



COUNTY HEALTH STATUS PROFILES 2019

**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH AND
CALIFORNIA CONFERENCE OF LOCAL HEALTH OFFICERS
NATIONAL PUBLIC HEALTH WEEK, APRIL 1-7, 2019**

COUNTY HEALTH STATUS PROFILES 2019

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ACKNOWLEDGMENTS

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Scott Fujimoto, MD, MPH, CDPH, Public Health Medical Officer, Informatics Branch, reviewed report.

Walter Schwarm, PhD, Research Manager, Department of Finance, State Data Center, provided the race/ethnicity population estimates by county with age and sex detail.

Michael Curtis, PhD, Research Scientist Supervisor, and **Carina Saraiva, MPH**, Research Scientist II, CDPH, Maternal, Child and Adolescent Health Program, provided direction in accessing the most current breastfeeding information.

Denise Gilson, CDPH, Research Data Supervisor, Sexually Transmitted Disease Control Branch, provided chlamydia, male/female gonorrhea case incidence data, congenital syphilis, as well as reported incidence of primary and secondary syphilis among males and females.

Saul Kanowitz, MPH, Surveillance Analyst, and **Janice Westenhause, MPH**, Research Scientist Supervisor, CDPH, Tuberculosis Control Branch, provided tuberculosis case incidence data.

Sunitha H. Gurusinghe, PhD, Research Scientist III, and **Deanna Sykes, PhD**, Research Scientist Supervisor, CDPH, Office of AIDS, Surveillance Section, provided HIV and AIDS infection data.

Jan Christensen, CDPH, Research Data Specialist I, Public Health Policy and Research Branch, matched the birth and infant death records from the Birth Statistical Master Files and the California Comprehensive Master Death Files to create the linked births and deaths for the Birth Cohort-Perinatal Outcome Files used in this report.

The Center for Health Statistics and Informatics staff, who collected, coded, and amended birth and death certificates and created statistical data files.

Cover photography: "Lone Cypress," Stock Photograph, Del Monte Forest, Monterey County, California



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Dear Colleagues:

We are pleased to present California's County Health Status *Profiles* report for 2019. *Profiles* has been published annually for the State of California by CDPH and the California Conference of Local Health Officers since 1993, and is updated each year in accordance with priorities developed by CDPH.

Profiles (2019) includes the years 2011-2017 and represents the 27th annual publication in its series. This publication reports on selected health status indicators recommended by the U.S. Department of Health and Human Services for monitoring state and local progress toward achieving the goals set forth in *Healthy People 2020* (HP 2020).

The *HP 2020 National Objectives* challenge public health professionals to increase the span of high quality healthy lives, achieve health equity, and encourage healthy behaviors for all. This report is an important tool to measure progress toward those goals and to evaluate the health of Californians.

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CALIFORNIA COUNTIES

2016 STATEWIDE POPULATION: 39,312,207



Data Source: State of California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060. Sacramento, California, January 2018.

INTRODUCTION

The County Health Status Profiles (*Profiles*) is an annually published report for the State of California by the California Department of Public Health (CDPH) in conjunction with the California Conference of Local Health Officers. *Profiles* current report includes data from years 2011-2017 and represents the 27th annual publication of its kind since 1993. This report presents public health data that can be directly compared to national standards and populations of similar composition. Appendix A (page 104) provides a summary table of California's rates for selected health status indicators, target rates established for Healthy People (HP) 2020 National Objectives, and the previous period rates. For additional information on the HP 2020 recommendations, visit the [Centers for Disease Control and Prevention](#).

In keeping with the practice of using national standards, causes of death were coded using the International Classification of Diseases, Tenth Revision (ICD-10). Age-adjusted rates were calculated using the year 2000 U.S. standard population weights to facilitate meaningful comparison of vital statistics data rates over time and between groups.

Profiles contain vital statistics that display the total population estimates, event counts, crude case rates, and age-adjusted death rates/percentages by county of residence (except where noted). In these tables, counties are ranked by rates or percentages based on the methodology described in the Technical Notes section (pages 94 to 103). Data limitations and qualifications are also provided in the Technical Notes section to assist the reader with the interpretation and comparison of the data. For additional information on low event calculations, small area analysis, and age-adjusted death rates, the reader is referred to the Bibliography section located at the conclusion of this report.

The tables also identify the upper and lower 95 percent confidence intervals, which are used to assess the degree of precision for the estimated rates and percentages. Confidence intervals based on 100 or more events are calculated using a normal distribution. In instances where between zero and 99 events occurred, a gamma distribution is applied to estimate the confidence intervals. For additional information on the use of gamma distributions, please refer to the [National Vital Statistics Report, Volume 63, No. 9, August 31, 2015](#).

Vital statistics rates and percentages are subject to random variation, which are inversely related to the number of events/occurrences (e.g., deaths) used to calculate the rates and percentages. Dashes (-) indicate those percentages and confidence levels that are not calculated due to zero events. Asterisks (*) indicate rates that are calculated from fewer than 20 events and are considered unreliable. CDPH uses data masking and suppression in order to prevent inadvertent or intentional re-identification of individuals. As a result, some rates, counts, and percentages were masked and suppressed per California Health and Human Services Agency's Data De-Identification Guidelines (DDG) standards. For further explanation, see the Technical Notes.

Thematic maps of California's 58 counties were created for each table (excluding Table 30), providing the additional visual comparison of rates or percentages from the table. These maps are presented alongside a brief description of the highlights and changes over time for that specific health indicator.

The California Department of Finance, Demographic Research Unit, provided the population estimates stratified by county, age, and gender, with the exceptions of Tables 23C, 24A-E, 25, 27A and 27B, where the occurrences of live births were used. Rates/percentages developed for the current (2015-2017) and previous (2012-2014) periods used 2016 and 2013 population estimates, respectively, from the State of California, Department of Finance, as of January 2018.

The following CDPH programs provided data for this annual report: The Center for Health Statistics and Informatics; the Division of Communicable Disease Control's Sexually Transmitted Diseases Control and Tuberculosis Control Branches, as well as the Office of AIDS Surveillance Section; the Center for Family Health's Genetic Disease Screening and Maternal, Child and Adolescent Health Programs.

Estimates of persons under age 18 in poverty were obtained from the U.S. Census Bureau [Small Area Income and Poverty Estimates \(SAIPE\) Program](#).

To access electronic copies of this report and previous reports (1999 to current), visit the CDPH, CHSI [Vital Records Data and Statistics](#) web page.

If you have questions about this report or desire additional state or county health status data and statistics, please contact:

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EXECUTIVE SUMMARY

The California Department of Public Health (CDPH) has produced the County Health Status Profiles (*Profiles*) in collaboration with the California Conference of Local Health Officers (CCLHO) since 1993. This series of reports represent a broad historical perspective on the health status of California's counties over a span of 27 years.

Profiles reviewed mortality (all deaths, and a selection of 18 more specific causes of death), morbidity (reported incidences of disease), and natality (issues that affect the health and well-being of the mother and infant), using a three-year average case count (Calendar Years 2015-2017). The mid-year population was used as the denominator for the rate, which was carried out to 15 decimal places and then rounded to the nearest tenth. This was done to protect confidentiality. In addition, *Profiles* compared the rates/percentages of the current three-year period to the rates/percentages of the previous three-year period (Calendar Years 2012-2014) for the selected 33 health indicators (28 rates, five percentages). Indicator selections have been jointly agreed upon between CDPH and the CCLHO to ensure that this report included the health factors most relevant to California. *Profiles* contained a multitude of indicators for the most common causes of death, infectious diseases, and maternal-infant measures. Data for these indicators were aggregated over time to produce two rates, one representing the "prior" three-year average case count, and the other representing the "current" three-year average case count. This was done to ensure a sufficient sample size for most county comparisons, and also to foster meaningful comparisons of a given county's health indicator(s) over time.

Regarding mortality, California met the *Healthy People (HP) 2020 National Objectives* in age-adjusted death rates for all cancers, colorectal cancer, lung cancer, female breast cancer, prostate cancer, coronary heart disease, accidents (unintentional injuries), motor vehicle crashes, homicide, and firearm related deaths. In addition, California met the infant mortality *HP 2020 National Objective* of less than 6.0 infant deaths per 1,000 live births.

Regarding morbidity, California met the *HP 2020 National Objective* for incidences of female gonorrhea (ages 15 to 44) despite showing an increase of 37.3 percent compared to the prior period.

Regarding natality, California met the *HP 2020 National Objective* for low birthweight infants, first-trimester prenatal care, adequate/adequate plus prenatal care, and breastfeeding initiation during early postpartum.

Notable Points in Profiles 2019

- California's age-adjusted death rates for all cancers, including colorectal cancer, lung cancer, prostate cancer, and female breast cancer, met their respective *HP 2020 National Objectives*. Most notably, the rate of deaths due to lung cancer declined by more than 13 percent from a 2012-2014 rate of 31.7 to 27.5 per 100,000. California improved in all other reported categories of cancer related deaths, including all cancers (-6.2 percent from the prior period), colorectal cancer (-6.4 percent from the prior period), breast cancer (-7.0 percent from the prior period), and prostate cancer (-0.6 percent from the prior period). See Tables 2-6 and *HP 2020 National Objective* C1-C7 for cancer related deaths.
- The coronary heart disease age-adjusted death rate for California decreased from 97.4 to 87.4 per 100,000, a reduction of 10.3 percent. California, along with 38 counties with reliable rates, met the *HP 2020 National Objective* of 103.4 deaths per 100,000. Of those counties with reliable increased rates, only four showed an increase in heart disease death rate over five percent. See Table 9 and *HP 2020 National Objective* Heart Disease and Stroke (HDS)-2 for

coronary heart disease.

- *Profiles* 2019 reported an improvement of 29.3 percent in the age-specific rate of births to mothers aged 15 to 19 years old, a decrease from 22.2 to 15.7 per 1,000 female adolescents. All but one county improved in this health indicator among those with reliable rates. See Table 26 for more data on births to adolescent mothers.
- The number of deaths due to influenza/pneumonia decreased from 15.5 per 100,000 in 2012-2014 to 14.2 per 100,000 in 2015-2017; this represented an improvement of 8.1 percent. Among counties with reliable rates, 22 counties achieved rates better than the California average of 14.2 per 100,000, while 14 counties showed rates worse than the California average. California also improved its lower respiratory disease death rate, exhibiting a 5.5 percent reduction over the prior period of 33.9 per 100,000. See Tables 11 & 12 for influenza and lower respiratory disease.
- Mortality due to Alzheimer's disease remained an area of high concern for California. While Santa Clara appeared to improve with respect to its Alzheimer's disease death rate, this improvement is actually due to reporting inconsistencies by this county. Even after accounting for this large artificial decrease, California still demonstrated a 16.3 percent increase in the rate of Alzheimer's deaths compared to the prior 2012-2014 three-year rate, which resulted in a current mortality rate of 35.7 per 100,000. With the exception of Santa Clara County, seven out of California's 10 most populous counties showed an Alzheimer's death rate increase of over 20 percent from the prior period. See technical notes and Table 8 for more information regarding Alzheimer's disease.
- The cerebrovascular disease (stroke) age-adjusted death rate increased 4.6 percent, from 34.7 per 100,000 in the prior period, to 36.3 per 100,000 in the current period. As a result, California did not meet the *HP 2020 National Objective* for cerebrovascular disease (stroke) of 34.8 deaths per 100,000. See Table 10 and *HP 2020 National Objective* HDS-3 for stroke related deaths.
- The diabetes age-adjusted death rate increased by 3.9 percent, from 20.4 deaths to 21.2 deaths per 100,000. Twenty-two counties with reliable rates and one county with zero diabetes deaths had age-adjusted rates less than the California age-adjusted rate. See Table 7 for diabetes.
- California's accidents (unintentional injuries) age-adjusted death rate increased 13.8 percent, from 28.3 to 32.2 per 100,000. Despite this increase, California still met the *HP 2020 National Objective* for unintentional injuries of 36.4 per 100,000. See Table 14 and *HP 2020 National Objective* Injury and Violence Prevention (IVP)-11 for accidental deaths.
- California's firearm related age-adjusted death rate increased by four percent, from 7.6 to 7.9 deaths per 100,000. In addition, the homicide age-adjusted death rate increased from 5.0 to 5.2 deaths per 100,000 which represented a statewide increase of four percent. California met both *HP 2020 National Objectives* of less than 9.3 firearm related deaths per 100,000 and 5.5 homicides per 100,000. California also showed a 2.9 percent increase in the age-adjusted death rate associated with suicide. This resulted in a current rate of 10.4 suicides per 100,000, which failed to meet the *HP 2020 National Objective*. See Tables 16-18 and *HP 2020 National Objectives* IVP-30, IVP-29, and Mental Health and Mental Disorders (MHMD)-1 for firearm related deaths, homicide, and suicide.
- The chronic liver disease and cirrhosis age-adjusted death rate for California increased from 11.7 to 12.2 per 100,000, representing an increase of 4.3 percent. Chronic liver disease and cirrhosis did not meet the *HP 2020 National Objective* of 8.2 deaths per 100,000. See Table 13

and *HP 2020 National Objective* Substance Abuse (SA)-11 for more information on liver disease.

- California experienced an 11.4 percent increase in the number of people who died from drug induced deaths, currently at a rate of 12.7 deaths per 100,000 for the 2015-2017 period. As a result, California did not meet the *HP 2020 National Objective* for this health indicator. See technical notes, Table 19, and *HP 2020 National Objective* SA-12 for more information about drug induced death criteria.
- The age-adjusted death rate for motor vehicle crashes increased from 7.9 to 9.5 per 100,000, which represented an increase of 20.3 percent compared to the previous period. California, along with 27 counties, met the *HP 2020 National Objective* of 12.4 deaths per 100,000. A number of densely populated areas experienced death rates for this objective that fell below the state average, despite high motor vehicle traffic density; Los Angeles, Orange, Santa Clara, Alameda, San Francisco, Contra Costa, and San Diego were among these heavily populated and traffic-dense counties. Refer to Table 15 and *HP 2020 National Objective* IVP-13.1 for more information on motor vehicle fatalities.
- The tuberculosis crude case rate decreased by 5.4 percent, from a rate of 5.6 to 5.3 new cases per 100,000. Eight counties with zero new cases and one county with an unreliable rate met the *HP 2020 National Objective* of 1.0 new cases per 100,000 (unreliable rates are identified as those calculated from fewer than 20 data elements). See Table 23 and *HP 2020 National Objective* Immunization and Infectious Diseases (IID)-29 for tuberculosis.
- The crude incidence rate of HIV/AIDS increased 3.3 percent compared to the prior period, from 385.0 to 397.7 new cases per 100,000. This increase was consistent across California, and only five counties with reliable rates showed a decreased incidence compared to the prior period (Kern, San Benito, San Francisco, San Luis Obispo, and Santa Clara). However, most counties showed an incidence rate below the California average, meaning that the increased incidence of HIV/AIDS occurred in heavily populated counties. Further information about all of the HIV/AIDS morbidity is found in Table 20.
- Transmission of sexually communicable diseases continued to be one of California's largest public health concerns. Gonorrhea among both males and females represented morbidity rate increases of 15.7 percent and 47.2 percent, and chlamydia increased 74.3 percent for both sexes combined. Both of these sexually transmitted diseases have risen substantially over the prior time period. The incidence of gonorrhea among males in San Francisco county was more than four times the California average for the 2015-2017 period. With the exception of gonorrhea among females aged 15-44, California failed to meet the *HP 2020 National Objectives* for these health indicators for Sexually Transmitted Diseases (STD)-1, STD-3, STD-6.
- The occurrence of syphilis among females and males, as well as congenital syphilis, dramatically increased during the 2015-2017 period. While many of the counties reported rates that were unreliable (fewer than 20 data elements), California as a whole demonstrated morbidity rate increases of 210.2 percent for female syphilis, 54.7 percent for male syphilis, and 244.2 percent for congenital syphilis. Additional sexually transmitted disease morbidity data are presented in Tables 21-23M and the *HP 2020 National Objectives* for STD-7, STD-8.
- The percentage of Californians under 18 living in poverty decreased from 20.7 percent in 2016 to 19.3 percent; this represented a rate reduction of 1.4 percent in 2017. Twenty-nine counties showed poverty percentages below the California average. These data are presented in Table 29.

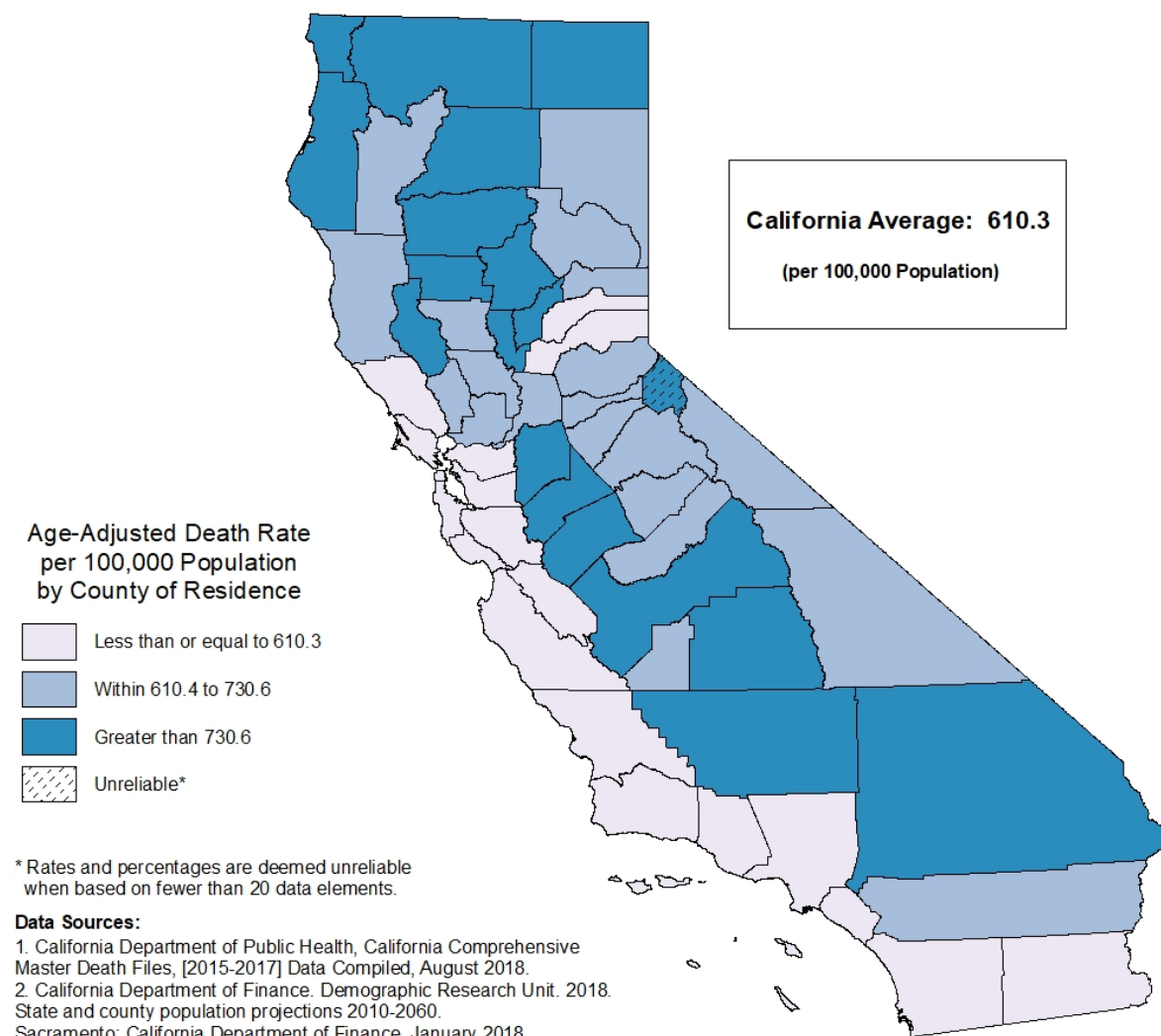
- The health indicators for the 2015-2017 period associated with maternal-infant factors such as births to low weight infants, prenatal care sought, adequate plus prenatal care, and breastfeeding all remained within approximately one percent of the prior three-year average. Accordingly, California as a whole (and many of its counties) met the *HP 2020 National Objective* for all of these maternal-infant indicators. These natality factors are presented in Tables 25-28 and include *HP 2020 National Objectives* Maternal, Infant and Child Health (MICH)-8.1, 10.1, 10.2, and 21.1.
- Infant mortality decreased from 4.7 to 4.4 per 1,000 live births, a decrease of 6.4 percent. As a result, California met the *HP 2020 National Objective* MICH-1.3 of less than 6.0 infant deaths per one thousand live births. Infant mortality was also presented by racial subgroups of Table 24 (B-E).
- Table 30 compared current period rates to previous period rates and illustrated that California has shown an improvement for approximately half of the mortality indicators assessed compared to the prior three-year period. Unfortunately, California failed to improve on all but one of the selected morbidity factors, mostly related to the transmission of sexually communicable diseases. Indicators related to maternal-infant care showed that California mostly remained stable over the prior period, with a large improvement in the number of births to teen mothers.

Values Unique to California

California-specific data are used to create *Profiles*. While most of these data types are also sent to the federal government, standardization issues and other factors mean their availability in a national dataset is often delayed. As a result, *Profiles* typically provides more up-to-date data than similar national reports. Due to technical variations in collection and/or estimation, there may be slight differences between numbers for California-specific data versus the national level (an example would be the California Department of Finance's population estimates versus those of the U.S. Census).

Profiles provides unique insight that raises awareness of county health issues. California improved or remained the same in the rates/percentages of 12 of the selected health indicators. Double-digit percentage improvements range from 13.25 percent to 29.3 percent and included lung cancer, births to mothers aged 15-19, and coronary heart disease; other notable improvements are found for other cancers examined, influenza, and lower respiratory disease.

DEATHS DUE TO ALL CAUSES, 2015-2017



The crude death rate from deaths due to all causes for California was 668.1 deaths per 100,000 population, a risk of dying equivalent to approximately one death for every 149.7 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 262,663.3 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 1,354.7 in Lake County to 400.9 in Mono County, a factor of 3.4 to 1.

The age-adjusted death rate from deaths due to all causes for California during the 2015 through 2017 three-year period was 610.3 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 946.3 in Lake County to 471.9 in Marin County.

A Healthy People 2020 National Objective for deaths due to all causes has not been established.

The California age-adjusted death rate from deaths due to all causes for the 2012-2014 period was 629.1 per 100,000 population.

**TABLE 1
DEATHS DUE TO ALL CAUSES
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: NOT APPLICABLE							
1	MARIN	262,706	1,955.0	744.2	471.9	450.2	493.6
2	SAN MATEO	768,507	4,768.7	620.5	477.9	464.0	491.7
3	SANTA CLARA	1,932,827	10,160.3	525.7	479.0	469.6	488.5
4	SAN FRANCISCO	872,463	5,790.0	663.6	508.1	494.7	521.4
5	ORANGE	3,179,122	19,675.7	618.9	545.9	538.2	553.7
6	MONTEREY	439,945	2,597.7	590.5	563.9	541.8	586.0
7	ALAMEDA	1,637,176	9,906.3	605.1	565.3	553.9	576.6
8	LOS ANGELES	10,215,103	62,894.0	615.7	574.1	569.6	578.7
9	SAN BENITO	58,010	336.7	580.4	584.7	520.8	648.6
10	SANTA CRUZ	275,754	1,752.3	635.5	586.3	558.0	614.6
11	SAN DIEGO	3,295,816	21,327.3	647.1	587.0	579.0	595.0
12	CONTRA COSTA	1,129,332	7,843.7	694.5	587.2	574.0	600.5
13	IMPERIAL	186,520	1,087.7	583.1	590.9	555.4	626.4
14	PLACER	375,805	3,224.3	858.0	595.5	574.5	616.5
15	SANTA BARBARA	447,309	3,170.3	708.8	596.9	575.7	618.2
16	VENTURA	853,673	5,774.0	676.4	596.9	581.3	612.6
17	NEVADA	98,300	1,026.0	1,043.7	605.1	564.9	645.2
18	SONOMA	503,152	4,150.7	824.9	605.1	586.1	624.1
19	SAN LUIS OBISPO	278,080	2,428.0	873.1	609.9	584.6	635.2
	CALIFORNIA	39,312,207	262,663.3	668.1	610.3	608.0	612.7
20	SIERRA	3,141	34.0	1,082.5	619.5	429.0	865.7
21	EL DORADO	184,085	1,561.3	848.2	625.9	593.6	658.2
22	RIVERSIDE	2,359,588	16,402.7	695.1	633.4	623.6	643.2
23	CALAVERAS	44,747	496.0	1,108.5	638.4	576.3	700.5
24	MARIPOSA	18,057	201.7	1,116.8	647.3	547.6	747.1
25	NAPA	141,569	1,263.7	892.6	651.2	614.6	687.8
26	AMADOR	37,181	433.3	1,165.5	652.0	586.2	717.8
27	YOLO	216,726	1,320.3	609.2	653.9	618.2	689.6
28	COLUSA	22,428	164.0	731.2	678.6	572.6	784.7
29	MADERA	155,518	1,097.3	705.6	679.2	638.6	719.7
30	SOLANO	433,412	3,294.7	760.2	681.9	658.3	705.6
31	PLUMAS	19,535	225.0	1,151.8	683.7	583.9	783.4
32	MONO	13,801	55.3	400.9	685.8	517.1	892.0
33	KINGS	149,172	835.7	560.2	696.2	648.4	744.1
34	LASSEN	30,599	247.3	808.3	704.7	614.5	794.8
35	TUOLUMNE	54,291	670.7	1,235.3	716.3	657.5	775.0
36	INYO	18,658	217.7	1,166.6	720.1	617.9	822.3
37	TRINITY	13,492	159.0	1,178.5	723.3	596.0	850.6
38	MENDOCINO	88,779	861.7	970.6	727.1	676.4	777.8
39	SACRAMENTO	1,503,536	11,551.7	768.3	730.6	717.1	744.2
40	FRESNO	988,072	6,794.3	687.6	730.6	713.0	748.3
41	MODOC	9,506	111.3	1,171.2	733.7	586.0	881.4
42	TULARE	467,960	3,067.0	655.4	744.0	717.4	770.6
43	TEHAMA	64,158	631.7	984.5	746.9	687.1	806.8
44	SAN BERNARDINO	2,143,578	14,037.3	654.9	748.3	735.7	761.0
45	SUTTER	98,208	831.7	846.8	757.9	705.9	809.9
46	MERCED	272,286	1,779.3	653.5	758.8	723.1	794.5
47	GLENN	29,084	257.0	883.6	759.9	665.5	854.2
48	SAN JOAQUIN	738,343	5,500.7	745.0	776.0	755.1	796.8
49	BUTTE	224,761	2,352.7	1,046.7	789.4	756.2	822.6
50	KERN	887,922	5,964.0	671.7	793.6	773.1	814.2
51	STANISLAUS	543,592	4,312.0	793.2	807.2	782.8	831.6
52	HUMBOLDT	135,884	1,331.0	979.5	810.7	765.7	855.8
53	SISKIYOU	44,373	594.7	1,340.2	835.2	762.5	908.0
54	ALPINE	1,128	11.0	975.2 *	835.9 *	417.3	1,495.6
55	DEL NORTE	26,956	305.3	1,132.7	888.1	785.9	990.3
56	SHASTA	177,631	2,291.3	1,289.9	918.0	879.0	956.9
57	YUBA	76,138	652.7	857.2	922.3	850.3	994.4
58	LAKE	64,712	876.7	1,354.7	946.3	879.9	1,012.6

* Rates are deemed unreliable when based on fewer than 20 data elements.

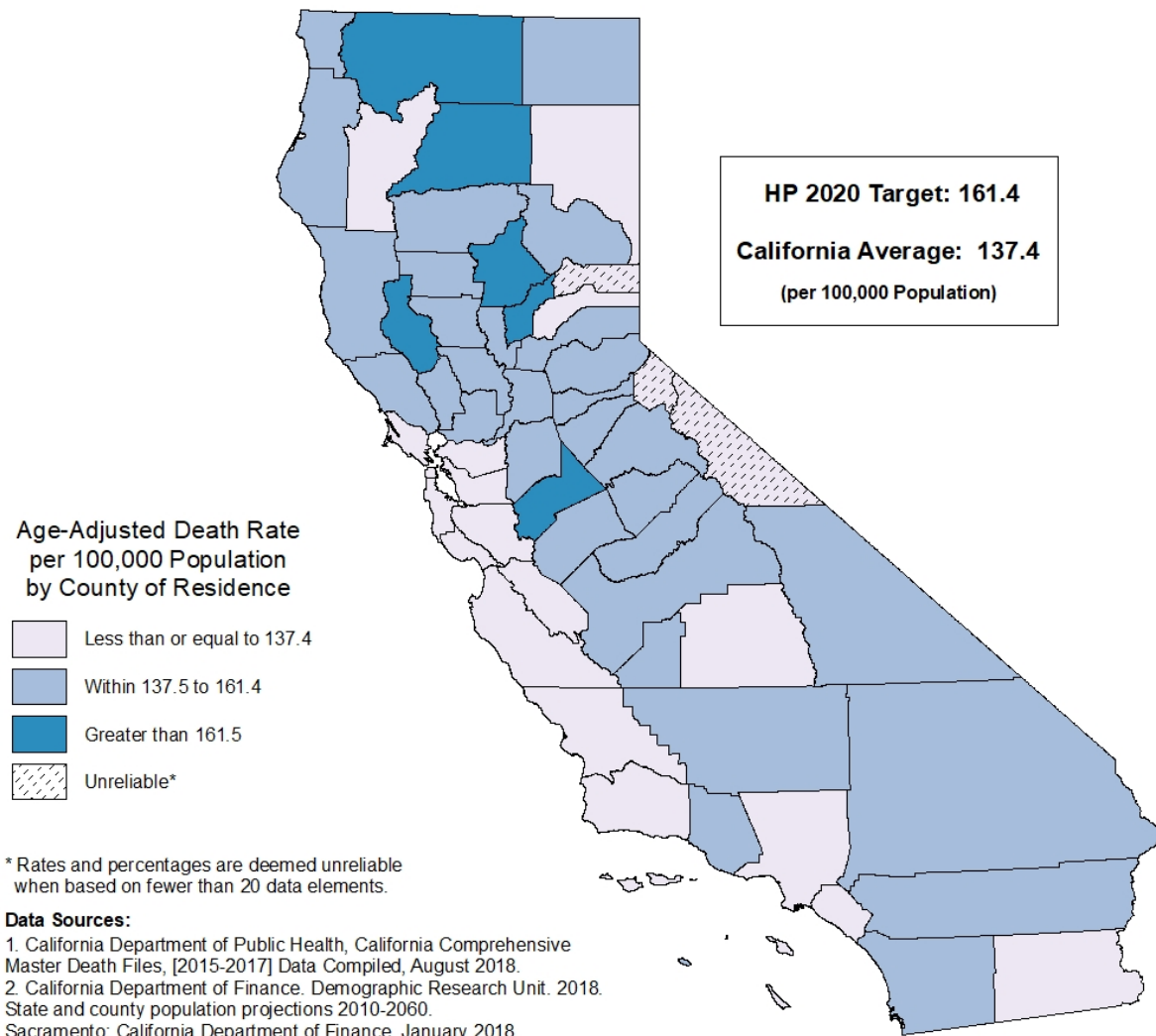
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO ALL CANCERS, 2015-2017



The crude death rate from cancer in California was 151.2 deaths per 100,000 population, a risk of dying from cancer equivalent to approximately one death for every 661.4 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 59,437.7 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 300.3 in Lake County to 118.5 in Imperial County, a factor of 2.5 to 1.

The age-adjusted death rate from cancer for California during the 2015 through 2017 three-year period was 137.4 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 199.5 in Yuba County to 114.9 in Marin County.

Forty-nine counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective C-1 of no more than 161.4 age-adjusted deaths due to cancer per 100,000 population. An additional three counties with unreliable rates met the objective.

The California age-adjusted death rate from cancer for the 2012-2014 period was 146.5 per 100,000 population.

**TABLE 2
DEATHS DUE TO ALL CANCERS
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	ALPINE	1,128	1.3	118.2 *	69.9 *	3.9	321.8
2	SIERRA	3,141	5.0	159.2 *	71.3 *	23.2	166.4
3	MARIN	262,706	474.7	180.7	114.9	104.3	125.5
4	SANTA CLARA	1,932,827	2,438.3	126.2	115.5	110.9	120.2
5	SAN MATEO	768,507	1,135.7	147.8	115.9	109.0	122.7
6	IMPERIAL	186,520	221.0	118.5	121.3	105.1	137.4
7	SAN BENITO	58,010	74.0	127.6	122.2	95.9	153.4
8	TRINITY	13,492	32.0	237.2	123.8	84.7	174.8
9	SAN FRANCISCO	872,463	1,372.3	157.3	125.0	118.3	131.7
10	MONTEREY	439,945	573.0	130.2	125.8	115.3	136.3
11	MONO	13,801	12.7	91.8 *	127.1 *	67.0	218.9
12	SANTA CRUZ	275,754	401.7	145.7	128.8	115.7	141.9
13	ORANGE	3,179,122	4,644.3	146.1	129.1	125.3	132.9
14	ALAMEDA	1,637,176	2,299.3	140.4	129.6	124.2	135.0
15	SANTA BARBARA	447,309	670.3	149.9	130.4	120.3	140.5
16	SAN LUIS OBISPO	278,080	528.0	189.9	130.6	119.0	142.1
17	LASSEN	30,599	48.0	156.9	131.3	96.8	174.1
18	NEVADA	98,300	236.0	240.1	132.1	114.3	149.8
19	LOS ANGELES	10,215,103	14,529.3	142.2	132.8	130.6	135.0
20	CONTRA COSTA	1,129,332	1,831.7	162.2	134.8	128.5	141.1
21	TULARE	467,960	567.3	121.2	135.3	124.0	146.6
	CALIFORNIA	39,312,207	59,437.7	151.2	137.4	136.3	138.5
22	PLACER	375,805	759.7	202.1	139.3	129.2	149.3
23	COLUSA	22,428	34.0	151.6	139.9	96.9	195.5
24	VENTURA	853,673	1,366.3	160.1	140.0	132.4	147.5
25	YOLO	216,726	283.0	130.6	140.1	123.6	156.7
26	SONOMA	503,152	978.3	194.4	140.2	131.1	149.2
27	SAN DIEGO	3,295,816	5,073.7	153.9	140.5	136.6	144.5
28	MARIPOSA	18,057	47.3	262.1	140.8	103.6	187.1
29	EL DORADO	184,085	378.3	205.5	141.0	126.4	155.7
30	FRESNO	988,072	1,309.0	132.5	141.0	133.2	148.8
31	RIVERSIDE	2,359,588	3,676.0	155.8	141.1	136.5	145.7
32	CALAVERAS	44,747	123.3	275.6	143.8	116.7	170.8
33	TUOLUMNE	54,291	141.3	260.3	143.9	119.0	168.8
34	TEHAMA	64,158	128.3	200.0	144.1	118.8	169.4
35	MODOC	9,506	22.7	238.4	144.7	91.4	217.8
36	MADERA	155,518	246.0	158.2	149.3	130.4	168.1
37	KERN	887,922	1,156.0	130.2	150.0	141.2	158.8
38	GLENN	29,084	51.0	175.4	150.6	112.2	198.1
39	NAPA	141,569	293.0	207.0	150.8	133.2	168.4
40	KINGS	149,172	184.0	123.3	152.8	130.4	175.1
41	AMADOR	37,181	107.0	287.8	153.2	123.0	183.4
42	SAN BERNARDINO	2,143,578	2,998.7	139.9	155.1	149.4	160.8
43	INYO	18,658	48.3	259.0	155.3	114.6	205.7
44	PLUMAS	19,535	57.3	293.5	155.7	118.0	201.5
45	SUTTER	98,208	174.3	177.5	155.7	132.4	179.0
46	DEL NORTE	26,956	57.3	212.7	156.4	118.6	202.5
47	SAN JOAQUIN	738,343	1,131.0	153.2	156.8	147.5	166.1
48	MENDOCINO	88,779	197.0	221.9	157.2	134.2	180.1
49	MERCED	272,286	372.0	136.6	158.1	141.8	174.3
50	SACRAMENTO	1,503,536	2,534.7	168.6	158.4	152.1	164.6
51	SOLANO	433,412	807.7	186.4	159.3	148.1	170.5
52	HUMBOLDT	135,884	277.3	204.1	160.5	141.0	180.1
	HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: C-1				161.4		
53	SISKIYOU	44,373	123.3	277.9	162.0	131.7	192.3
54	BUTTE	224,761	485.3	215.9	164.6	149.4	179.7
55	STANISLAUS	543,592	900.7	165.7	166.7	155.7	177.8
56	SHASTA	177,631	478.0	269.1	183.6	166.7	200.5
57	LAKE	64,712	194.3	300.3	195.9	167.1	224.6
58	YUBA	76,138	146.0	191.8	199.5	166.5	232.5

* Rates are deemed unreliable when based on fewer than 20 data elements.

