each population are applied to a standard population in order to create a comparable summary measure of mortality. In this report, age-adjusted death rates were calculated using the 2000 standard population published by the National Center for Health Statistics.[5] All rates were rounded to the nearest tenth of a number. Suppression rules have been implemented to minimize random variation and instability. Both count and rate are suppressed for any cell with fewer than 5 deaths regardless of county population size.

- **Median:** The midpoint of a set of values; the point at which, when the values are put in numerical order, half of the values fall above and half fall below. The median of 25, 27, 28, 36, and 41 is 28.

- **Service Planning Area (SPA):** The county is divided into eight SPAs and are used for planning, coordination and service delivery (Figure A-2 and Table A-2). SPAs are aggregated from census tracts and are updated every ten years to incorporate changes in Census geography. Current boundaries are distributed by the Los Angeles County Internal Services Department and are available on the GIS Data Portal website: https://egis3.lacounty.gov/dataportal/2012/03/01/service-planning-areas-spa-2012

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[5] Hoyert DL, Heron MP, Murphy SL, Kung H. Deaths: Final Data for 2003. National vital statistics reports; vol 54 no 13. Hyattsville, MD: National Center for Health Statistics. 2006.

Figure A-2: Map of Los Angeles County Service Planning Areas
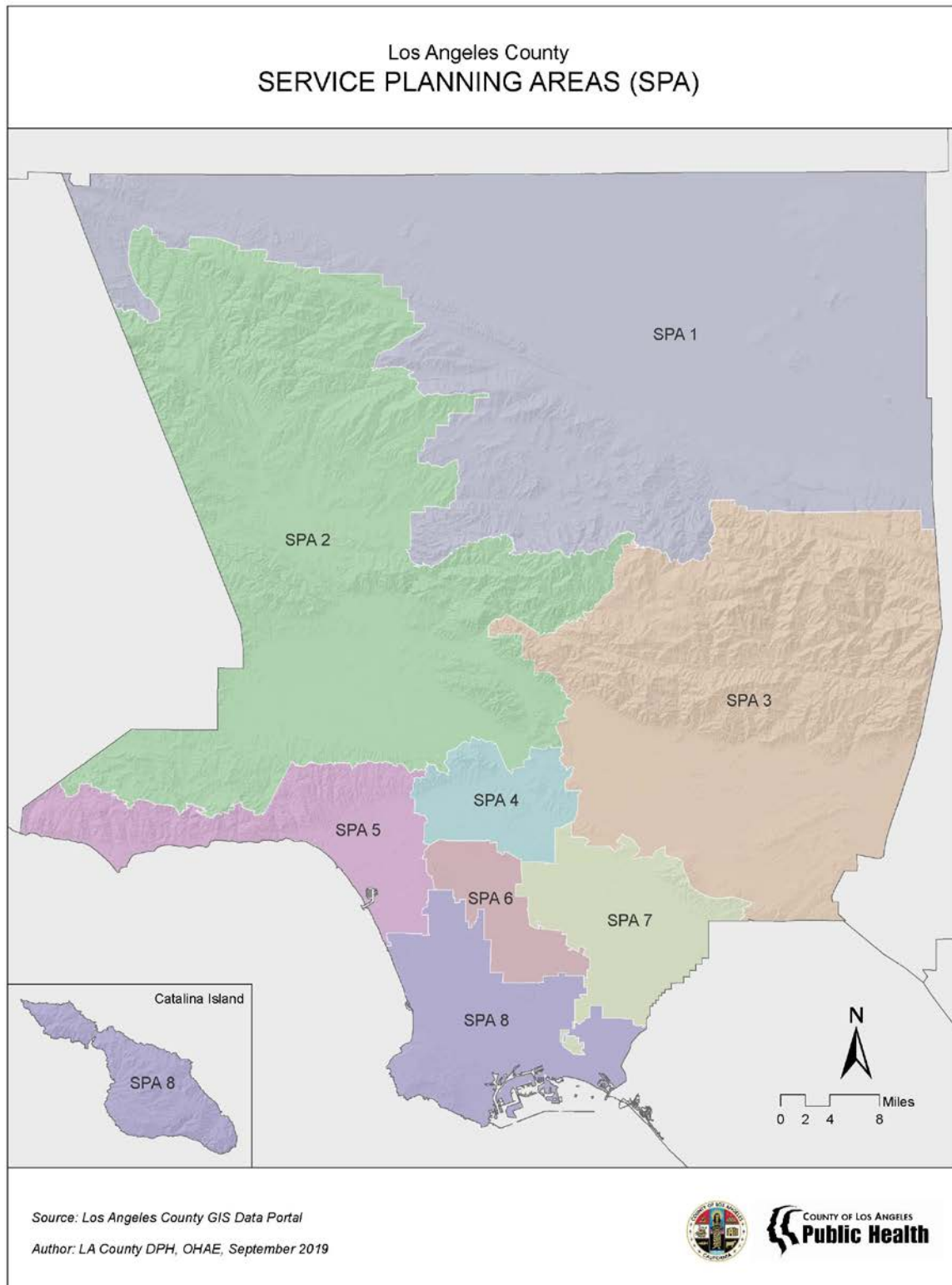
Table A-2: City or Community and Corresponding Service Planning Area (SPA)

NAME	SPA	NAME	SPA
Acton	1	East Whittier	7
Agoura Hills	2	El Monte	3
Agua Dulce	1	El Segundo	8
Alhambra	3	Elizabeth Lake	1
Alondra Park	8	Florence-Graham	6
Altadena	3	Gardena	8
Arcadia	3	Glendale	2
Artesia	7	Glendora	3
Avalon	8	Green Valley	1
Avocado Heights	3	Hacienda Heights	3
Azusa	3	Hasley Canyon	2
Baldwin Park	3	Hawaiian Gardens	7
Bell	7	Hawthorne	8
Bell Gardens	7	Hermosa Beach	8
Bellflower	7	Hidden Hills	2
Beverly Hills	5	Huntington Park	7
Bradbury	3	Industry	3
Burbank	2	Inglewood	8
Calabasas	2	Irwindale	3
Carson	8	La Canada Flintridge	2
Castaic	2	La Crescenta-Montrose	2
Cerritos	7	La Habra Heights	7
Charter Oak	3	La Mirada	7
Citrus	3	La Puente	3
Claremont	3	La Verne	3
Commerce	7	Ladera Heights	5
Compton	6	Lake Hughes	2
Covina	3	Lake Los Angeles	1
Cudahy	7	Lakewood	7
Culver City	5	Lancaster	1
Del Aire	8	Lawndale	8
Desert View Highlands	1	Lennox	8
Diamond Bar	3	Leona Valley	1
Downey	7	Littlerock	1
Duarte	3	Lomita	8
East Los Angeles	7	Long Beach	8
East Pasadena	3	Los Angeles	2, 4, 5, 6, 8
East Rancho Dominguez	6	Lynwood	6
East San Gabriel	3	Malibu	5

Table A-2: City or Community and Corresponding Service Planning Area (SPA) (continued)

NAME	SPA	NAME	SPA
Manhattan Beach	8	Signal Hill	7
Marina del Rey	5	South El Monte	3
Mayflower Village	3	South Gate	7
Maywood	7	South Monrovia Island	3
Monrovia	3	South Pasadena	3
Montebello	7	South San Gabriel	3
Monterey Park	3	South San Jose Hills	3
North El Monte	3	South Whittier	7
Norwalk	7	Stevenson Ranch	2
Palmdale	1	Sun Village	1
Palos Verdes Estates	8	Temple City	3
Paramount	6	Topanga	2
Pasadena	3	Torrance	8
Pico Rivera	7	Val Verde	2
Pomona	3	Valinda	3
Quartz Hill	1	Vernon	7
Rancho Palos Verdes	8	View Park-Windsor Hills	6
Redondo Beach	8	Vincent	3
Rolling Hills	8	Walnut	3
Rolling Hills Estates	8	Walnut Park	7
Rose Hills	7	West Athens	8
Rosemead	3	West Carson	8
Rowland Heights	3	West Covina	3
San Dimas	3	West Hollywood	4
San Fernando	2	West Puente Valley	3
San Gabriel	3	West Rancho Dominguez	6
San Marino	3	West Whittier-Los Nietos	7
San Pasqual	3	Westlake Village	2
Santa Clarita	2	Westmont	8
Santa Fe Springs	7	Whittier	7
Santa Monica	5	Willowbrook	6
Sierra Madre	3		

NOTES ABOUT THE POPULATION

July 1, 2010 - 2017 population estimates were used as the denominators in the rate calculations. Hedderson Demographic Services produces population estimates on an annual basis for the Los Angeles County Internal Services Department and Information Technology Service Division. Their population estimation methods include applying mortality and migration rates to the 2010 Census estimates and adhering closely to the state's official city and county estimates from the California Department of Finance, Demographic Research Unit. Annual population estimate datasets are available from the Los Angeles County Internal Services Department on the GIS Data Portal website at: https://egis3.lacounty.gov/dataportal/2014/09/09/population-and-poverty-estimates/

Smoothed population estimates were used as the denominators in the 2008-2009 rate calculations. The Office of Health Assessment and Epidemiology updated the trend line by adjusting the original annual estimates produced by Hedderson Demographic Services to the Census 2010 population counts.

2017 American Community Survey (ACS) 5-Year Estimates were used to estimate the median household income. ACS is a nationwide continuous survey conducted by the US Census Bureau. Data tables can be accessed at:
https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

ASCERTAINMENT OF RACE/ETHNICITY

Up to three races may be specified on a decedent's certificate of death. The information is provided by the funeral director or coroner who may not ascertain the decedent's race and/or ethnicity directly from the next of kin, which could lead to inaccuracies.

In addition to race, the death certificate has a check box for indicating whether the decedent was Hispanic, Latino/a, or of Spanish origin regardless of race. In this report, if Hispanic origin is indicated on the certificate of death, then the decedent's race is tabulated as Hispanic. Of the remaining non-Hispanic decedents, race is tabulated according to first race listed on the certificate.

TABULATIONS BY RACE/ETHNICITY

For this report, race is tabulated and presented for six race/ethnic groups: white, Latino, black, Asian, Native Hawaiians and other Pacific Islander (NHOPI), and American Indian and Alaska Native (AIAN). Beginning with 2012 data, this report has separated the Asian/Pacific Islander race category into two categories: *Asian* and *Native Hawaiian and other Pacific Islander* (NHOPI). Mortality trends for Asians should be interpreted with caution because the number of deaths and death rates before 2012 reflect Asian and NHOPI combined.

The number of deaths among NHOPI and AIAN was too small to present annual leading causes of death and premature death tables or to determine stable annual death rates. Therefore, to present accurate and useful data for NHOPI and AIAN, we have combined data for 2014-2017 to show the leading causes of death and premature death overall and by gender (Tables A-3a to A-6b):

Table A-3a: Leading Causes of Death for Native Hawaiians and Other Pacific Islanders (NHOPI), 2014-2017*

NHOPIs
739 total deaths

Rank	Leading Causes of Death	# of Deaths
1	CHD	152
2	Diabetes mellitus	52
3	Lung Cancer	41
4	Stroke	37
5	Breast cancer	25
5	Colorectal Cancer	25
7	Alzheimer's disease	23
8	COPD	21
9	Homicide	16
10	Hypertension	14

* Because of the small number of annual deaths among NHOPI, 2014 to 2017 numbers were combined.

Table A-3b: Leading Causes of Death for Native Hawaiians and Other Pacific Islanders (NHOPI) by Gender, 2014-2017*

NHOPI Male
391 total deaths

NHOPI Female
348 total deaths

Rank	Leading Causes of Death	# of Deaths	Rank	Leading Causes of Death	# of Deaths
1	CHD	92	1	CHD	60
2	Diabetes mellitus	22	2	Diabetes mellitus	30
3	Lung Cancer	21	3	Breast cancer	25
4	Stroke	20	4	Lung Cancer	20
5	Colorectal Cancer	15	5	Stroke	17
6	Homicide	14	6	Alzheimer's disease	14
7	COPD	12	7	Colorectal Cancer	10
8	Suicide	11	8	COPD	9
9	Alzheimer's disease	9	9	Renal failure	8
10	Malignant neoplasm of pancreas	8	10	Hypertension	7

*Because of the small number of annual deaths among NHOPI, 2014 to 2017 numbers were combined

Table A-4a: Leading Causes of Death for American Indians/Alaska Natives (AIAN),
2014-2017*

AIANs
694 total deaths

Rank	Leading Causes of Death	# of Deaths
1	CHD	116
2	Stroke	40
3	Diabetes mellitus	38
4	Alzheimer's disease	34
5	Lung Cancer	33
6	COPD	31
7	Liver disease/cirrhosis	29
8	Pneumonia/Influenza	25
9	Drug overdose (Unintentional)	18
10	Hypertension	17

* Because of the small number of annual deaths among AIAN, 2014 to
2017 numbers were combined.

Table A-4b: Leading Causes of Death for American Indians/Alaska Natives (AIAN) by Gender,
2014-2017*

AIAN Male
313 total deaths

Rank	Leading Causes of Death	# of Deaths
1	CHD	59
2	Liver disease/cirrhosis	16
3	Diabetes mellitus	15
3	Lung Cancer	15
3	COPD	15
3	Hypertension	15
7	Stroke	12
8	Alzheimer's disease	11
9	Hypertensive heart disease	9
9	Prostate cancer	9

AIAN Female
381 total deaths

Rank	Leading Causes of Death	# of Deaths
1	CHD	57
2	Stroke	28
3	Diabetes mellitus	23
3	Alzheimer's disease	23
5	Lung Cancer	18
6	Pneumonia/Influenza	17
7	COPD	16
8	Breast cancer	14
9	Liver disease/cirrhosis	13
9	Drug overdose (Unintentional)	13

*Because of the small number of annual deaths among AIAN, 2014 to 2017 numbers were combined

Table A-5a: Leading Causes of Premature Death for Native Hawaiians and Other Pacific Islanders (NHOPI), 2014-2017*

NHOPIs
9,816 years of potential life lost

Rank	Leading Causes of Premature Death	YPLLs
1	CHD	1,424
2	Certain conditions originating in the perinatal period	750
3	Homicide	667
4	Diabetes mellitus	480
5	Breast cancer	370
6	Lung Cancer	346
7	Colorectal Cancer	317
8	Motor vehicle crash	302
9	Stroke	266
10	Suicide	264

* Because of the small number of annual deaths among NHOPI, 2014 to 2017 numbers were combined.

Table A-5b: Leading Causes of Premature Death for Native Hawaiians and Other Pacific Islanders (NHOPI) by Gender, 2014-2017*

NHOPI Male
5,637 years of life lost

Rank	Leading Causes of Premature Death	YPLLs
1	CHD	1,028
2	Homicide	624
3	Certain conditions originating in the perinatal period	300
4	Suicide	264
5	Motor vehicle crash	244
6	Diabetes mellitus	204
7	Colorectal Cancer	198
8	Lung Cancer	180
9	Stroke	122
10	COPD	117

NHOPI Female
4,179 years of life lost

Rank	Caused of Premature Death	YPLLs
1	Certain conditions originating in the perinatal period	450
2	CHD	396
3	Breast cancer	370
4	Diabetes mellitus	276
5	Malignant neoplasm of cervix uteri	169
6	Lung Cancer	166
7	Stroke	144
8	Colorectal Cancer	119
9	Leukemia	112
10	Malignant neoplasms of corpus uteri and uterus, part unspecified	94

*Because of the small number of annual deaths among NHOPI, 2014 to 2017 numbers were combined

Table A-6a: Leading Causes of Premature Death for American Indians/Alaska Natives (AIAN), 2014-2017*

AIANs
6,703 years of potential life lost

Rank	Leading Causes of Premature Death	YPLLs
1	CHD	693
2	Drug overdose (Unintentional)	499
3	Liver disease/cirrhosis	431
4	Diabetes mellitus	409
5	Suicide	355
6	Hypertension	248
7	Lung Cancer	245
8	Homicide	237
9	Breast cancer	185
10	Stroke	182

* Because of the small number of annual deaths among AIAN, 2014 to 2017 numbers were combined.