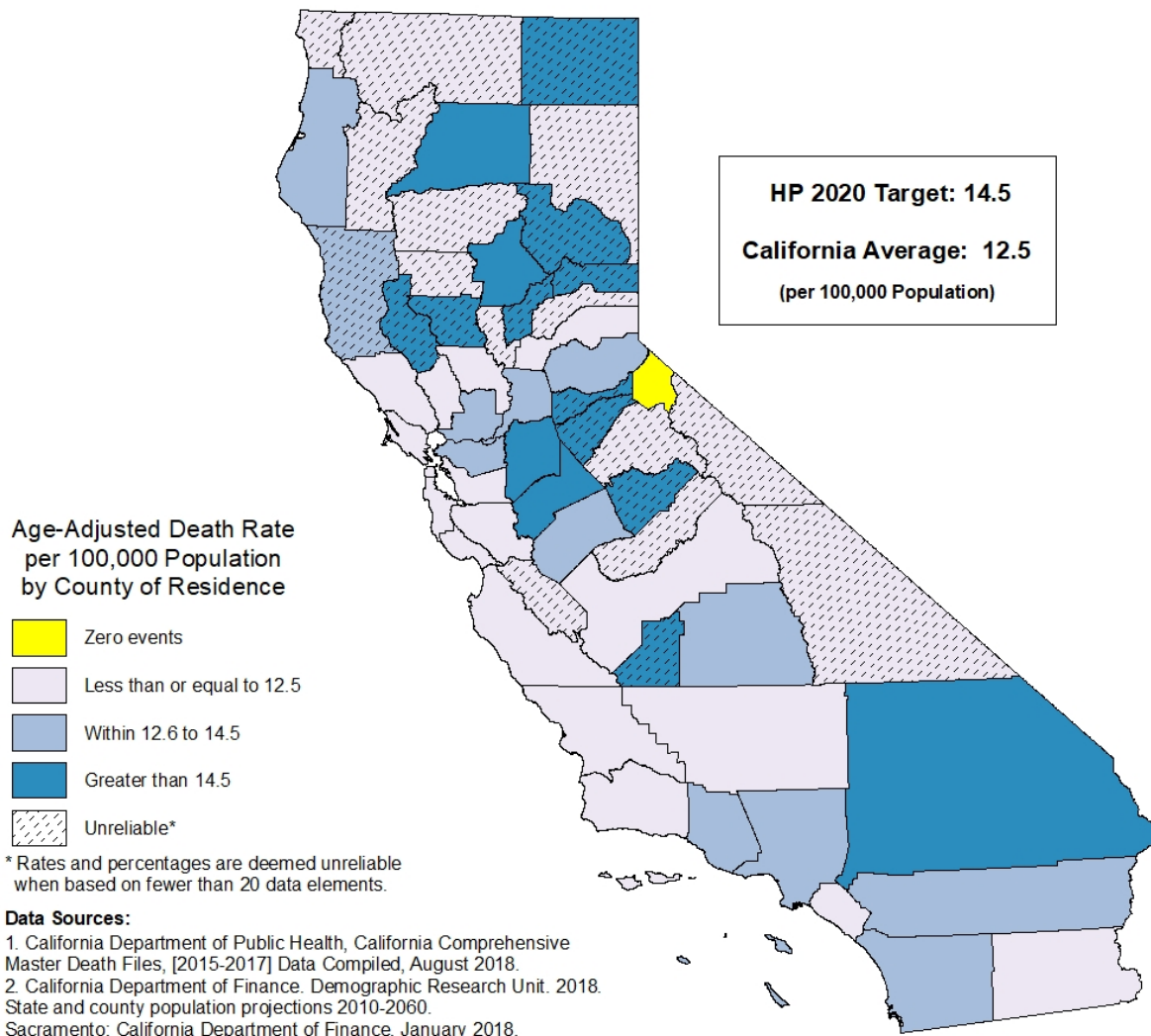
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO COLORECTAL CANCER, 2015-2017



The crude death rate from colorectal cancer for California was 13.8 deaths per 100,000 population, a risk of dying from colorectal cancer equivalent to approximately one death for every 7,238.9 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 5,430.7 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 23.6 in Shasta County to 9.7 in Yolo County, a factor of 2.4 to 1.

The age-adjusted death rate from colorectal cancer for California during the 2015 through 2017 three-year period was 12.5 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 16.7 in Shasta County to 8.9 in Santa Barbara County.

Twenty-eight counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective C-5 of no more than 14.5 age-adjusted deaths due to colorectal cancer per 100,000 population. An additional fourteen counties with unreliable rates and one county with zero deaths due to colorectal cancer also met the objective.

The California age-adjusted death rate from colorectal cancer for the 2012-2014 period was 13.4 per 100,000 population.

**TABLE 3
DEATHS DUE TO COLORECTAL CANCER
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	ALPINE	1,128	0.0	-	-	-	-
2	TUOLUMNE	54,291	8.0	14.7 *	8.0 *	3.4	15.7
3	GLENN	29,084	2.7	9.2 *	8.2 *	1.5	25.4
4	SANTA BARBARA	447,309	46.3	10.4	8.9	6.5	11.9
5	NEVADA	98,300	17.3	17.6 *	9.3 *	5.5	14.9
6	MARIN	262,706	40.3	15.4	9.7	6.9	13.2
7	SANTA CLARA	1,932,827	208.7	10.8	9.7	8.4	11.1
8	MONO	13,801	1.3	9.7 *	10.1 *	0.6	46.4
9	MONTEREY	439,945	48.0	10.9	10.1	7.5	13.5
10	SANTA CRUZ	275,754	31.3	11.4	10.2	7.0	14.5
11	SAN MATEO	768,507	100.7	13.1	10.3	8.2	12.3
12	TRINITY	13,492	2.3	17.3 *	10.4 *	1.6	34.4
13	YOLO	216,726	21.0	9.7	10.5	6.5	16.1
14	DEL NORTE	26,956	3.7	13.6 *	10.5 *	2.7	28.0
15	SAN BENITO	58,010	6.7	11.5 *	10.8 *	4.2	22.7
16	ORANGE	3,179,122	393.7	12.4	10.8	9.7	11.9
17	SUTTER	98,208	12.7	12.9 *	11.1 *	5.9	19.2
18	SAN LUIS OBISPO	278,080	44.7	16.1	11.2	8.1	15.0
19	LASSEN	30,599	4.3	14.2 *	11.2 *	3.3	27.8
20	PLACER	375,805	62.0	16.5	11.3	8.6	14.4
21	INYO	18,658	3.7	19.7 *	11.3 *	2.9	30.2
22	IMPERIAL	186,520	21.0	11.3	11.6	7.2	17.7
23	NAPA	141,569	22.0	15.5	11.6	7.2	17.5
24	MADERA	155,518	18.7	12.0 *	11.6 *	6.9	18.1
25	TEHAMA	64,158	10.0	15.6 *	11.8 *	5.7	21.7
26	ALAMEDA	1,637,176	211.3	12.9	12.0	10.3	13.6
27	KERN	887,922	91.3	10.3	12.1	9.7	14.8
28	SISKIYOU	44,373	8.7	19.5 *	12.2 *	5.5	23.4
29	SONOMA	503,152	84.0	16.7	12.2	9.7	15.1
30	SAN FRANCISCO	872,463	136.7	15.7	12.3	10.2	14.4
31	FRESNO	988,072	117.3	11.9	12.5	10.2	14.8
	CALIFORNIA	39,312,207	5,430.7	13.8	12.5	12.2	12.9
32	HUMBOLDT	135,884	20.7	15.2	12.7	7.8	19.4
33	CONTRA COSTA	1,129,332	170.0	15.1	12.7	10.7	14.6
34	EL DORADO	184,085	33.7	18.3	12.7	8.8	17.7
35	SAN DIEGO	3,295,816	459.7	13.9	12.7	11.6	13.9
36	VENTURA	853,673	125.7	14.7	12.9	10.6	15.2
37	LOS ANGELES	10,215,103	1,434.7	14.0	13.1	12.4	13.7
38	SOLANO	433,412	65.0	15.0	13.2	10.2	16.8
39	SACRAMENTO	1,503,536	219.3	14.6	13.7	11.8	15.5
40	RIVERSIDE	2,359,588	358.7	15.2	13.7	12.3	15.2
41	TULARE	467,960	58.0	12.4	13.8	10.5	17.8
42	MENDOCINO	88,779	16.0	18.0 *	13.9 *	8.0	22.7
43	MERCED	272,286	33.3	12.2	14.4	9.9	20.2
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: C-5					14.5		
44	LAKE	64,712	15.3	23.7 *	14.8 *	8.3	24.3
45	SAN JOAQUIN	738,343	106.3	14.4	14.9	12.0	17.8
46	KINGS	149,172	18.3	12.3 *	15.1 *	9.0	23.7
47	BUTTE	224,761	42.7	19.0	15.1	10.9	20.4
48	CALAVERAS	44,747	13.3	29.8 *	15.3 *	8.2	26.1
49	SAN BERNARDINO	2,143,578	295.3	13.8	15.4	13.6	17.2
50	MARIPOSA	18,057	5.0	27.7 *	15.4 *	5.0	35.9
51	STANISLAUS	543,592	82.3	15.1	15.5	12.3	19.2
52	MODOC	9,506	2.3	24.5 *	15.8 *	2.4	52.4
53	YUBA	76,138	11.3	14.9 *	15.9 *	8.0	28.2
54	COLUSA	22,428	3.7	16.3 *	16.0 *	4.0	42.5
55	SIERRA	3,141	1.0	31.8 *	16.5 *	0.4	92.1
56	SHASTA	177,631	42.0	23.6	16.7	12.0	22.6
57	AMADOR	37,181	10.7	28.7 *	16.7 *	8.3	30.2
58	PLUMAS	19,535	6.0	30.7 *	18.0 *	6.6	39.1

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

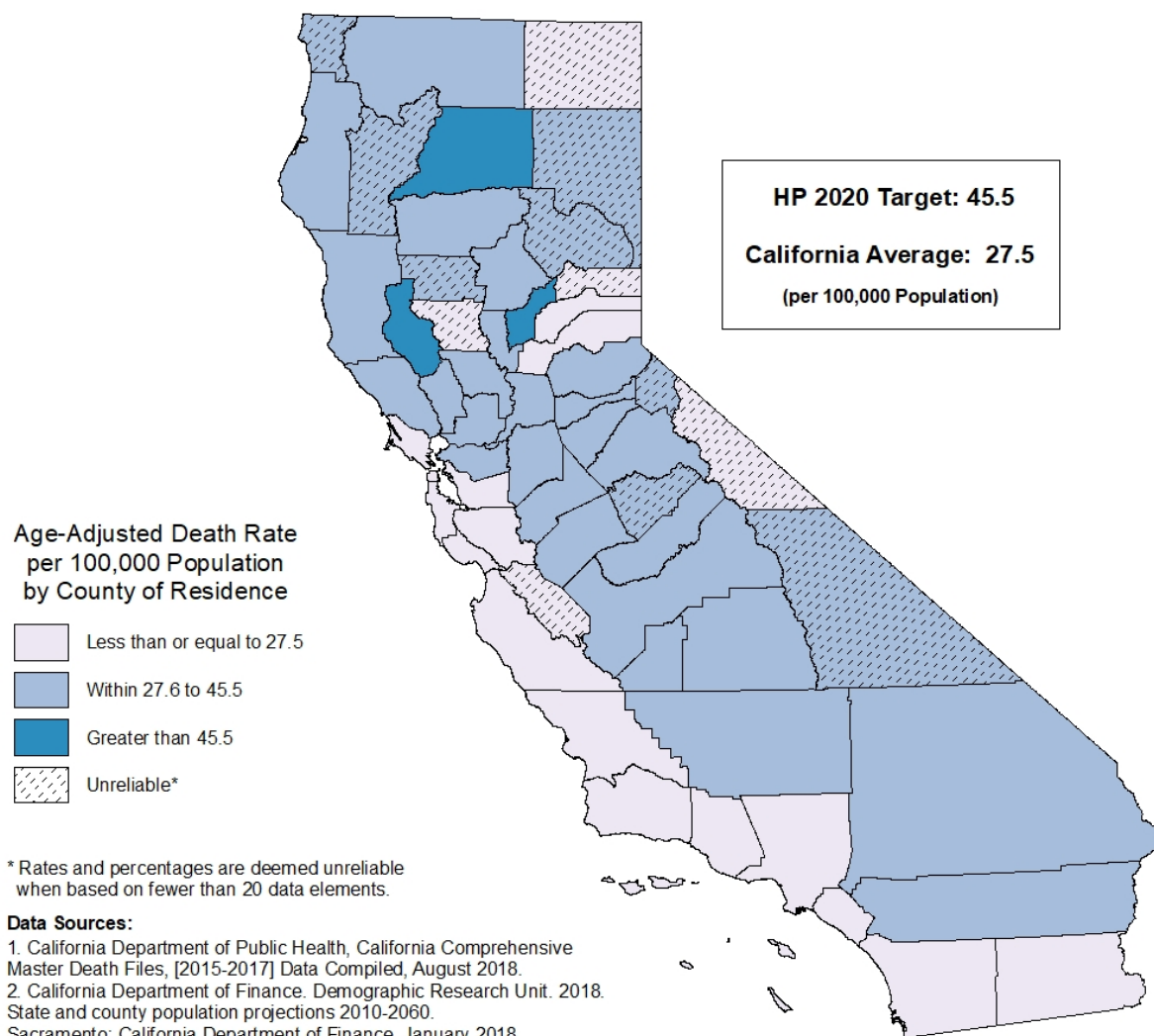
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO LUNG CANCER, 2015-2017



The crude death rate from lung cancer for California was 30.2 deaths per 100,000 population, a risk of dying from lung cancer equivalent to approximately one death for every 3,312.5 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 11,868.0 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 80.7 in Amador County to 17.9 in Imperial County, a factor of 4.5 to 1.

The age-adjusted death rate from lung cancer for California during the 2015 through 2017 three-year period was 27.5 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 54.3 in Yuba County to 18.7 in Imperial County.

Forty-two counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective C-2 of no more than 45.5 age-adjusted deaths due to lung cancer per 100,000 population. An additional thirteen counties with unreliable rates also met the objective.

The California age-adjusted death rate from lung cancer for the 2012-2014 period was 31.7 per 100,000 population.

**TABLE 4
DEATHS DUE TO LUNG CANCER
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	SIERRA	3,141	0.3	10.6 *	4.0 *	<0.1	52.2
2	IMPERIAL	186,520	33.3	17.9	18.7	12.9	26.3
3	MARIN	262,706	85.0	32.4	20.2	16.2	25.0
4	MONO	13,801	2.3	16.9 *	21.6 *	3.3	71.7
5	SAN MATEO	768,507	216.7	28.2	22.3	19.3	25.3
6	SANTA CLARA	1,932,827	481.7	24.9	23.0	20.9	25.1
7	MONTEREY	439,945	104.7	23.8	23.1	18.6	27.6
8	SANTA CRUZ	275,754	76.3	27.7	24.7	19.4	30.9
9	NEVADA	98,300	44.3	45.1	24.8	18.0	33.2
10	LOS ANGELES	10,215,103	2,694.3	26.4	24.8	23.9	25.8
11	SANTA BARBARA	447,309	128.3	28.7	24.9	20.5	29.3
12	SAN FRANCISCO	872,463	281.7	32.3	25.8	22.7	28.8
13	ORANGE	3,179,122	923.7	29.1	25.8	24.1	27.5
14	COLUSA	22,428	6.7	29.7 *	26.1 *	10.2	54.7
15	ALAMEDA	1,637,176	459.7	28.1	26.2	23.8	28.6
16	VENTURA	853,673	258.3	30.3	26.2	23.0	29.5
17	SAN DIEGO	3,295,816	981.7	29.8	27.3	25.6	29.0
18	SAN LUIS OBISPO	278,080	112.3	40.4	27.4	22.2	32.5
19	SAN BENITO	58,010	15.3	26.4 *	27.4 *	15.4	44.9
20	MODOC	9,506	4.3	45.6 *	27.4 *	8.0	67.8
21	PLACER	375,805	153.3	40.8	27.5	23.1	31.9
	CALIFORNIA	39,312,207	11,868.0	30.2	27.5	27.0	28.0
22	CONTRA COSTA	1,129,332	377.7	33.4	27.9	25.0	30.8
23	YOLO	216,726	56.3	26.0	28.2	21.4	36.6
24	TULARE	467,960	120.0	25.6	28.6	23.4	33.8
25	FRESNO	988,072	266.0	26.9	29.1	25.5	32.6
26	SONOMA	503,152	204.3	40.6	29.3	25.2	33.4
27	RIVERSIDE	2,359,588	774.7	32.8	29.5	27.4	31.6
28	MADERA	155,518	50.0	32.2	29.7	22.1	39.2
29	NAPA	141,569	60.0	42.4	30.6	23.3	39.4
30	EL DORADO	184,085	84.7	46.0	30.8	24.6	38.1
31	SAN BERNARDINO	2,143,578	586.0	27.3	30.9	28.4	33.5
32	KERN	887,922	240.7	27.1	31.4	27.4	35.5
33	SAN JOAQUIN	738,343	233.0	31.6	32.4	28.1	36.6
34	SOLANO	433,412	168.3	38.8	32.4	27.4	37.4
35	TUOLUMNE	54,291	34.0	62.6	32.8	22.7	45.8
36	LASSEN	30,599	12.3	40.3 *	33.0 *	17.2	57.2
37	MERCED	272,286	78.3	28.8	33.4	26.5	41.7
38	INYO	18,658	11.0	59.0 *	33.5 *	16.7	60.0
39	MARIPOSA	18,057	11.7	64.6 *	33.6 *	17.2	59.1
40	CALAVERAS	44,747	30.0	67.0	33.6	22.7	47.9
41	SACRAMENTO	1,503,536	540.0	35.9	33.9	30.9	36.8
42	MENDOCINO	88,779	44.0	49.6	34.0	24.7	45.7
43	SUTTER	98,208	38.7	39.4	34.3	24.4	47.0
44	ALPINE	1,128	0.7	59.1 *	34.9 *	0.2	261.1
45	TEHAMA	64,158	32.7	50.9	35.5	24.4	50.0
46	BUTTE	224,761	112.7	50.1	36.6	29.7	43.5
47	TRINITY	13,492	10.3	76.6 *	36.8 *	17.9	66.9
48	STANISLAUS	543,592	200.7	36.9	37.1	31.9	42.3
49	HUMBOLDT	135,884	66.0	48.6	37.1	28.7	47.3
50	PLUMAS	19,535	14.7	75.1 *	37.2 *	20.6	61.6
51	DEL NORTE	26,956	14.7	54.4 *	37.7 *	20.9	62.5
52	KINGS	149,172	45.3	30.4	38.4	28.1	51.4
53	SISKIYOU	44,373	30.0	67.6	38.7	26.1	55.2
54	AMADOR	37,181	30.0	80.7	41.1	27.8	58.7
55	GLENN	29,084	14.7	50.4 *	42.3 *	23.5	70.1
	HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: C-2				45.5		
56	SHASTA	177,631	122.7	69.1	45.7	37.4	53.9
57	LAKE	64,712	47.7	73.7	46.7	34.4	62.0
58	YUBA	76,138	39.3	51.7	54.3	38.7	74.2

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

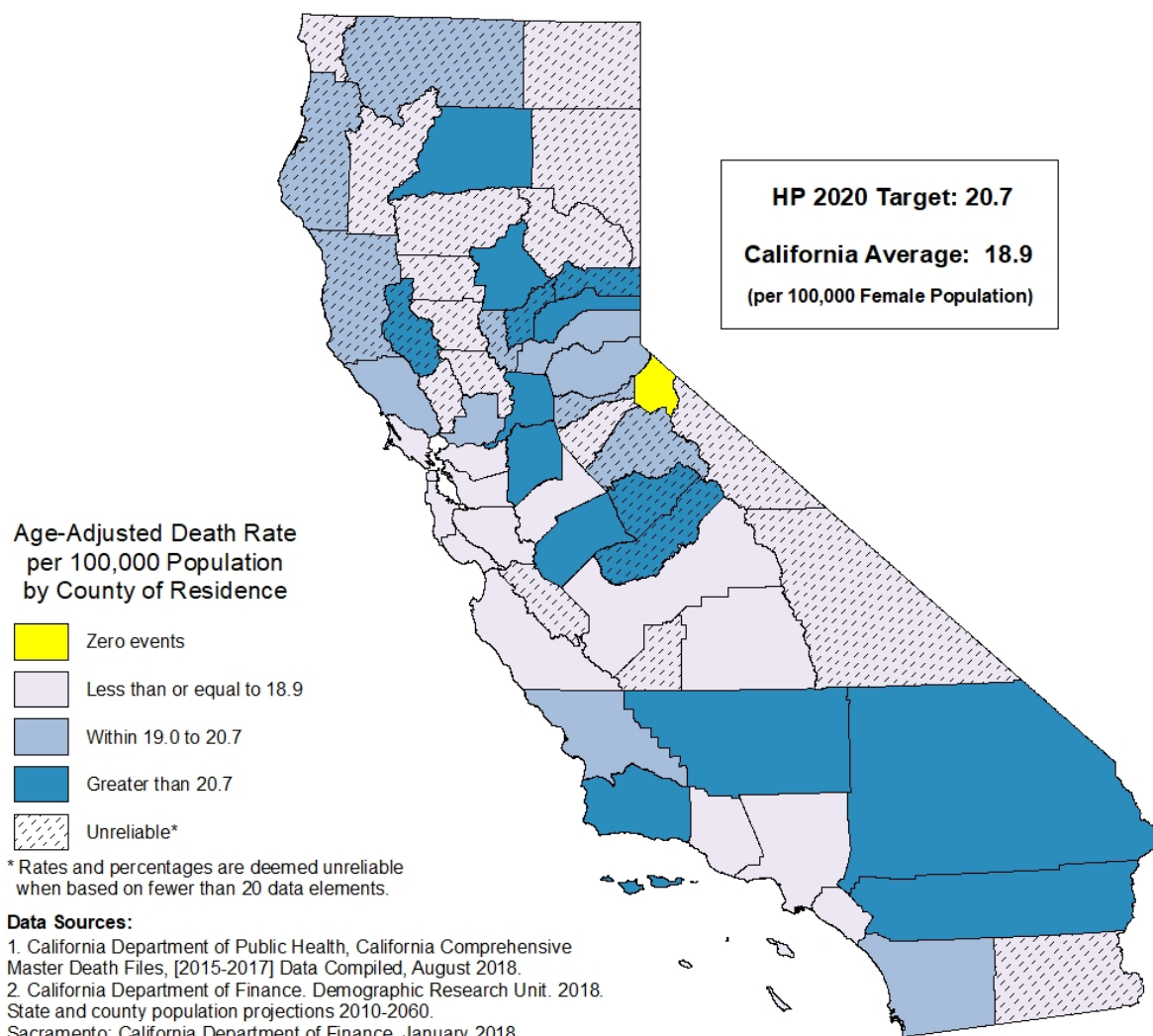
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO FEMALE BREAST CANCER, 2015-2017



The crude death rate from female breast cancer for California was 22.5 deaths per 100,000 female population, a risk of dying from breast cancer equivalent to approximately one death for every 4,440.8 females. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 4,447.3 and a female population count of 19,749,757 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 41.6 in Nevada County to 17.0 in Tulare County, a factor of 2.4 to 1.

The age-adjusted death rate from female breast cancer for California during the 2015 through 2017 three-year period was 18.9 deaths per 100,000 female population. Reliable age-adjusted death rates ranged from 22.8 in Merced County to 14.6 in San Francisco County.

Twenty counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective C-3 of no more than 20.7 age-adjusted deaths due to female breast cancer per 100,000 female population. An additional twenty-two counties with unreliable rates and one county with zero deaths due to breast cancer also met this objective.

The California age-adjusted death rate from female breast cancer for the 2012-2014 period was 20.3 per 100,000 female population.

**TABLE 5
DEATHS DUE TO FEMALE BREAST CANCER
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	ALPINE	553	0.0	-	-	-	-
2	MONO	6,502	0.3	5.1 *	2.6 *	<0.1	34.4
3	COLUSA	10,941	0.7	6.1 *	5.3 *	<0.1	39.9
4	TRINITY	6,592	1.0	15.2 *	7.5 *	0.2	41.9
5	PLUMAS	9,787	2.0	20.4 *	10.2 *	1.2	36.9
6	IMPERIAL	91,855	11.0	12.0 *	11.5 *	5.7	20.5
7	DEL NORTE	12,463	2.7	21.4 *	12.8 *	2.3	39.6
8	LASSEN	11,530	2.0	17.3 *	12.9 *	1.6	46.7
9	INYO	9,239	2.3	25.3 *	13.8 *	2.1	45.7
10	SAN FRANCISCO	430,647	83.3	19.4	14.6	11.6	18.0
11	MODOC	4,769	1.0	21.0 *	14.6 *	0.4	81.3
12	SAN MATEO	389,691	80.7	20.7	15.0	11.9	18.6
13	CALAVERAS	22,422	7.0	31.2 *	15.1 *	6.1	31.0
14	GLENN	14,370	2.3	16.2 *	16.0 *	2.4	53.1
15	MARIN	133,112	36.0	27.0	16.2	11.3	22.4
16	SANTA CLARA	958,238	186.3	19.4	16.4	14.0	18.8
17	MONTEREY	213,995	40.0	18.7	16.7	11.9	22.7
18	YOLO	111,126	18.3	16.5 *	16.7 *	10.0	26.3
19	SANTA CRUZ	137,835	29.7	21.5	16.8	11.3	24.1
20	TEHAMA	32,318	8.3	25.8 *	16.9 *	7.5	32.9
21	FRESNO	494,284	85.0	17.2	16.9	13.5	21.0
22	TULARE	233,615	39.7	17.0	17.4	12.4	23.7
23	SAN BENITO	29,051	6.3	21.8 *	17.7 *	6.7	37.7
24	ALAMEDA	832,826	177.0	21.3	17.8	15.1	20.5
25	VENTURA	428,739	94.0	21.9	17.8	14.4	21.8
26	NAPA	70,912	18.3	25.9 *	18.0 *	10.8	28.4
27	ORANGE	1,602,227	359.0	22.4	18.2	16.3	20.1
28	KINGS	67,753	11.0	16.2 *	18.5 *	9.2	33.0
29	LOS ANGELES	5,169,749	1,122.7	21.7	18.5	17.4	19.6
30	CONTRA COSTA	577,313	138.7	24.0	18.7	15.5	21.9
31	STANISLAUS	274,078	56.3	20.6	18.8	14.2	24.4
	CALIFORNIA	19,749,757	4,447.3	22.5	18.9	18.3	19.5
32	EL DORADO	91,654	25.7	28.0	19.2	12.5	28.3
33	SAN LUIS OBISPO	135,915	39.0	28.7	19.3	13.7	26.4
34	PLACER	191,381	57.7	30.1	19.5	14.8	25.2
35	SISKIYOU	22,280	7.0	31.4 *	19.5 *	7.8	40.1
36	AMADOR	17,207	6.7	38.7 *	19.6 *	7.7	41.1
37	SONOMA	255,502	74.7	29.2	19.7	15.5	24.7
38	SAN DIEGO	1,639,394	386.0	23.5	19.7	17.7	21.7
39	MENDOCINO	44,285	13.7	30.9 *	19.9 *	10.8	33.7
40	SOLANO	217,615	55.0	25.3	20.0	15.1	26.0
41	SUTTER	49,298	12.3	25.0 *	20.1 *	10.5	34.9
42	TUOLUMNE	26,105	10.0	38.3 *	20.4 *	9.8	37.5
43	HUMBOLDT	67,704	19.0	28.1 *	20.7 *	12.5	32.3
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: C-3					20.7		
44	SANTA BARBARA	221,860	56.7	25.5	20.8	15.7	26.9
45	BUTTE	113,058	33.0	29.2	21.0	14.4	29.5
46	SHASTA	90,433	28.0	31.0	21.0	14.0	30.4
47	RIVERSIDE	1,185,845	288.7	24.3	21.1	18.6	23.6
48	KERN	432,709	90.0	20.8	21.3	17.1	26.1
49	SAN JOAQUIN	369,778	86.3	23.3	21.4	17.1	26.4
50	SACRAMENTO	765,227	195.3	25.5	21.8	18.7	24.9
51	MADERA	80,241	19.7	24.5 *	22.0 *	13.3	34.0
52	SAN BERNARDINO	1,078,446	241.7	22.4	22.3	19.4	25.1
53	SIERRA	1,559	0.7	42.8 *	22.3 *	0.1	166.9
54	NEVADA	49,649	20.7	41.6	22.4	13.8	34.4
55	MARIPOSA	8,940	4.3	48.5 *	22.7 *	6.6	56.2
56	MERCED	134,985	29.0	21.5	22.8	15.3	32.8
57	YUBA	37,784	10.3	27.3 *	26.1 *	12.7	47.5
58	LAKE	32,371	13.3	41.2 *	29.2 *	15.7	49.6

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

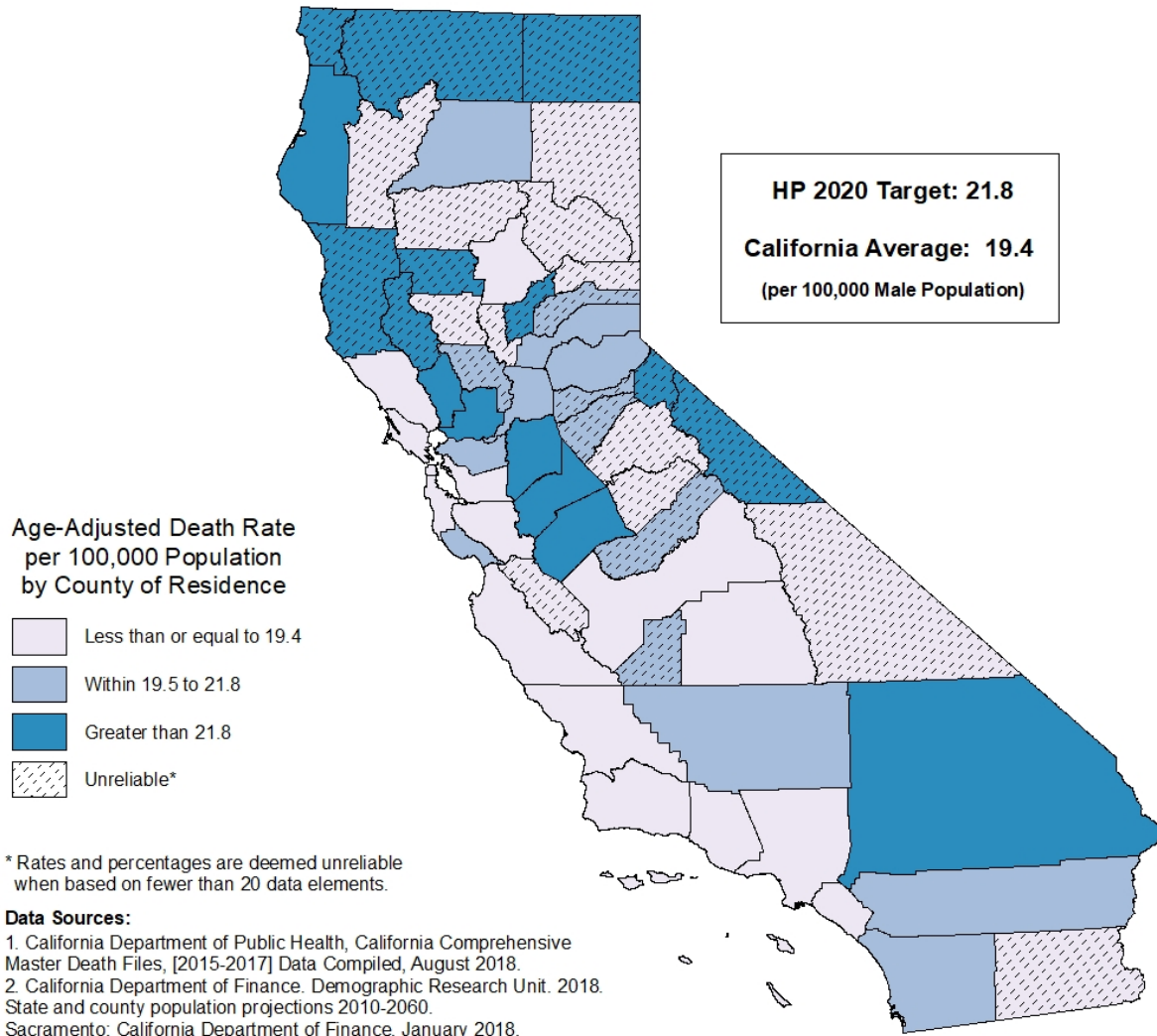
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO PROSTATE CANCER, 2015-2017



The crude death rate from prostate cancer for California was 17.7 deaths per 100,000 male population, a risk of dying from prostate cancer equivalent to approximately one death for every 5,647.8 males. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 3,463.7 and a male population count of 19,562,450 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 30.8 in Humboldt County to 12.1 in Tulare County, a factor of 2.5 to 1.

The age-adjusted death rate from prostate cancer for California during the 2015 through 2017 three-year period was 19.4 deaths per 100,000 male population. Reliable age-adjusted death rates ranged from 29.3 in Humboldt County to 14.1 in San Francisco County.

Twenty-four counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective C-7 of no more than 21.8 age-adjusted deaths due to prostate cancer per 100,000 male population. An additional eighteen counties with unreliable rates also met the objective.

The California age-adjusted death rate from prostate cancer for the 2012-2014 period was 19.5 per 100,000 male population.

**TABLE 6
DEATHS DUE TO PROSTATE CANCER
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	SIERRA	1,582	0.3	21.1 *	7.7 *	<0.1	100.3
2	PLUMAS	9,748	1.7	17.1 *	8.1 *	0.7	32.6
3	MARIPOSA	9,117	2.0	21.9 *	11.2 *	1.4	40.5
4	COLUSA	11,487	1.3	11.6 *	13.0 *	0.7	59.8
5	LASSEN	19,069	2.0	10.5 *	13.6 *	1.6	49.0
6	INYO	9,419	2.0	21.2 *	13.7 *	1.7	49.4
7	SAN FRANCISCO	441,816	67.7	15.3	14.1	10.9	17.8
8	TRINITY	6,900	2.0	29.0 *	14.2 *	1.7	51.3
9	SANTA CLARA	974,589	129.0	13.2	14.6	12.0	17.1
10	SAN BENITO	28,959	3.7	12.7 *	14.9 *	3.8	39.8
11	TUOLUMNE	28,186	7.0	24.8 *	15.0 *	6.0	30.9
12	MARIN	129,594	28.0	21.6	15.3	10.2	22.1
13	SAN MATEO	378,816	64.3	17.0	15.7	12.1	20.1
14	SANTA BARBARA	225,449	35.7	15.8	16.1	11.2	22.3
15	FRESNO	493,788	64.7	13.1	17.0	13.1	21.6
16	TULARE	234,345	28.3	12.1	17.3	11.5	24.9
17	MONTEREY	225,950	32.0	14.2	17.3	11.8	24.4
18	ALAMEDA	804,350	124.0	15.4	17.3	14.2	20.4
19	ORANGE	1,576,895	264.7	16.8	17.7	15.5	19.9
20	SUTTER	48,910	8.7	17.7 *	17.9 *	8.0	34.3
21	SONOMA	247,650	53.0	21.4	18.2	13.6	23.8
22	TEHAMA	31,840	7.3	23.0 *	18.2 *	7.5	37.0
23	IMPERIAL	94,665	15.3	16.2 *	18.8 *	10.6	30.8
24	SAN LUIS OBISPO	142,165	34.0	23.9	18.9	13.1	26.4
25	BUTTE	111,703	24.7	22.1	19.0	12.2	28.1
26	VENTURA	424,934	76.3	18.0	19.2	15.1	24.0
27	LOS ANGELES	5,045,354	848.7	16.8	19.2	17.9	20.5
	CALIFORNIA	19,562,450	3,463.7	17.7	19.4	18.7	20.0
28	NEVADA	48,651	16.3	33.6 *	19.5 *	11.2	31.5
29	SACRAMENTO	738,309	124.0	16.8	19.6	16.1	23.1
30	KINGS	81,419	9.3	11.5 *	19.8 *	9.2	37.2
31	MADERA	75,277	14.3	19.0 *	19.8 *	10.9	33.0
32	RIVERSIDE	1,173,743	226.0	19.3	19.9	17.3	22.5
33	CONTRA COSTA	552,019	110.7	20.0	20.0	16.2	23.9
34	CALAVERAS	22,325	8.0	35.8 *	20.0 *	8.7	39.5
35	PLACER	184,424	48.3	26.2	20.2	14.9	26.7
36	EL DORADO	92,431	25.0	27.0	20.2	13.1	29.8
37	AMADOR	19,974	7.0	35.0 *	20.4 *	8.2	41.9
38	KERN	455,213	63.3	13.9	20.4	15.7	26.1
39	SHASTA	87,198	23.7	27.1	20.8	13.3	31.1
40	YOLO	105,600	17.3	16.4 *	21.3 *	12.5	33.9
41	SAN DIEGO	1,656,422	323.7	19.5	21.5	19.1	23.9
42	SANTA CRUZ	137,919	26.0	18.9	21.6	14.1	31.6
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: C-7					21.8		
43	MERCED	137,301	22.0	16.0	23.1	14.5	35.0
44	MODOC	4,737	2.0	42.2 *	23.9 *	2.9	86.5
45	ALPINE	575	0.3	58.0 *	24.9 *	<0.1	325.0
46	DEL NORTE	14,493	3.7	25.3 *	25.2 *	6.3	67.0
47	SAN JOAQUIN	368,565	72.7	19.7	25.9	20.3	32.5
48	SAN BERNARDINO	1,065,132	191.7	18.0	26.1	22.3	29.9
49	SOLANO	215,797	50.7	23.5	26.3	19.6	34.6
50	LAKE	32,341	12.0	37.1 *	26.5 *	13.7	46.4
51	NAPA	70,657	20.7	29.2	26.6	16.4	40.8
52	STANISLAUS	269,514	57.0	21.1	26.7	20.2	34.5
53	YUBA	38,354	8.0	20.9 *	27.2 *	11.7	53.6
54	MENDOCINO	44,494	14.3	32.2 *	27.9 *	15.4	46.6
55	SISKIYOU	22,093	10.0	45.3 *	28.4 *	13.6	52.2
56	HUMBOLDT	68,180	21.0	30.8	29.3	18.1	44.8
57	GLENN	14,714	5.0	34.0 *	33.4 *	10.8	77.9
58	MONO	7,299	1.3	18.3 *	36.8 *	2.0	169.6

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

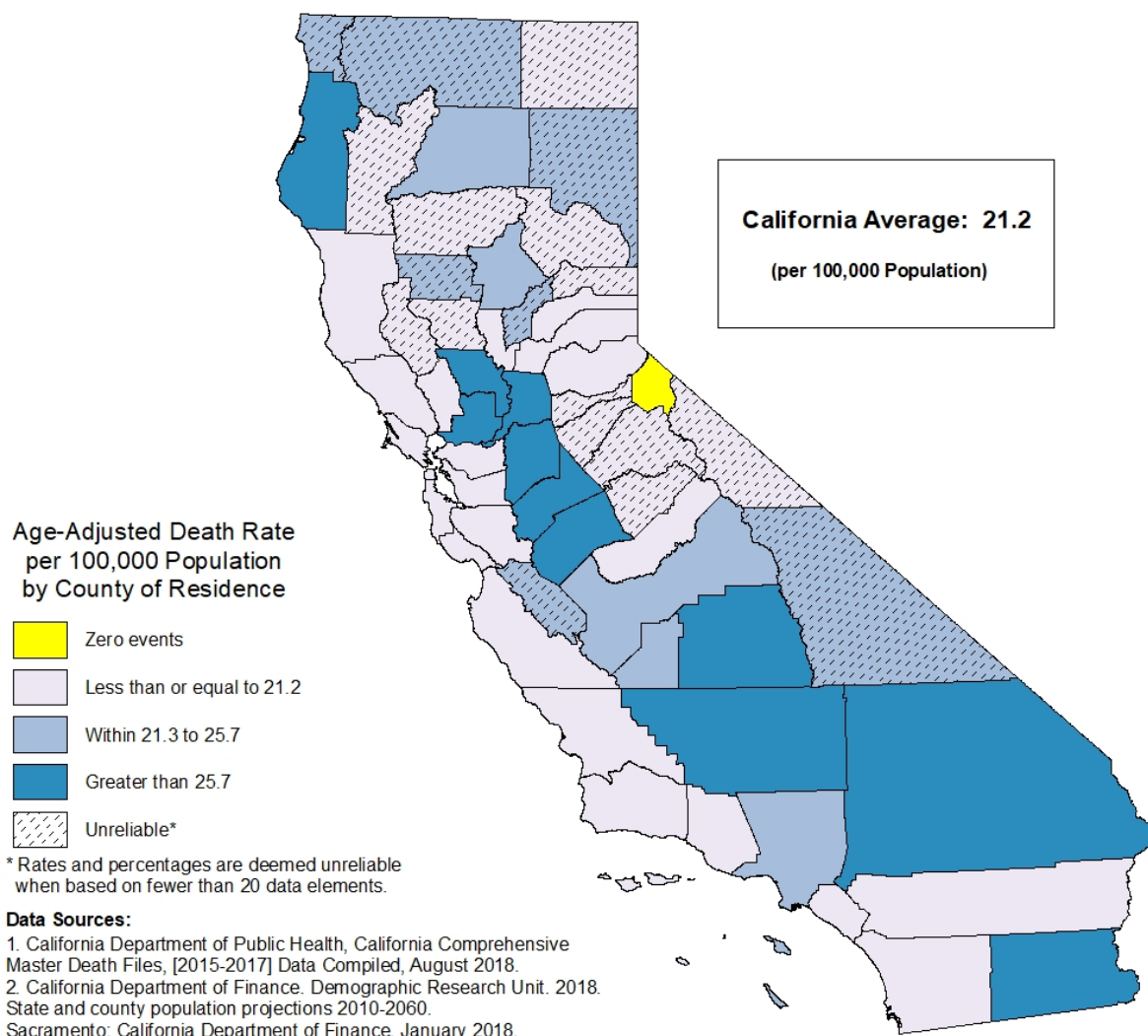
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO DIABETES, 2015-2017



The crude death rate from diabetes for California was 23.3 deaths per 100,000 population, a risk of dying from diabetes equivalent to approximately one death for every 4,286.0 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 9,172.3 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 36.0 in Solano County to 12.6 in Marin County, a factor of 2.9 to 1.

The age-adjusted death rate from diabetes for California during the 2015 through 2017 three-year period was 21.2 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 37.1 in Kern County to 7.9 in Marin County.

The Healthy People 2020 National Objective D-3 for diabetes mortality is based on both underlying and contributing causes of death. This report does not incorporate multiple causes of death data. Therefore, California's progress in meeting this objective is not addressed in this report.

The California age-adjusted death rate from diabetes for the 2012-2014 period was 20.4 per 100,000 population.

**TABLE 7
DEATHS DUE TO DIABETES
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: D-3 NOT APPLICABLE							
1	ALPINE	1,128	0.0	-	-	-	-
2	MONO	13,801	0.7	4.8 *	3.9 *	<0.1	29.1
3	MARIN	262,706	33.0	12.6	7.9	5.5	11.1
4	TRINITY	13,492	2.3	17.3 *	8.6 *	1.3	28.6
5	AMADOR	37,181	7.0	18.8 *	10.0 *	4.0	20.5
6	MARIPOSA	18,057	3.3	18.5 *	10.1 *	2.3	28.1
7	SAN MATEO	768,507	118.3	15.4	12.0	9.8	14.2
8	CALAVERAS	44,747	8.7	19.4 *	12.1 *	5.4	23.3
9	EL DORADO	184,085	31.7	17.2	12.4	8.5	17.5
10	NEVADA	98,300	20.7	21.0	12.6	7.7	19.3
11	TUOLUMNE	54,291	13.0	23.9 *	12.9 *	6.9	22.0
12	SAN FRANCISCO	872,463	152.7	17.5	13.6	11.4	15.8
13	SAN LUIS OBISPO	278,080	56.3	20.3	13.9	10.5	18.0
14	ORANGE	3,179,122	499.3	15.7	13.9	12.7	15.2
15	SANTA CRUZ	275,754	44.0	16.0	14.3	10.4	19.2
16	SIERRA	3,141	0.7	21.2 *	15.1 *	0.1	113.0
17	PLACER	375,805	87.0	23.2	15.9	12.7	19.6
18	TEHAMA	64,158	14.3	22.3 *	16.2 *	8.9	27.0
19	SANTA BARBARA	447,309	87.7	19.6	16.8	13.4	20.7
20	SONOMA	503,152	122.7	24.4	17.9	14.6	21.2
21	CONTRA COSTA	1,129,332	245.3	21.7	18.1	15.8	20.4
22	COLUSA	22,428	4.3	19.3 *	18.1 *	5.3	44.8
23	SUTTER	98,208	20.0	20.4	18.4	11.3	28.5
24	PLUMAS	19,535	7.0	35.8 *	18.4 *	7.4	38.0
25	MENDOCINO	88,779	24.7	27.8	18.8	12.1	27.8
26	MONTEREY	439,945	83.0	18.9	18.9	15.1	23.5
27	NAPA	141,569	37.0	26.1	19.0	13.4	26.2
28	RIVERSIDE	2,359,588	495.7	21.0	19.1	17.4	20.8
29	ALAMEDA	1,637,176	340.0	20.8	19.3	17.2	21.4
30	MADERA	155,518	31.3	20.1	19.3	13.1	27.4
31	VENTURA	853,673	189.3	22.2	19.4	16.6	22.2
32	LAKE	64,712	19.0	29.4 *	20.5 *	12.4	32.0
33	SAN DIEGO	3,295,816	751.3	22.8	20.7	19.2	22.1
34	SANTA CLARA	1,932,827	440.0	22.8	20.8	18.8	22.7
35	MODOC	9,506	3.3	35.1 *	21.2 *	4.9	59.0
	CALIFORNIA	39,312,207	9,172.3	23.3	21.2	20.8	21.7
36	LASSEN	30,599	7.3	24.0 *	21.3 *	8.8	43.2
37	KINGS	149,172	26.0	17.4	22.3	14.6	32.6
38	SHASTA	177,631	54.0	30.4	22.3	16.7	29.1
39	INYO	18,658	6.3	33.9 *	22.7 *	8.6	48.5
40	LOS ANGELES	10,215,103	2,509.0	24.6	22.9	22.0	23.8
41	BUTTE	224,761	63.7	28.3	23.0	17.7	29.4
42	GLENN	29,084	8.0	27.5 *	23.4 *	10.1	46.1
43	YUBA	76,138	17.0	22.3 *	23.8 *	13.8	38.0
44	SISKIYOU	44,373	17.7	39.8 *	23.9 *	14.1	37.9
45	DEL NORTE	26,956	8.7	32.2 *	24.4 *	11.0	46.8
46	SAN BENITO	58,010	15.7	27.0 *	25.5 *	14.5	41.6
47	FRESNO	988,072	236.7	24.0	25.7	22.4	29.0
48	TULARE	467,960	108.7	23.2	26.1	21.2	31.1
49	SAN JOAQUIN	738,343	193.3	26.2	26.4	22.6	30.2
50	YOLO	216,726	52.3	24.1	26.7	19.9	34.9
51	SACRAMENTO	1,503,536	429.7	28.6	26.7	24.1	29.3
52	HUMBOLDT	135,884	43.7	32.1	26.9	19.5	36.1
53	STANISLAUS	543,592	148.7	27.3	27.6	23.1	32.1
54	MERCED	272,286	71.7	26.3	31.1	24.3	39.2
55	SOLANO	433,412	156.0	36.0	31.5	26.5	36.5
56	SAN BERNARDINO	2,143,578	664.3	31.0	34.5	31.8	37.1
57	IMPERIAL	186,520	62.7	33.6	34.6	26.6	44.3
58	KERN	887,922	276.7	31.2	37.1	32.6	41.5

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

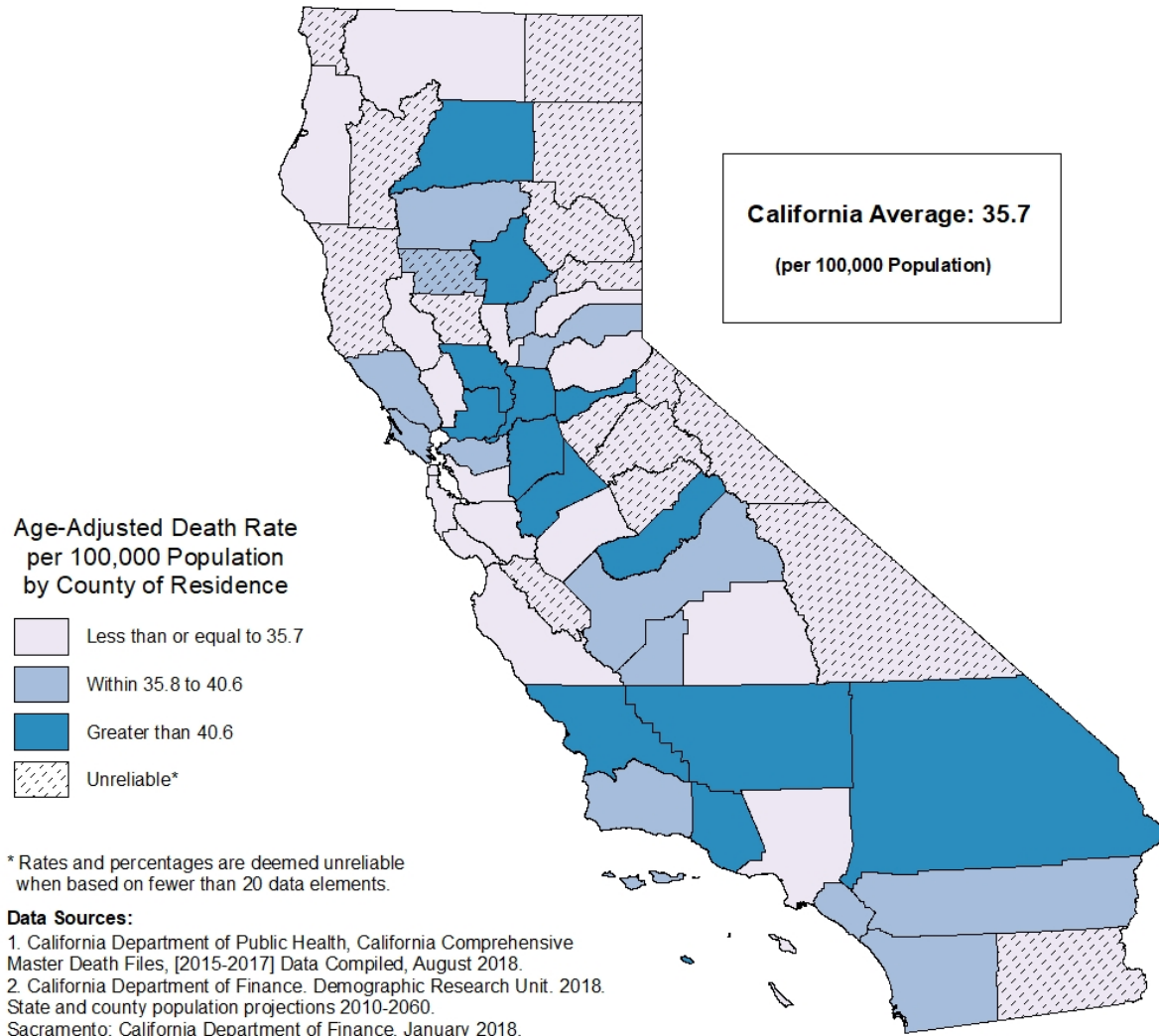
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance, January 2018.

DEATHS DUE TO ALZHEIMER'S DISEASE, 2015-2017



The crude death rate from Alzheimer's disease for California was 39.7 deaths per 100,000 population, a risk of dying from Alzheimer's disease equivalent to approximately one death for every 2,519.5 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 15,603.0 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 83.9 in Shasta County to 6.2 in Santa Clara County[†], a factor of 13.5 to 1.

The age-adjusted death rate from Alzheimer's disease for California during the 2015 through 2017 three-year period was 35.7 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 55.7 in Shasta County to 5.5 in Santa Clara County[†].

A Healthy People 2020 National Objective for deaths due to Alzheimer's disease has not been established.

The California age-adjusted death rate from Alzheimer's disease for the 2012-2014 period was 30.7 per 100,000 population.

[†]CDPH has identified significant changes in reporting practices among certifiers in Santa Clara County that have affected this rate. See technical notes for further detail.

**TABLE 8
DEATHS DUE TO ALZHEIMER'S DISEASE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: NOT ESTABLISHED							
1	SANTA CLARA	1,932,827	119.3	6.2 †	5.5 †	4.5	6.5
2	DEL NORTE	26,956	3.0	11.1 *	8.6 *	1.8	25.0
3	IMPERIAL	186,520	19.3	10.4 *	10.1 *	6.1	15.7
4	INYO	18,658	3.3	17.9 *	10.9 *	2.5	30.4
5	MENDOCINO	88,779	14.7	16.5 *	11.8 *	6.5	19.5
6	MODOC	9,506	2.0	21.0 *	11.9 *	1.4	43.1
7	SAN BENITO	58,010	6.7	11.5 *	12.0 *	4.7	25.2
8	TUOLUMNE	54,291	13.0	23.9 *	12.4 *	6.6	21.1
9	LASSEN	30,599	5.0	16.3 *	15.2 *	4.9	35.6
10	MARIPOSA	18,057	6.7	36.9 *	18.2 *	7.1	38.1
11	PLUMAS	19,535	7.3	37.5 *	21.1 *	8.7	42.8
12	ALPINE	1,128	0.3	29.6 *	21.7 *	<0.1	283.2
13	CALAVERAS	44,747	19.3	43.2 *	23.2 *	14.0	36.0
14	MONO	13,801	1.3	9.7 *	25.0 *	1.4	115.3
15	SIERRA	3,141	1.3	42.4 *	25.5 *	1.4	117.5
16	NEVADA	98,300	49.3	50.2	26.0	19.2	34.3
17	HUMBOLDT	135,884	44.3	32.6	26.1	19.0	35.0
18	SAN FRANCISCO	872,463	342.3	39.2	26.4	23.6	29.3
19	LAKE	64,712	26.3	40.7	26.5	17.4	38.8
20	MONTEREY	439,945	128.7	29.2	26.9	22.1	31.6
21	MERCED	272,286	60.3	22.2	27.7	21.2	35.7
22	EL DORADO	184,085	69.0	37.5	27.9	21.7	35.3
23	SAN MATEO	768,507	300.3	39.1	27.9	24.7	31.2
24	TRINITY	13,492	7.0	51.9 *	28.3 *	11.4	58.3
25	COLUSA	22,428	7.7	34.2 *	30.4 *	12.8	60.8
26	NAPA	141,569	63.7	45.0	31.2	24.0	39.9
27	SISKIYOU	44,373	25.7	57.8	31.6	20.6	46.4
28	SANTA CRUZ	275,754	93.7	34.0	32.2	26.0	39.4
29	TULARE	467,960	124.7	26.6	32.3	26.6	38.0
30	SUTTER	98,208	35.7	36.3	32.3	22.6	44.8
31	ALAMEDA	1,637,176	587.0	35.9	33.8	31.0	36.6
32	LOS ANGELES	10,215,103	3,994.3	39.1	35.6	34.5	36.7
	CALIFORNIA	39,312,207	15,603.0	39.7	35.7	35.2	36.3
33	GLENN	29,084	12.7	43.6 *	36.3 *	19.2	62.6
34	YUBA	76,138	23.0	30.2	36.7	23.2	55.0
35	TEHAMA	64,158	33.0	51.4	37.0	25.5	52.0
36	KINGS	149,172	40.7	27.3	37.2	26.7	50.5
37	RIVERSIDE	2,359,588	1,002.7	42.5	37.8	35.5	40.2
38	SAN DIEGO	3,295,816	1,425.3	43.2	38.0	36.0	40.0
39	FRESNO	988,072	351.0	35.5	38.1	34.0	42.1
40	CONTRA COSTA	1,129,332	518.7	45.9	38.3	34.9	41.6
41	PLACER	375,805	222.3	59.2	38.4	33.3	43.4
42	SANTA BARBARA	447,309	225.7	50.4	38.5	33.4	43.7
43	ORANGE	3,179,122	1,432.0	45.0	38.6	36.6	40.6
44	MARIN	262,706	175.7	66.9	39.4	33.5	45.3
45	SONOMA	503,152	285.0	56.6	40.0	35.3	44.7
46	SAN LUIS OBISPO	278,080	177.7	63.9	41.1	35.0	47.2
47	AMADOR	37,181	30.7	82.5	41.6	28.2	59.2
48	SACRAMENTO	1,503,536	655.7	43.6	42.1	38.9	45.4
49	MADERA	155,518	68.0	43.7	42.4	32.9	53.8
50	VENTURA	853,673	418.7	49.0	42.6	38.5	46.7
51	SAN BERNARDINO	2,143,578	716.0	33.4	43.3	40.1	46.4
52	SOLANO	433,412	201.3	46.5	43.7	37.6	49.7
53	YOLO	216,726	96.3	44.4	48.3	39.1	58.9
54	SAN JOAQUIN	738,343	345.0	46.7	51.6	46.1	57.0
55	BUTTE	224,761	178.7	79.5	53.2	45.2	61.1
56	KERN	887,922	349.0	39.3	53.4	47.8	59.0
57	STANISLAUS	543,592	286.7	52.7	55.1	48.6	61.5
58	SHASTA	177,631	149.0	83.9	55.7	46.7	64.7

* Rates are deemed unreliable when based on fewer than 20 data elements.

† Data and rates for Santa Clara County may not provide the true reflection of Alzheimer's deaths due to reporting inconsistencies.

See technical notes for more information.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

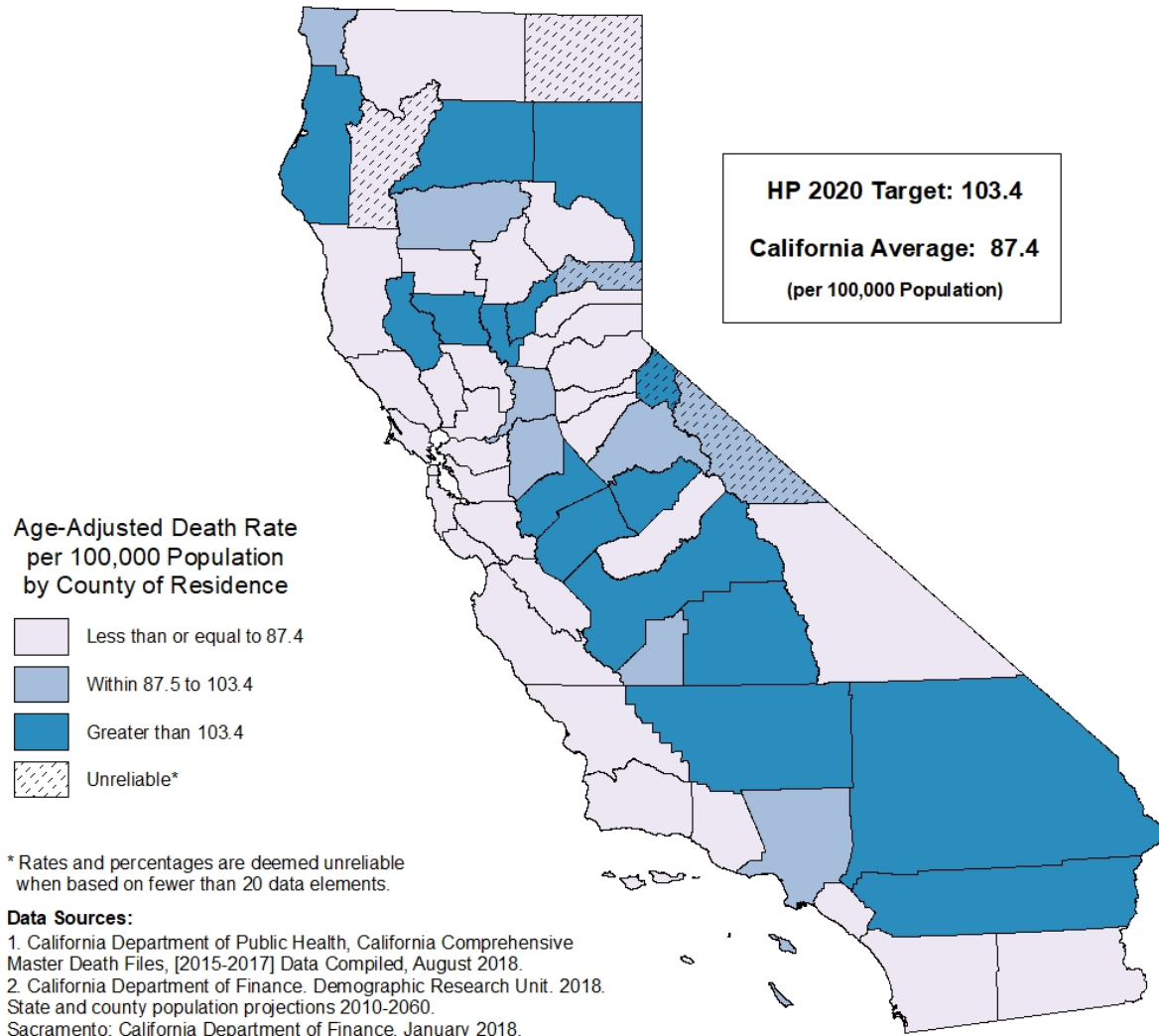
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO CORONARY HEART DISEASE, 2015-2017



The crude death rate from coronary heart disease for California was 97.1 deaths per 100,000 population, a risk of dying from coronary heart disease equivalent to approximately one death for every 1,030.3 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 38,154.3 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 221.5 in Mariposa County to 56.9 in San Benito County, a factor of 3.9 to 1.

The age-adjusted death rate from coronary heart disease for California during the 2015 through 2017 three-year period was 87.4 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 131.2 in Yuba County to 48.2 in Marin County.

Thirty-eight counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective HDS-2 of no more than 103.4 age-adjusted deaths due to coronary heart disease per 100,000 population. An additional four counties with unreliable rates also met the objective.

The California age-adjusted death rate from coronary heart disease for the 2012-2014 period was 97.4 per 100,000 population.

**TABLE 9
DEATHS DUE TO CORONARY HEART DISEASE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	MARIN	262,706	210.7	80.2	48.2	41.6	54.9
2	SAN MATEO	768,507	551.3	71.7	54.1	49.5	58.7
3	SAN FRANCISCO	872,463	661.3	75.8	55.7	51.3	60.0
4	MONTEREY	439,945	261.0	59.3	55.9	49.0	62.8
5	SANTA CLARA	1,932,827	1,210.7	62.6	56.6	53.4	59.8
6	SAN BENITO	58,010	33.0	56.9	59.3	40.8	83.3
7	CONTRA COSTA	1,129,332	813.3	72.0	59.5	55.4	63.7
8	ALAMEDA	1,637,176	1,077.7	65.8	61.3	57.6	65.0
9	SANTA CRUZ	275,754	193.3	70.1	63.2	54.1	72.4
10	SAN LUIS OBISPO	278,080	275.3	99.0	65.8	57.8	73.8
11	SOLANO	433,412	323.0	74.5	66.0	58.7	73.3
12	INYO	18,658	24.3	130.4	69.5	44.7	103.1
13	PLACER	375,805	398.7	106.1	71.7	64.6	78.9
14	PLUMAS	19,535	27.3	139.9	72.9	48.2	105.8
15	SONOMA	503,152	517.3	102.8	72.9	66.5	79.3
16	YOLO	216,726	150.7	69.5	73.3	61.5	85.1
17	MODOC	9,506	12.0	126.2 *	74.3 *	38.4	129.9
18	GLENN	29,084	26.7	91.7	75.1	49.3	109.5
19	SANTA BARBARA	447,309	413.0	92.3	75.1	67.7	82.5
20	ORANGE	3,179,122	2,834.3	89.2	77.2	74.3	80.1
21	TRINITY	13,492	19.0	140.8 *	77.5 *	46.7	121.0
22	NEVADA	98,300	145.7	148.2	77.9	64.9	90.9
23	SAN DIEGO	3,295,816	2,917.0	88.5	79.2	76.2	82.1
24	IMPERIAL	186,520	150.3	80.6	81.2	68.1	94.2
25	EL DORADO	184,085	216.0	117.3	82.1	70.9	93.4
26	VENTURA	853,673	811.0	95.0	82.3	76.6	88.1
27	AMADOR	37,181	58.3	156.9	82.5	62.7	106.5
28	CALAVERAS	44,747	67.7	151.2	83.5	64.8	105.9
29	MADERA	155,518	137.0	88.1	83.5	69.5	97.6
30	MENDOCINO	88,779	104.7	117.9	85.0	68.3	101.8
31	BUTTE	224,761	265.0	117.9	85.6	75.0	96.2
32	NAPA	141,569	173.3	122.4	86.2	73.2	99.1
33	SISKIYOU	44,373	65.7	148.0	87.2	67.4	111.0
	CALIFORNIA	39,312,207	38,154.3	97.1	87.4	86.5	88.3
34	SAN JOAQUIN	738,343	681.7	92.3	96.2	88.8	103.5
35	MONO	13,801	7.3	53.1 *	97.4 *	40.2	197.6
36	SACRAMENTO	1,503,536	1,609.0	107.0	100.4	95.4	105.4
37	DEL NORTE	26,956	36.0	133.6	100.9	70.7	139.7
38	TUOLUMNE	54,291	102.0	187.9	101.2	80.8	121.6
39	SIERRA	3,141	6.3	201.6 *	101.6 *	38.5	216.9
40	TEHAMA	64,158	88.7	138.2	101.7	81.6	125.2
41	LOS ANGELES	10,215,103	11,303.7	110.7	101.7	99.8	103.6
42	KINGS	149,172	121.3	81.3	102.9	84.4	121.4
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: HDS-2					103.4		
43	LASSEN	30,599	37.3	122.0	105.2	74.2	144.8
44	COLUSA	22,428	26.3	117.4	105.7	69.2	154.5
45	LAKE	64,712	103.3	159.7	105.7	84.6	126.8
46	RIVERSIDE	2,359,588	2,795.7	118.5	106.0	102.1	110.0
47	SAN BERNARDINO	2,143,578	1,912.7	89.2	106.5	101.6	111.4
48	FRESNO	988,072	995.3	100.7	106.7	100.0	113.4
49	HUMBOLDT	135,884	182.0	133.9	107.0	91.0	123.1
50	MARIPOSA	18,057	40.0	221.5	112.5	80.3	153.1
51	MERCED	272,286	260.3	95.6	113.3	99.4	127.2
52	TULARE	467,960	491.0	104.9	121.2	110.4	132.0
53	SUTTER	98,208	138.0	140.5	124.4	103.5	145.3
54	KERN	887,922	938.0	105.6	127.0	118.7	135.2
55	SHASTA	177,631	334.3	188.2	127.0	113.2	140.9
56	STANISLAUS	543,592	703.3	129.4	131.1	121.3	140.9
57	YUBA	76,138	92.7	121.7	131.2	105.9	160.8
58	ALPINE	1,128	2.3	206.9 *	195.9 *	29.7	650.6

* Rates are deemed unreliable when based on fewer than 20 data elements.

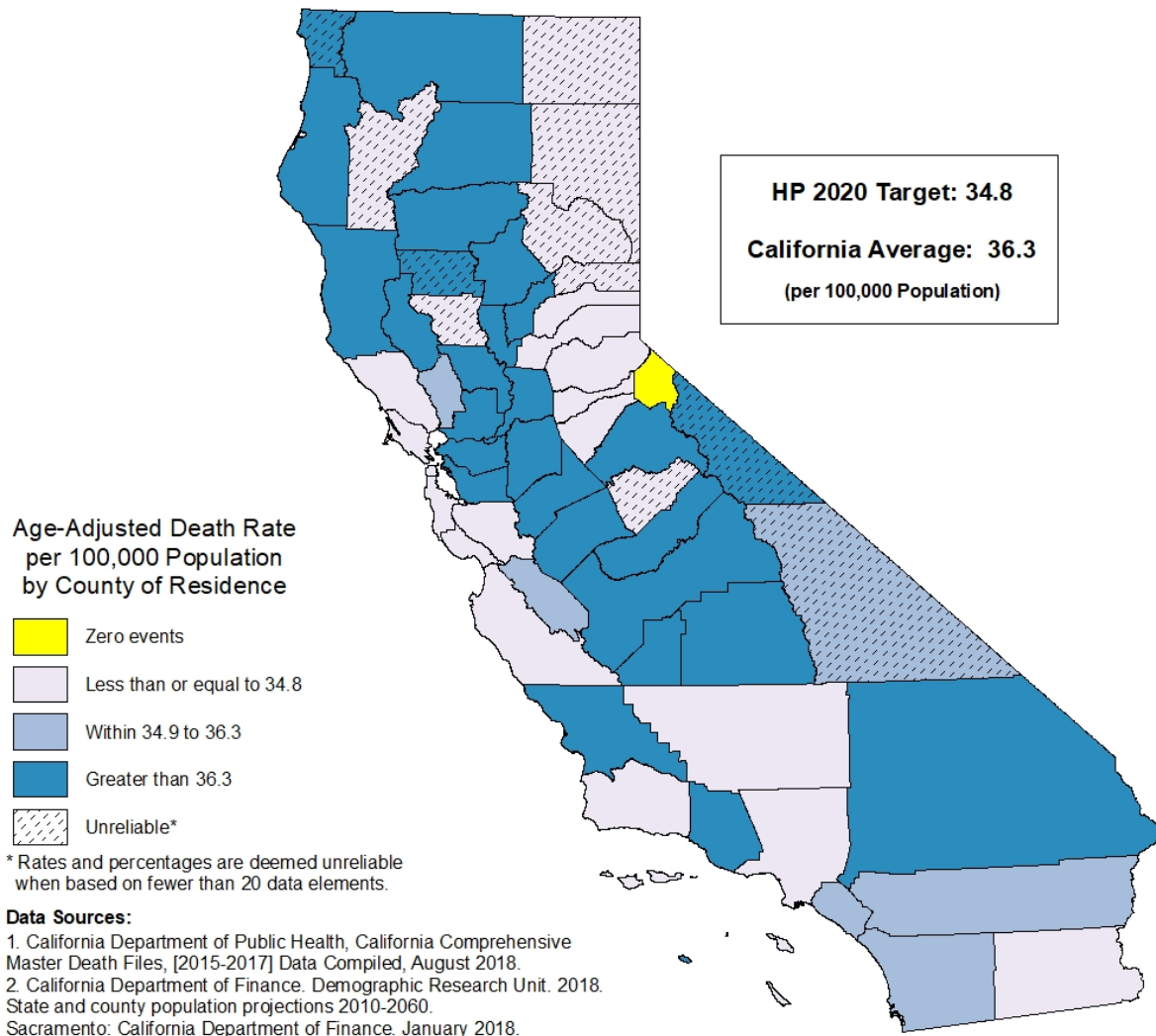
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO CEREBROVASCULAR DISEASE (STROKE), 2015-2017



The crude death rate from cerebrovascular disease for California was 39.9 deaths per 100,000 population, a risk of dying from cerebrovascular disease equivalent to approximately one death for every 2,507.7 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 15,676.3 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 83.9 in Humboldt County to 27.0 in Imperial County, a factor of 3.1 to 1.