Table A-6b: Leading Causes of Premature Death for American Indians/Alaska Natives (AIAN) by Gender, 2014-2017*

AIAN Male
3,446 years of life lost

Rank	Leading Causes of Premature Death	YPLLs
1	CHD	377
2	Liver disease/cirrhosis	300
3	Hypertension	224
4	Homicide	188
5	Suicide	172
6	Motor vehicle crash	141
7	Hypertensive heart disease	137
8	Drug overdose (Unintentional)	135
9	HIV	119
10	Diabetes mellitus	112

AIAN Female
3,257 years of life lost

Rank	Leading Causes of Premature Death	YPLLs
1	Drug overdose (Unintentional)	364
2	CHD	316
3	Diabetes mellitus	297
4	Breast cancer	184
5	Suicide	183
6	Lung Cancer	140
7	Liver disease/cirrhosis	131
8	Pneumonia/Influenza	122
9	Asthma	95
10	Stroke	86

*Because of the small number of annual deaths among AIAN, 2014 to 2017 numbers were combined

Calculating stable mortality rates for American Indian and Alaska Native (AIAN) and Native Hawaiians and other Pacific Islander (NHOPI) has proven to be challenging. The death rate is derived from two sources: the death certificate and the population estimates. Death certificates provide causes of death as well as demographic information on the deceased (gender, race/ethnicity, age). Population estimates provide demographic information on the population. While both sources provide information on race and Hispanic ethnicity, they obtain them in different ways. Race and ethnicity in Census data are based on self-report, whereas on the death certificate, they are completed by the funeral director or coroner. Both sources of data allow for the specification of multiple races.

The potential for racial misclassification may be greater for AIAN and NHOPI compared with other race groups because a larger proportion of their respective populations might have reported two or more races and/or Hispanic ethnicity. In the 2010 Census, 96% of all respondents reported only one race, but the two smallest population groups, NHOPI and AIAN, reported multiple races more frequently than other race groups. According to the findings from 2011-2015 American Community Survey conducted by U.S. Census Bureau, as shown in (Table A-7) 16.0% of NHOPI reported Hispanic ethnicity, but only 5.0% of NHOPI decedents were reported as Hispanic on the death certificate. Similarly, Hispanic ethnicity was reported in 54.3% AIAN in Census data, but in only 30.0% of AIAN deaths (Table A-8). Again, while 48.4% of NHOPI reported multiple races in the Census, only 18.0% of NHOPI decedents were reported with multiple races. In contrast, 62.1% of AIAN reported being multiracial, similar figure of 61.6% of AIAN decedents were reported with multiple races. Hence caution is advised when interpreting death rates for these two racial groups.

Table A-7: Deaths (2017) and Population (2011-2015) of Native Hawaiians and Other Pacific Islanders (NHOPI) by Ethnicity and Multiple Race Status

Race and ethnicity	No. of Deaths	(%)	Population	(%)
Ethnicity				
Hispanic	11	5.0%	8,419	16.0%
Non-Hispanic	211	95.0%	44,087	84.0%
Race				
Single race	182	82.0%	27,076	51.6%
Two or more races	40	18.0%	25,430	48.4%
Total	*222*	**100%**	*52,506*	**100%**

Data sources:
1. Los Angeles County Department of Public Health, Los Angeles County Linked Death Data,2017
2. U.S. Census Bureau, 2011-2015 American Community Survey Selected Population Tables: B01001, B01001C, B01001E.

Table A-8: Deaths (2017) and Population (2011-2015) of American Indians/Alaska Natives (AIAN) by Ethnicity and Multiple Race Status

Race and ethnicity	No. of Deaths	(%)	Population	(%)
Ethnicity				
Hispanic	131	30.0%	85,009	54.3%
Non-Hispanic	306	70.0%	71,637	45.7%
Race				
Single race	168	38.4%	59,340	37.9%
Two or more races	269	61.6%	97,306	62.1%
Total	*437*	**100%**	*156,646*	**100%**

Data sources:
1. Los Angeles County Department of Public Health, Los Angeles County Linked Death Data,2017
2. U.S. Census Bureau, 2011-2015 American Community Survey Selected Population Tables: B01001, B01001C, B01001E.

APPENDIX B

10 Leading Causes of Death

Notes:

1. Statistics are of Los Angeles County residents only.
2. Cause of Death are categorized based on Table B. List of 113 Selected Causes of Death; and Table C. List of 130 Selected Causes of Infant Death.
Reference: *National Center for Health Statistics, National Vital Statistics System. ICD–10 cause-of-death lists for tabulating mortality statistics (updated September 2018 to include WHO updates to ICD–10 for data year 2017). NCHS Instruction Manual, part 9.* Hyattsville, MD. 2018.
3. Age adjustment is made to US Standard Population 2000.
Reference: Klein RJ, Schoenborn CA. *Age adjustment using the 2000 projected U.S. population*. Healthy People Statistical Notes, no. 20. Hyattsville, Maryland: National Center for Health Statistics, January 2001.

Data Sources:

1. Los Angeles County Department of Public Health, Los Angeles County Linked Death Data, 2017.
2. July 1, 2017 Population Estimates, Los Angeles County Internal Services Department, 2018/05/07.

Abbreviations:

1. CHD = Coronary Heart Disease
2. COPD = Chronic Obstructive Pulmonary Disease

TABLE B-1:

10 LEADING CAUSES OF DEATH, LOS ANGELES COUNTY, 2017

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	11,211	103
2	Alzheimer's disease	4,179	39
3	Stroke	3,749	35
4	COPD	2,927	28
5	Diabetes mellitus	2,658	25
6	Lung Cancer	2,556	24
7	Pneumonia/Influenza	1,957	18
8	Colorectal Cancer	1,449	13
9	Liver disease/cirrhosis	1,412	12
10	Hypertension	1,402	13

* Age-adjusted mortality rate per 100,000 using 2000 U.S. Standard Population

TABLE B-2:

10 LEADING CAUSES OF DEATH BY GENDER, LOS ANGELES COUNTY, 2017

Males

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	6,260	135
2	Stroke	1,650	37
3	Diabetes mellitus	1,491	32
4	Lung Cancer	1,421	31
5	COPD	1,405	32
6	Alzheimer's disease	1,289	31
7	Pneumonia/Influenza	1,000	23
8	Liver disease/cirrhosis	953	18
9	Prostate cancer	872	20
10	Colorectal Cancer	762	16

Females

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	4,951	78
2	Alzheimer's disease	2,890	43
3	Stroke	2,099	33
4	COPD	1,522	24
5	Breast cancer	1,172	19
6	Diabetes mellitus	1,167	19
7	Lung Cancer	1,135	19
8	Pneumonia/Influenza	957	15
9	Hypertension	732	12
10	Colorectal Cancer	687	11

* Age-adjusted mortality rate per 100,000 using 2000 U.S. Standard Population

TABLE B-3:

10 LEADING CAUSES OF DEATH BY AGE GROUP, LOS ANGELES COUNTY, 2017

< 1 Year

Rank	Cause of Death	No. of Deaths	CMR*
1	Extremely low birth weight or extreme immaturity	69	62.8
2	Sudden infant death syndrome	32	29.1
3	Congenital malformations of heart	30	27.3
4	Newborn affected by premature rupture of membranes	19	17.3
5	Bacterial sepsis of newborn	17	15.5
6	Neonatal hemorrhage	15	13.7
7	Edward syndrome	13	11.8
8	Respiratory distress of newborn	11	10.0
9	Congenital malformations and deformations of musculoskeletal system, limbs and integument	9	8.2
9	Newborn affected by chorioamnionitis	9	8.2

1-4 Years

Rank	Cause of Death	No. of Deaths	CMR*
1	Congenital malformations, deformations and chromosomal abnormalities	12	2.5
2	Leukemia	8	1.7
3	Accidental drowning and submersion	6	1.2
4	Malignant neoplasms of meninges, brain and other parts of central nervous system	5	1.0
5	Motor vehicle crash	4	0.8
6	Pneumonia/Influenza	3	0.6
7	Septicemia	1	0.2
7	Anemias	1	0.2
7	Complications of medical and surgical care	1	0.2
7	Homicide	1	0.2

* Crude Mortality Rate / 100,000 population

TABLE B-3 (continued):

10 LEADING CAUSES OF DEATH BY AGE GROUP, LOS ANGELES COUNTY, 2017

5-14 Years

Rank	Cause of Death	No. of Deaths	CMR*
1	Motor vehicle crash	20	1.5
2	Congenital malformations, deformations and chromosomal abnormalities	13	1.0
3	Suicide	11	0.9
4	Leukemia	8	0.6
5	Malignant neoplasms of meninges, brain and other parts of central nervous system	6	0.5
5	Asthma	6	0.5
7	Accidental drowning and submersion	3	0.2
8	Septicemia	2	0.2
8	Homicide	2	0.2
8	Certain conditions originating in the perinatal period	2	0.2

15-24 Years

Rank	Cause of Death	No. of Deaths	CMR*
1	Homicide	161	11.1
2	Motor vehicle crash	154	10.6
3	Suicide	124	8.5
4	Drug overdose (Unintentional)	74	5.1
5	Leukemia	18	1.2
6	Congenital malformations, deformations and chromosomal abnormalities	13	0.9
7	Falls	9	0.6
8	Malignant neoplasms of meninges, brain and other parts of central nervous system	6	0.4
8	Diabetes mellitus	6	0.4
10	Accidental drowning and submersion	5	0.3

* Crude Mortality Rate / 100,000 population

TABLE B-3 (continued):

10 LEADING CAUSES OF DEATH BY AGE GROUP, LOS ANGELES COUNTY, 2017

25-44 Years

Rank	Cause of Death	No. of Deaths	CMR*
1	Drug overdose (Unintentional)	391	13.2
2	Homicide	303	10.3
3	Suicide	291	9.9
4	Motor vehicle crash	234	7.9
5	Liver disease/cirrhosis	134	4.5
6	CHD	114	3.9
7	Stroke	94	3.2
8	Diabetes mellitus	79	2.7
9	Breast cancer	71	2.4
10	Colorectal Cancer	56	1.9

45-64 Years

Rank	Cause of Death	No. of Deaths	CMR*
1	CHD	2,092	78.4
2	Liver disease/cirrhosis	759	28.5
3	Diabetes mellitus	689	25.8
4	Lung Cancer	531	19.9
5	Stroke	515	19.3
6	Breast cancer	435	16.3
7	Colorectal Cancer	382	14.3
8	Drug overdose (Unintentional)	349	13.1
9	Hypertensive heart disease	291	10.9
10	Suicide	287	10.8

* CMR Crude Mortality Rate / 100,000 population

TABLE B-3 (continued):

10 LEADING CAUSES OF DEATH BY AGE GROUP, LOS ANGELES COUNTY, 2017

65-74 Years

Rank	Cause of Death	No. of Deaths	CMR*
1	CHD	2,002	266.6
2	Lung Cancer	739	98.4
3	Diabetes mellitus	594	79.1
4	COPD	566	75.4
5	Stroke	560	74.6
6	Colorectal Cancer	347	46.2
7	Malignant neoplasm of pancreas	343	45.7
8	Liver disease/cirrhosis	313	41.7
9	Malignant neoplasms of liver and intrahepatic bile ducts	291	38.8
10	Pneumonia/Influenza	280	37.3

≥ 75+ Years

Rank	Cause of Death	No. of Deaths	CMR*
1	CHD	6,997	1,238.0
2	Alzheimer's disease	3,963	701.2
3	Stroke	2,571	454.9
4	COPD	2,090	369.8
5	Pneumonia/Influenza	1,474	260.8
6	Diabetes mellitus	1,289	228.1
7	Lung Cancer	1,267	224.2
8	Hypertension	916	162.1
9	Renal failure	782	138.4
10	Hypertensive heart disease	709	125.5

* CMR Crude Mortality Rate / 100,000 population

TABLE B-4:

10 LEADING CAUSES OF DEATH BY RACE/ETHNICITY, LOS ANGELES COUNTY, 2017

White

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	5,497	117
2	Alzheimer's disease	2,458	48
3	COPD	1,781	38
4	Stroke	1,560	33
5	Lung Cancer	1,292	29
6	Pneumonia/Influenza	874	18
7	Diabetes mellitus	766	17
8	Colorectal Cancer	622	14
9	Hypertension	568	12
10	Hypertensive heart disease	529	11

Black

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	1,556	158
2	Stroke	497	53
3	Diabetes mellitus	405	42
4	Alzheimer's disease	399	46
5	COPD	384	40
6	Lung Cancer	372	37
7	Hypertensive heart disease	233	24
8	Hypertension	223	23
9	Renal failure	218	23
10	Pneumonia/Influenza	211	22

Latino

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	2,597	81
2	Diabetes mellitus	1,055	31
3	Stroke	1,043	33
4	Alzheimer's disease	875	31
5	Liver disease/cirrhosis	793	19
6	Pneumonia/Influenza	485	16
7	COPD	471	16
8	Renal failure	433	13
9	Lung Cancer	424	14
10	Motor vehicle crash	412	9

Asian

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	1,491	75
2	Stroke	625	32
3	Lung Cancer	447	23
4	Alzheimer's disease	431	21
5	Diabetes mellitus	411	21
6	Pneumonia/Influenza	382	19
7	COPD	277	14
8	Colorectal Cancer	223	11
9	Renal failure	217	11
10	Hypertension	216	11

* Age-adjusted mortality rate per 100,000 using 2000 U.S. Standard Population

TABLE B-5:

10 LEADING CAUSES OF DEATH BY GENDER AND RACE/ETHNICITY, LOS ANGELES COUNTY, 2017

White Male

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	3,062	151
2	COPD	790	40
3	Alzheimer's disease	759	38
4	Lung Cancer	692	34
5	Stroke	666	34
6	Diabetes mellitus	478	24
7	Pneumonia/Influenza	444	22
8	Prostate cancer	393	20
9	Suicide	346	20
10	Colorectal Cancer	311	16

White Female

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	2,435	87
2	Alzheimer's disease	1,699	55
3	COPD	991	37
4	Stroke	894	31
5	Lung Cancer	600	25
6	Breast cancer	493	21
7	Pneumonia/Influenza	430	15
8	Colorectal Cancer	311	12
9	Hypertension	293	11
10	Diabetes mellitus	288	11

Latino Male

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	1,490	108
2	Diabetes mellitus	588	40
3	Liver disease/cirrhosis	565	29
4	Stroke	493	36
5	Motor vehicle crash	311	13
6	Homicide	291	11
7	Alzheimer's disease	276	26
8	Pneumonia/Influenza	256	21
9	Lung Cancer	246	19
10	Drug overdose (Unintentional)	245	10

Latina Female

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	1,107	61
2	Alzheimer's disease	599	34
3	Stroke	550	30
4	Diabetes mellitus	467	25
5	Breast cancer	320	15
6	COPD	235	13
7	Pneumonia/Influenza	229	13
8	Liver disease/cirrhosis	228	11
9	Hypertension	204	11
10	Renal failure	195	10

* Age-adjusted mortality rate per 100,000 using 2000 U.S. Standard Population

TABLE B-5 (continued):

10 LEADING CAUSES OF DEATH BY GENDER AND RACE/ETHNICITY, LOS ANGELES COUNTY, 2017

Black Male

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	845	202
2	Diabetes mellitus	223	55
3	COPD	199	51
4	Lung Cancer	198	48
5	Stroke	197	50
6	Prostate cancer	187	52
7	Homicide	158	38
8	Hypertensive heart disease	129	31
9	Alzheimer's disease	110	35
10	Renal failure	109	28

Black Female

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	711	123
2	Stroke	300	53
3	Alzheimer's disease	289	51
4	COPD	185	32
5	Diabetes mellitus	182	32
6	Lung Cancer	174	30
7	Breast cancer	158	28
8	Hypertension	120	21
9	Pneumonia/Influenza	110	19
10	Renal failure	109	19

Asian Male

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	819	101
2	Stroke	284	36
3	Lung Cancer	275	34
4	Pneumonia/Influenza	196	25
5	Diabetes mellitus	193	24
6	COPD	172	21
7	Alzheimer's disease	139	18
8	Malignant neoplasms of liver and in	129	15
9	Renal failure	118	14
10	Colorectal Cancer	118	14

Asian Female

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	672	57
2	Stroke	341	29
3	Alzheimer's disease	292	23
4	Diabetes mellitus	218	19
5	Breast cancer	189	18
6	Pneumonia/Influenza	186	16
7	Lung Cancer	172	15
8	Hypertension	111	9
9	Colorectal Cancer	105	9
10	COPD	105	9

* Age-adjusted mortality rate per 100,000 using 2000 U.S. Standard Population

TABLE B-6:

10 LEADING CAUSES OF DEATH BY SERVICE PLANNING AREA (SPA), LOS ANGELES COUNTY, 2017

Antelope Valley (SPA 1)

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	415	124
2	COPD	216	67
3	Alzheimer's disease	200	70
4	Stroke	164	51
5	Diabetes mellitus	133	38
6	Lung Cancer	129	38
7	Motor vehicle crash	86	23
8	Liver disease/cirrhosis	72	19
9	Pneumonia/Influenza	61	19
10	Hypertension	58	17

San Gabriel (SPA 3)

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	2,133	97
2	Alzheimer's disease	782	35
3	Stroke	679	31
4	COPD	604	28
5	Diabetes mellitus	542	25
6	Lung Cancer	502	24
7	Pneumonia/Influenza	403	18
8	Colorectal Cancer	286	13
9	Hypertension	274	13
10	Liver disease/cirrhosis	249	12

San Fernando (SPA 2)

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	2,671	108
2	Alzheimer's disease	1,147	47
3	Stroke	766	32
4	COPD	645	27
5	Lung Cancer	560	23
6	Diabetes mellitus	453	19
7	Pneumonia/Influenza	419	18
8	Colorectal Cancer	296	12
9	Breast cancer	286	11
10	Hypertension	284	12

Metro (SPA 4)

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	1,189	97
2	Stroke	399	33
3	Alzheimer's disease	342	27
4	Diabetes mellitus	295	24
5	Pneumonia/Influenza	242	20
6	Lung Cancer	233	19
7	COPD	207	17
8	Hypertension	184	15
9	Liver disease/cirrhosis	170	13
10	Colorectal Cancer	150	12

* Age-adjusted mortality rate per 100,000 using 2000 U.S. Standard Population

TABLE B-6 (continued):

10 LEADING CAUSES OF DEATH BY SERVICE PLANNING AREA (SPA), LOS ANGELES COUNTY, 2017

West (SPA 5)

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	682	77
2	Alzheimer's disease	383	41
3	Stroke	249	28
4	Lung Cancer	187	22
5	COPD	160	18
6	Pneumonia/Influenza	123	14
7	Malignant neoplasm of p	122	15
8	Colorectal Cancer	94	11
9	Renal failure	93	11
10	Parkinson's disease	91	11

East (SPA 7)

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	1,223	93
2	Stroke	474	37
3	Alzheimer's disease	467	36
4	Diabetes mellitus	403	31
5	COPD	331	26
6	Lung Cancer	269	21
7	Liver disease/cirrhosis	231	17
8	Pneumonia/Influenza	225	17
9	Renal failure	211	16
10	Colorectal Cancer	183	15

South (SPA 6)

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	1,001	127
2	Stroke	365	48
3	Diabetes mellitus	350	44
4	COPD	243	32
5	Alzheimer's disease	223	32
6	Lung Cancer	204	26
7	Hypertension	181	23
8	Homicide	173	15
9	Liver disease/cirrhosis	168	18
10	Pneumonia/Influenza	164	22

South Bay (SPA 8)

Rank	Cause of Death	No. of Deaths	AAMR*
1	CHD	1,897	111
2	Stroke	653	39
3	Alzheimer's disease	635	39
4	COPD	521	31
5	Lung Cancer	472	29
6	Diabetes mellitus	396	23
7	Pneumonia/Influenza	320	19
8	Colorectal Cancer	256	15
9	Liver disease/cirrhosis	235	13
10	Renal failure	225	14

* Age-adjusted mortality rate per 100,000 using 2000 U.S. Standard Population

APPENDIX C

10 Leading Causes of Premature Death

Notes:

1. Statistics are of Los Angeles County residents only.
2. Cause of Death are categorized based on Table B. List of 113 Selected Causes of Death; and Table C. List of 130 Selected Causes of Infant Death.
   Reference: *National Center for Health Statistics, National Vital Statistics System. ICD–10 cause-of-death lists for tabulating mortality statistics (updated September 2018 to include WHO updates to ICD–10 for data year 2017). NCHS Instruction Manual, part 9.* Hyattsville, MD. 2018.
3. Age adjustment is made to US Standard Population 2000.
   Reference: Klein RJ, Schoenborn CA. *Age adjustment using the 2000 projected U.S. population*. Healthy People Statistical Notes, no. 20. Hyattsville, Maryland: National Center for Health Statistics, January 2001.

Data Sources:

1. Los Angeles County Department of Public Health, Los Angeles County Linked Death Data, 2017.
2. July 1, 2017 Population Estimates, Los Angeles County Internal Services Department, 2018/05/07.

Abbreviations:

1. CHD = Coronary Heart Disease
2. COPD = Chronic Obstructive Pulmonary Disease

TABLE C-1:

10 LEADING CAUSES OF PREMATURE DEATH, LOS ANGELES COUNTY, 2017

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	51,515	431
2	Drug overdose (Unintentional)	27,743	263
3	Suicide	26,016	247
4	Motor vehicle crash	25,915	246
5	Homicide	24,769	238
6	Liver disease/cirrhosis	21,604	192
7	Diabetes mellitus	19,102	165
8	Stroke	16,085	142
9	Lung Cancer	13,427	110
10	Breast cancer	12,224	109

* Age-adjusted rate per 100,000 using 2000 U.S. Standard Population

TABLE C-2:

10 LEADING CAUSES OF PREMATURE DEATH BY GENDER, LOS ANGELES COUNTY, 2017

Males

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	38,524	669
2	Homicide	21,021	398
3	Drug overdose (Unintentional)	20,576	390
4	Suicide	20,138	379
5	Motor vehicle crash	19,962	374
6	Liver disease/cirrhosis	15,230	276
7	Diabetes mellitus	12,232	218
8	Stroke	9,643	175
9	Lung Cancer	7,707	132
10	Colorectal Cancer	6,585	119

Females

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	12,991	208
2	Breast cancer	12,162	212
3	Drug overdose (Unintentional)	7,167	135
4	Diabetes mellitus	6,870	115
5	Stroke	6,442	111
6	Liver disease/cirrhosis	6,374	113
7	Motor vehicle crash	5,953	116
8	Suicide	5,878	113
9	Lung Cancer	5,720	90
10	Colorectal Cancer	4,566	79

* Age-adjusted rate per 100,000 using 2000 U.S. Standard Population

TABLE C-3:

10 LEADING CAUSES OF PREMATURE DEATH BY RACE/ETHNICITY, LOS ANGELES COUNTY, 2017

White

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	19,804	474
2	Drug overdose (Unintentional)	12,692	454
3	Suicide	10,429	366
4	Liver disease/cirrhosis	5,903	166
5	Lung Cancer	5,889	133
6	Motor vehicle crash	5,708	216
7	Diabetes mellitus	4,554	122
8	Stroke	3,716	101
9	COPD	3,667	81
10	Breast cancer	3,622	98

Black

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	10,825	987
2	Homicide	7,032	829
3	Motor vehicle crash	4,204	479
4	Diabetes mellitus	3,410	342
5	Stroke	3,099	316
6	Drug overdose (Unintentional)	2,973	319
7	Lung Cancer	2,571	226
8	Hypertensive heart disease	2,245	221
9	Suicide	2,109	251
10	Breast cancer	1,896	189

Latino

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	15,941	341
2	Homicide	14,765	266
3	Motor vehicle crash	14,618	266
4	Liver disease/cirrhosis	12,992	272
5	Drug overdose (Unintentional)	10,230	197
6	Suicide	10,159	185
7	Diabetes mellitus	8,970	190
8	Stroke	6,930	147
9	Colorectal Cancer	4,428	95
10	Breast cancer	4,284	90

Asian

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	4,450	232
2	Suicide	3,208	221
3	Lung Cancer	2,457	123
4	Breast cancer	2,270	129
5	Stroke	2,171	115
6	Diabetes mellitus	1,920	105
7	Colorectal Cancer	1,683	88
8	Drug overdose (Unintentional)	1,554	105
9	Malignant neoplasms of liver and intrahepatic bile ducts	1,406	70
10	Motor vehicle crash	1,285	81

* Age-adjusted rate per 100,000 using 2000 U.S. Standard Population

TABLE C-4:

10 LEADING CAUSES OF PREMATURE DEATH BY GENDER AND RACE/ETHNICITY, LOS ANGELES COUNTY, 2017

White Male

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	15,041	709
2	Drug overdose (Unintentional)	8,567	593
3	Suicide	7,931	539
4	Motor vehicle crash	4,520	332
5	Liver disease/cirrhosis	3,732	198
6	Lung Cancer	3,330	148
7	Diabetes mellitus	3,209	171
8	Stroke	2,313	125
9	Colorectal Cancer	2,094	105
10	COPD	1,973	88

White Female

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	4,763	231
2	Drug overdose (Unintentional)	4,125	305
3	Breast cancer	3,616	202
4	Lung Cancer	2,559	118
5	Suicide	2,498	183
6	Liver disease/cirrhosis	2,171	133
7	COPD	1,694	74
8	Stroke	1,403	76
9	Colorectal Cancer	1,388	74
10	Diabetes mellitus	1,345	72

Latino Male

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	Homicide	12,812	452
2	CHD	11,972	531
3	Motor vehicle crash	11,354	405
4	Liver disease/cirrhosis	9,800	418
5	Drug overdose (Unintentional)	8,534	324
6	Suicide	8,242	294
7	Diabetes mellitus	5,752	253
8	Stroke	4,286	184
9	Colorectal Cancer	2,732	119
10	Leukemia	2,569	96

Latina Female

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	Breast cancer	4,284	178
2	CHD	3,969	165
3	Motor vehicle crash	3,264	122
4	Diabetes mellitus	3,218	132
5	Liver disease/cirrhosis	3,192	132
6	Stroke	2,644	110
7	Homicide	1,953	72
8	Suicide	1,917	71
9	Drug overdose (Unintentional)	1,696	66
10	Colorectal Cancer	1,696	72

* Age-adjusted rate per 100,000 using 2000 U.S. Standard Population

TABLE C-4 (continued):

10 LEADING CAUSES OF PREMATURE DEATH BY GENDER AND RACE/ETHNICITY, LOS ANGELES COUNTY, 2017

Black Male

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	7,548	1,513
2	Homicide	6,224	1,518
3	Motor vehicle crash	3,227	759
4	Diabetes mellitus	2,150	470
5	Drug overdose (Unintentional)	2,128	496
6	Suicide	1,711	425
7	Stroke	1,565	348
8	Lung Cancer	1,445	292
9	Hypertensive heart disease	1,382	297
10	HIV	1,254	284

Black Female

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	3,277	552
2	Breast cancer	1,881	346
3	Stroke	1,534	291
4	Diabetes mellitus	1,260	237
5	Lung Cancer	1,126	172
6	Motor vehicle crash	977	217
7	Hypertensive heart disease	863	159
8	Drug overdose (Unintentional)	845	162
9	Homicide	808	196
10	Hypertension	795	139

Asian Male

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	3,563	416
2	Suicide	2,206	311
3	Lung Cancer	1,460	162
4	Stroke	1,356	161
5	Drug overdose (Unintentional)	1,239	174
6	Malignant neoplasms of liver and intrahepatic bile ducts	1,076	118
7	Diabetes mellitus	1,038	116
8	Colorectal Cancer	891	104
9	Motor vehicle crash	762	101
10	Malignant neoplasm of pancreas	585	67

Asian Female

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	Breast cancer	2,229	231
2	Suicide	1,002	136
3	Lung Cancer	997	91
4	CHD	887	80
5	Diabetes mellitus	882	96
6	Malignant neoplasm of ovary	843	82
7	Stroke	815	77
8	Colorectal Cancer	792	75
9	Motor vehicle crash	523	64
10	Malignant neoplasm of stomach	444	45

* Age-adjusted rate per 100,000 using 2000 U.S. Standard Population

TABLE C-5:

10 LEADING CAUSES OF PREMATURE DEATH BY SERVICE PLANNING AREA (SPA), LOS ANGELES COUNTY, 2017

Antelope Valley (SPA 1)

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	Motor vehicle crash	3,038	764
2	CHD	2,644	603
3	Suicide	1,476	382
4	Drug overdose (Unintentional)	1,463	381
5	Diabetes mellitus	1,403	333
6	Liver disease/cirrhosis	1,112	284
7	Homicide	1,108	298
8	Stroke	1,097	286
9	COPD	1,016	236
10	Lung Cancer	785	172

San Gabriel (SPA 3)

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	8,166	368
2	Suicide	4,426	248
3	Motor vehicle crash	4,395	247
4	Liver disease/cirrhosis	3,758	189
5	Diabetes mellitus	3,457	165
6	Drug overdose (Unintentional)	3,318	188
7	Homicide	3,226	185
8	Lung Cancer	2,776	122
9	Colorectal Cancer	2,299	110
10	Stroke	2,250	110

San Fernando (SPA 2)

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	11,039	401
2	Drug overdose (Unintentional)	6,705	293
3	Suicide	5,616	242
4	Motor vehicle crash	4,158	178
5	Liver disease/cirrhosis	3,655	141
6	Homicide	2,854	125
7	Stroke	2,776	105
8	Lung Cancer	2,775	96
9	Breast cancer	2,751	105
10	Diabetes mellitus	2,606	96

Metro (SPA 4)

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	5,767	429
2	Suicide	3,884	303
3	Drug overdose (Unintentional)	3,251	243
4	Liver disease/cirrhosis	2,866	214
5	Homicide	2,548	215
6	Diabetes mellitus	2,178	161
7	Motor vehicle crash	2,177	172
8	Stroke	1,982	149
9	Lung Cancer	1,365	104
10	Colorectal Cancer	1,230	91

* Age-adjusted rate per 100,000 using 2000 U.S. Standard Population

TABLE C-5 (continued):
10 LEADING CAUSES OF PREMATURE DEATH BY SERVICE PLANNING AREA (SPA), LOS ANGELES COUNTY, 2017

West (SPA 5)

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	Drug overdose (Unintentional)	2,291	326
2	CHD	2,236	261
3	Suicide	1,655	239
4	Lung Cancer	890	105
5	Breast cancer	676	84
6	Stroke	674	101
7	Motor vehicle crash	651	93
8	Homicide	531	73
9	Malignant neoplasm of pancreas	526	58
10	Colorectal Cancer	511	63

East (SPA 7)

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	5,872	416
2	Motor vehicle crash	3,416	249
3	Liver disease/cirrhosis	3,383	249
4	Suicide	3,207	236
5	Diabetes mellitus	3,149	227
6	Drug overdose (Unintentional)	2,972	228
7	Homicide	2,324	180
8	Stroke	2,134	158
9	Breast cancer	1,467	113
10	Colorectal Cancer	1,297	98

South (SPA 6)

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	Homicide	7,595	647
2	CHD	6,627	660
3	Motor vehicle crash	4,183	366
4	Drug overdose (Unintentional)	3,237	306
5	Liver disease/cirrhosis	2,866	286
6	Diabetes mellitus	2,814	282
7	Stroke	2,327	234
8	Suicide	2,264	198
9	Breast cancer	1,371	140
10	Lung Cancer	1,339	132

South Bay (SPA 8)

Rank	Cause of Death	YPLL-75	YPLL AAR*
1	CHD	9,164	482
2	Homicide	4,583	291
3	Drug overdose (Unintentional)	4,506	281
4	Motor vehicle crash	3,897	240
5	Liver disease/cirrhosis	3,524	199
6	Suicide	3,488	218
7	Diabetes mellitus	3,070	172
8	Stroke	2,845	158
9	Breast cancer	2,345	139
10	Lung Cancer	2,273	119