The age-adjusted death rate from cerebrovascular disease for California during the 2015 through 2017 three-year period was 36.3 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 67.6 in Humboldt County to 23.6 in Marin County.

Sixteen counties with reliable age-adjusted death rates met the Healthy People 2020 National Objective HDS-3 of no more than 34.8 age-adjusted deaths due to cerebrovascular disease per 100,000 population. An additional seven counties with unreliable rates and one county with zero deaths due to cerebrovascular disease also met the objective. The California age-adjusted death rate due to cerebrovascular disease did not meet the national objective.

The California age-adjusted death rate from cerebrovascular disease for the 2012-2014 period was 34.7 per 100,000 population.

**TABLE 10
DEATHS DUE TO CEREBROVASCULAR DISEASE (STROKE)
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	ALPINE	1,128	0.0	-	-	-	-
2	MARIPOSA	18,057	7.0	38.8 *	20.3 *	8.2	41.8
3	LASSEN	30,599	7.7	25.1 *	22.6 *	9.5	45.1
4	MARIN	262,706	102.3	39.0	23.6	18.9	28.3
5	PLUMAS	19,535	9.0	46.1 *	24.9 *	11.4	47.3
6	EL DORADO	184,085	63.7	34.6	25.4	19.6	32.5
7	CALAVERAS	44,747	22.7	50.7	25.8	16.3	38.8
8	SANTA CLARA	1,932,827	573.0	29.6	26.8	24.6	29.0
9	IMPERIAL	186,520	50.3	27.0	27.5	20.5	36.3
10	TRINITY	13,492	7.3	54.4 *	28.8 *	11.9	58.3
11	SAN MATEO	768,507	298.7	38.9	28.9	25.6	32.3
12	AMADOR	37,181	21.7	58.3	29.4	18.4	44.7
13	SIERRA	3,141	1.7	53.1 *	30.6 *	2.7	123.0
14	SAN FRANCISCO	872,463	369.0	42.3	30.9	27.7	34.2
15	MONTEREY	439,945	145.7	33.1	31.4	26.2	36.6
16	SANTA CRUZ	275,754	91.3	33.1	31.6	25.5	38.8
17	MODOC	9,506	5.7	59.6 *	31.9 *	11.3	71.0
18	SANTA BARBARA	447,309	180.7	40.4	32.4	27.5	37.2
19	SONOMA	503,152	233.7	46.4	33.4	29.0	37.8
20	COLUSA	22,428	7.7	34.2 *	33.5 *	14.1	66.9
21	PLACER	375,805	191.7	51.0	33.8	28.9	38.6
22	NEVADA	98,300	63.0	64.1	33.9	26.1	43.4
23	LOS ANGELES	10,215,103	3,709.7	36.3	34.0	32.9	35.1
24	KERN	887,922	251.0	28.3	34.7	30.3	39.1
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: HDS-3					34.8		
25	INYO	18,658	10.3	55.4 *	34.9 *	17.0	63.5
26	RIVERSIDE	2,359,588	912.0	38.7	34.9	32.6	37.2
27	NAPA	141,569	70.3	49.7	35.0	27.3	44.2
28	SAN BENITO	58,010	20.3	35.1	35.4	21.7	54.5
29	SAN DIEGO	3,295,816	1,308.7	39.7	35.6	33.7	37.6
30	ORANGE	3,179,122	1,312.7	41.3	35.9	34.0	37.9
	CALIFORNIA	39,312,207	15,676.3	39.9	36.3	35.8	36.9
31	SISKIYOU	44,373	28.3	63.9	36.4	24.2	52.4
32	TEHAMA	64,158	31.7	49.4	36.7	25.0	51.9
33	KINGS	149,172	42.7	28.6	37.1	26.8	50.0
34	MENDOCINO	88,779	44.0	49.6	37.2	27.1	50.0
35	VENTURA	853,673	366.0	42.9	37.6	33.7	41.5
36	DEL NORTE	26,956	13.3	49.5 *	37.7 *	20.3	64.1
37	YOLO	216,726	77.3	35.7	38.3	30.2	47.8
38	TUOLUMNE	54,291	39.7	73.1	38.4	27.4	52.4
39	ALAMEDA	1,637,176	706.7	43.2	40.6	37.5	43.6
40	STANISLAUS	543,592	216.3	39.8	40.7	35.2	46.2
41	MADERA	155,518	67.7	43.5	41.9	32.5	53.1
42	SAN BERNARDINO	2,143,578	752.3	35.1	42.0	38.9	45.0
43	SHASTA	177,631	107.0	60.2	42.4	34.2	50.7
44	BUTTE	224,761	136.3	60.7	42.7	35.3	50.1
45	TULARE	467,960	171.7	36.7	43.0	36.5	49.5
46	MONO	13,801	2.0	14.5 *	43.8 *	5.3	158.3
47	SACRAMENTO	1,503,536	688.3	45.8	43.9	40.6	47.2
48	MERCED	272,286	99.7	36.6	44.1	35.8	53.6
49	CONTRA COSTA	1,129,332	592.7	52.5	44.3	40.7	47.9
50	FRESNO	988,072	413.0	41.8	45.0	40.6	49.3
51	LAKE	64,712	42.7	65.9	45.7	33.0	61.6
52	SAN LUIS OBISPO	278,080	199.7	71.8	47.6	40.8	54.3
53	SOLANO	433,412	227.7	52.5	48.1	41.8	54.4
54	SAN JOAQUIN	738,343	337.0	45.6	48.5	43.3	53.8
55	GLENN	29,084	16.3	56.2 *	48.7 *	28.0	78.7
56	YUBA	76,138	34.7	45.5	52.4	36.4	73.0
57	SUTTER	98,208	59.3	60.4	54.1	41.2	69.7
58	HUMBOLDT	135,884	114.0	83.9	67.6	55.0	80.2

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

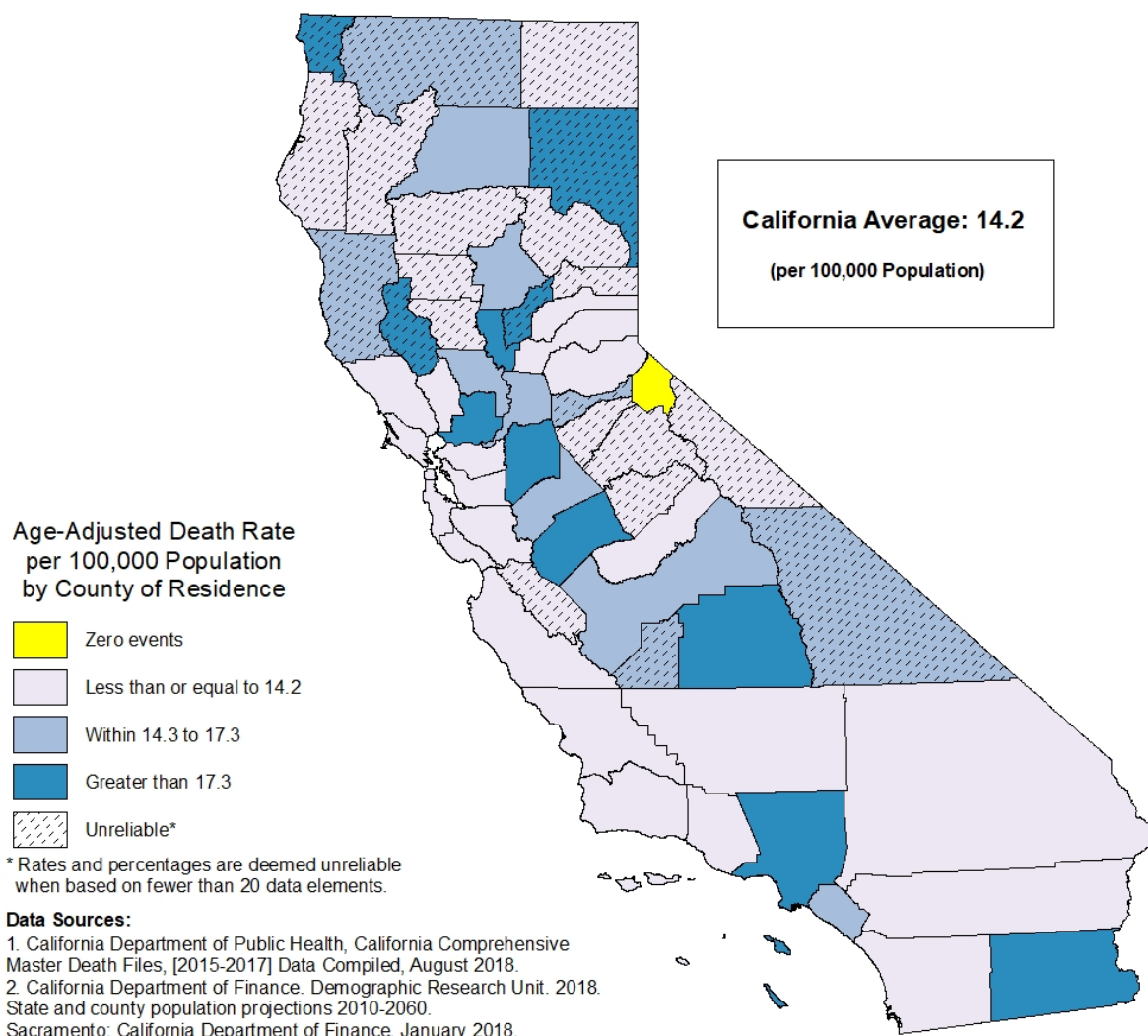
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO INFLUENZA/PNEUMONIA, 2015-2017



The crude death rate from influenza/pneumonia for California was 15.7 deaths per 100,000 population, a risk of dying from influenza/pneumonia equivalent to approximately one death for every 6,381.9 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 6,160.0 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 27.2 in Imperial County to 10.2 in Ventura County, a factor of 2.7 to 1.

The age-adjusted death rate from influenza/pneumonia for California during the 2015 through 2017 three-year period was 14.2 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 27.7 in Imperial County to 8.9 in Ventura County.

A Healthy People 2020 National Objective for deaths due to influenza/pneumonia has not been established.

The California age-adjusted death rate from influenza/pneumonia for the 2012-2014 period was 15.5 per 100,000 population.

**TABLE 11
DEATHS DUE TO INFLUENZA/PNEUMONIA
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: NOT ESTABLISHED							
1	ALPINE	1,128	0.0	-	-	-	-
2	SIERRA	3,141	0.3	10.6 *	4.0 *	<0.1	52.2
3	MARIPOSA	18,057	2.3	12.9 *	7.2 *	1.1	24.0
4	VENTURA	853,673	86.7	10.2	8.9	7.1	10.9
5	MONO	13,801	1.3	9.7 *	9.1 *	0.5	41.8
6	SANTA CLARA	1,932,827	201.0	10.4	9.3	8.0	10.6
7	SANTA BARBARA	447,309	53.0	11.8	9.5	7.1	12.5
8	SAN DIEGO	3,295,816	367.3	11.1	9.9	8.9	10.9
9	SONOMA	503,152	71.0	14.1	9.9	7.8	12.5
10	SAN LUIS OBISPO	278,080	42.3	15.2	10.2	7.4	13.8
11	SAN MATEO	768,507	107.0	13.9	10.3	8.4	12.3
12	SAN FRANCISCO	872,463	126.7	14.5	10.5	8.6	12.3
13	CONTRA COSTA	1,129,332	146.3	13.0	10.8	9.0	12.6
14	TEHAMA	64,158	9.3	14.5 *	10.8 *	5.0	20.4
15	PLUMAS	19,535	4.0	20.5 *	11.0 *	3.0	28.1
16	MONTEREY	439,945	51.7	11.7	11.0	8.2	14.5
17	RIVERSIDE	2,359,588	292.7	12.4	11.3	10.0	12.6
18	HUMBOLDT	135,884	18.7	13.7 *	11.3 *	6.8	17.8
19	MARIN	262,706	49.7	18.9	11.5	8.5	15.2
20	TRINITY	13,492	3.0	22.2 *	11.6 *	2.4	33.9
21	COLUSA	22,428	3.0	13.4 *	11.9 *	2.5	34.7
22	PLACER	375,805	67.3	17.9	12.0	9.3	15.2
23	EL DORADO	184,085	31.7	17.2	12.2	8.4	17.3
24	ALAMEDA	1,637,176	216.7	13.2	12.3	10.7	14.0
25	KERN	887,922	92.3	10.4	12.7	10.2	15.5
26	SANTA CRUZ	275,754	37.3	13.5	12.7	8.9	17.5
27	CALAVERAS	44,747	10.3	23.1 *	13.0 *	6.3	23.8
28	MODOC	9,506	2.3	24.5 *	13.2 *	2.0	43.9
29	MADERA	155,518	21.0	13.5	13.2	8.2	20.2
30	SAN BERNARDINO	2,143,578	242.7	11.3	13.4	11.7	15.1
31	NEVADA	98,300	24.7	25.1	13.4	8.7	19.9
32	TUOLUMNE	54,291	14.3	26.4 *	13.6 *	7.5	22.7
33	GLENN	29,084	4.7	16.0 *	13.7 *	4.2	32.8
34	SAN BENITO	58,010	7.7	13.2 *	13.7 *	5.8	27.4
35	NAPA	141,569	28.0	19.8	13.7	9.1	19.9
	CALIFORNIA	39,312,207	6,160.0	15.7	14.2	13.9	14.6
36	KINGS	149,172	17.3	11.6 *	14.3 *	8.4	22.8
37	YOLO	216,726	29.3	13.5	14.4	9.6	20.6
38	INYO	18,658	4.7	25.0 *	14.5 *	4.5	34.7
39	MENDOCINO	88,779	18.0	20.3 *	14.8 *	8.8	23.3
40	BUTTE	224,761	45.7	20.3	14.9	10.9	19.9
41	SACRAMENTO	1,503,536	236.0	15.7	14.9	13.0	16.8
42	ORANGE	3,179,122	543.3	17.1	15.1	13.8	16.3
43	SISKIYOU	44,373	13.3	30.0 *	16.6 *	8.9	28.2
44	FRESNO	988,072	156.3	15.8	16.8	14.2	19.5
45	AMADOR	37,181	12.7	34.1 *	16.9 *	8.9	29.1
46	SHASTA	177,631	42.3	23.8	17.0	12.2	22.9
47	STANISLAUS	543,592	89.7	16.5	17.3	13.9	21.3
48	SOLANO	433,412	84.7	19.5	17.6	14.1	21.8
49	SAN JOAQUIN	738,343	125.7	17.0	18.1	14.9	21.3
50	MERCED	272,286	42.0	15.4	18.4	13.3	24.9
51	SUTTER	98,208	20.3	20.7	18.6	11.4	28.6
52	LOS ANGELES	10,215,103	2,054.7	20.1	18.7	17.9	19.6
53	LAKE	64,712	19.7	30.4 *	19.4 *	11.8	30.0
54	YUBA	76,138	13.7	17.9 *	19.8 *	10.7	33.4
55	TULARE	467,960	85.7	18.3	21.3	17.0	26.3
56	DEL NORTE	26,956	7.3	27.2 *	21.4 *	8.8	43.5
57	LASSEN	30,599	8.7	28.3 *	25.8 *	11.6	49.6
58	IMPERIAL	186,520	50.7	27.2	27.7	20.6	36.5

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

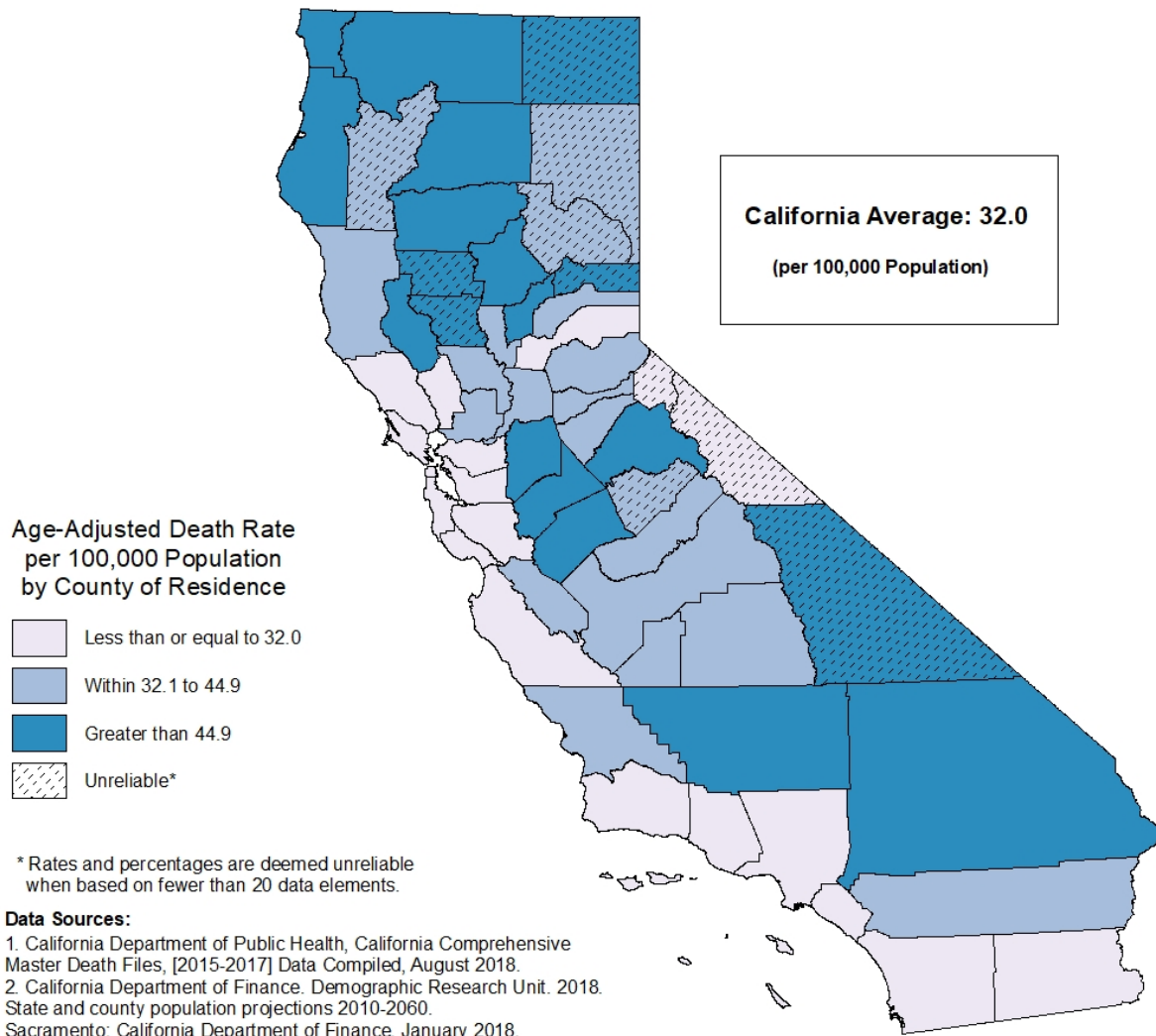
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO CHRONIC LOWER RESPIRATORY DISEASE, 2015-2017



The crude death rate from chronic lower respiratory disease for California was 34.9 deaths per 100,000 population, a risk of dying from chronic lower respiratory disease equivalent to approximately one death for every 2,867.1 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 13,711.3 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 106.7 in Siskiyou County to 19.8 in Santa Clara County, a factor of 5.4 to 1.

The age-adjusted death rate from chronic lower respiratory disease for California during the 2015 through 2017 three-year period was 32.0 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 73.6 in Yuba County to 18.5 in Santa Clara County.

A Healthy People 2020 National Objective for deaths due to chronic lower respiratory disease has not been established.

The California age-adjusted death rate from chronic lower respiratory disease for the 2012-2014 period was 33.9 per 100,000 population.

**TABLE 12
DEATHS DUE TO CHRONIC LOWER RESPIRATORY DISEASE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: NOT ESTABLISHED							
1	SANTA CLARA	1,932,827	383.3	19.8	18.5	16.6	20.3
2	SAN FRANCISCO	872,463	220.0	25.2	18.9	16.4	21.5
3	MARIN	262,706	83.0	31.6	19.6	15.6	24.3
4	SAN MATEO	768,507	203.3	26.5	20.2	17.4	23.1
5	ALPINE	1,128	0.3	29.6 *	21.7 *	<0.1	283.2
6	IMPERIAL	186,520	40.7	21.8	21.9	15.7	29.8
7	SANTA CRUZ	275,754	72.3	26.2	24.5	19.2	30.8
8	ALAMEDA	1,637,176	435.3	26.6	25.3	22.9	27.7
9	ORANGE	3,179,122	958.7	30.2	26.8	25.1	28.5
10	NAPA	141,569	53.3	37.7	26.9	20.2	35.2
11	MONTEREY	439,945	125.7	28.6	27.1	22.2	31.9
12	CONTRA COSTA	1,129,332	377.7	33.4	28.1	25.2	31.0
13	LOS ANGELES	10,215,103	3,057.3	29.9	28.2	27.2	29.2
14	SAN DIEGO	3,295,816	1,023.0	31.0	28.4	26.6	30.1
15	MONO	13,801	2.3	16.9 *	29.5 *	4.5	98.0
16	SONOMA	503,152	208.3	41.4	29.7	25.6	33.9
17	SANTA BARBARA	447,309	166.0	37.1	31.0	26.2	35.8
18	VENTURA	853,673	302.3	35.4	31.3	27.7	34.8
19	PLACER	375,805	178.3	47.5	31.7	27.0	36.4
	CALIFORNIA	39,312,207	13,711.3	34.9	32.0	31.5	32.6
20	SOLANO	433,412	164.0	37.8	34.0	28.7	39.2
21	SAN BENITO	58,010	20.0	34.5	34.6	21.1	53.4
22	FRESNO	988,072	312.7	31.6	34.9	31.0	38.8
23	NEVADA	98,300	64.3	65.4	35.2	27.1	44.9
24	SAN LUIS OBISPO	278,080	149.3	53.7	36.1	30.2	42.0
25	MARIPOSA	18,057	13.7	75.7 *	36.4 *	19.7	61.4
26	AMADOR	37,181	26.3	70.8	36.8	24.1	53.8
27	CALAVERAS	44,747	33.7	75.2	37.8	26.1	52.9
28	MADERA	155,518	62.0	39.9	37.9	29.0	48.6
29	SACRAMENTO	1,503,536	610.0	40.6	39.3	36.1	42.4
30	EL DORADO	184,085	103.3	56.1	39.7	31.9	47.5
31	MENDOCINO	88,779	49.3	55.6	40.1	29.7	53.0
32	YOLO	216,726	80.7	37.2	40.3	32.0	50.1
33	RIVERSIDE	2,359,588	1,052.7	44.6	40.3	37.9	42.8
34	TULARE	467,960	166.3	35.5	41.0	34.7	47.3
35	KINGS	149,172	48.0	32.2	41.6	30.7	55.1
36	SUTTER	98,208	47.7	48.5	43.1	31.7	57.2
37	TRINITY	13,492	12.0	88.9 *	43.4 *	22.4	75.9
38	LASSEN	30,599	16.0	52.3 *	44.4 *	25.4	72.1
39	PLUMAS	19,535	17.0	87.0 *	44.9 *	26.2	71.9
40	HUMBOLDT	135,884	77.7	57.2	45.2	35.7	56.4
41	BUTTE	224,761	147.3	65.6	46.8	39.1	54.5
42	COLUSA	22,428	10.7	47.6 *	46.9 *	23.1	84.6
43	MERCED	272,286	108.3	39.8	47.2	38.2	56.1
44	SAN JOAQUIN	738,343	329.7	44.6	47.3	42.1	52.5
45	TUOLUMNE	54,291	48.0	88.4	48.0	35.4	63.7
46	STANISLAUS	543,592	267.7	49.2	50.2	44.1	56.2
47	GLENN	29,084	17.7	60.7 *	50.8 *	29.9	80.6
48	SAN BERNARDINO	2,143,578	926.3	43.2	51.5	48.1	54.9
49	KERN	887,922	387.0	43.6	53.6	48.2	59.0
50	INYO	18,658	17.3	92.9 *	55.3 *	32.4	88.1
51	LAKE	64,712	60.7	93.7	58.6	44.8	75.3
52	SISKIYOU	44,373	47.3	106.7	59.2	43.6	78.7
53	TEHAMA	64,158	53.0	82.6	59.4	44.5	77.7
54	SHASTA	177,631	177.0	99.6	66.3	56.4	76.2
55	MODOC	9,506	12.0	126.2 *	67.1 *	34.7	117.2
56	DEL NORTE	26,956	25.3	94.0	69.1	44.8	101.7
57	YUBA	76,138	53.3	70.0	73.6	55.2	96.1
58	SIERRA	3,141	4.7	148.6 *	76.9 *	23.7	184.6

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

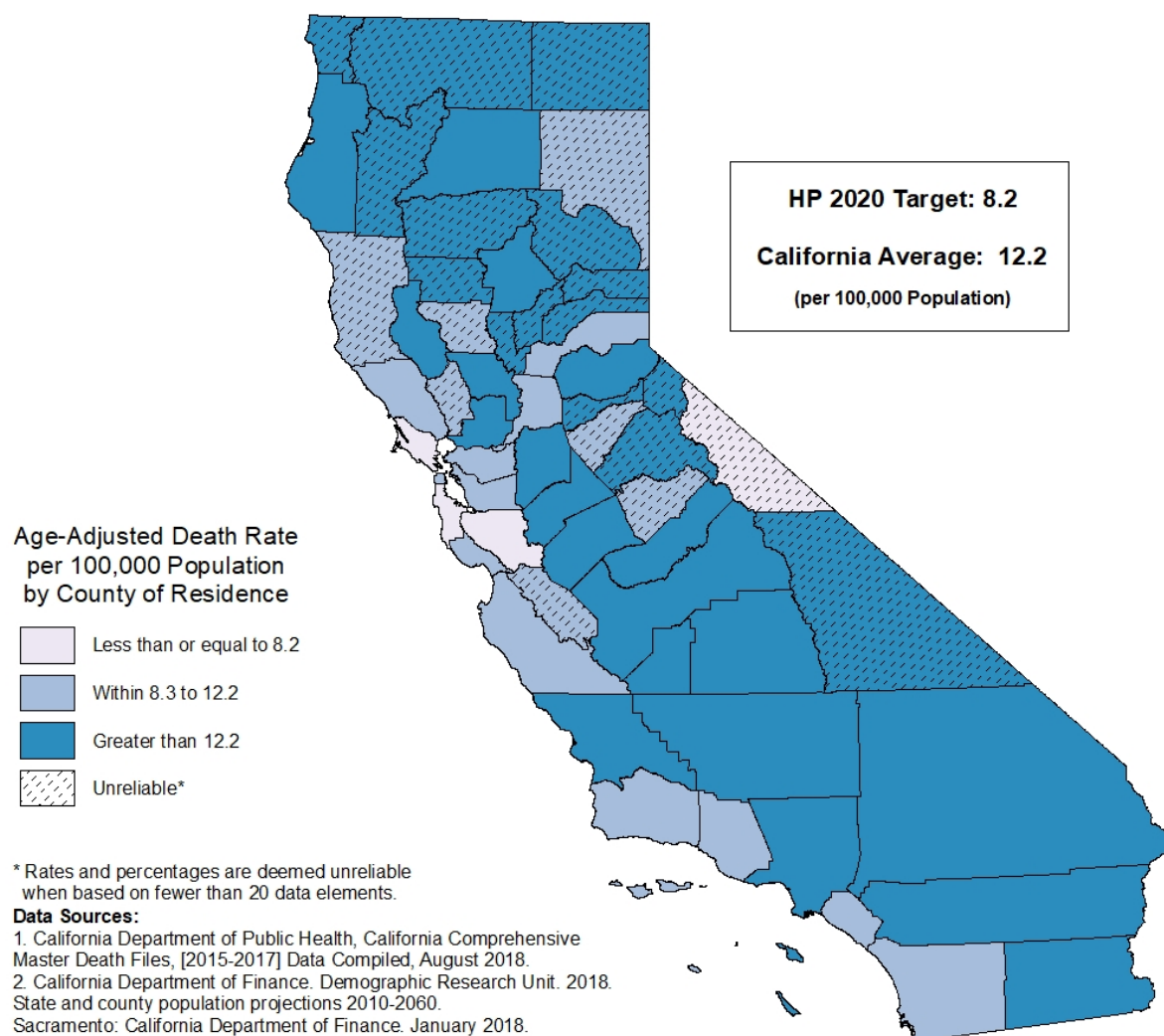
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO CHRONIC LIVER DISEASE AND CIRRHOSIS, 2015-2017



The crude death rate from chronic liver disease and cirrhosis for California was 13.6 deaths per 100,000 population, a risk of dying from chronic liver disease and cirrhosis equivalent to approximately one death for every 7,363.6 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 5,338.7 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 38.6 in Lake County to 7.7 in Marin County, a factor of 5.0 to 1.

The age-adjusted death rate from chronic liver disease and cirrhosis for California during the 2015 through 2017 three-year period was 12.2 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 28.2 in Lake County to 5.0 in Marin County.

Three counties with a reliable age-adjusted death rate met the Healthy People 2020 National Objective SA-11 of no more than 8.2 age-adjusted deaths due to chronic liver disease and cirrhosis per 100,000 population. One county with an unreliable rate also met the objective. The California age-adjusted death rate due to chronic liver disease and cirrhosis did not meet the national objective.

The California age-adjusted death rate from chronic liver disease and cirrhosis for the 2012-2014 period was 11.7 per 100,000 population.

**TABLE 13
DEATHS DUE TO CHRONIC LIVER DISEASE AND CIRRHOSIS
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	MARIN	262,706	20.3	7.7	5.0	3.0	7.6
2	MONO	13,801	1.0	7.2 *	5.7 *	0.1	31.6
3	SAN MATEO	768,507	73.3	9.5	7.6	6.0	9.6
4	SANTA CLARA	1,932,827	165.0	8.5	7.7	6.5	8.9
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: SA-11						8.2	
5	CONTRA COSTA	1,129,332	115.7	10.2	8.4	6.8	10.0
6	ALAMEDA	1,637,176	157.3	9.6	8.6	7.3	10.0
7	SAN FRANCISCO	872,463	93.0	10.7	8.8	7.1	10.8
8	MENDOCINO	88,779	11.7	13.1 *	9.3 *	4.8	16.4
9	SAN BENITO	58,010	5.7	9.8 *	9.3 *	3.3	20.7
10	COLUSA	22,428	2.0	8.9 *	9.5 *	1.2	34.3
11	SONOMA	503,152	62.7	12.5	9.6	7.3	12.2
12	LASSEN	30,599	4.0	13.1 *	10.6 *	2.9	27.1
13	VENTURA	853,673	106.0	12.4	10.7	8.6	12.8
14	ORANGE	3,179,122	387.7	12.2	10.7	9.7	11.8
15	SAN DIEGO	3,295,816	391.0	11.9	10.8	9.7	11.9
16	MONTEREY	439,945	50.3	11.4	11.1	8.3	14.6
17	NAPA	141,569	19.3	13.7 *	11.4 *	6.9	17.7
18	CALAVERAS	44,747	7.3	16.4 *	11.7 *	4.8	23.7
19	SANTA BARBARA	447,309	54.3	12.1	11.9	8.9	15.5
20	SANTA CRUZ	275,754	38.3	13.9	11.9	8.4	16.3
21	MARIPOSA	18,057	2.3	12.9 *	11.9 *	1.8	39.6
22	PLACER	375,805	58.0	15.4	12.0	9.1	15.5
23	SACRAMENTO	1,503,536	199.7	13.3	12.2	10.5	13.9
	CALIFORNIA	39,312,207	5,338.7	13.6	12.2	11.9	12.6
24	SOLANO	433,412	62.7	14.5	12.3	9.4	15.7
25	SAN LUIS OBISPO	278,080	40.3	14.5	12.4	8.9	16.9
26	SUTTER	98,208	14.0	14.3 *	12.7 *	6.9	21.3
27	RIVERSIDE	2,359,588	337.0	14.3	13.0	11.6	14.4
28	LOS ANGELES	10,215,103	1,473.0	14.4	13.2	12.5	13.9
29	GLENN	29,084	4.0	13.8 *	13.2 *	3.6	33.8
30	YOLO	216,726	29.0	13.4	14.0	9.4	20.1
31	IMPERIAL	186,520	25.7	13.8	14.1	9.2	20.8
32	SIERRA	3,141	1.0	31.8 *	14.1 *	0.4	78.8
33	NEVADA	98,300	18.3	18.7 *	14.9 *	8.9	23.4
34	EL DORADO	184,085	37.7	20.5	15.0	10.6	20.6
35	KERN	887,922	129.0	14.5	15.6	12.9	18.3
36	KINGS	149,172	20.0	13.4	15.7	9.6	24.2
37	MERCED	272,286	40.0	14.7	15.7	11.2	21.4
38	SAN BERNARDINO	2,143,578	334.7	15.6	15.8	14.0	17.5
39	INYO	18,658	5.0	26.8 *	16.6 *	5.4	38.7
40	FRESNO	988,072	157.7	16.0	16.6	13.9	19.2
41	STANISLAUS	543,592	94.7	17.4	17.0	13.8	20.8
42	AMADOR	37,181	9.0	24.2 *	17.6 *	8.0	33.3
43	SAN JOAQUIN	738,343	136.0	18.4	18.0	14.9	21.0
44	PLUMAS	19,535	4.0	20.5 *	18.3 *	5.0	46.8
45	SISKIYOU	44,373	11.0	24.8 *	18.3 *	9.1	32.7
46	SHASTA	177,631	43.3	24.4	18.3	13.3	24.7
47	TEHAMA	64,158	14.7	22.9 *	18.4 *	10.2	30.6
48	YUBA	76,138	13.7	17.9 *	18.5 *	10.0	31.2
49	BUTTE	224,761	48.7	21.7	18.7	13.8	24.8
50	HUMBOLDT	135,884	31.3	23.1	19.2	13.0	27.1
51	MADERA	155,518	30.7	19.7	19.3	13.1	27.4
52	TULARE	467,960	87.7	18.7	20.3	16.2	25.0
53	TUOLUMNE	54,291	14.3	26.4 *	21.2 *	11.7	35.3
54	MODOC	9,506	2.7	28.1 *	26.4 *	4.8	81.7
55	DEL NORTE	26,956	9.7	35.9 *	26.5 *	12.5	49.3
56	LAKE	64,712	25.0	38.6	28.2	18.3	41.6
57	TRINITY	13,492	5.7	42.0 *	30.9 *	10.9	68.7
58	ALPINE	1,128	1.7	147.8 *	128.0 *	11.3	513.9

* Rates are deemed unreliable when based on fewer than 20 data elements.

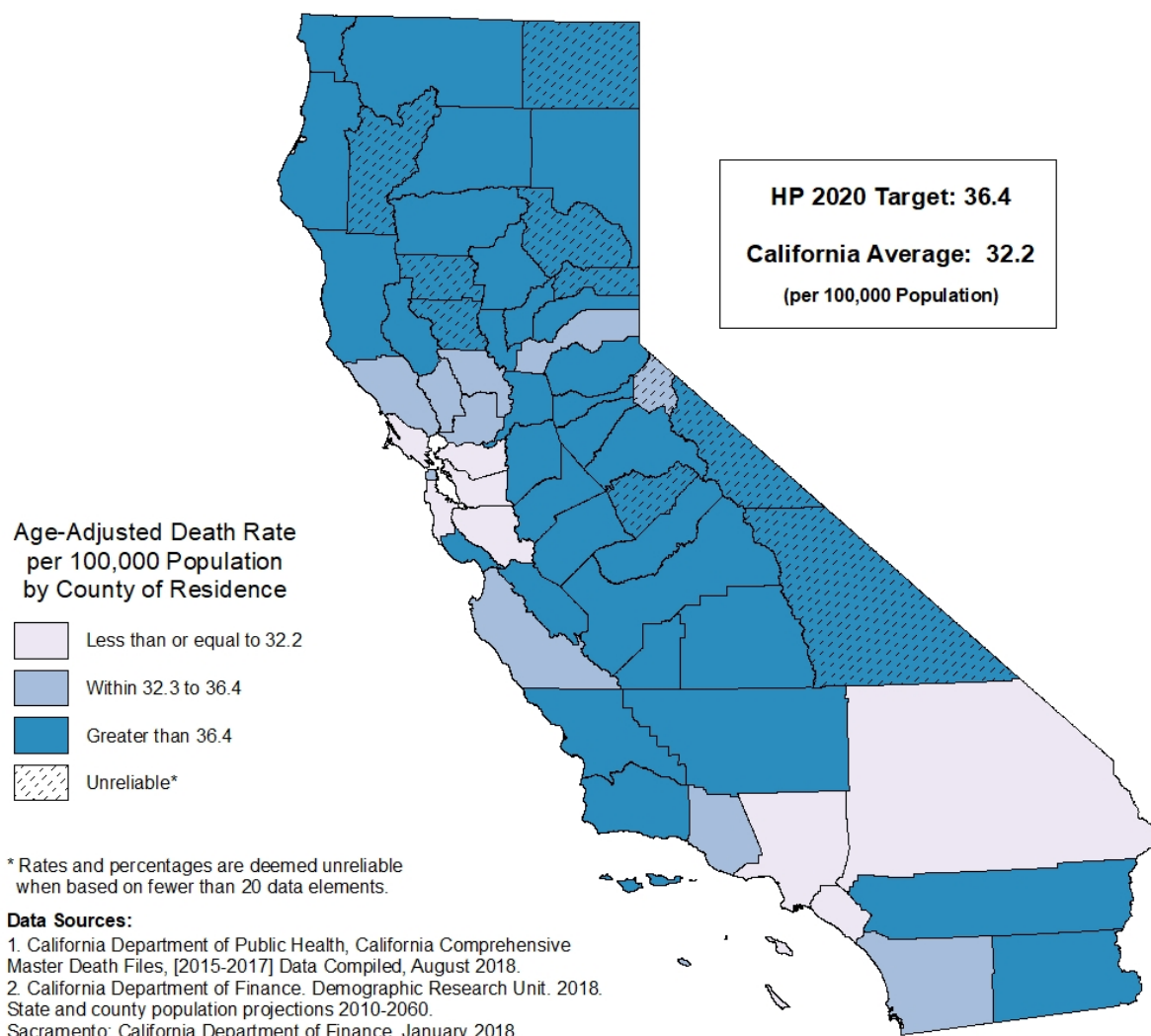
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO ACCIDENTS (UNINTENTIONAL INJURIES), 2015-2017



The crude death rate from accidents for California was 33.7 deaths per 100,000 population, a risk of dying from an accident equivalent to approximately one death for every 2,965.7 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 13,255.7 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 106.6 in Lake County to 24.7 in Los Angeles County, a factor of 4.3 to 1.

The age-adjusted death rate from accidents for California during the 2015 through 2017 three-year period was 32.2 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 89.6 in Lake County to 22.5 in San Mateo County.

Seventeen counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective IVP-11 of no more than 36.4 age-adjusted deaths due to accidents per 100,000 population. One county with an unreliable rate met the objective.

The California age-adjusted death rate from accidents for the 2012-2014 period was 28.3 per 100,000 population.

TABLE 14
DEATHS DUE TO ACCIDENTS (UNINTENTIONAL INJURIES)
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	SAN MATEO	768,507	196.7	25.6	22.5	19.3	25.8
2	LOS ANGELES	10,215,103	2,524.7	24.7	23.7	22.8	24.6
3	ALAMEDA	1,637,176	427.7	26.1	24.5	22.2	26.9
4	SANTA CLARA	1,932,827	517.7	26.8	25.0	22.9	27.2
5	ORANGE	3,179,122	891.0	28.0	26.5	24.7	28.2
6	CONTRA COSTA	1,129,332	328.0	29.0	27.1	24.1	30.1
7	MARIN	262,706	97.3	37.1	30.4	24.7	37.1
8	SAN BERNARDINO	2,143,578	634.0	29.6	30.9	28.4	33.3
	CALIFORNIA	39,312,207	13,255.7	33.7	32.2	31.6	32.7
9	SAN DIEGO	3,295,816	1,135.3	34.4	32.5	30.6	34.4
10	ALPINE	1,128	0.3	29.6 *	33.5 *	<0.1	437.9
11	MONTEREY	439,945	151.7	34.5	33.9	28.4	39.4
12	PLACER	375,805	154.0	41.0	34.2	28.6	39.9
13	VENTURA	853,673	308.7	36.2	34.3	30.4	38.2
14	SAN FRANCISCO	872,463	360.7	41.3	34.6	30.9	38.3
15	SONOMA	503,152	201.0	39.9	34.9	29.9	40.0
16	SOLANO	433,412	157.0	36.2	34.9	29.4	40.5
17	YOLO	216,726	73.7	34.0	35.6	27.9	44.7
18	NAPA	141,569	61.0	43.1	35.7	27.3	45.8
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: IVP-11						36.4	
19	SANTA BARBARA	447,309	176.3	39.4	36.7	31.1	42.3
20	RIVERSIDE	2,359,588	921.3	39.0	38.0	35.5	40.5
21	SAN LUIS OBISPO	278,080	116.7	42.0	38.3	30.9	45.7
22	KINGS	149,172	52.3	35.1	38.6	28.9	50.6
23	SACRAMENTO	1,503,536	620.0	41.2	39.5	36.3	42.6
24	SUTTER	98,208	40.7	41.4	39.5	28.3	53.7
25	TULARE	467,960	181.3	38.7	41.6	35.5	47.8
26	IMPERIAL	186,520	76.7	41.1	42.7	33.6	53.3
27	SANTA CRUZ	275,754	123.0	44.6	43.3	35.4	51.3
28	STANISLAUS	543,592	239.7	44.1	44.6	38.9	50.4
29	MONO	13,801	5.3	38.6 *	45.2 *	15.4	102.9
30	FRESNO	988,072	430.0	43.5	45.8	41.4	50.2
31	SAN JOAQUIN	738,343	335.0	45.4	45.9	40.9	50.9
32	NEVADA	98,300	53.7	54.6	46.9	35.2	61.3
33	COLUSA	22,428	11.0	49.0 *	47.4 *	23.7	84.8
34	AMADOR	37,181	22.0	59.2	48.4	30.4	73.3
35	EL DORADO	184,085	95.3	51.8	48.6	39.4	59.4
36	SAN BENITO	58,010	27.0	46.5	48.6	32.1	70.8
37	MADERA	155,518	76.0	48.9	49.2	38.8	61.6
38	CALAVERAS	44,747	25.0	55.9	51.3	33.2	75.7
39	INYO	18,658	10.7	57.2 *	51.9 *	25.6	93.7
40	TEHAMA	64,158	36.7	57.2	52.4	36.8	72.3
41	MERCED	272,286	139.7	51.3	54.6	45.4	63.9
42	GLENN	29,084	17.0	58.5 *	56.6 *	33.0	90.6
43	KERN	887,922	486.3	54.8	58.6	53.3	64.0
44	SHASTA	177,631	113.7	64.0	58.8	47.4	70.3
45	BUTTE	224,761	148.0	65.8	59.1	49.0	69.2
46	LASSEN	30,599	21.0	68.6	60.1	37.2	91.9
47	TUOLUMNE	54,291	40.7	74.9	61.8	44.3	84.0
48	YUBA	76,138	46.0	60.4	63.7	46.6	84.9
49	MODOC	9,506	7.3	77.1 *	66.1 *	27.3	134.0
50	MENDOCINO	88,779	64.0	72.1	67.1	51.7	85.7
51	SIERRA	3,141	2.7	84.9 *	67.3 *	12.1	208.5
52	PLUMAS	19,535	15.7	80.2 *	68.5 *	38.9	111.8
53	DEL NORTE	26,956	21.3	79.1	68.6	42.6	104.5
54	MARIPOSA	18,057	13.3	73.8 *	69.1 *	37.1	117.3
55	HUMBOLDT	135,884	104.7	77.0	73.9	59.2	88.6
56	SISKIYOU	44,373	38.7	87.1	82.4	58.5	112.8
57	TRINITY	13,492	10.7	79.1 *	84.6 *	41.7	152.7
58	LAKE	64,712	69.0	106.6	89.6	69.7	113.4

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

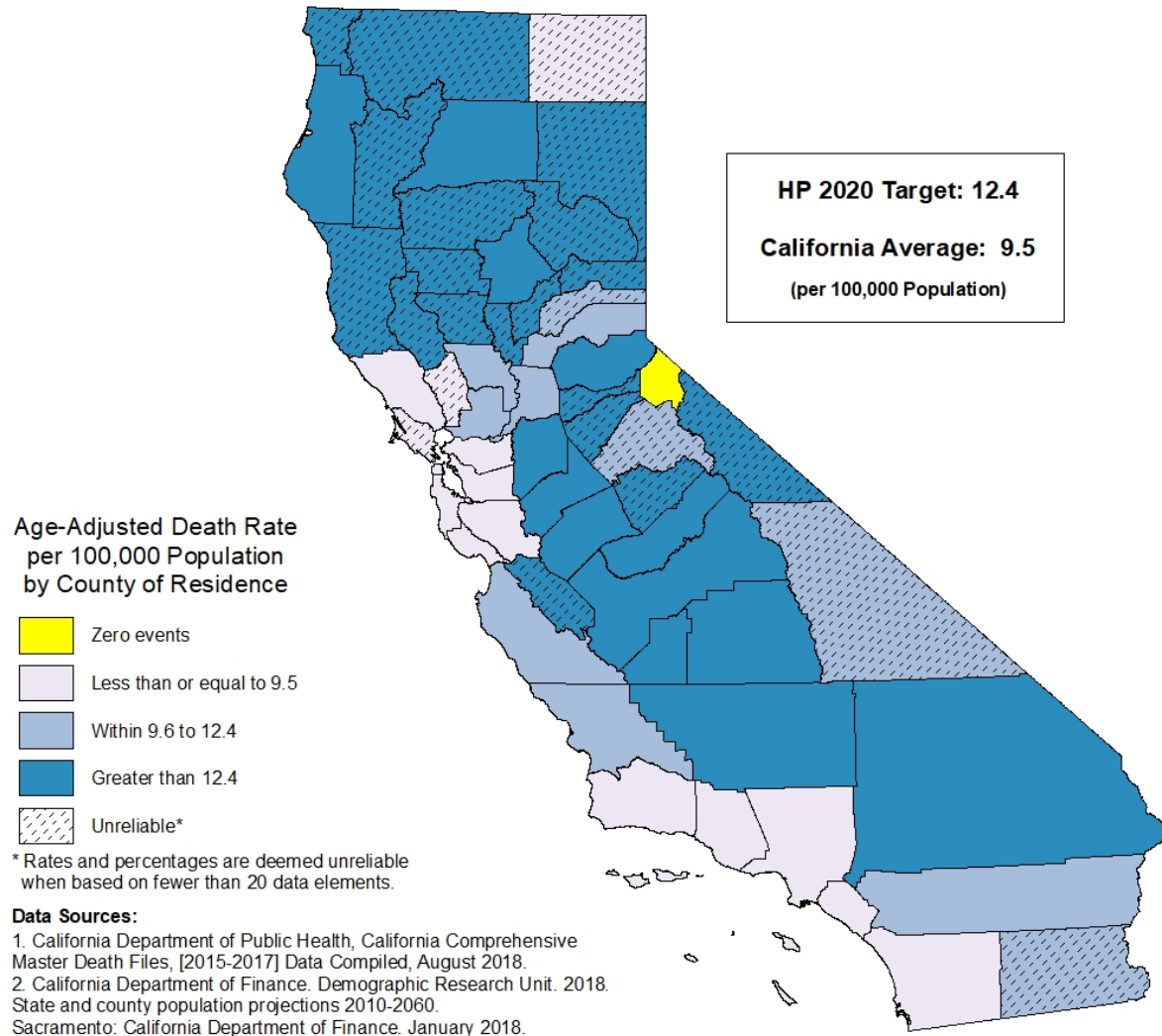
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO MOTOR VEHICLE TRAFFIC CRASHES, 2015-2017



The crude death rate from motor vehicle traffic crashes for California was 9.8 deaths per 100,000 population, a risk of dying from a motor vehicle traffic crash equivalent to approximately one death for every 10,162.7 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 3,868.3 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 21.8 in Merced County to 4.9 in San Francisco County, a factor of 4.4 to 1.

The age-adjusted death rate from motor vehicle traffic crashes for California during the 2015 through 2017 three-year period was 9.5 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 22.0 in Merced County to 4.2 in San Francisco County.

Nineteen counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective IVP-13.1 of no more than 12.4 age-adjusted deaths due to motor vehicle traffic crashes per 100,000 population. An additional seven counties with unreliable rates and one county with no deaths due to motor vehicle traffic crashes met the objective.

The California age-adjusted death rate from motor vehicle traffic crashes for the 2012-2014 period was 7.9 per 100,000 population.

TABLE 15
DEATHS DUE TO MOTOR VEHICLE TRAFFIC CRASHES
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	ALPINE	1,128	0.0	-	-	-	-
2	SAN FRANCISCO	872,463	42.7	4.9	4.2	3.1	5.7
3	MARIN	262,706	12.3	4.7 *	4.6 *	2.4	8.0
4	SAN MATEO	768,507	44.3	5.8	5.6	4.1	7.5
5	ALAMEDA	1,637,176	98.0	6.0	5.7	4.6	6.9
6	MODOC	9,506	0.3	3.5 *	5.8 *	<0.1	75.3
7	SANTA CLARA	1,932,827	135.3	7.0	6.8	5.6	7.9
8	ORANGE	3,179,122	230.0	7.2	7.0	6.1	7.9
9	SAN DIEGO	3,295,816	248.3	7.5	7.3	6.4	8.2
10	NAPA	141,569	12.3	8.7 *	7.6 *	4.0	13.2
11	CONTRA COSTA	1,129,332	87.3	7.7	7.6	6.1	9.4
12	LOS ANGELES	10,215,103	836.7	8.2	7.9	7.3	8.4
13	SONOMA	503,152	43.3	8.6	8.2	6.0	11.1
14	SANTA BARBARA	447,309	40.7	9.1	8.3	5.9	11.2
15	VENTURA	853,673	76.0	8.9	8.7	6.8	10.8
16	SANTA CRUZ	275,754	25.7	9.3	9.3	6.1	13.7
	CALIFORNIA	39,312,207	3,868.3	9.8	9.5	9.2	9.8
17	SOLANO	433,412	42.7	9.8	9.7	7.0	13.1
18	PLACER	375,805	36.7	9.8	9.8	6.9	13.5
19	SAN LUIS OBISPO	278,080	27.3	9.8	9.8	6.5	14.2
20	IMPERIAL	186,520	19.7	10.5 *	10.7 *	6.5	16.6
21	SACRAMENTO	1,503,536	166.0	11.0	10.8	9.1	12.4
22	MONTEREY	439,945	48.0	10.9	11.0	8.1	14.6
23	YOLO	216,726	23.7	10.9	11.4	7.3	17.1
24	NEVADA	98,300	11.7	11.9 *	11.5 *	5.9	20.3
25	INYO	18,658	2.0	10.7 *	11.6 *	1.4	42.0
26	TUOLUMNE	54,291	7.7	14.1 *	12.0 *	5.1	24.0
27	RIVERSIDE	2,359,588	285.7	12.1	12.0	10.6	13.4
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: IVP-13.1						12.4	
28	SAN BERNARDINO	2,143,578	288.3	13.5	13.4	11.8	15.0
29	EL DORADO	184,085	24.3	13.2	13.9	8.9	20.6
30	LASSEN	30,599	5.0	16.3 *	14.6 *	4.7	34.1
31	MONO	13,801	1.0	7.2 *	14.8 *	0.4	82.5
32	BUTTE	224,761	35.3	15.7	14.9	10.4	20.7
33	STANISLAUS	543,592	82.7	15.2	15.1	12.0	18.7
34	KINGS	149,172	22.7	15.2	15.5	9.8	23.3
35	MENDOCINO	88,779	13.0	14.6 *	15.5 *	8.3	26.5
36	FRESNO	988,072	149.7	15.1	15.7	13.1	18.2
37	AMADOR	37,181	6.7	17.9 *	16.0 *	6.2	33.5
38	SUTTER	98,208	16.3	16.6 *	16.0 *	9.2	25.8
39	SAN JOAQUIN	738,343	120.7	16.3	16.4	13.5	19.4
40	SHASTA	177,631	31.7	17.8	17.2	11.7	24.3
41	MADERA	155,518	27.0	17.4	17.9	11.8	26.0
42	TULARE	467,960	81.7	17.5	18.2	14.5	22.6
43	PLUMAS	19,535	4.3	22.2 *	18.3 *	5.3	45.3
44	TEHAMA	64,158	11.7	18.2 *	18.5 *	9.4	32.5
45	KERN	887,922	160.7	18.1	18.8	15.9	21.8
46	DEL NORTE	26,956	6.3	23.5 *	19.4 *	7.4	41.5
47	HUMBOLDT	135,884	27.3	20.1	20.4	13.5	29.6
48	SAN BENITO	58,010	12.0	20.7 *	21.5 *	11.1	37.5
49	MERCED	272,286	59.3	21.8	22.0	16.8	28.4
50	YUBA	76,138	15.3	20.1 *	22.2 *	12.5	36.5
51	GLENN	29,084	6.0	20.6 *	22.9 *	8.4	49.8
52	SISKIYOU	44,373	10.7	24.0 *	24.1 *	11.9	43.5
53	COLUSA	22,428	5.3	23.8 *	24.1 *	8.2	54.9
54	CALAVERAS	44,747	11.0	24.6 *	26.2 *	13.1	46.9
55	LAKE	64,712	17.3	26.8 *	26.2 *	15.4	41.8
56	MARIPOSA	18,057	5.7	31.4 *	35.7 *	12.6	79.3
57	SIERRA	3,141	1.0	31.8 *	36.4 *	0.9	202.9
58	TRINITY	13,492	4.0	29.6 *	38.4 *	10.5	98.2

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

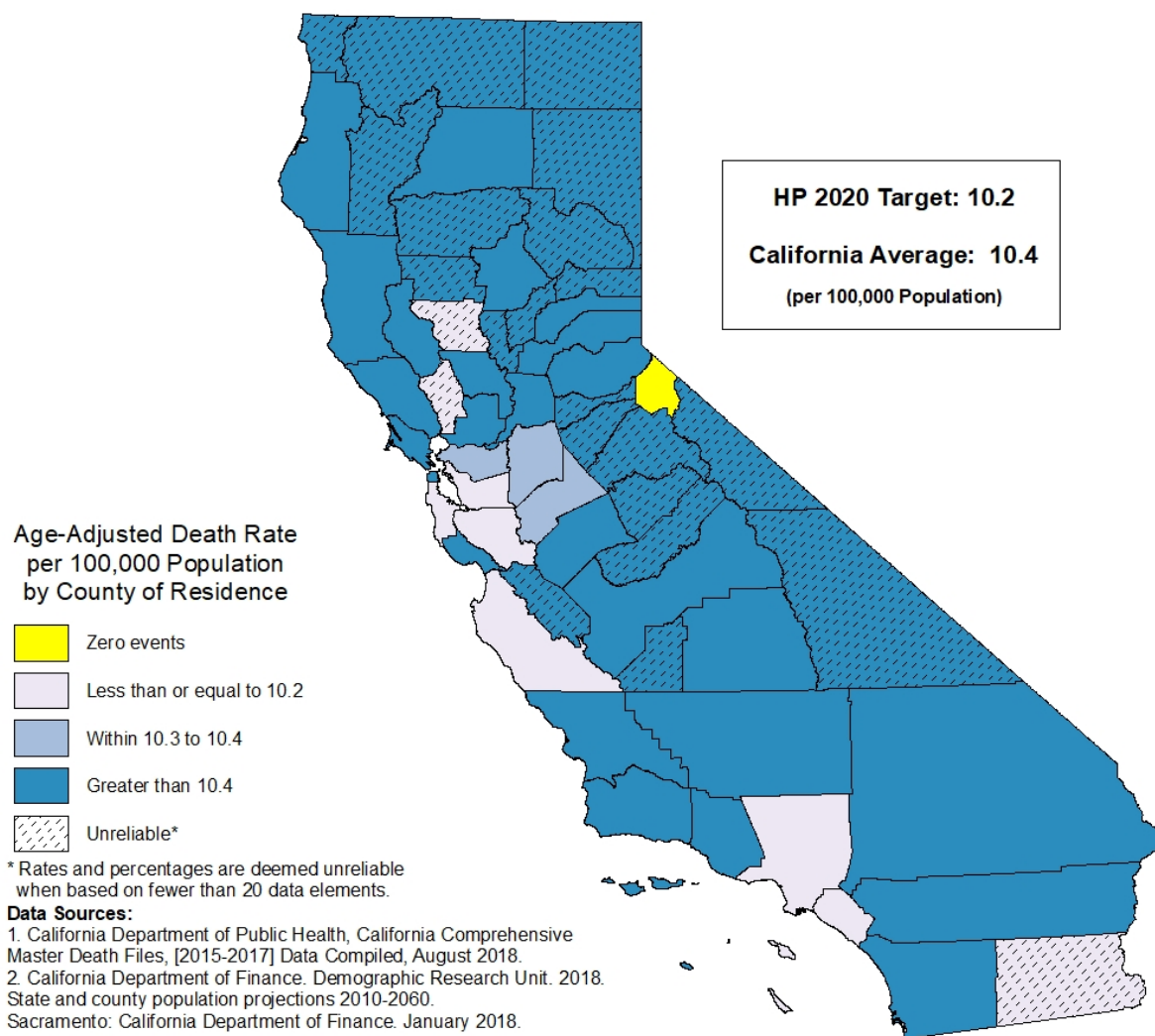
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance, January 2018.

DEATHS DUE TO SUICIDE, 2015-2017



The crude death rate from suicide for California was 10.8 deaths per 100,000 population, equivalent to approximately one suicide for every 9,230.4 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 4,259.0 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 30.9 in Lake County to 7.7 in Santa Clara County, a factor of 4.0 to 1.

The age-adjusted death rate from suicide for California during the 2015 through 2017 three-year period was 10.4 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 29.3 in Lake County to 7.4 in Santa Clara County.

Six counties with reliable age-adjusted death rates met the Healthy People 2020 National Objective MHMD-1 of no more than 10.2 age-adjusted deaths due to suicide per 100,000 population. An additional three counties with unreliable rates and one county with zero deaths due to suicide met the objective. The California age-adjusted death rate due to suicide did not meet the national objective.

The California age-adjusted death rate from suicide for the 2012-2014 period was 10.2 per 100,000 population.

**TABLE 16
DEATHS DUE TO SUICIDE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	ALPINE	1,128	0.0	-	-	-	-
2	SANTA CLARA	1,932,827	148.7	7.7	7.4	6.2	8.6
3	SAN MATEO	768,507	60.0	7.8	7.4	5.6	9.5
4	LOS ANGELES	10,215,103	852.0	8.3	8.0	7.5	8.6
5	ALAMEDA	1,637,176	149.3	9.1	8.6	7.2	10.0
6	IMPERIAL	186,520	16.3	8.8 *	9.2 *	5.3	14.9
7	MONTEREY	439,945	41.3	9.4	9.2	6.6	12.5
8	ORANGE	3,179,122	313.0	9.8	9.3	8.3	10.4
9	COLUSA	22,428	2.0	8.9 *	9.5 *	1.1	34.2
10	NAPA	141,569	16.0	11.3 *	10.1 *	5.8	16.5
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MHMD-1 10.2							
11	CONTRA COSTA	1,129,332	120.3	10.7	10.3	8.4	12.2
12	STANISLAUS	543,592	55.7	10.2	10.3	7.8	13.4
13	SAN JOAQUIN	738,343	74.7	10.1	10.3	8.1	13.0
	CALIFORNIA	39,312,207	4,259.0	10.8	10.4	10.1	10.8
14	SAN FRANCISCO	872,463	105.0	12.0	10.5	8.5	12.6
15	VENTURA	853,673	98.0	11.5	10.8	8.8	13.2
16	MONO	13,801	1.3	9.7 *	10.9 *	0.6	50.3
17	SAN BERNARDINO	2,143,578	226.0	10.5	11.0	9.5	12.4
18	FRESNO	988,072	103.0	10.4	11.0	8.8	13.2
19	TULARE	467,960	49.3	10.5	11.2	8.3	14.7
20	SAN BENITO	58,010	6.0	10.3 *	11.3 *	4.1	24.5
21	MADERA	155,518	17.0	10.9 *	11.3 *	6.6	18.1
22	RIVERSIDE	2,359,588	272.3	11.5	11.3	9.9	12.7
23	SOLANO	433,412	51.0	11.8	11.4	8.5	15.0
24	MERCED	272,286	29.7	10.9	11.9	8.0	17.0
25	PLACER	375,805	50.0	13.3	12.1	9.0	16.0
26	SAN DIEGO	3,295,816	418.7	12.7	12.4	11.2	13.6
27	SONOMA	503,152	69.0	13.7	12.4	9.6	15.6
28	YOLO	216,726	26.3	12.2	12.5	8.2	18.2
29	KINGS	149,172	17.3	11.6 *	12.6 *	7.4	20.0
30	MARIN	262,706	40.3	15.4	12.7	9.1	17.3
31	DEL NORTE	26,956	4.0	14.8 *	12.9 *	3.5	33.0
32	SANTA BARBARA	447,309	60.0	13.4	12.9	9.9	16.6
33	SACRAMENTO	1,503,536	200.3	13.3	13.0	11.2	14.9
34	KERN	887,922	120.0	13.5	14.1	11.6	16.7
35	SUTTER	98,208	14.3	14.6 *	14.1 *	7.8	23.6
36	MODOC	9,506	1.7	17.5 *	15.2 *	1.3	61.1
37	INYO	18,658	4.0	21.4 *	15.8 *	4.3	40.4
38	SANTA CRUZ	275,754	46.0	16.7	16.0	11.7	21.4
39	SAN LUIS OBISPO	278,080	55.0	19.8	17.1	12.9	22.3
40	EL DORADO	184,085	35.0	19.0	18.6	12.9	25.8
41	NEVADA	98,300	21.3	21.7	18.6	11.6	28.4
42	BUTTE	224,761	43.3	19.3	18.7	13.6	25.2
43	TUOLUMNE	54,291	14.0	25.8 *	18.9 *	10.3	31.7
44	TEHAMA	64,158	11.3	17.7 *	19.2 *	9.7	34.1
45	YUBA	76,138	14.0	18.4 *	19.3 *	10.5	32.4
46	AMADOR	37,181	8.3	22.4 *	20.5 *	9.0	39.9
47	MENDOCINO	88,779	20.0	22.5	21.3	13.0	32.9
48	SISKIYOU	44,373	11.7	26.3 *	22.2 *	11.3	39.0
49	HUMBOLDT	135,884	31.7	23.3	23.2	15.8	32.8
50	PLUMAS	19,535	5.0	25.6 *	23.7 *	7.7	55.4
51	SHASTA	177,631	45.7	25.7	24.0	17.6	32.1
52	LASSEN	30,599	7.7	25.1 *	25.0 *	10.6	50.0
53	CALAVERAS	44,747	13.3	29.8 *	25.9 *	13.9	44.1
54	GLENN	29,084	8.7	29.8 *	28.3 *	12.7	54.4
55	LAKE	64,712	20.0	30.9	29.3	17.9	45.3
56	MARIPOSA	18,057	6.0	33.2 *	33.2 *	12.2	72.2
57	TRINITY	13,492	5.3	39.5 *	44.0 *	14.9	100.0
58	SIERRA	3,141	1.7	53.1 *	52.8 *	4.7	212.1

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

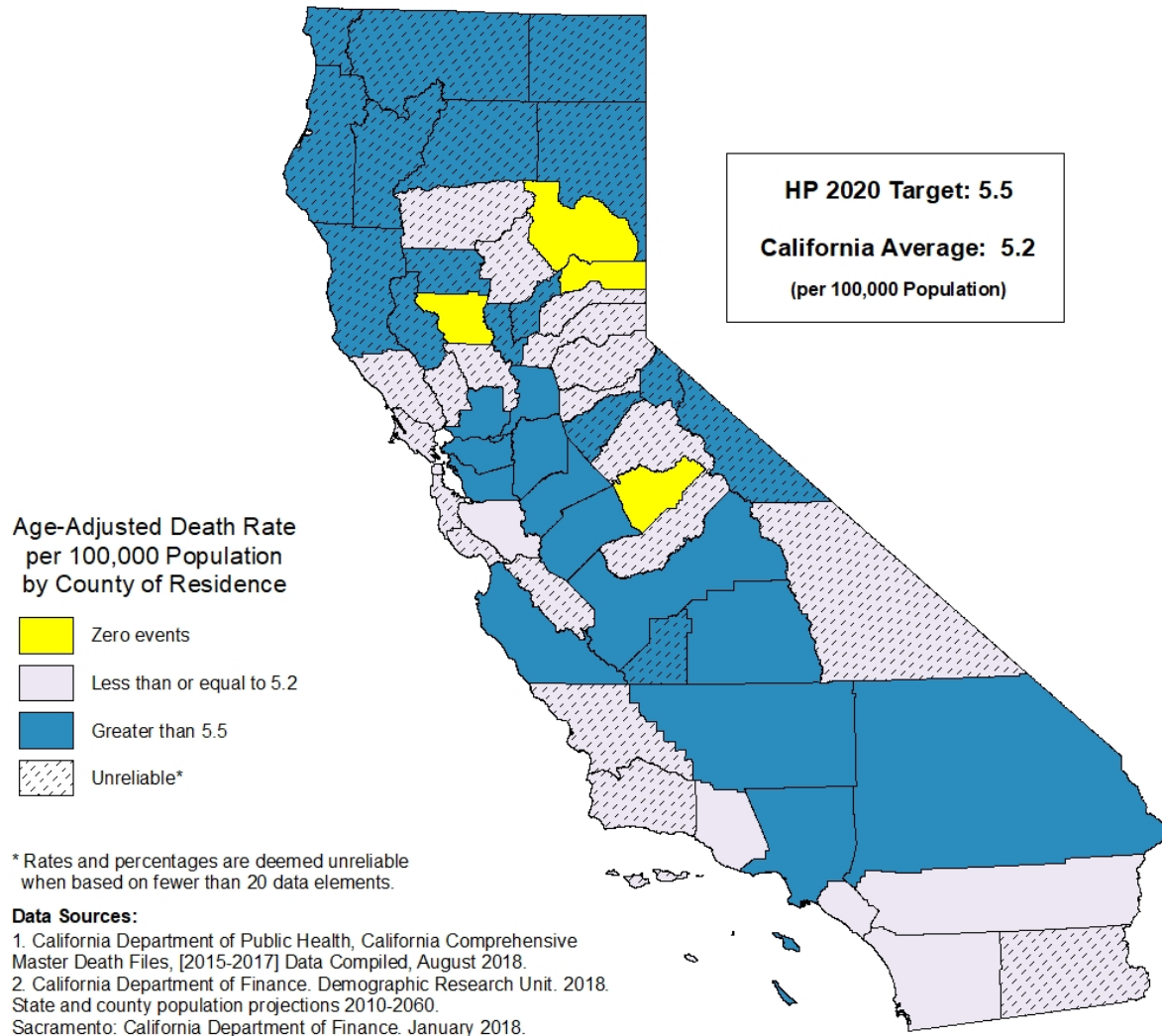
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DEATHS DUE TO HOMICIDE, 2015-2017



The crude death rate from homicide for California was 5.2 deaths per 100,000 population, a risk of dying from a homicide equivalent to approximately one death for every 19,339.9 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 2,032.7 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 12.0 in Monterey County to 2.3 in Orange County, a factor of 5.2 to 1.

The age-adjusted death rate from homicide for California during the 2015 through 2017 three-year period was 5.2 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 12.2 in Monterey County to 2.3 in Orange County.

Six counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective IVP-29 of no more than 5.5 age-adjusted deaths due to homicide per 100,000 population. An additional nineteen counties with unreliable rates and four counties with zero deaths due to homicide met the objective.

The California age-adjusted death rate from homicide for the 2012-2014 period was 5.0 per 100,000 population.