* Age-adjusted rate per 100,000 using 2000 U.S. Standard Population

APPENDIX D

Trends in Mortality

TABLE D-1: Alzheimer's Disease

	2008 No. of deaths	2008 Death rate*	2009 No. of deaths	2009 Death rate*	2010 No. of deaths	2010 Death rate*	2011 No. of deaths	2011 Death rate*	2012 No. of deaths	2012 Death rate*	2013 No. of deaths	2013 Death rate*	2014 No. of deaths	2014 Death rate*	2015 No. of deaths	2015 Death rate*	2016 No. of deaths	2016 Death rate*	2017 No. of deaths	2017 Death rate*	Death Rate Change 2008-2017	Death Rate Change 2016-2017
Los Angeles County	2,121	22.6	2,125	22.0	2,242	24.7	2,346	23.6	2,476	24.0	2,577	25.1	2,884	28.4	3,800	35.6	4,002	36.9	4,179	38.7	71.5%	4.8%
Male	676	19.6	694	19.7	751	22.3	732	19.9	824	21.1	838	21.7	928	24.5	1,160	29.2	1,238	30.6	1,289	31.2	59.5%	2.0%
Female	1,445	24.2	1,431	23.3	1,491	26.0	1,614	25.7	1,652	25.7	1,739	27.0	1,956	30.6	2,640	39.3	2,764	40.5	2,890	43.2	78.9%	6.7%
White	1,487	28.6	1,480	27.7	1,509	30.7	1,525	29.1	1,606	30.6	1,592	31.0	1,852	36.1	2,273	43.1	2,418	46.3	2,458	48.5	69.3%	4.7%
Latino/a	310	15.4	349	16.9	376	19.6	412	18.8	423	17.7	513	21.4	527	22.3	769	29.8	809	29.8	875	31.2	102.3%	4.8%
Black	204	26.2	184	23.4	186	24.8	226	27.6	221	25.7	265	30.7	253	30.3	396	47.5	362	42.1	399	45.5	73.8%	8.2%
Asian†	116	8.3	108	7.6	167	11.6	176	10.9	216	12.3	197	10.9	237	13.3	341	17.4	380	18.8	431	21.4	156.1%	13.6%
Males																						
White	478	25.1	497	25.5	510	27.8	465	23.8	539	26.6	534	27.3	580	29.9	715	35.7	766	38.9	759	38.5	53.1%	-1.2%
Latino	91	12.2	108	14.5	133	18.9	135	16.7	154	17.3	172	19.1	180	20.8	243	26.1	241	24.1	276	26.3	115.9%	9.1%
Black	58	21.8	51	19.3	55	22.2	67	23.7	64	21.3	63	20.8	83	28.3	87	29.7	110	36.2	110	34.6	58.5%	-4.5%
Asian†	47	8.6	36	6.5	52	9.3	62	10.0	62	9.0	68	9.7	77	11.2	107	14.4	109	14.3	139	17.8	107.2%	24.5%
Females																						
White	1,009	30.5	983	28.9	999	32.3	1,060	32.1	1,067	33.2	1,058	33.2	1,272	39.8	1,558	47.6	1,652	50.8	1,699	54.9	79.7%	8.0%
Latina	219	17.2	241	18.3	243	20.0	277	19.9	269	17.9	341	22.4	347	23.0	526	31.8	568	32.8	599	34.1	98.5%	4.1%
Black	146	27.8	133	25.6	131	25.7	159	29.3	157	27.5	202	35.8	170	31.0	309	56.5	252	44.9	289	51.1	84.0%	13.8%
Asian†	69	8.2	72	8.2	115	13.0	114	11.3	154	14.4	129	11.6	160	14.4	234	19.2	271	21.5	292	23.4	186.2%	8.9%
SPA 1: Antelope Valley	74	31.7	72	30.2	86	38.7	75	30.2	95	36.6	110	40.8	135	52.0	168	61.4	177	63.7	200	70.3	122.0%	10.4%
SPA 2: San Fernando	595	29.1	568	26.6	606	29.0	618	27.3	657	27.5	703	30.0	804	34.5	993	40.5	1,082	44.8	1,147	47.1	61.7%	5.1%
SPA 3: San Gabriel	381	20.7	399	21.0	422	23.0	473	23.5	516	24.9	504	24.2	531	25.7	713	32.3	720	31.9	782	34.6	67.1%	8.3%
SPA 4: Metro	189	16.3	169	14.5	190	18.5	222	19.6	219	18.5	222	19.1	264	22.7	335	27.2	339	27.1	342	27.5	68.8%	1.3%
SPA 5: West	198	23.2	216	24.5	210	24.2	188	20.4	225	23.8	212	23.3	255	26.9	328	34.9	373	39.2	383	40.6	74.6%	3.5%
SPA 6: South	128	19.2	128	19.1	96	16.7	139	21.6	135	19.8	148	22.0	161	25.1	241	36.4	237	34.3	223	32.2	67.6%	-6.1%
SPA 7: East	240	20.3	262	21.9	293	27.3	263	22.1	269	21.6	283	23.1	327	26.8	416	31.8	455	34.0	467	35.5	74.9%	4.4%
SPA 8: South Bay	309	21.5	311	21.0	339	24.4	367	24.2	359	23.2	395	24.9	407	26.2	606	37.3	618	37.0	635	38.7	79.7%	4.5%

Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

TABLE D-2: Breast Cancer (female)	2008		2009		2010		2011			2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*		No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	2008-2017	2016-2017
Los Angeles County	1,071	20.8	1,166	22.5	1,109	21.1	1,143	21.2		1,170	21.1	1,138	20.5	1,212	21.4	1,072	18.4	1,119	18.8	1,172	19.4	-6.9%	3.1%
Females																							
White	560	24.4	593	26.4	532	24.4	552	24.5		594	26.5	542	24.6	572	25.7	484	20.9	508	22.0	493	21.2	-13.3%	-3.7%
Latina	221	14.3	262	17.1	247	14.9	267	15.5		268	14.3	288	15.9	299	15.5	244	12.3	279	13.6	320	15.3	7.3%	12.5%
Black	180	35.7	187	36.5	187	36.4	196	38.0		163	31.0	155	29.8	179	33.1	190	35.0	177	31.7	158	27.6	-22.8%	-12.9%
Asian†	108	13.1	120	14.5	137	15.0	123	13.1		142	14.7	147	14.9	147	14.5	144	14.0	146	13.6	189	17.6	34.7%	29.3%
SPA 1: Antelope Valley	38	24.5	34	21.7	42	26.1	53	29.7		52	28.7	45	24.1	53	28.2	34	18.0	52	27.4	39	19.1	-22.0%	-30.3%
SPA 2: San Fernando	240	20.9	235	19.9	251	21.2	240	19.5		271	21.6	280	22.3	287	22.6	238	17.9	277	20.5	284	20.3	-2.9%	-0.9%
SPA 3: San Gabriel	187	18.9	233	23.4	230	22.1	213	19.6		228	20.9	211	19.4	218	19.8	214	18.8	217	18.9	220	18.5	-1.8%	-2.1%
SPA 4: Metro	108	19.0	92	16.2	86	15.0	115	19.5		105	17.6	96	15.9	97	16.1	110	17.3	84	12.9	104	15.5	-18.4%	20.2%
SPA 5: West	98	23.2	96	22.9	83	19.7	83	20.7		78	18.9	85	20.2	101	23.3	65	15.2	82	18.1	80	17.3	-25.5%	-4.3%
SPA 6: South	104	26.1	121	30.1	120	29.2	115	27.4		94	21.7	100	22.8	113	25.4	106	22.7	108	22.6	110	22.5	-14.0%	-0.5%
SPA 7: East	117	18.1	153	24.2	118	18.3	129	19.5		148	21.5	143	21.3	151	21.3	108	15.0	133	18.4	129	18.1	-0.2%	-1.6%
SPA 8: South Bay	176	21.7	202	24.6	178	21.3	194	23.0		194	22.3	177	20.4	192	21.2	197	21.6	166	17.8	206	22.2	2.5%	24.9%

Vertical note between 2011 and 2012 columns: Before 2012, Asian included NHOPI**; therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000 females. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian

TABLE D-3: Chronic Obstructive Pulmnary Disease (COPD)

	2008 No. of deaths	2008 Death rate*	2009 No. of deaths	2009 Death rate*	2010 No. of deaths	2010 Death rate*	2011 No. of deaths	2011 Death rate*	2012 No. of deaths	2012 Death rate*	2013 No. of deaths	2013 Death rate*	2014 No. of deaths	2014 Death rate*	2015 No. of deaths	2015 Death rate*	2016 No. of deaths	2016 Death rate*	2017 No. of deaths	2017 Death rate*	Death Rate Change 2008-2017	Death Rate Change 2016-2017
Los Angeles County	2,889	32.3	2,904	31.9	2,622	29.6	2,874	30.5	2,646	26.8	2,874	29.2	2,673	27.2	2,857	27.7	2,996	28.5	2,927	27.6	-14.5%	-3.1%
Male	1,398	38.7	1,420	38.9	1,246	34.7	1,342	35.1	1,266	31.4	1,406	35.1	1,335	33.7	1,390	33.0	1,444	33.5	1,405	32.2	-16.8%	-3.9%
Female	1,491	27.8	1,484	27.2	1,376	25.9	1,532	27.2	1,380	23.6	1,468	25.0	1,338	22.9	1,467	24.0	1,552	24.9	1,522	24.3	-12.6%	-2.3%
White	1,955	43.3	1,895	41.2	1,743	40.0	1,843	40.4	1,709	37.0	1,866	41.2	1,685	37.1	1,747	37.2	1,876	40.3	1,781	38.2	-11.6%	-5.1%
Latino/a	343	16.0	392	18.5	345	16.7	383	16.6	368	14.7	400	16.0	417	16.8	434	16.1	461	15.9	471	16.1	0.1%	1.0%
Black	318	39.1	337	40.7	289	35.2	349	40.7	304	33.9	329	36.3	305	34.2	362	39.4	354	37.4	384	39.6	1.4%	5.9%
Asian†	258	18.9	267	19.0	229	16.0	287	18.2	241	14.0	260	14.7	251	14.3	281	15.0	273	14.0	277	14.0	-26.2%	-0.3%
Males																						
White	894	48.1	887	46.8	762	42.1	799	41.9	763	38.9	864	45.3	790	41.4	819	41.4	817	41.5	790	40.3	-16.2%	-2.9%
Latino	175	20.7	194	23.7	172	21.1	186	20.3	176	18.1	200	20.3	223	23.1	201	19.5	237	20.8	236	20.1	-3.0%	-3.5%
Black	157	49.8	176	56.6	161	50.1	181	54.3	163	46.8	169	47.7	159	46.4	184	51.2	194	52.9	199	50.6	1.5%	-4.4%
Asian†	162	29.4	158	27.9	138	24.3	167	26.7	152	22.2	158	22.4	155	22.3	169	22.3	177	22.8	172	21.5	-26.8%	-5.7%
Females																						
White	1,061	39.6	1,008	37.2	981	38.1	1,044	39.3	946	35.6	1,002	38.0	895	34.2	928	34.0	1,059	39.1	991	36.6	-7.5%	-6.3%
Latina	168	13.1	198	15.3	173	13.8	197	14.1	192	12.5	200	13.1	194	12.8	233	14.0	224	12.8	235	13.3	2.3%	4.3%
Black	161	32.1	161	31.4	128	25.6	168	32.3	141	26.0	160	28.9	146	27.0	178	32.3	160	27.7	185	32.1	0.1%	16.0%
Asian†	96	11.7	109	12.7	91	10.4	120	12.5	89	8.4	102	9.4	96	9.2	112	10.1	96	8.0	105	8.8	-24.5%	10.1%
SPA 1: Antelope Valley	184	73.9	202	77.6	172	69.7	204	75.6	176	61.9	170	58.9	180	62.4	203	65.6	196	62.5	216	67.2	-9.2%	7.4%
SPA 2: San Fernando	527	26.9	572	28.4	539	26.8	596	27.8	563	25.0	592	26.7	554	24.9	654	27.7	719	30.3	645	27.0	0.7%	-10.7%
SPA 3: San Gabriel	614	34.8	631	35.5	534	30.0	625	32.7	542	27.1	601	30.2	551	27.6	587	28.0	613	28.2	604	28.0	-19.4%	-0.5%
SPA 4: Metro	260	24.3	251	23.4	189	18.9	206	19.8	235	21.0	248	21.9	215	19.6	232	20.0	233	19.6	207	17.2	-29.1%	-12.3%
SPA 5: West	195	24.9	182	22.8	146	18.6	180	21.2	156	18.4	154	18.4	184	21.9	148	17.3	142	16.6	160	18.1	-27.4%	9.0%
SPA 6: South	214	32.8	216	33.0	202	32.6	217	32.7	206	29.5	224	32.0	187	27.3	220	30.8	235	31.3	243	32.0	-2.2%	2.4%
SPA 7: East	381	34.2	359	32.2	339	31.7	325	28.3	309	25.6	351	29.9	355	30.0	340	27.1	364	29.0	331	26.0	-24.2%	-10.5%
SPA 8: South Bay	501	36.0	488	34.0	496	36.2	521	35.4	458	30.1	532	34.4	446	28.8	472	29.4	492	29.8	521	31.4	-12.6%	5.5%

Vertical note between 2010 and 2011: Because of changes to the ICD-10 codes for this cause of death, 2008-2010 may not be comparable to 2011-2016.

Vertical note between 2011 and 2012: Before 2012, Asian included NHOPI**; therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.
**NHOPI = Native Hawaiian and other Pacific Islander.
†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	2008-2017	2016-2017
Los Angeles County	1,365	15.0	1,388	15.0	1,285	14.0	1,400	14.5	1,397	13.9	1,376	13.8	1,372	13.6	1,482	14.0	1,358	12.7	1,449	13.4	-10.3%	5.8%
Male	703	18.2	710	18.0	663	16.8	715	17.0	737	16.8	709	16.3	710	16.2	771	16.4	698	14.9	762	16.1	-11.3%	8.1%
Female	662	12.6	678	12.7	622	11.9	685	12.6	660	11.6	667	11.8	662	11.6	711	12.0	660	10.9	687	11.3	-10.6%	3.5%
White	660	15.0	696	15.6	619	14.8	613	14.1	606	14.0	632	15.0	611	14.3	611	13.8	597	13.4	622	14.0	-6.8%	4.3%
Latino/a	306	12.1	286	11.4	296	11.3	359	12.7	345	11.2	347	11.5	320	10.7	400	12.0	366	10.6	404	11.5	-4.9%	8.8%
Black	196	23.1	209	24.8	195	23.4	194	22.0	221	24.0	181	19.7	191	20.8	195	20.6	166	17.7	188	19.5	-15.7%	10.1%
Asian[†]	197	13.9	195	13.5	173	11.4	228	13.9	216	12.5	204	11.6	234	13.0	263	14.1	214	11.3	223	11.4	-17.8%	1.0%
Males																						
White	325	17.3	345	18.0	317	17.3	312	16.1	313	16.2	306	16.2	315	16.4	309	15.2	296	14.8	311	15.6	-9.6%	5.7%
Latino	167	15.5	169	16.5	157	13.9	192	15.7	191	14.3	194	14.8	168	13.6	217	15.3	188	11.8	225	14.5	-6.5%	22.6%
Black	96	27.9	95	27.0	97	27.7	94	26.6	114	30.6	88	23.4	94	24.5	95	23.3	84	21.3	101	26.2	-6.0%	23.0%
Asian[†]	111	18.2	101	16.1	91	13.9	113	16.2	116	15.9	114	15.1	124	16.0	142	17.8	121	15.2	118	14.1	-22.5%	-7.0%
Females																						
White	335	13.3	351	13.7	302	12.7	301	12.5	293	12.0	326	13.7	296	12.6	302	12.5	301	12.3	311	12.4	-6.7%	0.8%
Latina	139	9.6	117	8.0	139	9.4	167	10.6	154	9.0	153	9.1	152	8.8	183	9.7	178	9.5	179	9.2	-4.3%	-2.9%
Black	100	19.8	114	22.9	98	19.8	100	18.9	107	19.6	93	17.3	97	18.1	100	18.6	82	14.9	87	15.2	-23.1%	2.0%
Asian[†]	86	10.7	94	11.5	82	9.4	115	12.3	100	10.0	90	9.1	110	10.6	121	11.1	93	8.3	105	9.4	-12.1%	12.9%
SPA 1: Antelope Valley	36	13.7	52	19.3	49	16.6	39	12.4	52	16.0	52	16.8	46	14.8	57	16.6	53	15.4	55	17.3	25.9%	12.2%
SPA 2: San Fernando	301	14.9	294	14.0	281	13.5	312	14.3	288	12.6	308	13.6	295	12.9	323	13.3	306	12.5	296	12.1	-18.9%	-3.3%
SPA 3: San Gabriel	251	14.2	263	14.7	250	13.8	267	13.9	268	13.5	307	15.5	283	14.1	306	14.7	286	13.7	286	13.1	-7.5%	-4.3%
SPA 4: Metro	154	14.6	149	14.1	133	13.4	152	14.0	173	15.8	142	12.9	142	12.7	166	14.4	155	12.8	150	12.1	-16.7%	-5.3%
SPA 5: West	98	13.2	102	13.3	92	12.0	99	12.7	83	10.1	75	9.4	92	11.8	102	12.1	81	9.4	94	10.8	-18.0%	15.3%
SPA 6: South	128	19.0	140	20.9	117	17.3	119	16.8	135	18.5	116	16.0	140	18.7	131	16.3	115	15.0	129	16.3	-14.5%	8.4%
SPA 7: East	163	14.6	152	13.4	149	13.4	176	14.8	186	15.3	168	14.2	161	13.2	167	12.9	153	11.7	183	14.6	0.0%	25.0%
SPA 8: South Bay	229	15.7	235	16.1	213	14.8	235	15.5	211	13.4	208	13.1	212	13.4	230	13.9	208	12.2	256	15.1	-3.9%	23.4%

Between 2011 and 2012 columns (vertical text): Because of changes to the ICD-10 codes for this cause of death, 2007-2010 may not be comparable to 2011-2016. Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

TABLE D-5: Coronary Heart Disease (CHD)

	2008 No. of deaths	2008 Death rate*	2009 No. of deaths	2009 Death rate*	2010 No. of deaths	2010 Death rate*	2011 No. of deaths	2011 Death rate*	2012 No. of deaths	2012 Death rate*	2013 No. of deaths	2013 Death rate*	2014 No. of deaths	2014 Death rate*	2015 No. of deaths	2015 Death rate*	2016 No. of deaths	2016 Death rate*	2017 No. of deaths	2017 Death rate*	Death Rate Change 2008-2017	Death Rate Change 2016-2017
Los Angeles County	13,428	145.6	12,725	135.1	12,635	137.8	11,913	121.5	11,677	114.7	11,827	116.7	11,062	109.0	11,385	107.6	11,115	103.1	11,211	102.9	-29.3%	-0.1%
Male	7,001	185.5	6,638	171.2	6,651	175.4	6,237	153.8	6,332	149.2	6,436	152.1	6,114	143.1	6,263	141.5	6,284	138.1	6,260	135.0	-27.2%	-2.3%
Female	6,427	114.2	6,087	106.3	5,984	108.4	5,676	95.7	5,345	87.1	5,391	88.6	4,948	81.8	5,122	81.3	4,831	75.7	4,951	77.5	-32.1%	2.4%
White	7,596	160.3	6,980	145.1	6,845	151.3	6,475	135.4	6,298	132.1	6,188	132.3	5,672	122.0	5,809	121.1	5,485	116.1	5,497	116.7	-27.2%	0.5%
Latino/a	2,536	112.7	2,428	104.7	2,555	110.9	2,404	96.2	2,383	88.1	2,516	92.5	2,434	87.7	2,515	85.4	2,533	80.9	2,597	81.0	-28.1%	0.2%
Black	1,804	217.9	1,878	221.2	1,721	208.0	1,571	178.5	1,583	173.8	1,619	177.1	1,511	164.5	1,528	164.3	1,543	160.2	1,556	157.8	-27.6%	-1.5%
Asian†	1,437	103.3	1,387	97.2	1,451	98.5	1,396	86.7	1,301	74.3	1,398	78.4	1,347	76.2	1,412	74.8	1,427	73.4	1,491	75.5	-26.9%	2.8%
Males																						
White	3,905	205.1	3,598	185.5	3,566	192.0	3,342	171.1	3,411	171.9	3,360	172.2	3,194	163.7	3,189	158.2	3,124	156.2	3,062	151.3	-26.2%	-3.1%
Latino	1,349	141.2	1,333	134.7	1,372	138.3	1,323	124.4	1,271	109.7	1,418	121.8	1,325	110.7	1,421	112.7	1,436	106.4	1,490	107.9	-23.6%	1.4%
Black	940	284.6	957	278.7	898	273.0	817	227.6	863	233.7	836	221.5	828	218.1	826	216.4	877	219.4	845	201.9	-29.1%	-8.0%
Asian†	770	131.8	718	119.3	776	127.9	706	105.5	707	98.1	765	104.8	711	97.2	759	98.1	781	98.2	819	100.9	-23.4%	2.8%
Females																						
White	3,691	123.0	3,382	111.2	3,279	116.3	3,133	104.6	2,887	97.6	2,828	98.3	2,478	86.2	2,620	90.4	2,361	83.2	2,435	87.3	-29.1%	4.9%
Latina	1,187	90.8	1,095	82.0	1,183	90.1	1,081	75.2	1,112	71.4	1,098	70.3	1,109	70.1	1,094	64.8	1,097	61.5	1,107	60.7	-33.2%	-1.4%
Black	864	170.8	921	178.1	823	162.8	754	141.2	720	129.8	783	141.4	683	124.2	702	126.0	666	116.5	711	122.9	-28.1%	5.5%
Asian†	667	81.2	669	79.3	675	77.0	690	72.1	594	56.3	633	58.8	636	60.2	653	57.3	646	54.6	672	56.7	-30.2%	3.8%
SPA 1: Antelope Valley	459	175.7	476	180.0	499	188.2	404	141.8	423	142.4	453	148.4	466	148.1	431	134.7	424	129.5	415	123.8	-29.5%	-4.4%
SPA 2: San Fernando	3,081	151.7	2,828	134.7	2,852	136.5	2,702	121.1	2,657	113.3	2,717	118.5	2,511	108.8	2,630	109.3	2,515	104.0	2,671	108.3	-28.6%	4.2%
SPA 3: San Gabriel	2,486	137.3	2,304	125.7	2,270	123.8	2,219	112.1	2,168	106.7	2,193	106.6	2,080	101.9	2,093	97.7	2,060	94.8	2,133	97.1	-29.3%	2.4%
SPA 4: Metro	1,469	135.4	1,414	130.4	1,495	147.8	1,350	124.6	1,333	117.5	1,323	116.5	1,254	110.9	1,282	109.1	1,305	107.0	1,189	97.0	-28.3%	-9.3%
SPA 5: West	882	110.8	854	103.9	817	98.5	823	94.5	822	94.1	764	87.7	700	81.9	729	82.6	735	83.9	682	76.9	-30.6%	-8.4%
SPA 6: South	1,222	183.4	1,271	187.4	1,112	173.0	1,063	155.3	1,031	142.1	1,061	147.5	987	135.5	1,020	136.5	1,031	130.3	1,001	127.4	-30.6%	-2.2%
SPA 7: East	1,588	138.6	1,488	128.3	1,463	133.7	1,401	118.9	1,345	109.1	1,373	113.2	1,243	101.7	1,280	99.2	1,201	91.8	1,223	92.9	-33.0%	1.2%
SPA 8: South Bay	2,143	148.6	2,029	137.0	2,064	144.3	1,936	126.7	1,896	120.4	1,933	122.1	1,811	113.3	1,911	115.4	1,834	107.9	1,897	111.2	-25.2%	3.0%

Rotated text between 2011 and 2012 columns: Because of changes to the ICD-10 codes for this cause of death, 2007-2010 may not be comparable to 2011-2016. Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

TABLE D-6: Diabetes Mellitus	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	2008-2017	2016-2017
Los Angeles County	2,190	24.2	1,964	21.3	1,894	21.0	2,196	22.9	2,204	22.4	2,172	21.9	2,291	22.9	2,373	22.7	2,480	23.1	2,658	24.7	1.8%	6.7%
Male	1,084	28.0	1,024	26.1	993	25.7	1,170	28.3	1,151	26.8	1,126	26.4	1,234	28.4	1,281	28.0	1,330	28.4	1,491	31.7	13.1%	11.6%
Female	1,106	21.3	940	17.6	901	17.4	1,026	18.7	1,053	18.7	1,046	18.4	1,057	18.6	1,092	18.5	1,150	19.1	1,167	19.1	-10.6%	-0.1%
White	801	18.3	672	15.2	667	15.9	783	17.8	736	16.9	675	15.5	731	16.7	712	16.1	762	17.0	766	17.4	-4.7%	2.3%
Latino/a	764	31.8	694	28.4	690	28.5	799	29.6	824	28.8	860	29.9	868	29.8	897	28.6	939	28.1	1,055	31.4	-1.2%	11.7%
Black	359	43.2	340	39.7	294	35.5	316	36.0	345	38.9	286	31.5	398	43.2	400	42.3	398	40.5	405	41.9	-3.1%	3.4%
Asian†	257	18.5	248	17.6	237	16.0	278	17.4	273	16.2	318	18.3	269	15.3	333	18.0	347	18.0	411	21.3	15.1%	18.2%
Males																						
White	429	22.9	364	19.2	365	20.0	453	23.5	402	20.8	374	19.7	424	21.9	403	20.4	442	22.2	478	24.5	6.9%	10.3%
Latino	371	35.7	361	34.8	356	34.2	430	36.4	443	34.7	437	35.4	464	37.0	484	35.3	498	34.3	588	40.3	12.9%	17.4%
Black	157	46.3	161	46.2	144	42.9	150	42.5	168	45.9	150	40.1	199	51.4	209	53.4	199	48.1	223	54.8	18.3%	13.9%
Asian†	126	21.4	131	22.1	124	20.0	129	19.3	122	17.5	154	21.3	138	18.9	169	21.4	176	21.9	193	23.6	10.1%	7.7%
Females																						
White	372	14.6	308	11.9	302	12.6	330	13.4	334	13.5	301	11.9	307	12.5	309	12.6	320	13.0	288	11.5	-21.1%	-11.6%
Latina	393	28.8	333	23.7	334	24.3	369	24.3	381	23.9	423	25.9	404	24.4	413	23.6	441	23.5	467	24.7	-14.0%	5.3%
Black	202	40.9	179	34.8	150	30.4	166	32.0	177	33.2	136	25.1	199	37.1	191	34.5	199	35.1	182	32.3	-21.1%	-8.1%
Asian†	131	16.2	117	14.1	113	13.0	149	16.0	151	15.1	164	16.0	131	12.7	164	15.4	171	14.9	218	19.4	19.4%	30.2%
SPA 1: Antelope Valley	106	38.7	113	39.9	85	30.8	109	36.7	102	33.4	103	32.0	118	37.4	106	30.8	148	43.7	133	37.8	-2.1%	-13.4%
SPA 2: San Fernando	408	20.5	337	16.3	343	16.7	391	18.0	390	17.3	392	17.7	392	17.2	423	17.7	432	17.9	453	18.7	-8.7%	4.3%
SPA 3: San Gabriel	405	23.0	375	21.2	330	18.6	400	21.1	475	24.3	449	22.8	429	21.7	463	22.6	479	22.3	542	25.5	10.8%	14.2%
SPA 4: Metro	241	23.3	212	20.0	230	23.2	276	26.1	273	25.0	256	23.5	258	23.1	226	19.3	253	21.0	295	24.1	3.5%	14.6%
SPA 5: West	100	13.5	75	9.6	90	11.9	83	10.1	88	11.1	63	7.5	91	11.3	84	9.9	99	11.8	86	10.5	-22.4%	-11.3%
SPA 6: South	262	39.2	247	35.9	218	32.6	245	35.2	265	36.3	279	37.6	317	42.3	313	40.6	317	38.7	350	43.7	11.5%	12.8%
SPA 7: East	352	31.4	323	28.9	302	27.6	350	29.9	304	25.4	312	25.7	337	28.1	376	29.7	372	28.9	403	30.8	-1.7%	6.6%
SPA 8: South Bay	309	21.5	282	19.2	293	20.7	336	22.0	307	19.9	317	20.1	349	21.9	381	23.2	380	22.3	396	23.4	9.0%	4.9%

Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.
**NHOPI = Native Hawaiian and other Pacific Islander.
†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

TABLE D-7: Drug Overdose	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	2008-2017	2016-2017
Los Angeles County	625	6.3	685	6.9	611	6.0	580	5.7	609	5.9	749	7.2	689	6.5	690	6.5	732	6.8	864	8.0	27.7%	17.7%
Male	431	8.7	471	9.5	435	8.7	407	8.0	428	8.4	524	10.2	490	9.4	500	9.5	550	10.3	631	11.8	35.8%	14.9%
Female	194	3.8	214	4.2	176	3.4	173	3.3	181	3.5	225	4.3	199	3.7	190	3.5	182	3.3	233	4.2	10.5%	27.9%
White	326	10.0	356	10.9	314	10.0	324	10.4	323	10.6	407	12.8	370	11.7	361	11.9	369	12.0	406	13.2	32.0%	10.2%
Latino/a	195	4.8	219	5.2	194	4.5	167	3.7	184	4.1	224	4.8	207	4.5	198	4.1	248	5.0	292	5.8	22.2%	16.1%
Black	87	9.3	93	9.9	90	9.7	71	7.6	77	8.0	86	9.1	91	9.3	101	10.5	95	9.5	114	11.4	23.1%	20.5%
Asian†	13	--	13	--	9	--	15	--	17	1.2	24	1.6	14	0.9	24	1.5	16	1.0	43	2.8	--	179.6%
Males																						
White	204	12.5	229	14.1	209	13.2	216	13.6	217	13.8	279	17.3	253	15.9	255	16.5	268	17.2	268	17.1	36.4%	-0.6%
Latino	164	8.0	181	8.7	163	7.6	133	6.0	150	6.8	174	7.7	165	7.2	163	6.7	209	8.5	245	9.8	22.9%	14.9%
Black	53	12.6	53	12.5	56	13.0	45	10.3	42	9.3	50	11.1	61	13.4	63	14.1	57	12.6	81	17.9	41.4%	41.9%
Asian†	7	--	6	--	<5	--	12	--	13	2.0	17	2.4	10	1.4	15	1.9	14	1.9	34	4.7	--	147.1%
Females																						
White	122	7.3	127	7.7	105	6.5	108	7.1	106	7.2	128	8.1	117	7.3	106	7.0	101	6.6	138	9.1	24.5%	38.5%
Latina	31	1.6	38	1.8	31	1.5	34	1.5	34	1.6	50	2.1	42	1.8	35	1.4	39	1.6	47	1.9	17.4%	15.9%
Black	34	6.5	40	8.0	34	6.9	26	5.1	35	7.1	36	7.6	30	5.8	38	7.4	38	7.0	33	6.0	-8.4%	-14.9%
Asian†	6	--	7	--	6	--	<5	--	<5	--	7	0.9	<5	--	9	1.1	<5	--	9	1.1	--	--
SPA 1: Antelope Valley	24	6.6	27	7.7	38	9.7	32	8.5	35	8.8	47	12.2	47	11.7	33	8.7	44	11.3	46	11.7	78.2%	3.6%
SPA 2: San Fernando	133	6.1	146	6.5	122	5.5	146	6.4	133	5.8	170	7.3	174	7.5	144	6.2	145	6.1	202	8.5	39.8%	39.5%
SPA 3: San Gabriel	70	4.0	91	5.2	70	3.9	69	3.9	87	4.8	82	4.5	75	4.0	95	5.2	107	5.7	98	5.4	33.5%	-5.8%
SPA 4: Metro	91	7.7	89	7.5	89	7.5	80	6.7	98	8.1	108	8.8	89	7.2	117	9.3	114	8.7	108	8.1	5.3%	-7.3%
SPA 5: West	46	6.4	41	5.9	42	6.0	33	4.7	44	6.2	60	8.6	42	5.7	58	7.9	56	7.5	68	9.3	45.5%	23.6%
SPA 6: South	63	7.7	69	8.5	57	6.3	52	5.6	52	5.6	82	8.7	59	5.8	74	7.5	86	8.4	102	10.0	29.4%	18.8%
SPA 7: East	62	5.0	70	5.6	56	4.6	42	3.3	63	5.0	65	5.1	76	5.9	63	4.8	63	4.7	92	7.0	40.5%	48.9%
SPA 8: South Bay	110	7.1	108	6.9	102	6.4	121	7.5	96	5.9	129	8.0	123	7.4	102	6.1	110	6.7	148	8.8	25.4%	32.0%

Note in sidebar: Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

‡From 2008-2011, rates based on deaths < 20 are suppressed with (--). Starting 2012, rates based on 5-19 deaths are presented, which are considered unreliable and should be interpreted with caution.