**TABLE 17
DEATHS DUE TO HOMICIDE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	COLUSA	22,428	0.0	-	-	-	-
2	PLUMAS	19,535	0.0	-	-	-	-
3	MARIPOSA	18,057	0.0	-	-	-	-
4	SIERRA	3,141	0.0	-	-	-	-
5	NEVADA	98,300	1.7	1.7 *	1.0 *	0.1	4.0
6	NAPA	141,569	1.7	1.2 *	1.3 *	0.1	5.4
7	PLACER	375,805	6.3	1.7 *	1.8 *	0.7	3.7
8	MARIN	262,706	6.0	2.3 *	2.1 *	0.8	4.7
9	SAN LUIS OBISPO	278,080	5.7	2.0 *	2.2 *	0.8	5.0
10	SAN MATEO	768,507	16.0	2.1 *	2.3 *	1.3	3.7
11	SANTA CRUZ	275,754	6.3	2.3 *	2.3 *	0.9	4.9
12	ORANGE	3,179,122	73.0	2.3	2.3	1.8	2.9
13	EL DORADO	184,085	4.7	2.5 *	2.4 *	0.8	5.9
14	SANTA CLARA	1,932,827	50.7	2.6	2.6	1.9	3.4
15	SONOMA	503,152	13.0	2.6 *	2.8 *	1.5	4.7
16	TUOLUMNE	54,291	1.7	3.1 *	2.9 *	0.3	11.5
17	SAN DIEGO	3,295,816	95.0	2.9	2.9	2.4	3.6
18	YOLO	216,726	5.3	2.5 *	2.9 *	1.0	6.7
19	SANTA BARBARA	447,309	15.3	3.4 *	3.3 *	1.9	5.5
20	INYO	18,658	0.7	3.6 *	3.4 *	<0.1	25.5
21	VENTURA	853,673	28.7	3.4	3.4	2.3	5.0
22	SAN BENITO	58,010	2.0	3.4 *	3.5 *	0.4	12.7
23	IMPERIAL	186,520	6.0	3.2 *	3.6 *	1.3	7.8
24	BUTTE	224,761	7.7	3.4 *	3.8 *	1.6	7.6
25	RIVERSIDE	2,359,588	98.0	4.2	4.3	3.5	5.2
26	MADERA	155,518	6.0	3.9 *	4.3 *	1.6	9.5
27	AMADOR	37,181	1.3	3.6 *	4.6 *	0.3	21.2
28	TEHAMA	64,158	2.7	4.2 *	4.6 *	0.8	14.2
29	SAN FRANCISCO	872,463	46.7	5.3	5.1	3.7	6.8
	CALIFORNIA	39,312,207	2,032.7	5.2	5.2	5.0	5.4
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: IVP-29						5.5	
30	STANISLAUS	543,592	29.3	5.4	5.7	3.9	8.2
31	SHASTA	177,631	10.3	5.8 *	5.9 *	2.9	10.8
32	MENDOCINO	88,779	5.3	6.0 *	6.0 *	2.1	13.7
33	SUTTER	98,208	5.7	5.8 *	6.1 *	2.1	13.5
34	LOS ANGELES	10,215,103	626.3	6.1	6.1	5.6	6.6
35	SAN BERNARDINO	2,143,578	137.3	6.4	6.4	5.3	7.5
36	CONTRA COSTA	1,129,332	69.0	6.1	6.5	5.0	8.2
37	ALAMEDA	1,637,176	109.3	6.7	6.5	5.3	7.7
38	SACRAMENTO	1,503,536	100.7	6.7	6.8	5.4	8.1
39	LASSEN	30,599	2.0	6.5 *	6.9 *	0.8	24.9
40	KINGS	149,172	10.7	7.2 *	7.1 *	3.5	12.9
41	GLENN	29,084	2.0	6.9 *	7.2 *	0.9	25.9
42	FRESNO	988,072	73.3	7.4	7.5	5.9	9.4
43	MONO	13,801	0.7	4.8 *	7.5 *	<0.1	56.4
44	CALAVERAS	44,747	2.7	6.0 *	7.6 *	1.4	23.6
45	YUBA	76,138	5.7	7.4 *	7.8 *	2.7	17.2
46	MERCED	272,286	21.7	8.0	7.8	4.9	11.9
47	HUMBOLDT	135,884	10.7	7.8 *	8.0 *	3.9	14.4
48	SOLANO	433,412	36.0	8.3	8.6	6.0	11.9
49	TULARE	467,960	39.7	8.5	8.6	6.2	11.8
50	KERN	887,922	85.7	9.6	9.7	7.8	12.0
51	SAN JOAQUIN	738,343	74.0	10.0	10.3	8.1	12.9
52	SISKIYOU	44,373	4.7	10.5 *	10.7 *	3.3	25.8
53	MONTEREY	439,945	53.0	12.0	12.2	9.1	15.9
54	MODOC	9,506	1.0	10.5 *	13.2 *	0.3	73.8
55	LAKE	64,712	8.3	12.9 *	14.7 *	6.5	28.6
56	DEL NORTE	26,956	3.7	13.6 *	15.7 *	4.0	41.7
57	TRINITY	13,492	1.7	12.4 *	15.7 *	1.4	63.0
58	ALPINE	1,128	0.3	29.6 *	48.1 *	<0.1	628.6

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

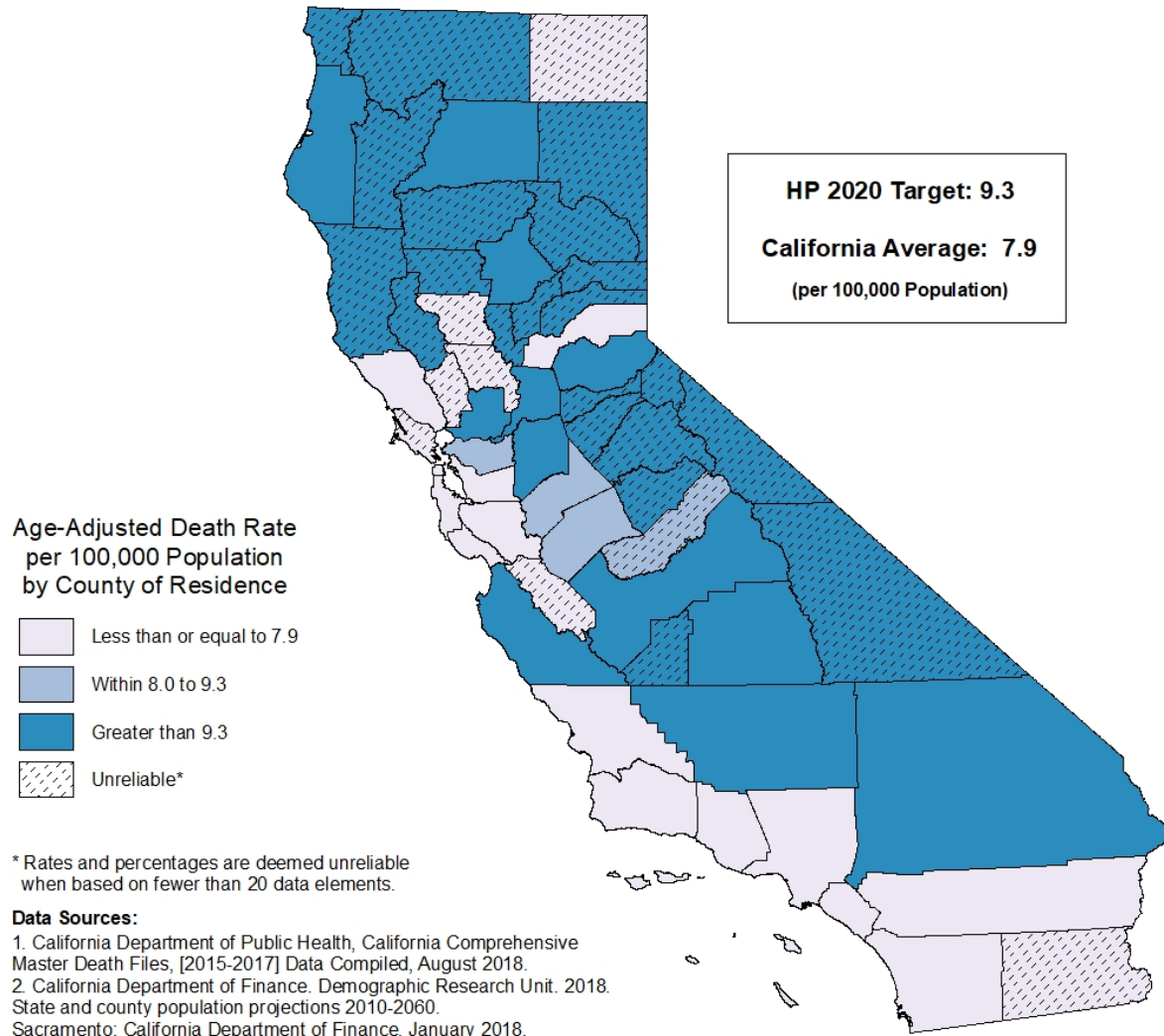
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

FIREARM RELATED DEATHS, 2015-2017



The crude death rate from deaths due to firearm related injuries for California was 8.0 deaths per 100,000 population, a risk of dying from a firearm related injury equivalent to approximately one death for every 12,485.2 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 3,148.7 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 19.6 in Humboldt County to 4.4 in San Mateo and Santa Clara Counties a factor of 4.5 to 1.

The age-adjusted death rate from firearm related deaths for California during the 2015 through 2017 three-year period was 7.9 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 19.9 in Humboldt County to 4.3 in Santa Clara County.

Seventeen counties with reliable age-adjusted death rates and California as a whole met the Healthy People 2020 National Objective IVP-30 of no more than 9.3 age-adjusted deaths due to firearm related injuries per 100,000 population. An additional eight counties with unreliable rates due to firearm related deaths met the objective.

The California age-adjusted death rate from deaths due to firearm related injuries for the 2012-2014 period was 7.6 per 100,000 population.

**TABLE 18
FIREARM RELATED DEATHS
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	COLUSA	22,428	1.0	4.5 *	4.1 *	0.1	22.7
2	SANTA CLARA	1,932,827	85.0	4.4	4.3	3.4	5.3
3	SAN MATEO	768,507	34.0	4.4	4.4	3.0	6.1
4	IMPERIAL	186,520	7.7	4.1 *	4.4 *	1.9	8.8
5	ORANGE	3,179,122	152.7	4.8	4.6	3.8	5.3
6	SONOMA	503,152	28.7	5.7	5.0	3.4	7.2
7	NAPA	141,569	9.0	6.4 *	5.4 *	2.5	10.3
8	SAN FRANCISCO	872,463	49.7	5.7	5.4	4.0	7.2
9	MARIN	262,706	18.0	6.9 *	5.5 *	3.3	8.7
10	YOLO	216,726	12.0	5.5 *	5.7 *	2.9	9.9
11	PLACER	375,805	26.0	6.9	6.0	3.9	8.9
12	SAN DIEGO	3,295,816	208.0	6.3	6.2	5.4	7.1
13	VENTURA	853,673	59.3	7.0	6.8	5.2	8.7
14	LOS ANGELES	10,215,103	774.3	7.6	7.4	6.9	8.0
15	SAN LUIS OBISPO	278,080	23.7	8.5	7.5	4.8	11.1
16	MODOC	9,506	0.7	7.0 *	7.5 *	<0.1	55.9
17	SANTA BARBARA	447,309	35.3	7.9	7.5	5.2	10.4
18	SAN BENITO	58,010	4.0	6.9 *	7.5 *	2.0	19.3
19	ALAMEDA	1,637,176	128.3	7.8	7.6	6.3	8.9
20	RIVERSIDE	2,359,588	179.3	7.6	7.6	6.5	8.7
21	SANTA CRUZ	275,754	22.3	8.1	7.8	4.9	11.8
	CALIFORNIA	39,312,207	3,148.7	8.0	7.9	7.6	8.1
22	STANISLAUS	543,592	41.0	7.5	8.0	5.7	10.8
23	MADERA	155,518	12.0	7.7 *	8.4 *	4.4	14.7
24	MERCED	272,286	24.3	8.9	9.1	5.8	13.4
25	CONTRA COSTA	1,129,332	101.0	8.9	9.2	7.4	11.0
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: IVP-30					9.3		
26	FRESNO	988,072	96.7	9.8	9.8	8.0	12.0
27	SACRAMENTO	1,503,536	151.3	10.1	10.0	8.4	11.6
28	INYO	18,658	2.7	14.3 *	10.1 *	1.8	31.4
29	SAN BERNARDINO	2,143,578	214.0	10.0	10.3	8.9	11.7
30	KINGS	149,172	15.0	10.1 *	10.5 *	5.9	17.3
31	TUOLUMNE	54,291	8.0	14.7 *	10.6 *	4.6	21.0
32	TEHAMA	64,158	7.3	11.4 *	10.7 *	4.4	21.8
33	EL DORADO	184,085	22.0	12.0	11.0	6.9	16.7
34	NEVADA	98,300	15.3	15.6 *	11.9 *	6.7	19.5
35	SUTTER	98,208	11.7	11.9 *	12.3 *	6.3	21.6
36	SOLANO	433,412	53.7	12.4	12.3	9.3	16.1
37	TULARE	467,960	56.0	12.0	12.4	9.4	16.1
38	SAN JOAQUIN	738,343	92.7	12.6	12.6	10.2	15.5
39	KERN	887,922	113.7	12.8	13.1	10.7	15.6
40	BUTTE	224,761	31.0	13.8	13.3	9.0	18.8
41	MONO	13,801	1.3	9.7 *	13.4 *	0.7	61.8
42	AMADOR	37,181	5.3	14.3 *	13.5 *	4.6	30.8
43	MONTEREY	439,945	61.3	13.9	13.8	10.6	17.7
44	MENDOCINO	88,779	14.3	16.1 *	14.3 *	7.9	23.8
45	SHASTA	177,631	29.7	16.7	15.1	10.2	21.6
46	DEL NORTE	26,956	4.3	16.1 *	15.2 *	4.4	37.5
47	LASSEN	30,599	4.7	15.3 *	15.8 *	4.9	38.0
48	YUBA	76,138	12.3	16.2 *	17.4 *	9.1	30.1
49	GLENN	29,084	5.3	18.3 *	17.7 *	6.0	40.2
50	SISKIYOU	44,373	10.0	22.5 *	19.1 *	9.1	35.0
51	PLUMAS	19,535	4.3	22.2 *	19.3 *	5.6	47.6
52	HUMBOLDT	135,884	26.7	19.6	19.9	13.0	29.0
53	CALAVERAS	44,747	12.0	26.8 *	23.5 *	12.1	41.0
54	MARIPOSA	18,057	4.3	24.0 *	23.8 *	6.9	58.9
55	LAKE	64,712	16.7	25.8 *	25.9 *	15.0	41.7
56	TRINITY	13,492	5.7	42.0 *	44.2 *	15.7	98.4
57	ALPINE	1,128	0.3	29.6 *	48.1 *	<0.1	628.6
58	SIERRA	3,141	1.7	53.1 *	52.8 *	4.7	212.1

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

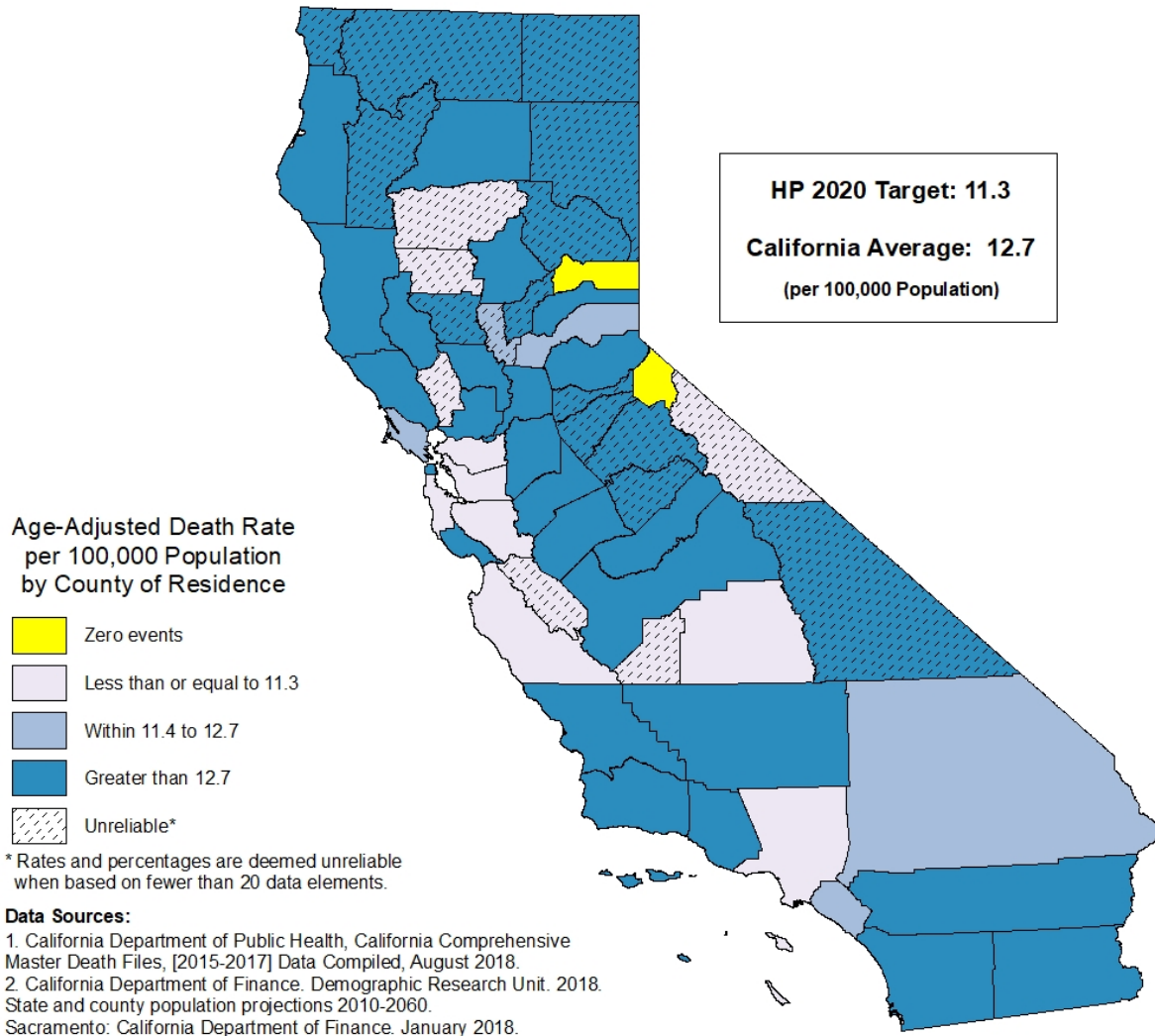
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

DRUG INDUCED DEATHS, 2015-2017



The crude death rate from deaths due to drug induced causes for California was 13.3 deaths per 100,000 population, a risk of dying from a drug induced cause equivalent to approximately one death for every 7,546.0 persons. The crude death rate for California was based on a 2015 through 2017 three-year average number of deaths equaling 5,209.7 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude death rate ranged from 44.8 in Lake County to 8.4 Santa Clara Counties, a factor of 5.3 to 1.

The age-adjusted death rate from deaths due to drug induced causes for California during the 2015 through 2017 three-year period was 12.7 deaths per 100,000 population. Reliable age-adjusted death rates ranged from 40.4 in Lake County to 7.7 in Santa Clara County.

Seven counties with reliable age-adjusted death rates met the Healthy People 2020 National Objective SA-12 of no more than 11.3 age-adjusted deaths due to drug induced causes per 100,000 population. An additional six counties with unreliable rates and two counties with zero deaths due to drug induced causes met the objective. The California age-adjusted death rate due to drug induced causes did not meet the national objective.

The California age-adjusted death rate from deaths due to drug induced causes for the 2012-2014 period was 11.4 per 100,000 population.

**TABLE 19
DRUG INDUCED DEATHS
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 DEATHS (AVERAGE)	CRUDE DEATHRATE	AGE-ADJUSTED DEATHRATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
1	SIERRA	3,141	0.0	-	-	-	-
2	ALPINE	1,128	0.0	-	-	-	-
3	MONO	13,801	1.3	9.7 *	5.9 *	0.3	27.2
4	SANTA CLARA	1,932,827	162.0	8.4	7.7	6.5	8.9
5	SAN MATEO	768,507	69.3	9.0	8.2	6.4	10.3
6	LOS ANGELES	10,215,103	902.0	8.8	8.5	7.9	9.1
7	ALAMEDA	1,637,176	175.0	10.7	9.9	8.4	11.4
8	GLENN	29,084	3.3	11.5 *	9.9 *	2.3	27.6
9	SAN BENITO	58,010	6.0	10.3 *	10.3 *	3.8	22.5
10	NAPA	141,569	15.0	10.6 *	10.4 *	5.8	17.2
11	TEHAMA	64,158	6.7	10.4 *	10.5 *	4.1	22.0
12	TULARE	467,960	46.7	10.0	10.8	7.9	14.3
13	CONTRA COSTA	1,129,332	130.7	11.6	10.9	9.0	12.8
14	MONTEREY	439,945	50.7	11.5	11.2	8.3	14.7
15	KINGS	149,172	14.3	9.6 *	11.3 *	6.2	18.9
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: SA-12						11.3	
16	SUTTER	98,208	11.3	11.5 *	11.5 *	5.8	20.3
17	PLACER	375,805	47.3	12.6	12.0	8.8	15.9
18	ORANGE	3,179,122	402.7	12.7	12.1	10.9	13.3
19	SAN BERNARDINO	2,143,578	259.7	12.1	12.1	10.6	13.6
20	MARIN	262,706	32.7	12.4	12.4	8.5	17.4
	CALIFORNIA	39,312,207	5,209.7	13.3	12.7	12.3	13.0
21	SOLANO	433,412	59.7	13.8	13.5	10.3	17.4
22	SAN DIEGO	3,295,816	474.0	14.4	13.8	12.6	15.1
23	SONOMA	503,152	78.0	15.5	14.4	11.4	18.0
24	VENTURA	853,673	131.3	15.4	14.7	12.1	17.3
25	MADERA	155,518	23.3	15.0	15.1	9.6	22.5
26	YOLO	216,726	31.7	14.6	15.2	10.4	21.5
27	AMADOR	37,181	6.3	17.0 *	15.8 *	6.0	33.6
28	MERCED	272,286	39.7	14.6	15.8	11.3	21.6
29	SANTA BARBARA	447,309	71.3	15.9	16.0	12.5	20.2
30	COLUSA	22,428	3.3	14.9 *	16.1 *	3.7	44.8
31	FRESNO	988,072	150.0	15.2	16.3	13.6	18.9
32	RIVERSIDE	2,359,588	394.3	16.7	16.4	14.8	18.1
33	SACRAMENTO	1,503,536	273.0	18.2	17.1	15.0	19.2
34	MARIPOSA	18,057	3.0	16.6 *	17.5 *	3.6	51.1
35	SAN LUIS OBISPO	278,080	50.0	18.0	17.5	13.0	23.1
36	SANTA CRUZ	275,754	49.7	18.0	17.7	13.1	23.4
37	SAN JOAQUIN	738,343	131.3	17.8	17.9	14.8	21.0
38	CALAVERAS	44,747	9.0	20.1 *	17.9 *	8.2	34.0
39	STANISLAUS	543,592	98.3	18.1	18.7	15.2	22.8
40	SAN FRANCISCO	872,463	194.7	22.3	19.1	16.4	21.9
41	TRINITY	13,492	2.7	19.8 *	19.4 *	3.5	60.0
42	IMPERIAL	186,520	35.0	18.8	20.6	14.3	28.6
43	EL DORADO	184,085	38.7	21.0	21.1	15.0	28.9
44	MODOC	9,506	2.3	24.5 *	21.3 *	3.2	70.7
45	NEVADA	98,300	20.0	20.3	22.1	13.5	34.2
46	LASSEN	30,599	8.3	27.2 *	22.8 *	10.0	44.3
47	SHASTA	177,631	40.3	22.7	22.8	16.3	31.0
48	YUBA	76,138	16.3	21.5 *	23.2 *	13.3	37.5
49	INYO	18,658	4.7	25.0 *	23.5 *	7.2	56.3
50	DEL NORTE	26,956	6.3	23.5 *	24.6 *	9.3	52.5
51	PLUMAS	19,535	4.0	20.5 *	26.0 *	7.1	66.6
52	KERN	887,922	222.0	25.0	26.0	22.5	29.5
53	MENDOCINO	88,779	24.0	27.0	26.2	16.8	38.9
54	BUTTE	224,761	61.7	27.4	26.8	20.6	34.4
55	SISKIYOU	44,373	14.0	31.6 *	31.8 *	17.4	53.4
56	TUOLUMNE	54,291	18.3	33.8 *	32.4 *	19.3	51.1
57	HUMBOLDT	135,884	53.3	39.2	37.9	28.4	49.6
58	LAKE	64,712	29.0	44.8	40.4	27.1	58.0

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

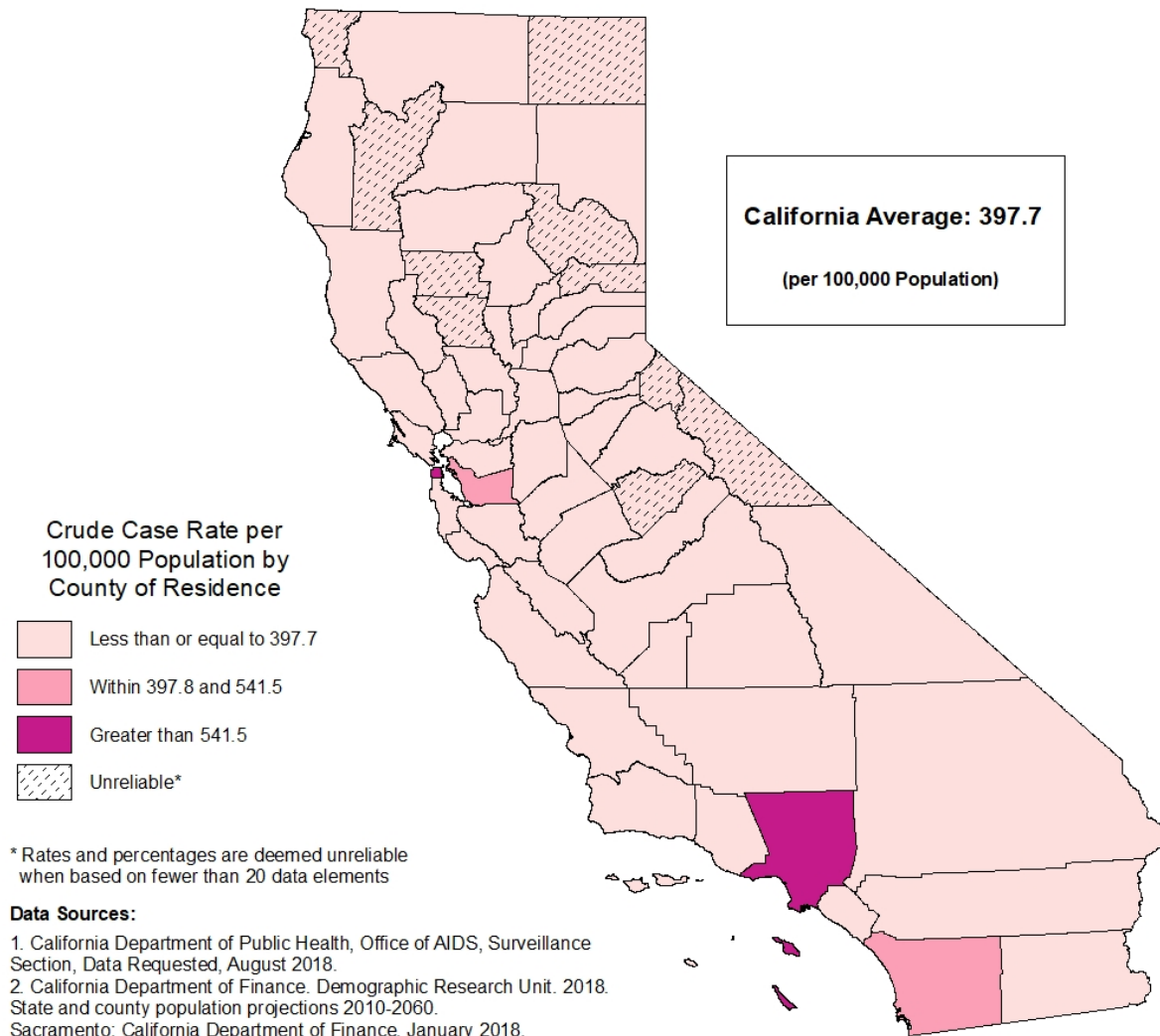
Note: Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources: 1. California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

REPORTED INCIDENCE OF PERSONS DIAGNOSED WITH HIV/AIDS AMONG AGES 13 YEARS AND OLDER, 2014-2016



The crude case rate of reported incidence of persons diagnosed with HIV/AIDS among Californians, aged 13 years and older, was 397.7 cases per 100,000 of corresponding age population, or approximately one reported HIV/AIDS case for every 251.5 persons, aged 13 years and older. This rate was based on a 2014 through 2016 three-year average reported number of cases of persons aged 13 years and older equaling 128,937.3 and a corresponding age population count of 32,424,475 as of July 1, 2015.

Among counties with reliable rates, the crude case rate ranged from 1,782.3 in San Francisco County to 77.6 in Tehama County, a factor of 23.0 to 1.

A Healthy People 2020 National Objective for the reported incidence of persons diagnosed with HIV/AIDS among persons ages 13 years and older has not been established.

Five counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the three-year average case count and crude case rate were suppressed. See technical notes for more information regarding DDG.

The California crude case rate of reported incidence of persons diagnosed with HIV/AIDS, aged 13 years and older, for the 2011-2013 period was 385.0 per 100,000 population.

TABLE 20
REPORTED INCIDENCE OF PERSONS DIAGNOSED WITH HIV/AIDS AMONG AGES 13 YEARS AND OVER
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2014-2016

RANK ORDER	COUNTY OF RESIDENCE	2015 POPULATION AGED 13 AND OVER	2014-2016 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: NOT APPLICABLE						
1	GLENN	23,540	14.3	60.9 *	33.6	101.6
2	PLUMAS	17,342	12.3	71.1 *	37.1	123.3
3	TEHAMA	52,803	41.0	77.6	55.7	105.3
4	SAN BENITO	47,329	39.0	82.4	58.6	112.6
5	TUOLUMNE	48,303	40.3	83.5	59.7	113.6
6	PLACER	317,145	266.7	84.1	74.0	94.2
7	DEL NORTE	22,945	19.7	85.7 *	52.1	132.9
8	LASSEN	27,088	23.7	87.4	55.8	130.4
9	CALAVERAS	39,927	39.3	98.5	70.2	134.5
10	SUTTER	79,604	79.7	100.1	79.3	124.6
11	MERCED	212,636	215.3	101.3	87.7	114.8
12	TULARE	359,129	374.3	104.2	93.7	114.8
13	NEVADA	86,819	93.3	107.5	86.8	131.7
14	EL DORADO	158,627	173.7	109.5	93.2	125.8
15	MARIPOSA	16,069	19.0	118.2 *	71.2	184.6
16	YUBA	59,695	73.3	122.8	96.3	154.4
17	SISKIYOU	38,281	47.7	124.5	91.7	165.3
18	BUTTE	191,874	241.3	125.8	109.9	141.6
19	INYO	15,802	20.0	126.6	77.3	195.5
20	SHASTA	151,625	205.3	135.4	116.9	153.9
21	TRINITY	12,041	16.3	135.6 *	78.0	219.2
22	KINGS	116,512	167.3	143.6	121.9	165.4
23	VENTURA	709,045	1,022.3	144.2	135.3	153.0
24	YOLO	178,243	261.3	146.6	128.8	164.4
25	MADERA	124,045	182.3	147.0	125.7	168.3
26	STANISLAUS	433,827	645.7	148.8	137.4	160.3
27	SANTA BARBARA	371,622	610.3	164.2	151.2	177.3
28	HUMBOLDT	115,209	214.0	185.7	160.9	210.6
29	IMPERIAL	145,427	270.3	185.9	163.7	208.0
30	MONTEREY	351,387	677.7	192.9	178.3	207.4
31	NAPA	120,335	233.3	193.9	169.0	218.8
32	SANTA CRUZ	232,418	492.3	211.8	193.1	230.5
33	SAN LUIS OBISPO	241,409	519.0	215.0	196.5	233.5
34	SAN BERNARDINO	1,713,805	3,684.7	215.0	208.1	221.9
35	SANTA CLARA	1,591,939	3,451.7	216.8	209.6	224.1
36	SAN JOAQUIN	587,166	1,347.3	229.5	217.2	241.7
37	KERN	697,086	1,613.3	231.4	220.1	242.7
38	FRESNO	775,109	1,797.7	231.9	221.2	242.6
39	LAKE	55,002	128.0	232.7	192.4	273.0
40	SAN MATEO	645,386	1,504.7	233.1	221.4	244.9
41	MENDOCINO	74,471	179.3	240.8	205.6	276.1
42	CONTRA COSTA	939,608	2,412.0	256.7	246.5	266.9
43	ORANGE	2,645,983	7,184.0	271.5	265.2	277.8
44	AMADOR	33,383	97.7	292.6	237.4	356.7
45	SONOMA	430,520	1,377.0	319.8	303.0	336.7
46	SACRAMENTO	1,228,866	3,971.3	323.2	313.1	333.2
47	SOLANO	359,412	1,263.3	351.5	332.1	370.9
48	RIVERSIDE	1,908,878	6,895.3	361.2	352.7	369.8
49	MARIN	223,957	876.0	391.1	365.2	417.0
	ALPINE	1,010	<11.0	NA *	<0.1	431.5
	COLUSA	17,899	<11.0	NA *	7.0	59.9
	MODOC	8,236	<11.0	NA *	2.9	87.7
	MONO	11,756	<11.0	NA *	12.2	95.2
	SIERRA	2,828	<11.0	NA *	38.5	362.1
	CALIFORNIA	32,424,475	128,937.3	397.7	395.5	399.8
50	ALAMEDA	1,369,314	6,179.3	451.3	440.0	462.5
51	SAN DIEGO	2,702,652	13,167.3	487.2	478.9	495.5
52	LOS ANGELES	8,512,410	50,722.3	595.9	590.7	601.0
53	SAN FRANCISCO	769,696	13,718.0	1,782.3	1,752.4	1,812.1

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result,

suppression and masking have been applied to this tabular data. (NA) Not Applicable refers to the Healthy People 2020 National Objectives only.

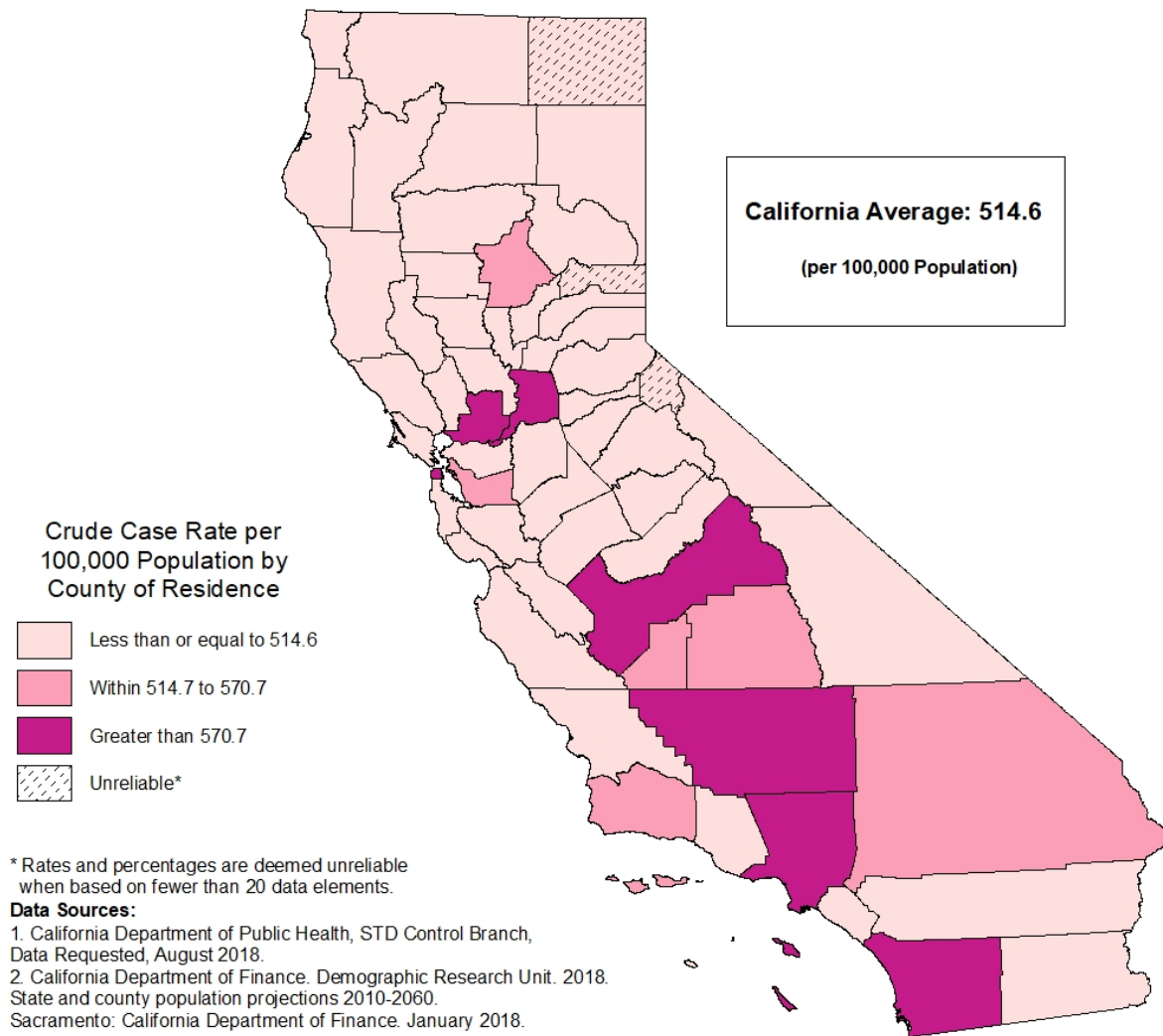
Note: Counties were rank ordered by increasing case rate. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources: 1. California Department of Public Health, Office of AIDS, Surveillance Section, Data Requested, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

REPORTED INCIDENCE OF CHLAMYDIA, 2015-2017



The crude case rate of reported incidence of chlamydia for California was 514.6 cases per 100,000 population, or approximately one reported incidence of chlamydia for every 194.3 persons. The crude case rate for California was based on a 2015 through 2017 three-year average number of reported incidence of chlamydia cases equaling 202,311.3 and a population count of 39,312,207 as of July 1, 2016.