TABLE D-8: Homicide

	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	2008-2017	2016-2017
Los Angeles County	838	8.2	723	7.1	651	6.3	609	5.9	596	5.8	584	5.7	544	5.2	612	5.9	622	6.0	611	5.8	-29.2%	-2.8%
Male	710	13.7	618	12.0	545	10.4	512	9.9	515	10.0	512	9.9	468	9.0	520	9.9	548	10.4	511	9.7	-29.5%	-6.8%
Female	128	2.6	105	2.1	106	2.1	97	1.9	81	1.6	72	1.4	76	1.5	92	1.8	74	1.4	100	1.9	-25.1%	37.0%
White	83	2.7	64	2.1	76	2.5	61	2.0	69	2.3	63	2.1	67	2.2	75	2.6	54	1.8	65	2.1	-22.5%	18.0%
Latino/a	458	8.9	397	7.9	328	6.2	333	6.3	305	5.8	279	5.4	258	5.0	298	5.6	310	5.8	340	6.4	-28.3%	9.7%
Black	250	26.9	227	24.3	219	25.2	192	22.1	199	23.2	223	26.0	203	23.4	207	24.1	218	25.2	176	20.3	-24.6%	-19.4%
Asian†	43	3.3	32	2.3	24	1.6	21	1.3	19	1.3	14	1.0	12	0.8	21	1.2	34	2.1	28	1.8	-45.6%	-14.5%
Males																						
White	62	4.1	43	2.8	51	3.4	45	2.9	44	2.8	51	3.4	50	3.2	54	3.7	42	2.8	45	2.8	-30.2%	1.7%
Latino	407	15.2	344	13.4	288	10.7	285	10.5	277	10.2	246	9.3	221	8.4	259	9.5	268	9.8	291	10.7	-29.9%	8.7%
Black	214	48.8	207	46.5	186	45.2	168	40.8	179	43.9	203	50.0	183	44.5	185	45.6	206	49.9	158	38.2	-21.8%	-23.5%
Asian†	24	3.9	23	3.3	18	--	13	--	11	1.6	8	1.2	10	1.3	14	1.7	26	3.5	15	2.0	-48.4%	-43.3%
Females																						
White	21	1.4	21	1.4	25	1.5	16	--	25	1.8	12	0.7	17	1.1	21	1.5	12	0.8	20	1.4	-1.6%	71.0%
Latina	51	2.2	53	2.2	40	1.6	48	1.9	28	1.2	33	1.4	37	1.6	39	1.6	42	1.7	49	1.9	-11.6%	12.8%
Black	36	7.6	20	4.2	33	7.3	24	5.3	20	4.6	20	4.3	20	4.6	22	4.9	12	2.8	18	4.2	-45.1%	48.7%
Asian†	19	--	9	--	6	--	8	--	8	1.1	6	0.7	<5	--	7	0.7	8	0.9	13	1.6	--	72.3%
SPA 1: Antelope Valley	26	6.4	31	7.4	23	6.0	26	6.6	17	4.2	28	6.9	23	5.8	28	6.8	28	7.2	28	7.8	21.8%	8.1%
SPA 2: San Fernando	91	4.3	79	3.7	71	3.2	54	2.4	74	3.4	47	2.1	68	3.0	77	3.4	74	3.3	76	3.3	-23.8%	-1.4%
SPA 3: San Gabriel	108	6.0	69	3.8	71	4.0	66	3.7	59	3.3	80	4.4	53	2.9	83	4.6	57	3.3	81	4.6	-23.1%	38.9%
SPA 4: Metro	102	9.2	82	7.2	73	6.2	62	5.2	69	5.7	46	3.9	62	5.1	58	4.8	55	4.3	66	5.3	-41.6%	24.3%
SPA 5: West	18	--	14	--	12	--	17	--	10	1.6	17	2.4	5	0.7	11	1.5	7	0.9	18	2.4	--	163.5%
SPA 6: South	233	21.9	194	18.2	189	17.2	184	17.1	180	16.8	166	15.2	168	15.8	168	15.9	194	17.5	173	15.2	-30.4%	-13.0%
SPA 7: East	99	7.0	101	7.4	88	6.5	82	6.2	72	5.3	71	5.4	63	4.7	70	5.2	78	5.8	58	4.5	-35.2%	-21.7%
SPA 8: South Bay	140	9.1	144	9.2	120	7.6	117	7.5	113	7.2	127	8.1	100	6.3	115	7.3	125	8.0	111	7.0	-23.3%	-13.1%

*(Vertical note between 2011 and 2012 columns: Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.)*

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.
**NHOPI = Native Hawaiian and other Pacific Islander.
†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.
‡From 2008-2011, rates based on deaths < 20 are suppressed with (--). Starting 2012, rates based on 5-19 deaths are presented, which are considered unreliable and should be interpreted with caution.

	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	2008-2017	2016-2017
Los Angeles County	371	3.8	313	3.2	274	2.8	243	2.4	225	2.2	223	2.2	246	2.4	253	2.4	257	2.3	228	2.1	-45.5%	-10.6%
Male	310	6.4	256	5.3	232	4.8	199	4.0	196	3.9	197	4.0	209	4.1	219	4.2	229	4.3	203	3.8	-41.1%	-12.1%
Female	61	1.2	57	1.1	42	0.8	44	0.8	29	0.6	26	0.5	37	0.7	34	0.6	28	0.5	25	0.4	-63.2%	-10.1%
White	96	2.8	84	2.4	74	2.1	72	2.1	72	2.0	56	1.8	76	2.1	64	1.7	85	2.2	66	1.8	-35.9%	-19.5%
Latino/a	137	3.5	108	2.8	114	2.7	84	2.1	78	1.8	76	1.8	82	1.9	86	1.9	78	1.7	86	2.0	-44.2%	16.2%
Black	113	12.4	109	11.9	80	8.6	77	8.6	65	7.2	79	8.4	81	8.8	87	9.3	76	8.2	66	6.4	-47.9%	-21.4%
Asian†	21	1.5	11	--	5	--	8	--	7	0.4	11	0.7	<5	--	7	0.4	8	0.4	8	0.5	-66.0%	24.2%
Males																						
White	86	4.8	74	4.2	65	3.6	60	3.4	68	3.7	52	3.2	70	3.9	59	3.1	80	4.1	61	3.2	-33.8%	-21.8%
Latino	114	6.0	91	4.9	98	4.6	70	3.6	69	3.2	69	3.4	76	3.6	71	3.2	70	3.1	78	3.7	-38.1%	19.3%
Black	90	21.7	79	19.0	64	15.2	61	14.7	51	12.0	65	14.9	57	13.3	75	17.2	63	14.9	54	11.7	-46.0%	-21.6%
Asian†	16	--	11	--	<5	--	7	--	7	1.0	11	1.6	<5	--	7	0.9	7	0.8	8	1.1	--	38.1%
Females																						
White	10	--	10	--	9	--	12	--	<5	--	<5	--	6	0.3	5	0.3	5	0.3	5	0.3	--	10.4%
Latina	23	1.2	17	--	16	--	14	--	9	0.4	7	0.4	6	0.3	15	0.7	8	0.3	8	0.4	-64.4%	41.2%
Black	23	4.7	30	6.0	16	--	16	--	14	3.0	14	2.9	24	4.9	12	2.5	13	2.4	12	2.0	-57.8%	-18.0%
Asian†	5	--	<5	--	<5	--	<5	--	<5	--	<5	--	<5	--	<5	--	<5	--	0	0.0	--	--
SPA 1: Antelope Valley	5	--	10	--	10	--	6	--	7	2.0	9	2.5	6	1.6	9	2.7	13	3.3	8	1.9	--	-41.5%
SPA 2: San Fernando	45	2.1	34	1.5	37	1.6	37	1.5	29	1.3	24	1.1	37	1.6	31	1.3	32	1.3	39	1.5	-26.5%	17.0%
SPA 3: San Gabriel	30	1.7	32	1.9	30	1.7	24	1.3	26	1.4	27	1.5	21	1.1	27	1.4	19	1.0	23	1.2	-24.7%	25.0%
SPA 4: Metro	93	7.9	81	7.0	71	6.4	71	6.2	48	4.1	56	4.8	74	6.1	59	4.7	65	4.9	51	4.0	-49.8%	-19.3%
SPA 5: West	11	--	11	--	7	--	7	--	7	1.0	<5	--	13	1.8	10	1.4	8	1.0	7	0.9	--	-13.6%
SPA 6: South	85	10.1	63	7.5	41	4.5	34	3.8	38	4.1	40	4.4	44	4.8	50	5.2	39	4.0	40	4.2	-58.9%	4.2%
SPA 7: East	27	2.2	23	2.0	34	2.7	20	1.6	24	1.9	16	1.3	18	1.4	19	1.5	22	1.7	19	1.4	-36.4%	-17.6%
SPA 8: South Bay	72	4.6	56	3.7	41	2.6	42	2.6	45	2.8	49	3.1	32	1.9	48	2.9	59	3.4	41	2.3	-50.0%	-32.7%

Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

‡From 2008-2011, rates based on deaths < 20 are suppressed with (--). Starting 2012, rates based on 5-19 deaths are presented, which are considered unreliable and should be interpreted with caution.

	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	2008-2017	2016-2017
Los Angeles County	1,134	11.9	1,246	12.9	1,171	12.0	1,246	12.5	1,275	12.4	1,315	12.8	1,323	12.5	1,539	14.2	1,442	13.2	1,412	12.5	4.6%	-5.6%
Male	773	17.1	837	18.1	787	17.2	818	17.1	875	18.0	898	18.5	871	17.4	1,003	19.5	987	19.1	953	17.8	4.3%	-6.7%
Female	361	7.2	409	8.0	384	7.4	428	8.1	400	7.4	417	7.7	452	8.1	536	9.4	455	7.9	459	7.7	7.2%	-2.4%
White	398	9.9	419	10.5	416	10.9	436	11.4	422	10.9	471	12.3	430	10.8	454	11.3	443	10.9	430	10.6	6.8%	-2.6%
Latino/a	594	19.4	645	20.9	587	18.4	637	18.6	672	19.0	666	18.8	699	18.7	873	23.0	793	20.1	793	19.2	-0.9%	-4.3%
Black	69	7.3	112	12.1	97	10.1	104	10.9	103	10.5	85	8.7	108	10.7	126	12.2	122	11.8	110	10.3	41.1%	-12.5%
Asian†	59	4.1	58	3.9	55	3.5	56	3.5	71	4.4	77	4.5	68	3.8	67	3.8	53	2.9	72	3.7	-9.6%	27.4%
Males																						
White	268	13.8	272	14.0	262	13.9	269	14.3	299	15.8	311	16.7	264	13.5	292	14.8	286	14.4	272	13.5	-2.1%	-6.3%
Latino	413	28.0	448	29.6	423	28.5	455	27.5	467	27.1	487	28.8	493	27.5	582	31.9	577	31.1	565	29.0	3.4%	-6.9%
Black	45	10.8	75	17.9	54	12.2	54	12.3	61	13.6	47	10.4	57	12.3	72	14.9	74	15.8	67	14.4	33.5%	-8.9%
Asian†	39	5.9	37	5.3	38	5.4	34	4.9	44	6.2	44	5.8	45	5.8	43	5.5	29	3.5	46	5.4	-9.6%	53.5%
Females																						
White	130	6.2	147	7.2	154	8.0	167	8.5	123	6.2	160	8.0	166	8.2	162	7.7	157	7.5	158	7.9	27.2%	5.7%
Latina	181	11.8	197	12.9	164	10.0	182	10.7	205	11.7	179	10.1	206	10.9	291	15.1	216	10.7	228	10.8	-8.5%	0.9%
Black	24	4.6	37	7.3	43	8.3	50	9.6	42	8.0	38	7.3	51	9.6	54	9.9	48	8.6	43	7.1	54.6%	-17.0%
Asian†	20	2.6	21	2.6	17	--	22	2.4	27	2.9	33	3.4	23	2.2	24	2.4	24	2.5	26	2.4	-5.4%	-3.5%
SPA 1: Antelope Valley	45	14.0	53	16.8	47	13.0	55	15.2	47	13.6	58	15.7	61	16.1	73	19.5	63	17.1	72	18.5	32.1%	8.2%
SPA 2: San Fernando	207	9.6	200	9.0	192	8.7	218	9.6	243	10.4	273	11.6	223	9.1	257	10.5	252	10.2	247	9.4	-2.4%	-8.2%
SPA 3: San Gabriel	194	10.9	217	11.9	191	10.5	215	11.2	240	12.2	224	11.6	235	11.7	248	12.4	234	11.2	249	11.8	8.0%	5.5%
SPA 4: Metro	147	13.2	163	14.8	151	13.8	156	14.1	147	13.0	171	15.0	165	14.0	188	15.4	170	13.3	170	13.0	-2.1%	-2.6%
SPA 5: West	40	5.3	55	7.2	45	6.2	61	8.3	60	8.2	56	7.5	62	8.1	50	6.4	56	7.1	40	4.9	-6.4%	-30.8%
SPA 6: South	112	15.2	130	17.5	141	17.8	150	18.3	152	17.7	121	14.5	144	16.5	181	20.4	176	18.6	168	17.8	17.2%	-4.4%
SPA 7: East	198	17.2	226	19.5	210	17.8	193	15.7	194	15.7	214	17.2	212	16.7	289	22.0	245	18.5	231	17.0	-0.9%	-7.9%
SPA 8: South Bay	174	11.4	176	11.4	181	11.6	196	12.3	191	11.8	196	12.1	215	12.7	250	14.3	240	13.9	235	13.2	16.3%	-4.8%

Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.
 **NHOPI = Native Hawaiian and other Pacific Islander.
†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.
--Number of deaths is too small to calculate a reliable rate.