Among counties with reliable rates, the crude case rate of reported incidence of chlamydia ranged from 954.7 in San Francisco County to 166.9 in Calaveras County, a factor of 5.7 to 1.

Prevalence data is not available in all California counties to evaluate the Healthy People 2020 National Objective STD-1, as the Healthy People objective is restricted to females ages 15 to 24 years old and identified at a family planning clinic, and males and females under 24 years old who participate in a national job training program.

Two counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the three-year average case count and crude case rate were suppressed. See technical notes for more information regarding DDG.

The California crude case rate of reported incidence of chlamydia for the 2012-2014 period was 444.7 per 100,000 population.

**TABLE 21
REPORTED INCIDENCE OF CHLAMYDIA
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: STD-1 NOT APPLICABLE						
1	MODOC	9,506	15.3	161.3 *	90.9	264.6
2	CALAVERAS	44,747	74.7	166.9	131.2	209.3
3	TRINITY	13,492	22.7	168.0	106.1	252.8
4	MARIPOSA	18,057	32.3	179.1	122.7	252.3
5	AMADOR	37,181	75.7	203.5	160.3	254.8
6	SISKIYOU	44,373	96.3	217.1	175.9	265.0
7	MONO	13,801	30.3	219.8	148.6	313.2
8	NEVADA	98,300	230.3	234.3	204.1	264.6
9	TUOLUMNE	54,291	129.0	237.6	196.6	278.6
10	EL DORADO	184,085	439.0	238.5	216.2	260.8
11	PLACER	375,805	982.7	261.5	245.1	277.8
12	COLUSA	22,428	59.7	266.0	202.9	342.7
13	LASSEN	30,599	82.7	270.2	215.1	335.0
14	MARIN	262,706	780.0	296.9	276.1	317.7
15	INYO	18,658	58.0	310.9	236.0	401.9
16	DEL NORTE	26,956	85.7	317.8	254.1	392.6
17	VENTURA	853,673	2,719.0	318.5	306.5	330.5
18	PLUMAS	19,535	64.7	331.0	255.3	422.2
19	SAN BENITO	58,010	193.3	333.3	286.3	380.3
20	NAPA	141,569	478.3	337.9	307.6	368.2
21	SAN MATEO	768,507	2,610.7	339.7	326.7	352.7
22	SUTTER	98,208	335.3	341.5	304.9	378.0
23	TEHAMA	64,158	224.0	349.1	303.4	394.9
24	SHASTA	177,631	626.3	352.6	325.0	380.2
25	GLENN	29,084	103.7	356.4	287.8	425.1
26	YUBA	76,138	278.7	366.0	323.0	409.0
27	SANTA CLARA	1,932,827	7,143.3	369.6	361.0	378.2
28	SANTA CRUZ	275,754	1,027.7	372.7	349.9	395.5
29	SONOMA	503,152	1,938.3	385.2	368.1	402.4
30	ORANGE	3,179,122	12,756.3	401.3	394.3	408.2
31	MENDOCINO	88,779	359.0	404.4	362.5	446.2
32	MERCED	272,286	1,118.3	410.7	386.6	434.8
33	LAKE	64,712	267.0	412.6	363.1	462.1
34	RIVERSIDE	2,359,588	9,854.0	417.6	409.4	425.9
35	SAN LUIS OBISPO	278,080	1,162.7	418.1	394.1	442.1
36	MONTEREY	439,945	1,915.7	435.4	415.9	454.9
37	YOLO	216,726	952.0	439.3	411.4	467.2
38	STANISLAUS	543,592	2,483.0	456.8	438.8	474.7
39	CONTRA COSTA	1,129,332	5,226.0	462.8	450.2	475.3
40	IMPERIAL	186,520	864.0	463.2	432.3	494.1
41	MADERA	155,518	773.7	497.5	462.4	532.5
42	HUMBOLDT	135,884	695.0	511.5	473.4	549.5
43	SAN JOAQUIN	738,343	3,782.3	512.3	495.9	528.6
	ALPINE	1,128	<11.0	NA *	127.7	992.7
	SIERRA	3,141	<11.0	NA *	45.8	356.5
	CALIFORNIA	39,312,207	202,311.3	514.6	512.4	516.9
44	ALAMEDA	1,637,176	8,478.3	517.9	506.8	528.9
45	TULARE	467,960	2,455.0	524.6	503.9	545.4
46	SANTA BARBARA	447,309	2,351.0	525.6	504.3	546.8
47	BUTTE	224,761	1,210.0	538.3	508.0	568.7
48	KINGS	149,172	816.0	547.0	509.5	584.6
49	SAN BERNARDINO	2,143,578	11,916.3	555.9	545.9	565.9
50	SOLANO	433,412	2,473.7	570.7	548.3	593.2
51	SAN DIEGO	3,295,816	19,049.7	578.0	569.8	586.2
52	LOS ANGELES	10,215,103	60,210.0	589.4	584.7	594.1
53	SACRAMENTO	1,503,536	8,910.0	592.6	580.3	604.9
54	FRESNO	988,072	6,515.7	659.4	643.4	675.4
55	KERN	887,922	6,440.0	725.3	707.6	743.0
56	SAN FRANCISCO	872,463	8,329.7	954.7	934.2	975.2

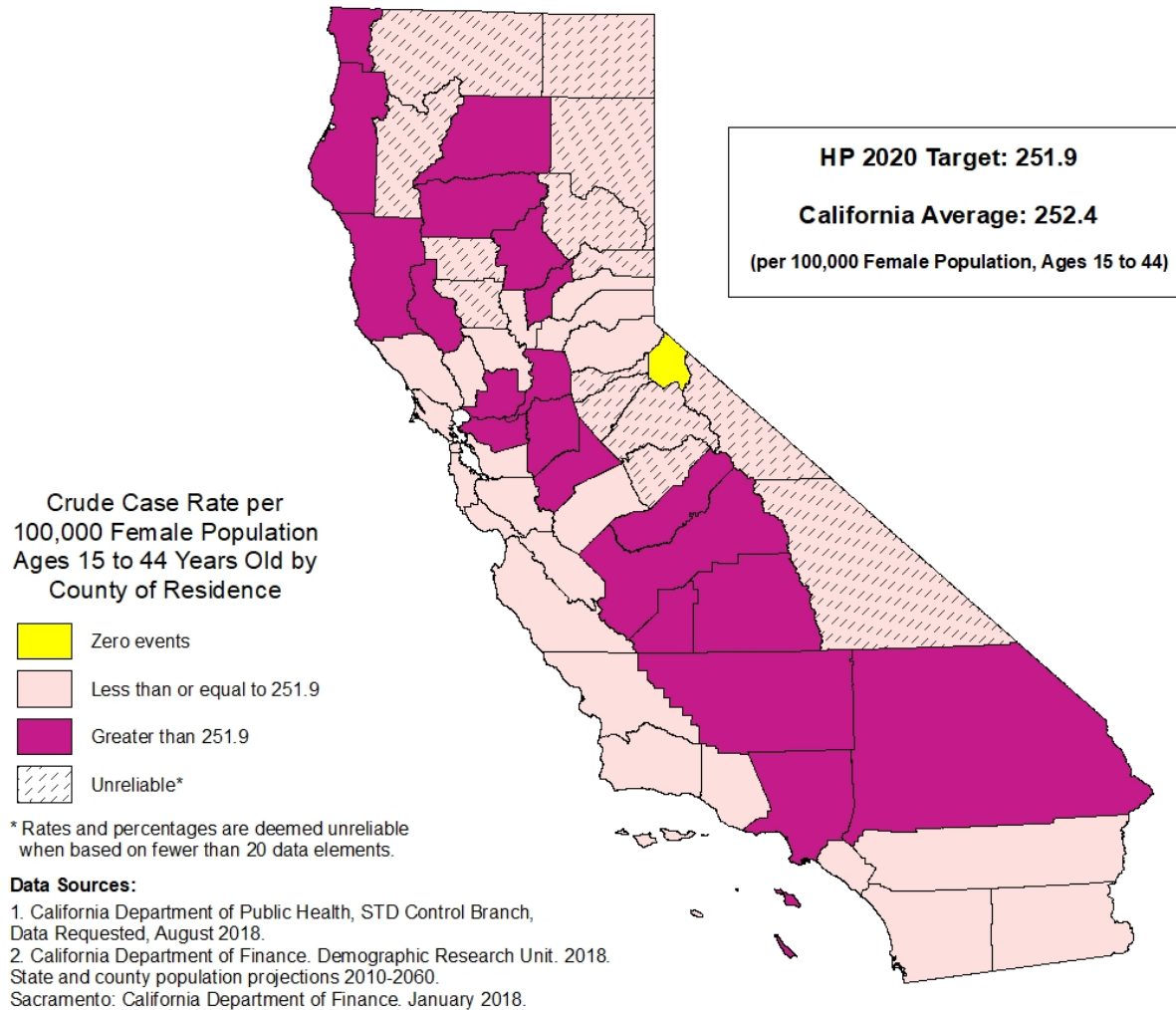
* Rates are deemed unreliable when based on fewer than 20 data elements.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. Not Applicable (NA) refers to the Healthy People 2020 National Objectives only.

Note: Counties were rank ordered by increasing case rate. DDG suppressions are listed alphabetically. See technical notes for more information.
Sources: 1. California Department of Public Health, STD Control Branch, Data Requested, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.
Sacramento: California Department of Finance. January 2018.

REPORTED INCIDENCE OF GONORRHEA AMONG FEMALES 15 TO 44 YEARS OLD, 2015-2017



The crude case rate of reported incidence of gonorrhea among females (FG-Cases), ages 15 to 44 years old for California was 252.4 cases per 100,000 female population or approximately one reported incidence of gonorrhea for every 396.3 females in the corresponding age group. The crude case rate for California was based on a three-year average number of reported incidence of FG-Cases, equaling 19,980.7 and a corresponding female population count of 7,917,821 as of July 1, 2016.

Among counties with reliable rates, the crude case rate ranged from 885.7 in Lake County to 99.4 in San Mateo County, a factor of 8.9 to 1.

Twenty-three counties with reliable crude case rates and California as a whole met the Healthy People 2020 National Objective STD-6.1 of no more than 251.9 new reported FG-Cases per 100,000 female population. An additional fourteen counties with unreliable rates and one county with zero recorded incidences of FG-Cases met the objective.

Twelve counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the three-year average case count and crude case rate were suppressed. See technical notes for more information regarding DDG.

The California crude case rate of reported incidence of FG-Cases for the 2012-2014 period was 171.5 per 100,000 female population in the corresponding age group.

**TABLE 22F
REPORTED INCIDENCE OF GONORRHEA AMONG FEMALES 15 TO 44 YEARS OLD
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 FEMALE POPULATION 15 TO 44 YRS OLD	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
1	ALPINE	164	0.0	-	-	-
2	SAN MATEO	141,825	141.0	99.4	83.0	115.8
3	NAPA	25,950	32.0	123.3	84.3	174.1
4	EL DORADO	29,880	40.0	133.9	95.6	182.3
5	MARIN	38,918	53.3	137.0	102.8	179.1
6	PLACER	67,445	96.0	142.3	115.3	173.8
7	NEVADA	14,744	21.0	142.4	88.2	217.7
8	ORANGE	625,552	894.3	143.0	133.6	152.3
9	MONTEREY	86,354	130.0	150.5	124.7	176.4
10	SANTA BARBARA	93,075	141.0	151.5	126.5	176.5
11	SAN LUIS OBISPO	49,695	76.7	154.3	121.7	192.9
12	SANTA CLARA	380,773	589.7	154.9	142.4	167.4
13	VENTURA	162,975	254.0	155.9	136.7	175.0
14	SANTA CRUZ	54,841	89.7	163.5	131.4	201.0
15	YOLO	52,826	87.3	165.3	132.5	203.8
16	SONOMA	90,580	156.0	172.2	145.2	199.2
17	IMPERIAL	35,438	66.3	187.2	144.9	238.0
18	TUOLUMNE	7,605	14.3	188.5 *	103.9	314.4
19	SAN DIEGO	654,055	1,266.0	193.6	182.9	204.2
20	RIVERSIDE	473,906	956.0	201.7	188.9	214.5
21	GLENN	5,493	11.3	206.3 *	104.2	366.1
22	SAN BENITO	11,393	23.7	207.7	132.6	309.9
23	SUTTER	19,292	45.7	236.7	173.1	316.1
24	SAN FRANCISCO	198,064	470.0	237.3	215.8	258.8
25	MERCED	57,612	144.7	251.1	210.2	292.0
26	ALAMEDA	349,522	878.3	251.3	234.7	267.9
	AMADOR	4,787	<11.0	M *	105.0	393.2
	CALAVERAS	6,252	<11.0	M *	45.0	230.7
	COLUSA	4,267	<11.0	M *	42.5	284.4
	INYO	2,857	<11.0	M *	21.7	306.9
	LASSEN	3,345	<11.0	M *	18.5	262.1
	MARIPOSA	2,559	<11.0	M *	36.1	381.3
	MODOC	1,457	<11.0	M *	0.2	341.9
	MONO	2,466	<11.0	M *	1.0	225.9
	PLUMAS	2,778	<11.0	M *	22.3	315.6
	SIERRA	396	<11.0	M *	0.9	1257.8
	SISKIYOU	6,672	<11.0	M *	75.3	282.1
	TRINITY	1,907	<11.0	M *	32.4	459.7
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: STD-6.1				251.9		
	CALIFORNIA	7,917,821	19,980.7	252.4	248.9	255.8
27	STANISLAUS	111,660	305.0	273.2	242.5	303.8
28	LOS ANGELES	2,131,052	5,909.7	277.3	270.2	284.4
29	CONTRA COSTA	213,188	594.0	278.6	256.2	301.0
30	YUBA	15,355	46.7	303.9	223.0	404.6
31	MADERA	33,318	104.0	312.1	252.2	372.1
32	BUTTE	45,411	142.0	312.7	261.3	364.1
33	TULARE	95,931	306.0	319.0	283.2	354.7
34	SAN BERNARDINO	449,892	1,521.3	338.2	321.2	355.1
35	HUMBOLDT	26,792	91.7	342.1	275.7	419.8
36	KINGS	28,280	99.0	350.1	284.5	426.2
37	SAN JOAQUIN	149,079	532.3	357.1	326.7	387.4
38	SOLANO	82,828	306.7	370.2	328.8	411.7
39	TEHAMA	11,282	43.0	381.1	275.8	513.4
40	SACRAMENTO	309,460	1,208.3	390.5	368.4	412.5
41	KERN	179,718	753.7	419.4	389.4	449.3
42	SHASTA	31,168	134.3	431.0	358.1	503.9
43	MENDOCINO	14,920	67.3	451.3	350.0	572.8
44	FRESNO	206,524	972.3	470.8	441.2	500.4
45	DEL NORTE	4,044	23.7	585.2	373.7	873.2
46	LAKE	10,199	90.3	885.7	712.5	1088.3

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. Met (M) refers to the Healthy People 2020 National Objectives only.

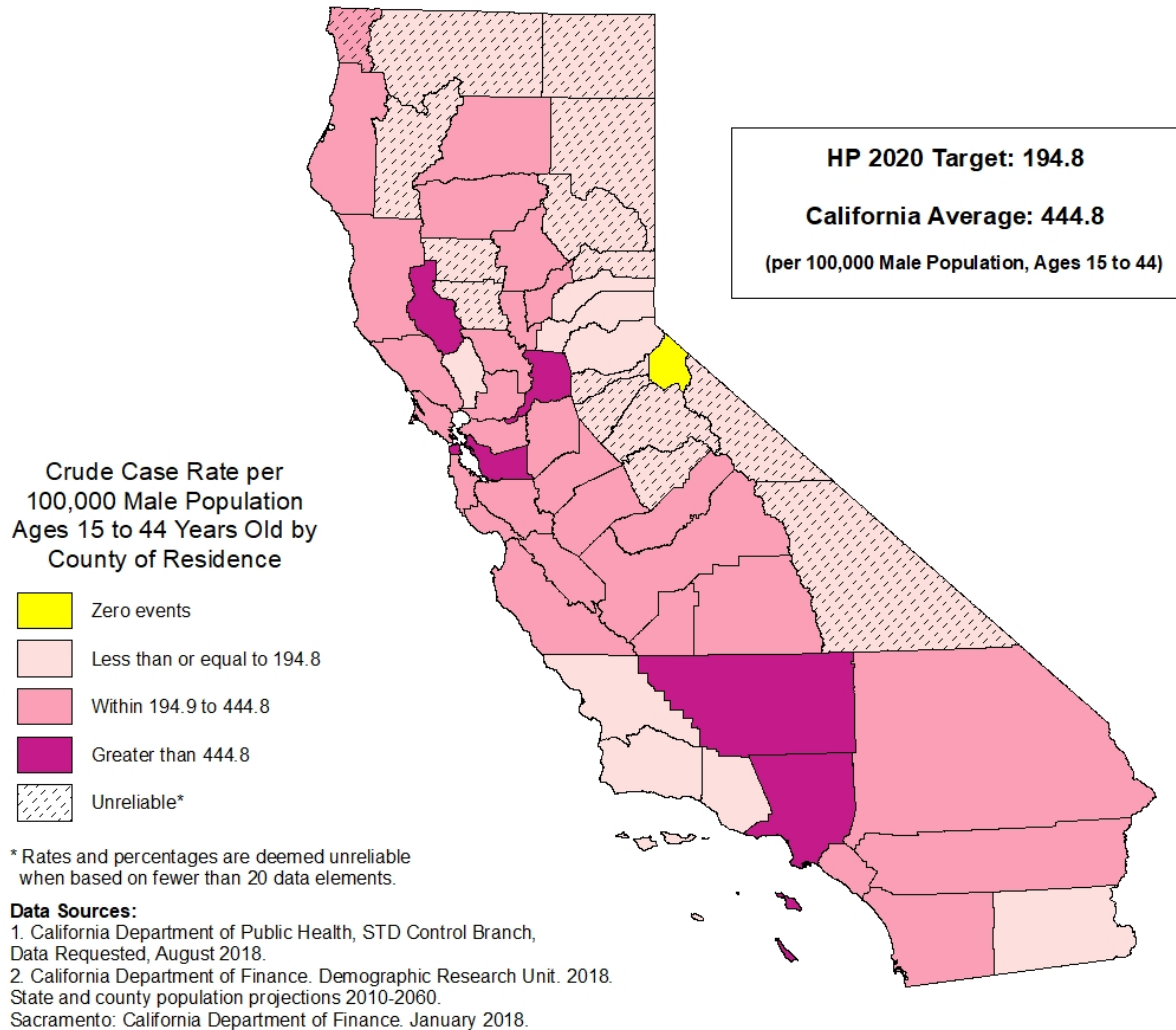
Note: Counties were rank ordered by increasing case rate. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources: 1. California Department of Public Health, STD Control Branch, Data Requested, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

REPORTED INCIDENCE OF GONORRHEA AMONG MALES 15 TO 44 YEARS OLD, 2015-2017



The crude case rate of reported incidence of gonorrhea among males (MG-Cases), ages 15 to 44 years old for California was 444.8 cases per 100,000 male population, ages 15 to 44 years old, or approximately one reported incidence of gonorrhea for every 224.8 males in the corresponding age group. The crude case rate for California was based on a 2015 through 2017 three-year average number of reported incidence of MG-Cases, equaling 37,025.0 and a corresponding male population count of 8,323,182 as of July 1, 2016.

Among counties with reliable rates, the crude case rate ranged from 1,799.9 in San Francisco County to 130.1 in El Dorado County, a factor of 13.8 to 1.

Eight counties with reliable crude case rates met the Healthy People 2020 National Objective STD-6.2 of no more than 194.8 new reported MG-Cases per 100,000 male population. An additional fourteen counties with unreliable rates and one county with zero reported incidences of MG-Cases met the objective. California's crude case rate for reported incidences of MG-Cases did not meet the national objective.

Thirteen counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the three-year average case count and crude case rate were suppressed. See technical notes for more information regarding DDG.

The California crude case rate of reported incidence of MG-Cases for the 2012-2014 period was 255.2 per 100,000 male population in the corresponding age group.

**TABLE 22M
REPORTED INCIDENCE OF GONORRHEA AMONG MALES 15 TO 44 YEARS OLD
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 MALE POPULATION 15 TO 44 YRS OLD	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
1	ALPINE	154	0.0	-	-	-
2	EL DORADO	32,276	42.0	130.1	93.8	175.9
3	IMPERIAL	41,538	59.3	142.8	108.8	184.1
4	NEVADA	16,268	27.7	170.1	112.7	246.3
5	TUOLUMNE	10,293	17.7	171.6 *	101.2	272.4
6	SAN LUIS OBISPO	59,743	103.0	172.4	139.1	205.7
7	SANTA BARBARA	102,816	180.0	175.1	149.5	200.6
8	PLACER	70,376	123.7	175.7	144.8	206.7
9	NAPA	28,117	51.0	181.4	135.1	238.5
10	VENTURA	172,588	331.7	192.2	171.5	212.9
	AMADOR	7,006	<11.0	M *	23.2	166.5
	CALAVERAS	6,843	<11.0	M *	53.7	236.8
	COLUSA	4,666	<11.0	M *	55.9	299.4
	GLENN	5,877	<11.0	M *	44.4	237.7
	INYO	3,092	<11.0	M *	15.5	267.2
	LASSEN	9,384	<11.0	M *	23.5	139.2
	MARIPOSA	2,762	<11.0	M *	39.5	370.8
	MODOC	1,583	<11.0	M *	1.6	352.0
	MONO	2,958	<11.0	M *	12.0	261.9
	PLUMAS	2,999	<11.0	M *	36.3	341.5
	SIERRA	439	<11.0	M *	0.8	1134.6
	SISKIYOU	7,326	<11.0	M *	50.1	221.2
	TRINITY	2,087	<11.0	M *	11.6	346.2
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: STD-6.2				194.8		
11	MONTEREY	99,333	195.7	197.0	169.4	224.6
12	MADERA	31,348	69.0	220.1	171.3	278.6
13	SANTA CRUZ	57,988	127.7	220.2	182.0	258.4
14	MARIN	42,769	95.3	222.9	180.4	272.4
15	SUTTER	20,166	50.0	247.9	184.0	326.9
16	YOLO	51,454	128.0	248.8	205.7	291.9
17	SAN BENITO	11,880	30.0	252.5	170.4	360.5
18	MERCED	61,412	167.0	271.9	230.7	313.2
19	ORANGE	650,990	1,773.0	272.4	259.7	285.0
20	KINGS	38,644	107.0	276.9	224.4	329.4
21	RIVERSIDE	488,952	1,365.0	279.2	264.4	294.0
22	SONOMA	96,747	271.0	280.1	246.8	313.5
23	BUTTE	49,928	142.7	285.7	238.9	332.6
24	SAN MATEO	147,977	426.7	288.3	261.0	315.7
25	SANTA CLARA	410,075	1,191.3	290.5	274.0	307.0
26	DEL NORTE	6,084	18.0	295.9 *	175.3	467.6
27	YUBA	16,006	49.0	306.1	226.5	404.7
28	TULARE	100,322	311.3	310.3	275.9	344.8
29	TEHAMA	11,912	37.0	310.6	218.7	428.1
30	STANISLAUS	115,379	377.7	327.3	294.3	360.3
31	MENDOCINO	16,437	56.7	344.8	260.9	447.0
32	SAN BERNARDINO	464,504	1,617.7	348.3	331.3	365.2
33	CONTRA COSTA	215,483	772.0	358.3	333.0	383.5
34	SAN JOAQUIN	156,481	594.0	379.6	349.1	410.1
35	SHASTA	32,525	125.0	384.3	316.9	451.7
36	SOLANO	88,218	352.3	399.4	357.7	441.1
37	FRESNO	216,794	880.3	406.1	379.2	432.9
38	SAN DIEGO	719,180	2,940.3	408.8	394.1	423.6
39	HUMBOLDT	29,033	125.0	430.5	355.1	506.0
	CALIFORNIA	8,323,182	37,025.0	444.8	440.3	449.4
40	SACRAMENTO	316,249	1,464.0	462.9	439.2	486.6
41	KERN	205,132	985.3	480.3	450.3	510.3
42	ALAMEDA	349,213	1,891.3	541.6	517.2	566.0
43	LOS ANGELES	2,199,054	13,561.0	616.7	606.3	627.1
44	LAKE	11,052	75.3	681.6	536.4	854.0
45	SAN FRANCISCO	203,270	3,658.7	1799.9	1741.6	1858.2

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. Met (M) refers to the Healthy People 2020 National Objectives only.

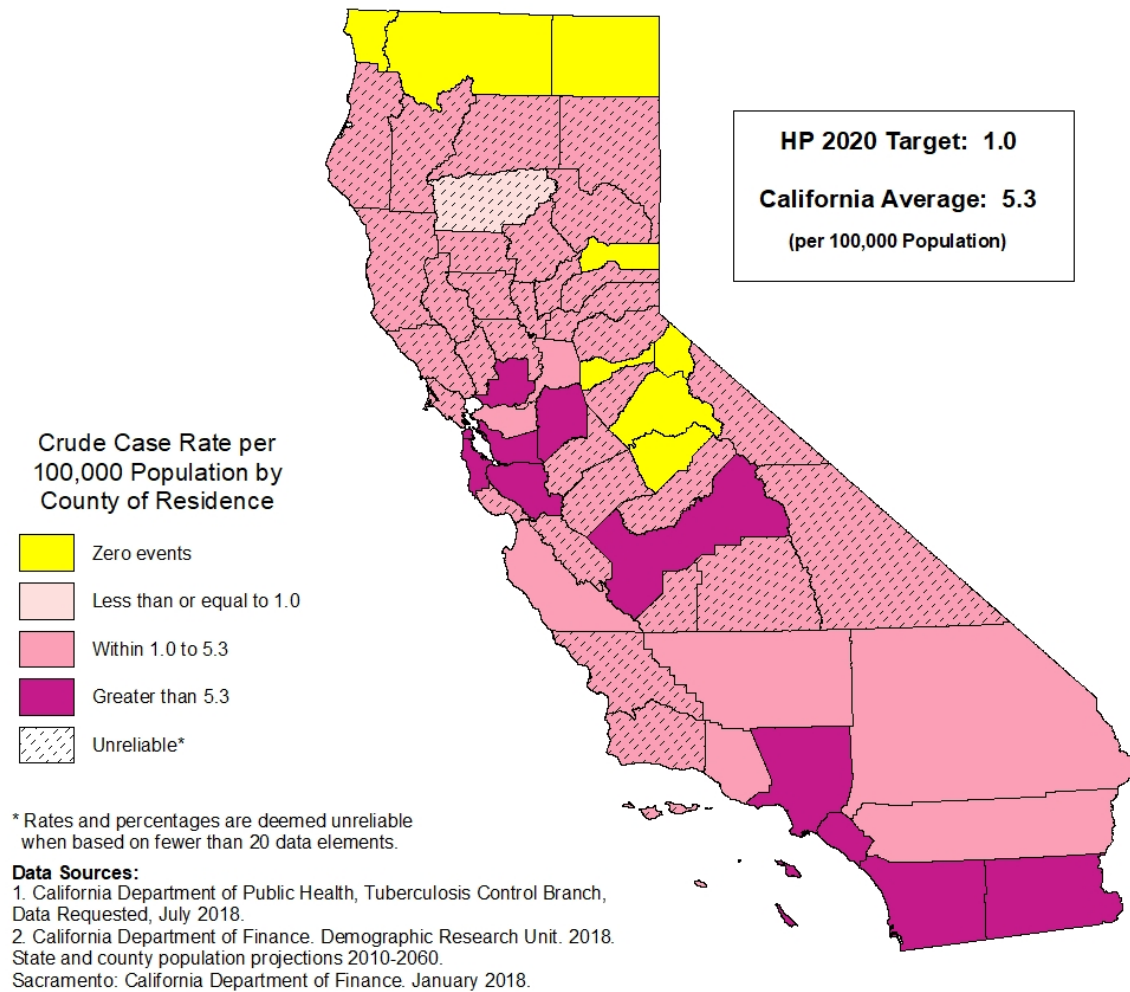
Note: Counties were rank ordered by increasing case rate. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources: 1. California Department of Public Health, STD Control Branch, Data Requested, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

REPORTED INCIDENCE OF TUBERCULOSIS, 2015-2017



The crude case rate of reported incidence of tuberculosis for California was 5.3 cases per 100,000 population, or approximately one reported incidence of tuberculosis for every 18,879.2 persons. The crude case rate for California was based on a 2015 through 2017 three-year average number of reported incidence of tuberculosis cases equaling 2,082.3 and a population count of 39,312,207 as of July 1, 2016. Among counties with reliable rates, the crude case rate of reported incidence of tuberculosis ranged from 20.6 in Imperial County to 2.3 in Riverside County, a factor of 9.0 to 1.

Zero counties with reliable crude rates met the Healthy People 2020 National Objective IID-29 of no more than 1.0 new reported incidence of tuberculosis case per 100,000 population. One county with an unreliable rate and eight counties with zero reported incidences of tuberculosis cases met the objective. California's crude case rate for reported incidences of tuberculosis did not meet the national objective.

The California crude case rate of reported incidence of tuberculosis for the 2012-2014 period was 5.6 per 100,000 population.

TABLE 23
REPORTED INCIDENCE OF TUBERCULOSIS
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
1	TUOLUMNE	54,291	0.0	-	-	-
2	SISKIYOU	44,373	0.0	-	-	-
3	AMADOR	37,181	0.0	-	-	-
4	DEL NORTE	26,956	0.0	-	-	-
5	MARIPOSA	18,057	0.0	-	-	-
6	MODOC	9,506	0.0	-	-	-
7	SIERRA	3,141	0.0	-	-	-
8	ALPINE	1,128	0.0	-	-	-
9	TEHAMA	64,158	0.3	0.5 *	<0.1	6.8
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: IID-29				1.0		
10	SAN LUIS OBISPO	278,080	3.0	1.1 *	0.2	3.2
11	LASSEN	30,599	0.3	1.1 *	<0.1	14.2
12	SAN BENITO	58,010	0.7	1.1 *	<0.1	8.6
13	BUTTE	224,761	2.7	1.2 *	0.2	3.7
14	SHASTA	177,631	2.3	1.3 *	0.2	4.4
15	NEVADA	98,300	1.3	1.4 *	0.1	6.2
16	COLUSA	22,428	0.3	1.5 *	<0.1	19.4
17	MENDOCINO	88,779	1.3	1.5 *	<0.1	6.9
18	EL DORADO	184,085	3.0	1.6 *	0.3	4.8
19	SANTA CRUZ	275,754	4.7	1.7 *	0.5	4.1
20	PLUMAS	19,535	0.3	1.7 *	<0.1	22.3
21	PLACER	375,805	6.7	1.8 *	0.7	3.7
22	INYO	18,658	0.3	1.8 *	<0.1	23.4
23	SONOMA	503,152	9.3	1.9 *	0.9	3.5
24	HUMBOLDT	135,884	2.7	2.0 *	0.4	6.1
25	RIVERSIDE	2,359,588	54.0	2.3	1.7	3.0
26	GLENN	29,084	0.7	2.3 *	<0.1	17.1
27	MONO	13,801	0.3	2.4 *	<0.1	31.6
28	KINGS	149,172	3.7	2.5 *	0.6	6.5
29	TRINITY	13,492	0.3	2.5 *	<0.1	32.3
30	MADERA	155,518	4.0	2.6 *	0.7	6.6
31	STANISLAUS	543,592	14.0	2.6 *	1.4	4.3
32	NAPA	141,569	3.7	2.6 *	0.7	6.9
33	YUBA	76,138	2.0	2.6 *	0.3	9.5
34	MARIN	262,706	7.0	2.7 *	1.1	5.5
35	KERN	887,922	24.7	2.8	1.8	4.1
36	SANTA BARBARA	447,309	12.7	2.8 *	1.5	4.9
37	SAN BERNARDINO	2,143,578	63.3	3.0	2.3	3.8
38	CALAVERAS	44,747	1.3	3.0 *	0.2	13.7
39	LAKE	64,712	2.0	3.1 *	0.4	11.2
40	VENTURA	853,673	27.3	3.2	2.1	4.6
41	TULARE	467,960	17.7	3.8 *	2.2	6.0
42	YOLO	216,726	8.7	4.0 *	1.8	7.7
43	SUTTER	98,208	4.0	4.1 *	1.1	10.4
44	MERCED	272,286	11.3	4.2 *	2.1	7.4
45	CONTRA COSTA	1,129,332	48.7	4.3	3.2	5.7
46	SACRAMENTO	1,503,536	65.0	4.3	3.3	5.5
47	MONTEREY	439,945	20.0	4.5	2.8	7.0
	CALIFORNIA	39,312,207	2,082.3	5.3	5.1	5.5
48	ORANGE	3,179,122	171.0	5.4	4.6	6.2
49	FRESNO	988,072	54.7	5.5	4.2	7.2
50	SOLANO	433,412	24.3	5.6	3.6	8.3
51	LOS ANGELES	10,215,103	590.0	5.8	5.3	6.2
52	SAN JOAQUIN	738,343	51.0	6.9	5.1	9.1
53	SAN MATEO	768,507	54.7	7.1	5.4	9.3
54	SAN DIEGO	3,295,816	243.0	7.4	6.4	8.3
55	ALAMEDA	1,637,176	137.7	8.4	7.0	9.8
56	SANTA CLARA	1,932,827	181.0	9.4	8.0	10.7
57	SAN FRANCISCO	872,463	101.0	11.6	9.3	13.8
58	IMPERIAL	186,520	38.3	20.6	14.6	28.2

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

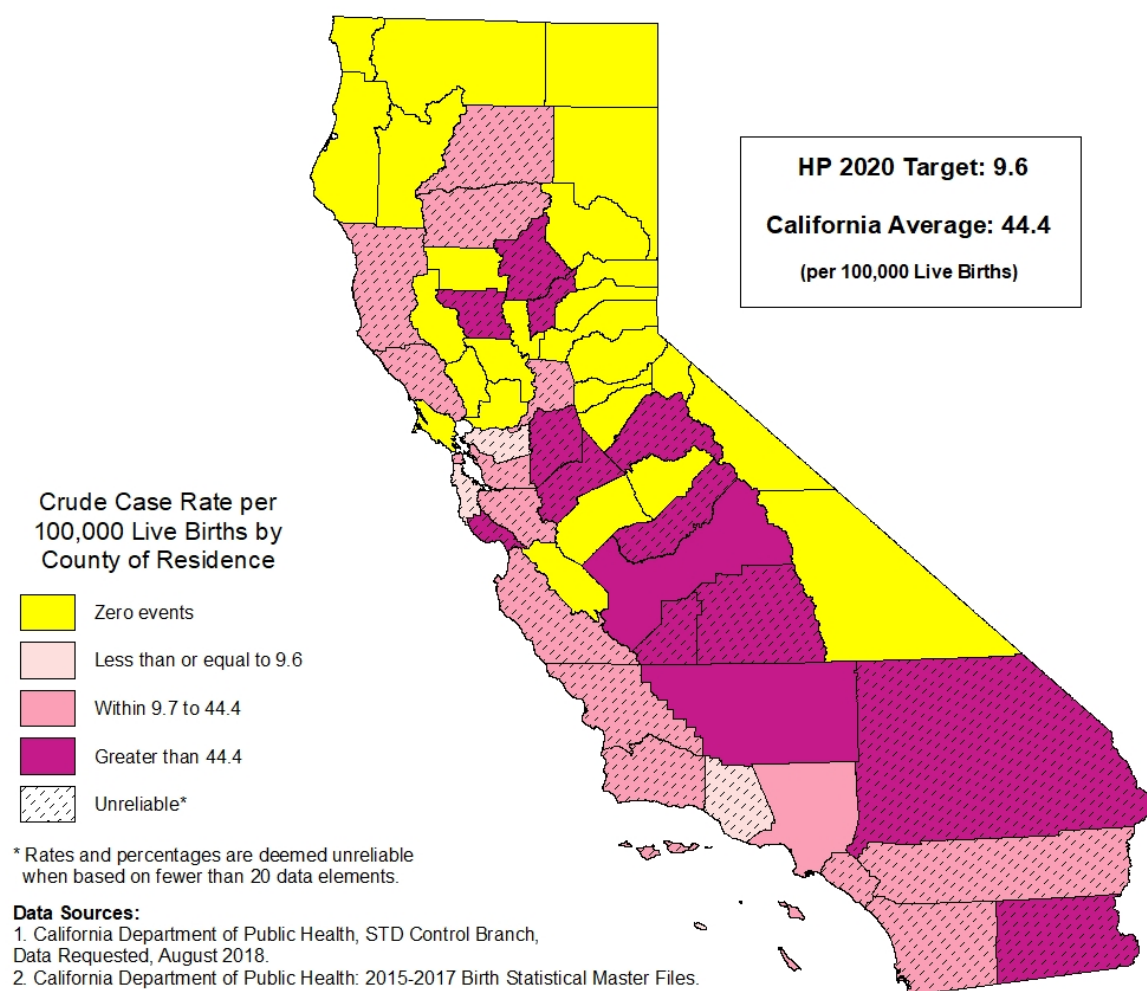
Note: Counties were rank ordered first by increasing case rate (calculated to 15 decimal places), second by decreasing size of the population.