TABLE D-11: Lung Cancer

	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	2008-2017	2016-2017
Los Angeles County	2,910	32.9	2,958	33.0	2,941	32.8	2,908	31.0	2,809	28.7	2,687	27.5	2,617	26.6	2,851	27.6	2,657	25.2	2,556	24.0	-27.0%	-4.7%
Male	1,568	41.8	1,650	43.1	1,602	41.5	1,596	39.7	1,486	35.1	1,407	33.4	1,395	33.0	1,535	34.3	1,442	31.5	1,421	31.0	-26.0%	-1.7%
Female	1,342	26.4	1,308	25.5	1,339	26.3	1,312	24.5	1,323	23.9	1,280	23.2	1,222	21.9	1,316	22.6	1,215	20.5	1,135	18.9	-28.6%	-8.0%
White	1,687	39.4	1,702	39.6	1,655	40.2	1,578	37.3	1,563	36.2	1,438	33.9	1,365	31.8	1,417	32.1	1,369	30.9	1,292	29.1	-26.2%	-5.9%
Latino/a	433	19.1	408	17.3	441	18.3	452	17.7	393	14.0	440	16.5	428	15.4	510	16.9	413	13.2	424	13.5	-29.3%	2.4%
Black	377	45.1	432	50.7	433	50.7	431	48.7	414	44.9	370	40.1	403	43.3	435	44.9	391	39.3	372	37.2	-17.5%	-5.3%
Asian†	406	29.2	412	29.1	400	26.5	428	26.7	411	24.5	419	24.1	402	22.8	457	24.7	459	24.3	447	22.9	-21.6%	-5.6%
Males																						
White	850	45.5	892	47.4	855	46.5	846	44.8	783	40.1	732	38.3	731	37.8	717	35.9	698	35.0	692	34.4	-24.4%	-1.6%
Latino	253	27.6	243	24.7	260	26.3	253	24.2	217	18.6	240	20.3	233	20.7	302	24.6	236	17.8	246	19.1	-30.8%	7.3%
Black	200	60.1	247	72.3	228	65.9	225	63.4	225	59.7	190	49.4	197	51.8	215	53.4	210	51.1	198	48.1	-20.0%	-5.9%
Asian†	261	44.2	266	43.8	249	38.7	258	37.8	241	34.0	232	31.4	227	30.7	282	36.0	282	35.1	275	33.6	-24.0%	-4.2%
Females																						
White	837	34.8	810	33.5	800	35.1	732	31.2	780	33.2	706	30.4	634	27.2	700	29.2	671	27.6	600	24.9	-28.5%	-9.9%
Latina	180	13.4	165	12.0	181	12.8	199	13.3	176	10.7	200	12.3	195	11.9	208	11.7	177	9.9	178	9.7	-27.6%	-1.8%
Black	177	35.5	185	36.6	205	41.2	206	39.1	189	34.9	180	33.5	206	38.2	220	39.3	181	31.5	174	29.6	-16.7%	-6.0%
Asian†	145	18.1	146	17.9	151	17.5	170	18.6	170	17.6	187	18.8	175	17.0	175	16.3	177	16.3	172	15.2	-16.3%	-7.1%
SPA 1: Antelope Valley	128	47.6	118	42.3	123	44.2	110	38.3	120	39.1	130	42.5	120	38.1	127	38.0	92	27.2	129	37.7	-20.7%	38.7%
SPA 2: San Fernando	620	31.5	664	33.3	625	30.5	638	30.1	658	29.4	625	28.4	576	25.5	635	27.0	603	25.4	560	23.1	-26.7%	-9.2%
SPA 3: San Gabriel	564	32.7	573	33.0	566	31.8	575	30.9	525	27.3	550	28.0	495	25.4	558	27.0	497	23.7	502	23.6	-28.0%	-0.6%
SPA 4: Metro	294	29.1	265	26.1	302	30.7	267	26.0	261	24.4	271	25.2	232	21.3	252	22.1	268	22.8	233	19.5	-33.0%	-14.5%
SPA 5: West	212	28.8	216	29.0	226	30.8	191	25.2	207	25.9	189	24.3	209	26.8	204	24.7	188	23.1	187	22.2	-22.8%	-3.7%
SPA 6: South	242	37.7	275	42.1	268	40.9	277	40.4	266	36.7	223	30.7	230	31.4	280	36.5	247	30.8	204	26.0	-30.9%	-15.5%
SPA 7: East	346	31.6	300	27.2	299	27.6	337	29.8	290	23.9	259	22.4	304	25.6	311	25.0	301	23.8	269	21.0	-33.7%	-12.0%
SPA 8: South Bay	494	35.0	541	37.9	529	37.6	511	34.0	478	31.3	440	28.1	451	28.9	482	29.6	460	27.6	472	28.6	-18.4%	3.5%

Note between 2010 and 2011 columns (vertical text): Because of changes to the ICD-10 codes for this cause of death, 2008-2010 may not be comparable to 2011-2016.

Note between 2011 and 2012 columns (vertical text): Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

TABLE D-12: Motor Vechicle Crash

	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*‡	No. of deaths	Death rate*	No. of deaths	Death rate*	2008-2017	2016-2017
Los Angeles County	822	8.4	677	6.9	625	6.3	620	6.2	692	6.8	733	7.1	730	7.1	741	7.0	938	8.8	860	8.0	-4.0%	-8.8%
Male	623	12.9	484	10.1	428	8.8	427	8.7	499	10.0	542	10.9	530	10.6	554	10.7	665	12.7	633	12.1	-6.4%	-4.6%
Female	199	4.0	193	3.9	197	3.8	193	3.7	193	3.7	191	3.5	200	3.8	187	3.5	273	5.0	227	4.1	4.4%	-17.3%
White	253	7.9	220	6.7	200	6.1	189	6.0	214	6.7	210	6.5	219	6.7	231	7.1	257	7.9	226	7.0	-11.5%	-11.8%
Latino/a	367	8.6	312	7.3	290	6.8	291	6.6	317	6.8	356	7.6	341	7.4	357	7.6	474	9.7	412	8.5	-1.3%	-12.0%
Black	107	11.9	74	8.2	71	8.0	70	7.9	91	10.4	79	8.8	108	11.9	87	9.7	115	12.8	142	15.2	27.7%	18.8%
Asian†	92	6.9	69	5.0	62	4.2	63	4.1	61	3.8	83	5.2	60	3.8	62	3.7	86	5.0	74	4.2	-39.2%	-15.9%
Males																						
White	198	12.5	169	10.4	136	8.2	132	8.5	158	10.0	166	10.4	170	10.6	172	10.6	198	12.3	170	10.6	-15.7%	-14.0%
Latino	290	13.7	223	10.5	213	10.0	204	9.2	228	9.7	267	11.6	244	10.7	275	12.0	330	13.5	311	12.9	-5.8%	-4.6%
Black	77	18.6	52	12.8	54	13.0	47	11.3	66	16.9	54	13.2	77	18.3	69	16.2	86	20.9	104	24.2	30.2%	15.7%
Asian†	56	9.0	39	6.2	25	3.8	42	5.9	41	5.6	51	7.2	37	5.4	36	4.7	46	6.2	43	5.5	-38.5%	-10.6%
Females																						
White	55	3.3	51	3.1	64	3.9	57	3.4	56	3.4	44	2.6	49	2.8	59	3.5	59	3.4	56	3.3	1.5%	-1.5%
Latina	77	3.8	89	4.2	77	3.8	87	4.1	89	3.9	89	3.9	97	4.3	82	3.5	144	6.0	101	4.3	13.4%	-27.8%
Black	30	6.2	22	4.5	17	--	23	4.8	25	5.3	25	5.3	31	6.5	18	3.9	29	6.1	38	7.4	20.0%	22.0%
Asian†	36	4.9	30	4.1	37	4.4	21	2.5	20	2.3	32	3.4	23	2.4	26	2.8	40	4.0	31	3.2	-35.6%	-20.7%
SPA 1: Antelope Valley	44	12.1	45	12.9	35	9.6	45	11.9	54	13.9	61	16.2	65	16.4	57	14.0	73	18.3	86	23.2	91.5%	26.9%
SPA 2: San Fernando	167	7.9	142	6.6	127	5.9	118	5.5	151	6.7	159	7.1	148	6.6	166	7.2	189	8.0	152	6.3	-20.8%	-21.8%
SPA 3: San Gabriel	124	6.9	109	6.1	100	5.6	102	5.7	90	5.0	116	6.2	105	5.8	105	5.5	153	8.1	138	7.3	5.1%	-10.4%
SPA 4: Metro	76	6.9	65	5.8	75	6.6	53	4.6	57	4.8	92	7.8	65	5.6	75	6.3	95	7.6	80	6.4	-7.8%	-16.4%
SPA 5: West	32	4.8	31	4.4	30	4.7	32	4.4	33	4.7	27	3.9	30	4.1	32	4.4	35	4.7	30	3.9	-17.1%	-16.2%
SPA 6: South	112	12.5	94	10.1	70	7.1	89	9.2	96	10.0	85	8.5	115	11.3	95	9.6	132	13.2	129	12.6	1.1%	-4.2%
SPA 7: East	111	8.8	85	6.6	88	6.9	87	6.6	92	6.9	93	7.0	101	7.7	94	6.8	120	8.9	109	8.1	-7.2%	-8.8%
SPA 8: South Bay	113	7.3	89	5.8	83	5.4	89	5.8	118	7.6	97	6.1	98	6.2	114	6.9	138	8.4	136	8.1	11.3%	-3.1%

*Note between 2011 and 2012 columns (vertical text): Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.*

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.
**NHOPI = Native Hawaiian and other Pacific Islander.
†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.
--Number of deaths is too small to calculate a reliable rate.

TABLE D-13: Pneumonia & Influenza

	2008 No. of deaths	2008 Death rate*	2009 No. of deaths	2009 Death rate*	2010 No. of deaths	2010 Death rate*	2011 No. of deaths	2011 Death rate*	2012 No. of deaths	2012 Death rate*	2013 No. of deaths	2013 Death rate*	2014 No. of deaths	2014 Death rate*	2015 No. of deaths	2015 Death rate*	2016 No. of deaths	2016 Death rate*	2017 No. of deaths	2017 Death rate*	Death Rate Change 2008-2017	Death Rate Change 2016-2017
Los Angeles County	2,171	23.6	2,097	22.4	1,964	21.9	2,062	21.3	2,048	20.3	2,264	22.5	2,071	20.7	2,124	20.3	2,066	19.4	1,957	18.4	-22.1%	-5.3%
Male	990	27.9	1,016	27.5	910	25.8	962	25.2	975	24.2	1,069	26.6	1,030	25.7	1,009	24.4	1,016	23.8	1,000	23.1	-17.4%	-3.1%
Female	1,181	20.7	1,081	19.1	1,054	19.2	1,100	18.8	1,073	17.6	1,195	19.6	1,041	17.5	1,115	17.6	1,050	16.3	957	15.0	-27.3%	-7.8%
White	1,203	24.4	1,076	22.1	1,011	22.0	982	20.4	965	19.7	1,094	22.8	986	21.2	924	18.7	916	19.1	874	18.4	-24.4%	-3.6%
Latino/a	430	20.2	492	20.9	399	18.8	509	21.4	419	16.4	509	19.7	484	17.8	487	17.6	496	16.9	485	16.1	-20.6%	-4.9%
Black	232	29.3	223	26.9	247	31.1	242	28.7	245	27.9	257	28.7	189	21.6	223	25.2	222	24.2	211	22.4	-23.7%	-7.5%
Asian†	297	21.8	290	20.5	296	20.6	319	19.9	395	22.8	393	22.0	387	22.0	468	24.9	401	20.1	382	19.4	-11.1%	-3.7%
Males																						
White	541	28.8	528	27.6	480	26.3	475	24.4	465	23.4	519	26.6	465	24.3	455	23.0	459	23.5	444	22.5	-21.9%	-4.3%
Latino	192	23.3	232	23.9	179	21.4	212	22.5	196	19.2	242	23.3	257	23.0	207	18.6	235	19.7	256	21.0	-9.7%	6.7%
Black	119	39.6	100	32.3	91	30.1	93	29.8	99	29.2	111	32.2	86	26.3	95	27.8	110	30.9	101	27.0	-31.7%	-12.6%
Asian†	135	24.7	148	26.1	155	27.0	174	27.3	203	29.5	187	26.3	206	29.4	240	32.3	200	25.5	196	24.9	0.7%	-2.3%
Females																						
White	662	21.3	548	18.7	531	18.9	507	17.6	500	17.1	575	20.3	521	19.1	469	15.7	457	15.8	430	15.3	-28.2%	-3.1%
Latina	238	18.4	260	19.0	220	17.1	297	20.6	223	14.6	267	17.2	227	14.2	280	16.8	261	14.8	229	12.7	-30.9%	-14.2%
Black	113	23.0	123	23.7	156	30.9	149	27.9	146	26.5	146	26.5	103	19.1	128	23.2	112	20.1	110	19.1	-17.1%	-5.1%
Asian†	162	19.7	142	16.8	141	16.4	145	14.8	192	18.3	206	19.1	181	17.1	228	19.6	201	16.5	186	15.5	-20.9%	-5.8%
SPA 1: Antelope Valley	51	21.1	59	22.6	61	25.3	56	21.6	59	20.8	84	29.1	65	23.0	69	23.2	61	20.8	61	19.0	-10.1%	-8.9%
SPA 2: San Fernando	415	20.5	414	20.0	415	20.2	394	18.1	355	15.5	476	21.0	450	19.8	458	19.3	436	18.3	419	17.6	-13.8%	-3.6%
SPA 3: San Gabriel	449	24.9	404	22.2	390	21.5	422	21.4	413	20.4	425	20.6	387	19.0	421	19.6	404	18.4	403	18.5	-25.6%	0.5%
SPA 4: Metro	255	23.1	256	23.1	229	23.0	257	24.0	272	23.5	261	23.2	256	22.7	274	23.2	258	21.8	242	19.8	-14.2%	-9.0%
SPA 5: West	218	27.0	162	19.5	158	18.6	166	17.6	140	15.5	173	18.9	163	19.5	152	16.6	150	16.5	123	13.9	-48.5%	-15.7%
SPA 6: South	188	28.2	178	25.9	181	30.2	201	30.4	189	27.2	217	31.1	152	21.7	170	24.0	167	22.4	164	21.5	-23.7%	-3.8%
SPA 7: East	248	21.6	263	22.6	216	20.3	216	18.7	257	21.1	253	21.0	241	20.0	236	18.7	219	16.7	225	17.3	-20.2%	3.4%
SPA 8: South Bay	343	24.1	360	24.7	311	22.4	350	23.3	361	23.3	374	23.9	355	23.0	340	21.2	371	22.3	320	19.5	-19.3%	-12.8%

Note between 2011 and 2012 columns: Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	2008-2017	2016-2017
Los Angeles County	3,280	35.9	3,301	35.5	3,278	36.2	3,256	33.6	3,360	33.5	3,300	32.8	3,205	32.0	3,668	35.4	3,666	34.6	3,749	35.0	-2.5%	1.2%
Male	1,373	36.9	1,399	36.8	1,405	38.1	1,370	34.2	1,406	33.8	1,439	34.7	1,382	33.4	1,563	36.4	1,649	37.6	1,650	36.8	-0.2%	-2.2%
Female	1,907	34.6	1,902	34.1	1,873	34.3	1,886	32.6	1,954	32.6	1,861	31.0	1,823	30.4	2,105	34.0	2,017	31.8	2,099	33.2	-4.2%	4.3%
White	1,552	32.2	1,623	33.7	1,534	33.6	1,546	32.1	1,543	32.1	1,506	31.6	1,382	29.3	1,554	32.4	1,522	31.7	1,560	32.8	1.9%	3.6%
Latino/a	749	32.2	733	30.7	780	33.9	774	30.3	854	31.5	831	30.2	865	31.8	992	34.4	1,009	33.2	1,043	33.0	2.3%	-0.7%
Black	469	57.8	433	52.1	446	54.1	423	49.0	418	46.2	434	48.4	448	50.1	480	53.7	472	51.0	497	52.6	-9.1%	3.1%
Asian†	496	36.0	504	35.7	501	34.1	498	31.3	513	30.1	511	29.1	489	27.6	606	32.7	624	32.4	625	31.9	-11.4%	-1.5%
Males																						
White	603	32.1	668	34.8	629	34.5	596	30.9	593	30.3	625	32.3	568	29.5	612	31.4	678	34.7	666	33.9	5.4%	-2.4%
Latino	343	33.6	325	31.0	346	35.0	344	31.1	386	33.4	399	34.2	391	34.0	469	38.0	467	36.0	493	36.2	7.6%	0.6%
Black	194	59.5	170	50.9	179	55.6	183	53.1	157	41.8	172	46.7	199	55.0	213	59.4	207	55.8	197	50.4	-15.2%	-9.6%
Asian†	223	38.9	235	40.2	243	39.9	237	35.9	250	35.4	233	32.1	216	29.8	255	33.0	276	34.6	284	35.5	-8.8%	2.7%
Females																						
White	949	31.7	955	32.6	905	32.5	950	32.2	950	32.6	881	30.6	814	28.5	942	32.7	844	28.7	894	31.5	-0.8%	9.6%
Latina	406	30.6	408	29.7	434	32.5	430	29.2	468	29.7	432	26.9	474	29.9	523	31.1	542	30.6	550	30.2	-1.1%	-1.2%
Black	275	55.0	263	51.7	267	53.0	240	45.8	261	47.2	262	48.2	249	45.0	267	49.0	265	47.0	300	53.0	-3.7%	12.8%
Asian†	273	33.9	269	32.5	258	29.7	261	27.9	263	26.2	278	26.8	273	25.8	351	32.0	348	30.3	341	29.0	-14.3%	-4.2%
SPA 1: Antelope Valley	120	47.8	94	36.8	114	45.2	99	36.6	122	43.3	113	38.4	125	43.9	127	40.7	101	30.4	164	51.1	6.9%	68.1%
SPA 2: San Fernando	628	31.1	690	33.4	661	32.1	657	29.7	700	30.6	649	28.5	628	27.5	744	31.4	782	32.9	766	31.5	1.4%	-4.2%
SPA 3: San Gabriel	629	35.0	694	38.4	650	36.1	616	32.2	660	33.0	673	33.5	618	30.9	752	36.0	713	33.3	679	31.3	-10.6%	-6.0%
SPA 4: Metro	367	34.6	344	31.8	311	30.7	345	32.4	341	30.3	357	31.5	309	27.7	380	32.7	403	33.5	399	32.9	-5.1%	-1.9%
SPA 5: West	262	33.4	232	28.9	253	30.0	242	27.7	236	26.9	249	27.6	205	23.6	237	27.5	253	28.3	249	27.8	-16.9%	-1.8%
SPA 6: South	355	53.3	323	47.9	307	47.6	311	45.4	317	43.8	292	40.4	295	41.2	378	52.0	346	46.1	365	47.8	-10.3%	3.7%
SPA 7: East	378	33.2	411	35.4	426	39.3	432	37.0	436	35.5	413	34.3	426	35.1	442	34.9	451	35.4	474	36.9	10.9%	4.1%
SPA 8: South Bay	519	36.1	510	35.0	551	38.8	551	36.2	545	35.1	553	35.6	596	37.9	607	37.4	614	36.8	653	39.1	8.3%	6.3%

Note between 2011 and 2012 columns (vertical text): Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

TABLE D-15: Suicide

	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	No. of deaths	Death rate*‡	2008-2017	2016-2017
Los Angeles County	802	8.2	775	7.9	792	8.0	766	7.6	757	7.5	789	7.7	804	7.8	806	7.6	813	7.7	886	8.3	1.4%	7.7%
Male	620	13.3	580	12.3	635	13.0	593	12.4	598	12.3	614	12.4	628	12.7	627	12.3	657	12.9	686	13.2	-0.4%	2.7%
Female	182	3.6	195	3.9	157	3.0	173	3.4	159	3.1	175	3.3	176	3.3	179	3.3	156	2.9	200	3.7	3.2%	27.4%
White	478	13.6	449	12.5	420	13.0	412	12.1	421	12.5	437	12.8	445	13.0	421	12.4	410	11.7	450	13.3	-2.1%	14.0%
Latino/a	160	3.7	173	4.1	203	4.0	206	4.5	182	4.0	196	4.1	202	4.2	218	4.5	240	4.9	262	5.2	40.0%	5.7%
Black	65	7.0	47	5.2	56	6.0	49	5.6	58	6.7	51	6.0	48	5.4	57	6.6	52	5.8	60	6.9	-1.9%	18.6%
Asian†	93	6.5	101	6.9	107	7.0	97	6.3	90	5.6	97	6.1	96	6.1	106	6.5	101	6.1	110	6.9	6.4%	13.2%
Males																						
White	363	20.9	329	18.4	324	19.0	315	18.6	337	20.0	332	19.3	355	20.8	321	18.5	333	19.2	346	20.4	-2.6%	6.1%
Latino	132	6.3	142	6.9	181	8.0	170	7.8	149	6.9	165	7.2	154	6.6	183	7.9	202	8.5	214	8.7	37.1%	2.1%
Black	52	12.2	33	8.2	46	11.0	40	10.0	44	11.2	39	9.8	41	10.1	45	11.3	42	10.2	48	11.8	-3.7%	15.4%
Asian†	70	10.7	73	10.9	81	12.0	66	9.2	64	8.6	74	10.1	67	9.2	75	10.3	72	9.4	75	10.0	-6.5%	5.9%
Females																						
White	115	6.7	120	6.9	96	6.0	97	5.9	84	5.3	105	6.4	90	5.5	100	6.4	77	4.4	104	6.4	-4.8%	45.8%
Latina	28	1.2	31	1.5	22	1.0	36	1.4	33	1.4	31	1.2	48	1.9	35	1.4	38	1.5	48	1.9	53.1%	24.5%
Black	13	--	14	--	10	--	9	--	14	3.0	12	2.6	7	1.5	12	2.7	10	2.2	12	2.5	--	14.5%
Asian†	23	3.0	28	3.7	26	3.0	31	3.7	26	3.2	23	2.8	29	3.4	31	3.3	29	3.3	35	4.2	40.9%	28.1%
SPA 1: Antelope Valley	48	14.2	29	8.4	53	15.0	47	13.4	35	9.6	32	8.6	49	13.2	34	8.2	55	13.9	42	11.3	-20.1%	-18.4%
SPA 2: San Fernando	193	8.9	192	8.6	169	8.0	190	8.5	207	9.0	199	8.6	191	8.2	202	8.4	207	8.8	206	8.4	-5.6%	-4.1%
SPA 3: San Gabriel	101	5.7	128	7.1	132	7.0	128	6.9	132	7.2	129	6.9	118	6.4	124	6.4	127	6.7	147	7.9	38.6%	17.9%
SPA 4: Metro	99	8.6	101	8.6	113	10.0	83	6.9	77	6.5	94	7.8	97	7.9	113	9.3	100	7.9	132	10.3	19.2%	30.1%
SPA 5: West	82	11.8	79	10.9	53	8.0	75	10.9	79	11.2	55	7.8	72	9.9	60	8.0	53	7.0	67	9.1	-22.4%	30.5%
SPA 6: South	48	5.3	33	3.7	45	4.0	41	4.4	35	3.7	43	4.1	53	5.5	37	3.8	51	4.9	60	5.7	7.8%	15.5%
SPA 7: East	72	5.9	93	7.5	65	5.0	81	6.2	62	4.8	91	7.1	79	6.1	84	6.4	93	7.1	102	7.7	31.4%	8.3%
SPA 8: South Bay	143	9.2	109	7.2	147	10.0	118	7.6	128	8.3	144	9.0	144	9.0	146	8.8	126	7.6	130	7.8	-15.2%	3.0%

*Vertical note between 2011 and 2012 columns: Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.*

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

**NHOPI = Native Hawaiian and other Pacific Islander.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

‡From 2008-2011, rates based on deaths < 20 are suppressed with (--). Starting 2012, rates based on 5-19 deaths are presented, which are considered unreliable and should be interpreted with caution.

|	2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Death Rate Change	
TABLE D-16: All Causes	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	No. of deaths	Death rate*	2008-2017	2016-2017
Los Angeles County	58,043	628.7	57,620	614.1	56,538	615.3	57,988	596.4	58,498	580.9	59,678	593.5	58,568	580.2	62,250	593.4	62,861	589.4	63,429	589.6	-6.2%	0.0%
Male	29,402	754.2	29,342	739.2	28,772	738.8	29,191	707.2	29,610	687.7	30,413	709.8	30,071	699.3	31,941	712.5	32,542	712.8	32,818	708.7	-6.0%	-0.6%
Female	28,641	528.0	28,278	514.0	27,766	516.8	28,797	506.2	28,888	492.5	29,265	498.5	28,496	485.1	30,307	496.9	30,318	488.8	30,611	491.9	-6.8%	0.6%
White	30,149	670.3	29,622	651.0	28,738	667.2	29,104	646.8	29,123	644.8	29,188	655.0	28,168	633.3	29,295	642.7	29,132	641.7	28,826	637.0	-5.0%	-0.7%
Latino/a	13,591	525.1	13,671	521.2	13,751	529.1	14,301	512.1	14,467	486.3	15,243	510.9	15,322	507.8	16,403	515.7	17,003	509.3	17,732	519.1	-1.1%	1.9%
Black	7,697	918.0	7,825	918.0	7,438	891.2	7,623	874.6	7,644	847.4	7,721	853.6	7,714	850.7	8,234	898.8	8,322	887.9	8,294	866.5	-5.6%	-2.4%
Asian†	6,354	458.6	6,267	442.0	6,343	429.1	6,630	416.6	6,783	400.0	7,038	404.7	6,871	392.7	7,691	417.4	7,706	406.6	8,213	426.3	-7.1%	4.8%
Males																						
White	14,768	796.0	14,553	770.7	14,184	783.4	14,232	750.9	14,378	745.8	14,533	767.0	14,294	754.3	14,711	755.5	14,814	763.0	14,624	750.0	-5.8%	-1.7%
Latino	7,316	629.6	7,433	636.5	7,448	644.3	7,591	611.7	7,670	578.5	8,139	618.0	8,129	617.4	8,791	628.9	9,150	619.5	9,628	635.4	0.9%	2.6%
Black	3,871	1131.1	3,961	1134.5	3,704	1087.2	3,788	1061.5	3,857	1037.5	3,901	1042.0	3,912	1045.7	4,183	1095.7	4,327	1113.5	4,247	1059.1	-6.4%	-4.9%
Asian†	3,301	563.2	3,276	545.7	3,277	531.6	3,386	508.8	3,431	485.0	3,580	494.0	3,480	477.7	3,908	510.2	3,881	494.4	4,138	517.5	-8.1%	4.7%
Females																						
White	15,381	565.7	15,069	552.1	14,554	568.1	14,872	556.4	14,745	554.3	14,655	557.0	13,873	529.1	14,584	545.7	14,318	537.1	14,202	538.7	-4.8%	0.3%
Latina	6,275	440.7	6,238	431.1	6,303	439.7	6,710	432.0	6,797	411.2	7,104	426.0	7,193	424.3	7,610	427.0	7,853	421.2	8,104	426.7	-3.2%	1.3%
Black	3,826	763.5	3,864	759.0	3,734	748.3	3,835	737.0	3,787	702.4	3,820	707.0	3,802	707.0	4,051	746.4	3,994	719.1	4,047	716.9	-6.1%	-0.3%
Asian†	3,053	378.6	2,991	362.5	3,066	354.0	3,244	347.7	3,352	336.0	3,458	338.0	3,391	329.4	3,783	347.1	3,825	339.5	4,075	356.6	-5.8%	5.1%
SPA 1: Antelope Valley	2,165	795.4	2,230	801.8	2,214	799.4	2,243	760.4	2,267	738.5	2,419	775.8	2,491	791.4	2,620	804.7	2,713	818.5	2,759	818.5	2.9%	0.0%
SPA 2: San Fernando	12,259	603.7	12,132	580.1	12,032	577.3	12,313	558.8	12,731	553.9	13,029	574.4	12,687	554.2	13,520	566.5	13,774	574.4	13,840	567.7	-6.0%	-1.2%
SPA 3: San Gabriel	10,616	594.8	10,636	589.9	10,457	579.8	10,758	560.0	11,049	557.8	11,230	562.2	10,901	545.5	11,610	556.5	11,670	550.6	11,841	554.5	-6.8%	0.7%
SPA 4: Metro	6,210	575.7	6,032	556.6	5,982	585.4	6,098	564.9	6,153	545.6	6,249	552.3	6,040	532.7	6,383	541.2	6,485	533.3	6,416	522.8	-9.2%	-2.0%
SPA 5: West	4,112	533.5	3,967	499.6	3,943	496.7	4,040	485.1	4,050	480.5	4,053	483.3	3,973	479.8	4,085	480.3	4,115	480.4	4,105	475.6	-10.8%	-1.0%
SPA 6: South	5,614	794.7	5,638	794.3	5,234	762.4	5,477	759.4	5,449	720.4	5,484	726.6	5,435	716.2	5,930	764.9	6,018	740.3	6,005	735.0	-7.5%	-0.7%
SPA 7: East	7,130	619.7	7,184	619.9	6,914	621.8	7,161	604.0	7,107	577.1	7,337	604.2	7,253	592.3	7,627	595.6	7,608	584.9	7,817	600.0	-3.2%	2.6%
SPA 8: South Bay	9,415	649.6	9,455	640.9	9,402	654.9	9,722	639.5	9,645	617.7	9,832	624.1	9,705	612.6	10,392	634.5	10,392	621.5	10,646	636.1	-2.1%	2.4%

*Before 2012, Asian included NHOPI**, therefore, trends should be interpreted with caution.*

AIAN = American Indian and Alaska Native; NHOPI = Native Hawaiian and other Pacific Islander.

*Age-adjusted rate per 100,000. The death rates for 2008-2009 were recalculated using new population estimates based on the 2010 Census, therefore, death rates in this report may differ from rates previously published.

†From 2008-2011, the number of deaths and death rates for Asians includes NHOPI (Native Hawaiian and other Pacific Islander). Starting 2012, Asian and NHOPI were separated into different race categories. Trends for Asian population should be interpreted with caution.

FIGURE D-1: TRENDS IN LEADING CAUSES OF DEATH, LOS ANGELES COUNTY 2008-2017

Age-Adjusted Mortality Rate (AAMR) Trends of Leading Causes of Death, Los Angeles County (2008-2017)
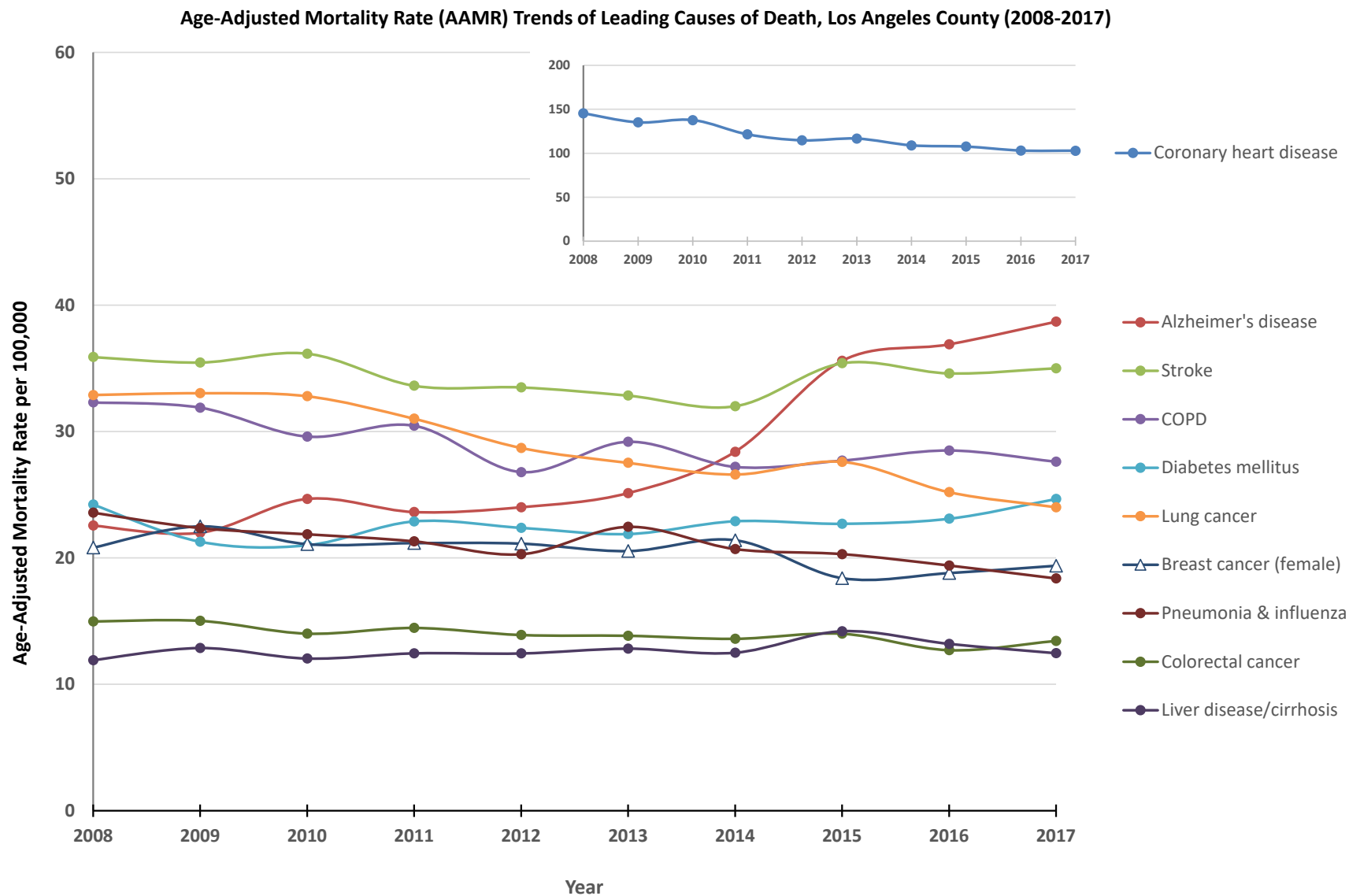
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