Sources: 1. California Department of Public Health, Tuberculosis Control Branch, Data Requested, July 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

REPORTED INCIDENCE OF CONGENITAL SYPHILIS, 2015-2017



The crude case rate of reported incidence of congenital syphilis for California was 44.4 cases per 100,000 live births or approximately one reported incidence of congenital syphilis for every 2,252.0 live births. The crude case rate for California was based on a 2015 through 2017 three-year average number of reported incidence of congenital syphilis equaling 215.0 and a corresponding average count of live births 484,173.3 as of July 1, 2016.

Among counties with reliable rates, the crude case rate ranged from 29.4 in Los Angeles County to 341.9 in Fresno County, a factor of 11.6 to 1.

Zero counties with reliable crude case rates met the Healthy People (HP) 2020 National Objective STD-8 of no more than 9.6 reported incidences of congenital syphilis per 100,000 live births. California did not meet the HP 2020 National Objective. Three counties with unreliable rates and twenty-six counties with zero reported incidences of congenital syphilis met the objective.

Twenty-seven counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, three-year average case counts and crude case rates were suppressed. See technical notes for more information regarding DDG.

The California crude case rate of congenital syphilis for the 2012-2014 period was 12.9 per 100,000 live births.

**TABLE 23C
REPORTED INCIDENCE OF CONGENITAL SYPHILIS
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2015-2017 LIVE BIRTHS (AVERAGE)	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
1	SOLANO	5,175.7	0.0	-	-	-
2	MERCED	4,141.3	0.0	-	-	-
3	PLACER	3,724.0	0.0	-	-	-
4	YOLO	2,365.3	0.0	-	-	-
5	MARIN	2,260.3	0.0	-	-	-
6	EL DORADO	1,590.0	0.0	-	-	-
7	HUMBOLDT	1,436.3	0.0	-	-	-
8	NAPA	1,384.7	0.0	-	-	-
9	SUTTER	1,311.0	0.0	-	-	-
10	NEVADA	818.7	0.0	-	-	-
11	SAN BENITO	744.0	0.0	-	-	-
12	LAKE	741.0	0.0	-	-	-
13	SISKIYOU	458.0	0.0	-	-	-
14	CALAVERAS	391.7	0.0	-	-	-
15	GLENN	377.7	0.0	-	-	-
16	AMADOR	305.0	0.0	-	-	-
17	LASSEN	300.3	0.0	-	-	-
18	DEL NORTE	293.0	0.0	-	-	-
19	INYO	199.0	0.0	-	-	-
20	PLUMAS	168.3	0.0	-	-	-
21	MARIPOSA	151.7	0.0	-	-	-
22	MONO	143.3	0.0	-	-	-
23	TRINITY	112.3	0.0	-	-	-
24	MODOC	88.3	0.0	-	-	-
25	SIERRA	31.7	0.0	-	-	-
26	ALPINE	5.7	0.0	-	-	-
	CONTRA COSTA	12,376.3	<11.0	M *	0.2	45.0
	SAN MATEO	8,862.3	<11.0	M *	<0.1	49.2
	VENTURA	9,658.3	<11.0	M *	<0.1	51.6
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: STD-8				9.6		
27	LOS ANGELES	121,410.0	35.7	29.4	20.5	40.7
	CALIFORNIA	484,173.3	215.0	44.4	38.5	50.3
28	SAN BERNARDINO	30,480.3	19.0	62.3 *	37.5	97.3
29	SAN JOAQUIN	10,061.3	13.0	129.2 *	68.8	220.9
30	KERN	13,610.7	29.7	218.0	146.7	311.8
31	FRESNO	15,014.3	51.3	341.9	254.8	449.1
	ALAMEDA	19,304.7	<11.0	NM *	9.4	62.9
	BUTTE	2,440.7	<11.0	NM *	6.0	274.1
	COLUSA	302.3	<11.0	NM *	<0.1	1442.0
	IMPERIAL	3,043.7	<11.0	NM *	4.8	219.8
	KINGS	2,299.3	<11.0	NM *	10.5	314.2
	MADERA	2,233.7	<11.0	NM *	21.5	369.9
	MENDOCINO	1,022.7	<11.0	NM *	<0.1	426.2
	MONTEREY	6,153.7	<11.0	NM *	0.4	90.5
	ORANGE	37,712.3	<11.0	NM *	5.3	33.4
	RIVERSIDE	30,357.0	<11.0	NM *	6.0	40.0
	SACRAMENTO	19,409.3	<11.0	NM *	8.4	60.1
	SAN DIEGO	42,650.7	<11.0	NM *	9.6	40.1
	SAN FRANCISCO	8,994.3	<11.0	NM *	0.8	68.3
	SAN LUIS OBISPO	2,600.3	<11.0	NM *	<0.1	167.6
	SANTA BARBARA	5,569.0	<11.0	NM *	2.7	120.1
	SANTA CLARA	22,858.0	<11.0	NM *	3.4	40.5
	SANTA CRUZ	2,768.3	<11.0	NM *	2.7	221.8
	SHASTA	2,043.3	<11.0	NM *	<0.1	213.3
	SONOMA	4,875.0	<11.0	NM *	0.1	102.2
	STANISLAUS	7,670.0	<11.0	NM *	65.5	245.4
	TEHAMA	786.7	<11.0	NM *	<0.1	554.0
	TULARE	7,229.7	<11.0	NM *	10.6	128.2
	TUOLUMNE	464.0	<11.0	NM *	<0.1	939.3
	YUBA	1,192.7	<11.0	NM *	2.1	467.2

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result,

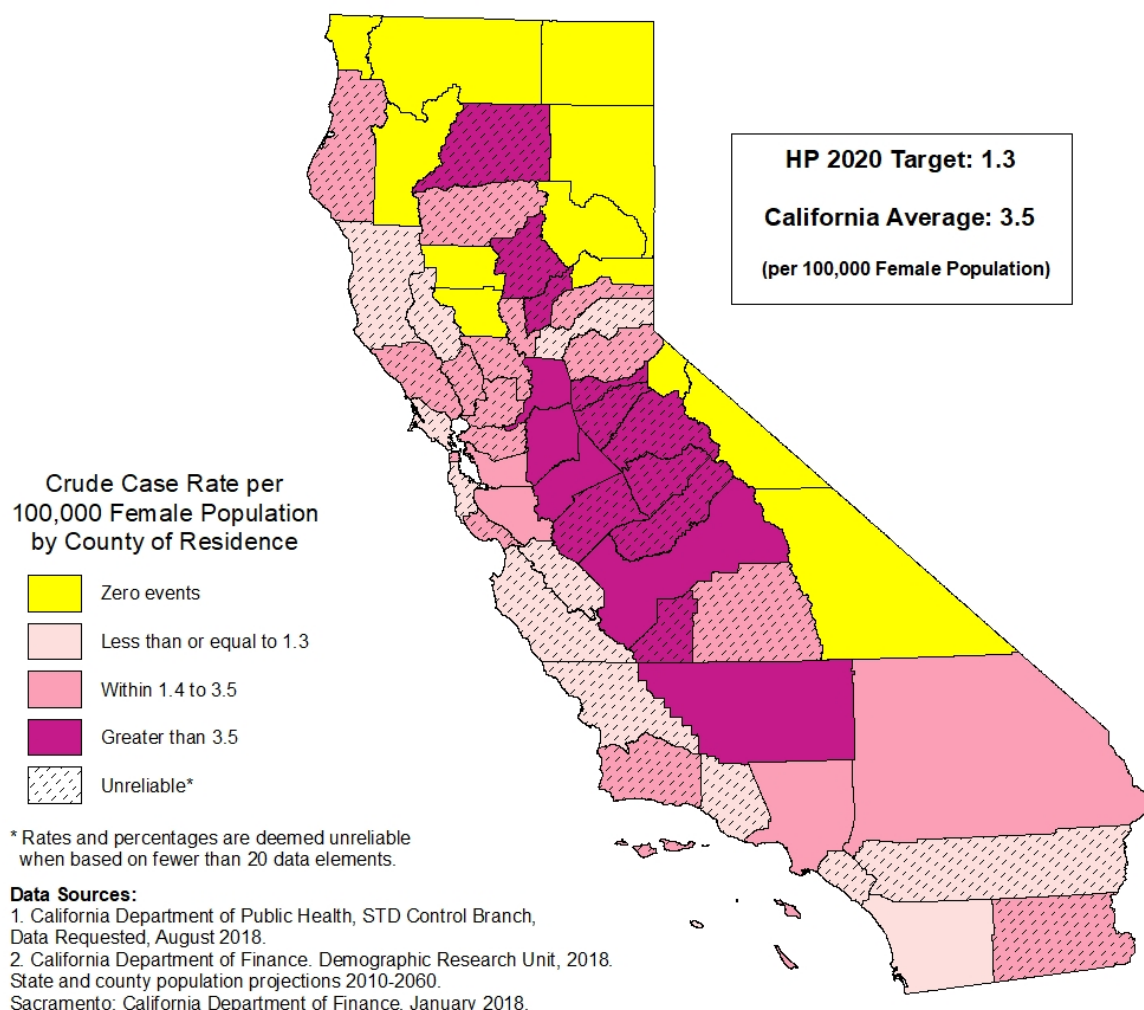
suppression and masking have been applied to this tabular data. Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.

Note: Counties were rank ordered by increasing case rate. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources: 1. California Department of Public Health: STD Control Branch, Data Requested, August 2018.

2. California Department of Public Health: 2015-2017 Birth Statistical Master Files.

REPORTED INCIDENCE OF PRIMARY AND SECONDARY SYPHILIS AMONG FEMALES, 2015-2017



The crude case rate of reported incidence of primary and secondary syphilis among females (FS-Cases) for California was 3.5 cases per 100,000 female population or approximately one reported incidence of syphilis for every 28,610.4 females. The crude case rate for California was based on a 2015 through 2017 three-year average number of reported incidence of FS-Cases, equaling 690.3 and a corresponding female population count of 19,749,757 as of July 1, 2016.

Among counties with reliable rates, the crude case rate ranged from 26.1 in San Joaquin County to 1.3 in San Diego County, a factor of 20.1 to 1.

One county with reliable crude case rates met the Healthy People (HP) 2020 National Objective STD-7.1 of no more than 1.3 reported FS-Cases per 100,000 female population. California did not meet the HP 2020 National Objective. An additional 23 counties with either unreliable rates (n=11) or zero events (n=12) also met or exceeded the HP 2020 National Objective.

Thirty-two counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, three-year average case counts and crude case rates were suppressed. See technical notes for more information regarding DDG.

The California crude case rate of FS-Cases for the 2012-2014 period was 1.1 per 100,000 female population.

**TABLE 23F
REPORTED INCIDENCE OF PRIMARY AND SECONDARY SYPHILIS AMONG FEMALES
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 FEMALE POPULATION	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
1	SISKIYOU	22,280	0.0	-	-	-
2	GLENN	14,370	0.0	-	-	-
3	DEL NORTE	12,463	0.0	-	-	-
4	LASSEN	11,530	0.0	-	-	-
5	COLUSA	10,941	0.0	-	-	-
6	PLUMAS	9,787	0.0	-	-	-
7	INYO	9,239	0.0	-	-	-
8	TRINITY	6,592	0.0	-	-	-
9	MONO	6,502	0.0	-	-	-
10	MODOC	4,769	0.0	-	-	-
11	SIERRA	1,559	0.0	-	-	-
12	ALPINE	553	0.0	-	-	-
13	ORANGE	1,602,227	16.3	1.0 *	0.6	1.6
14	SAN DIEGO	1,639,394	20.7	1.3	0.8	1.9
15	RIVERSIDE	1,185,845	15.7	1.3 *	0.8	2.2
	LAKE	32,371	<11.0	M *	<0.1	13.5
	MARIN	133,112	<11.0	M *	0.1	4.6
	MENDOCINO	44,285	<11.0	M *	<0.1	9.8
	MONTEREY	213,995	<11.0	M *	<0.1	2.9
	PLACER	191,381	<11.0	M *	<0.1	3.2
	SAN BENITO	29,051	<11.0	M *	<0.1	15.0
	SAN LUIS OBISPO	135,915	<11.0	M *	<0.1	4.9
	SAN MATEO	389,691	<11.0	M *	<0.1	2.1
	VENTURA	428,739	<11.0	M *	0.3	2.6
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: STD-7.1				1.3		
16	SANTA CLARA	958,238	21.3	2.2	1.4	3.4
17	LOS ANGELES	5,169,749	122.3	2.4	1.9	2.8
18	SAN BERNARDINO	1,078,446	26.7	2.5	1.6	3.6
19	ALAMEDA	832,826	21.0	2.5	1.6	3.9
20	SAN FRANCISCO	430,647	14.0	3.3 *	1.8	5.5
	CALIFORNIA	19,749,757	690.3	3.5	3.2	3.8
21	SACRAMENTO	765,227	28.3	3.7	2.5	5.3
22	STANISLAUS	274,078	24.7	9.0	5.8	13.3
23	KERN	432,709	65.0	15.0	11.6	19.1
24	MADERA	80,241	13.3	16.6 *	8.9	28.2
25	FRESNO	494,284	115.7	23.4	19.1	27.7
26	SAN JOAQUIN	369,778	96.3	26.1	21.1	31.8
	AMADOR	17,207	<11.0	NM *	0.4	35.7
	BUTTE	113,058	<11.0	NM *	2.9	13.5
	CALAVERAS	22,422	<11.0	NM *	0.1	24.8
	CONTRA COSTA	577,313	<11.0	NM *	0.8	3.1
	EL DORADO	91,654	<11.0	NM *	0.1	6.7
	HUMBOLDT	67,704	<11.0	NM *	0.1	9.1
	IMPERIAL	91,855	<11.0	NM *	0.5	9.0
	KINGS	67,753	<11.0	NM *	3.2	19.3
	MARIPOSA	8,940	<11.0	NM *	<0.1	55.7
	MERCED	134,985	<11.0	NM *	1.2	8.6
	NAPA	70,912	<11.0	NM *	<0.1	7.9
	NEVADA	49,649	<11.0	NM *	0.1	11.2
	SANTA BARBARA	221,860	<11.0	NM *	0.3	4.2
	SANTA CRUZ	137,835	<11.0	NM *	0.9	7.8
	SHASTA	90,433	<11.0	NM *	2.0	13.4
	SOLANO	217,615	<11.0	NM *	1.3	6.6
	SONOMA	255,502	<11.0	NM *	0.4	4.0
	SUTTER	49,298	<11.0	NM *	<0.1	10.1
	TEHAMA	32,318	<11.0	NM *	<0.1	15.4
	TULARE	233,615	<11.0	NM *	0.8	5.2
	TUOLUMNE	26,105	<11.0	NM *	1.8	31.6
	YOLO	111,126	<11.0	NM *	0.1	6.0
	YUBA	37,784	<11.0	NM *	0.2	16.2

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result,

suppression and masking have been applied to this tabular data. Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.

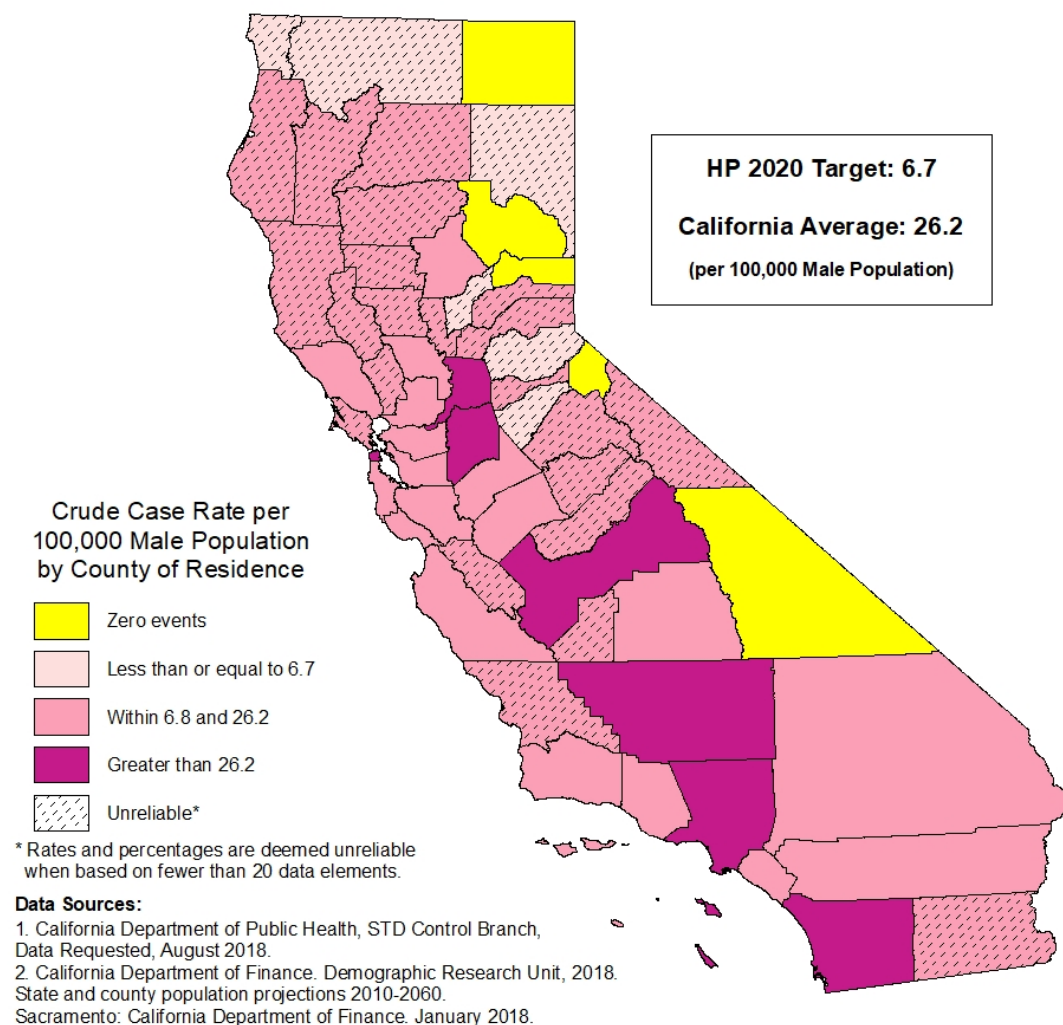
Note: Counties were rank ordered by increasing case rate. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources: 1. California Department of Public Health, STD Control Branch, Data Requested, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

REPORTED INCIDENCE OF PRIMARY AND SECONDARY SYPHILIS AMONG MALES, 2015-2017



The crude case rate of reported incidence of primary and secondary syphilis among males (MS-Cases), for California was 26.2 cases per 100,000 male population, or approximately one reported incidence of syphilis for every 3,813.1 males. The crude case rate for California was based on a 2015 through 2017 three-year average number of reported incidence of MS-Cases, equaling 5,130.3 and a corresponding male population count of 19,562,450 as of July 1, 2016.

Among counties with reliable rates, the crude case rate ranged from 112.2 in San Francisco County to 8.2 in Ventura County, a factor of 13.7 to 1.

Zero counties with reliable crude case rates met the Healthy People (HP) 2020 National Objective STD-7.2 of no more than 6.7 reported MS-Cases per 100,000 male population. There were six counties with unreliable rates and five counties with zero incidences that did meet the HP 2020 National Objective. The statewide crude case rate of MS-Cases did not meet the national objective.

Twenty-one counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the three-year average case counts and crude case rates were suppressed. See technical notes for more information regarding DDG.

The California crude case rate of MS-Cases for the 2012-2014 period was 16.9 per 100,000 male population.

**TABLE 23M
REPORTED INCIDENCE OF PRIMARY AND SECONDARY SYPHILIS AMONG MALES
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2016 MALE POPULATION	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
1	PLUMAS	9,748	0.0	-	-	-
2	INYO	9,419	0.0	-	-	-
3	MODOC	4,737	0.0	-	-	-
4	SIERRA	1,582	0.0	-	-	-
5	ALPINE	575	0.0	-	-	-
	CALAVERAS	22,325	<11.0	M *	0.3	27.5
	DEL NORTE	14,493	<11.0	M *	<0.1	30.1
	EL DORADO	92,431	<11.0	M *	1.8	12.6
	LASSEN	19,069	<11.0	M *	0.1	29.2
	SISKIYOU	22,093	<11.0	M *	0.1	25.2
	YUBA	38,354	<11.0	M *	0.9	20.2
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: STD-7.2				6.7		
6	VENTURA	424,934	35.0	8.2	5.7	11.5
7	SAN LUIS OBISPO	142,165	12.0	8.4 *	4.4	14.7
8	PLACER	184,424	17.0	9.2 *	5.4	14.8
9	TULARE	234,345	29.3	12.5	8.4	17.9
10	IMPERIAL	94,665	12.0	12.7 *	6.6	22.1
11	SANTA BARBARA	225,449	30.3	13.5	9.1	19.2
12	MARIN	129,594	18.0	13.9 *	8.2	22.0
13	SAN BERNARDINO	1,065,132	153.3	14.4	12.1	16.7
14	SAN MATEO	378,816	56.3	14.9	11.2	19.3
15	MONTEREY	225,950	33.7	14.9	10.3	20.9
16	SHASTA	87,198	13.0	14.9 *	7.9	25.5
17	MERCED	137,301	21.3	15.5	9.7	23.7
18	SOLANO	215,797	35.0	16.2	11.3	22.6
19	SONOMA	247,650	40.3	16.3	11.7	22.1
20	CONTRA COSTA	552,019	91.3	16.5	13.3	20.3
21	SANTA CLARA	974,589	166.3	17.1	14.5	19.7
22	ORANGE	1,576,895	294.7	18.7	16.6	20.8
23	YOLO	105,600	20.7	19.6	12.1	30.0
24	KINGS	81,419	16.0	19.7 *	11.2	31.9
25	RIVERSIDE	1,173,743	233.7	19.9	17.4	22.5
26	BUTTE	111,703	22.7	20.3	12.8	30.5
27	SANTA CRUZ	137,919	29.0	21.0	14.1	30.2
28	ALAMEDA	804,350	169.7	21.1	17.9	24.3
29	STANISLAUS	269,514	66.3	24.6	19.0	31.3
30	MADERA	75,277	18.7	24.8 *	14.9	38.9
	CALIFORNIA	19,562,450	5,130.3	26.2	25.5	26.9
31	SACRAMENTO	738,309	218.0	29.5	25.6	33.4
32	SAN DIEGO	1,656,422	515.0	31.1	28.4	33.8
33	LOS ANGELES	5,045,354	1,682.7	33.4	31.8	34.9
34	KERN	455,213	157.0	34.5	29.1	39.9
35	FRESNO	493,788	197.0	39.9	34.3	45.5
36	SAN JOAQUIN	368,565	162.7	44.1	37.4	50.9
37	SAN FRANCISCO	441,816	495.7	112.2	102.3	122.1
	AMADOR	19,974	<11.0	NM *	1.2	36.2
	COLUSA	11,487	<11.0	NM *	0.6	53.4
	GLENN	14,714	<11.0	NM *	0.5	41.7
	HUMBOLDT	68,180	<11.0	NM *	6.0	25.1
	LAKE	32,341	<11.0	NM *	1.5	25.5
	MARIPOSA	9,117	<11.0	NM *	0.8	67.3
	MENDOCINO	44,494	<11.0	NM *	3.2	25.2
	MONO	7,299	<11.0	NM *	<0.1	68.2
	NAPA	70,657	<11.0	NM *	6.8	26.0
	NEVADA	48,651	<11.0	NM *	3.0	23.0
	SAN BENITO	28,959	<11.0	NM *	3.2	33.7
	SUTTER	48,910	<11.0	NM *	2.6	21.9
	TEHAMA	31,840	<11.0	NM *	1.5	25.9
	TRINITY	6,900	<11.0	NM *	<0.1	72.2
	TUOLUMNE	28,186	<11.0	NM *	9.2	49.6

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result,

suppression and masking have been applied to this tabular data. Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.

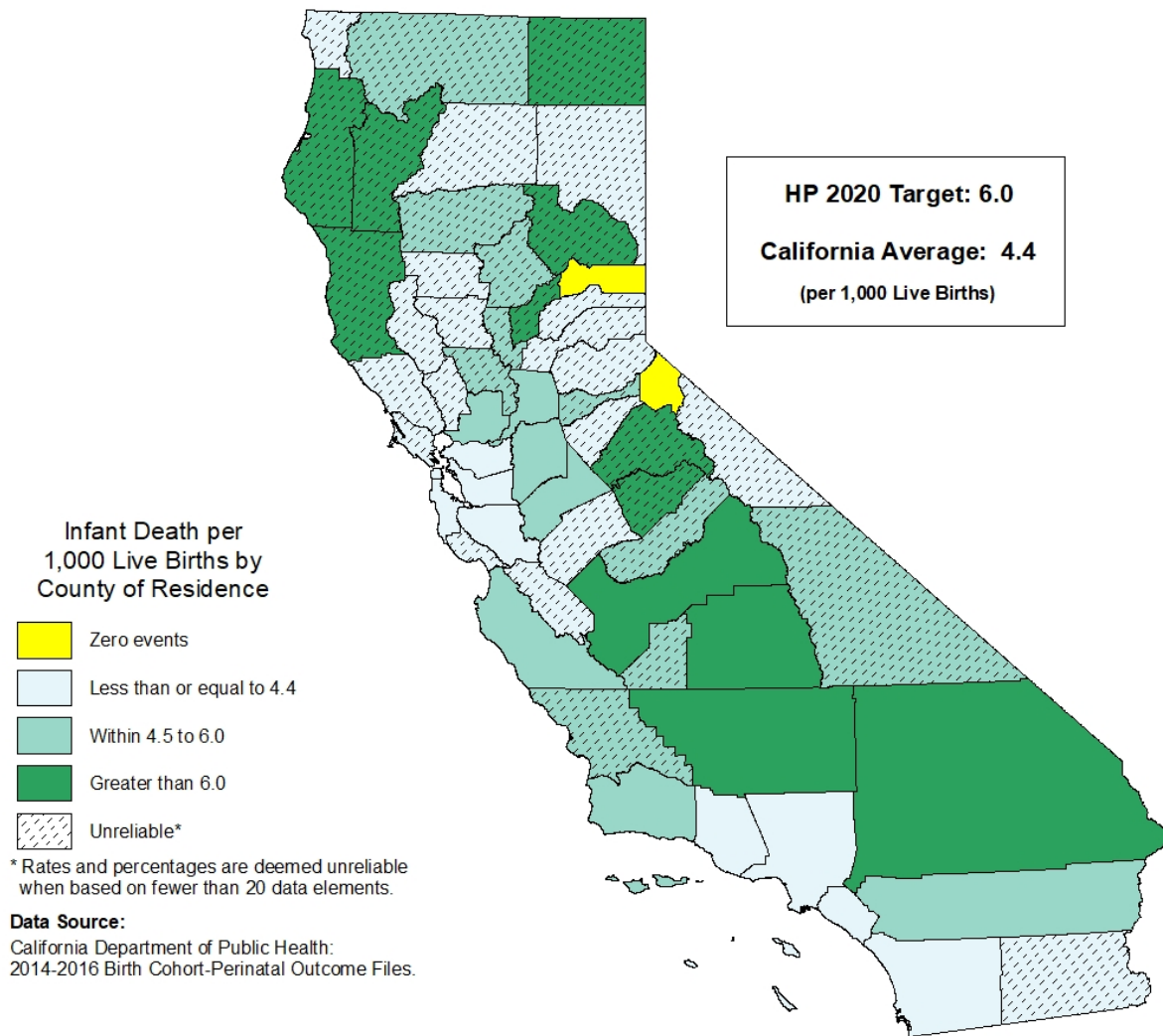
Note: Counties were rank ordered by increasing case rate. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources: 1. California Department of Public Health, STD Control Branch, Data Requested, August 2018.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

INFANT MORTALITY, ALL RACE/ETHNIC GROUPS, 2014-2016



The California birth cohort infant mortality death rate (IMR) for all race/ethnic groups was 4.4 deaths per 1,000 live births, a risk of dying equivalent to approximately one infant death for every 226.2 live births in the infant group. This IMR for all race/ethnic groups was based on a 2014 through 2016 three-year average number of infant deaths equaling 2,187.0 and equaling 494,615.7 live births.

Among counties with reliable rates, the birth cohort IMR for all race/ethnic groups ranged from 6.8 in Fresno County to 2.8 in San Francisco County, a factor of 2.4 to 1.

The All Race/Ethnic Groups IMR for California as a whole and 45 counties, 9 of which were reliable, met the Healthy People (HP) 2020 National Objective MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births. Two counties had zero deaths. Twelve counties did not meet the HP 2020 National Objective, and eight of these counties had unreliable rates.

Twenty-eight counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions may have been applied: three-year average live birth counts, average infant death counts, and IMR were suppressed. See technical notes for more information regarding DDG.

The California birth cohort IMR for all race/ethnic groups for the 2011-2013 period was 4.7 per 1,000 live births.

**TABLE 24A
INFANT MORTALITY, ALL RACE/ETHNIC GROUPS
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2014-2016**

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMITS	
		LIVE BIRTHS	INFANT DEATHS		LOWER	UPPER
1	SIERRA	28.0	0.0	-	-	-
	ALPINE	<11.0	0.0	-	-	-
2	SAN FRANCISCO	9,045.7	25.0	2.8	1.8	4.1
3	SONOMA	5,019.3	15.0	3.0 *	1.7	4.9
4	SAN MATEO	9,034.0	27.7	3.1	2.0	4.4
5	ORANGE	38,119.3	118.7	3.1	2.6	3.7
6	SANTA CLARA	23,400.7	77.7	3.3	2.6	4.1
7	CONTRA COSTA	12,501.3	42.7	3.4	2.5	4.6
8	IMPERIAL	3,159.0	12.0	3.8 *	2.0	6.6
9	PLACER	3,708.3	14.3	3.9 *	2.1	6.4
10	SAN DIEGO	43,771.3	169.7	3.9	3.3	4.5
11	VENTURA	10,042.0	39.0	3.9	2.8	5.3
12	ALAMEDA	19,561.0	77.3	4.0	3.1	4.9
13	MERCED	4,127.0	16.3	4.0 *	2.3	6.4
14	SANTA CRUZ	2,897.3	12.3	4.3 *	2.2	7.4
15	LOS ANGELES	125,859.0	539.0	4.3	3.9	4.6
	CALIFORNIA	494,615.7	2,187.0	4.4	4.2	4.6
16	RIVERSIDE	30,492.3	138.3	4.5	3.8	5.3
17	BUTTE	2,471.7	11.0	4.5 *	2.2	8.0
18	SANTA BARBARA	5,668.3	26.3	4.6	3.0	6.8
19	YOLO	2,407.0	11.3	4.7 *	2.4	8.4
20	SAN LUIS OBISPO	2,615.0	12.7	4.8 *	2.6	8.3
21	STANISLAUS	7,696.7	39.3	5.1	3.6	7.0
22	SACRAMENTO	19,639.3	101.3	5.2	4.2	6.2
23	MADERA	2,298.7	12.0	5.2 *	2.7	9.1
24	MONTEREY	6,369.3	34.0	5.3	3.7	7.5
25	SAN JOAQUIN	10,117.0	54.3	5.4	4.0	7.0
26	SOLANO	5,215.3	29.7	5.7	3.8	8.1
	AMADOR	301.0	<11.0	M *	0.5	22.2
	CALAVERAS	367.7	<11.0	M *	0.2	16.7
	COLUSA	299.7	<11.0	M *	0.1	18.6
	DEL NORTE	311.7	<11.0	M *	0.1	17.9
	EL DORADO	1,606.0	<11.0	M *	1.0	7.3
	GLENN	390.7	<11.0	M *	0.4	17.1
	INYO	203.7	<11.0	M *	0.1	27.4
	KINGS	2,288.7	<11.0	M *	2.3	8.4
	LAKE	740.3	<11.0	M *	0.8	11.8
	LASSEN	308.7	<11.0	M *	0.2	19.9
	MARIN	2,315.3	<11.0	M *	0.7	5.0
	MONO	144.0	<11.0	M *	<0.1	30.3
	NAPA	1,447.3	<11.0	M *	1.3	8.4
	NEVADA	825.3	<11.0	M *	0.3	8.8
	SAN BENITO	731.3	<11.0	M *	0.3	9.9
	SHASTA	2,068.7	<11.0	M *	2.0	8.3
	SISKIYOU	459.7	<11.0	M *	1.0	18.0
	SUTTER	1,329.3	<11.0	M *	2.4	11.5
	TEHAMA	801.3	<11.0	M *	1.2	12.2
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-1.3				6.0		
27	KERN	13,900.3	85.0	6.1	4.9	7.6
28	SAN BERNARDINO	31,016.0	191.0	6.2	5.3	7.0
29	TULARE	7,392.7	45.7	6.2	4.5	8.2
30	FRESNO	15,432.3	105.3	6.8	5.5	8.1
	HUMBOLDT	1,470.3	<11.0	NM *	3.6	13.1
	MARIPOSA	150.7	<11.0	NM *	0.2	37.0
	MENDOCINO	1,033.0	<11.0	NM *	4.4	17.4
	MODOC	89.0	<11.0	NM *	0.8	69.0
	PLUMAS	159.7	<11.0	NM *	0.2	34.9
	TRINITY	107.7	<11.0	NM *	0.2	51.7
	TUOLUMNE	458.7	<11.0	NM *	2.4	22.3
	YUBA	1,195.7	<11.0	NM *	3.4	14.3

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

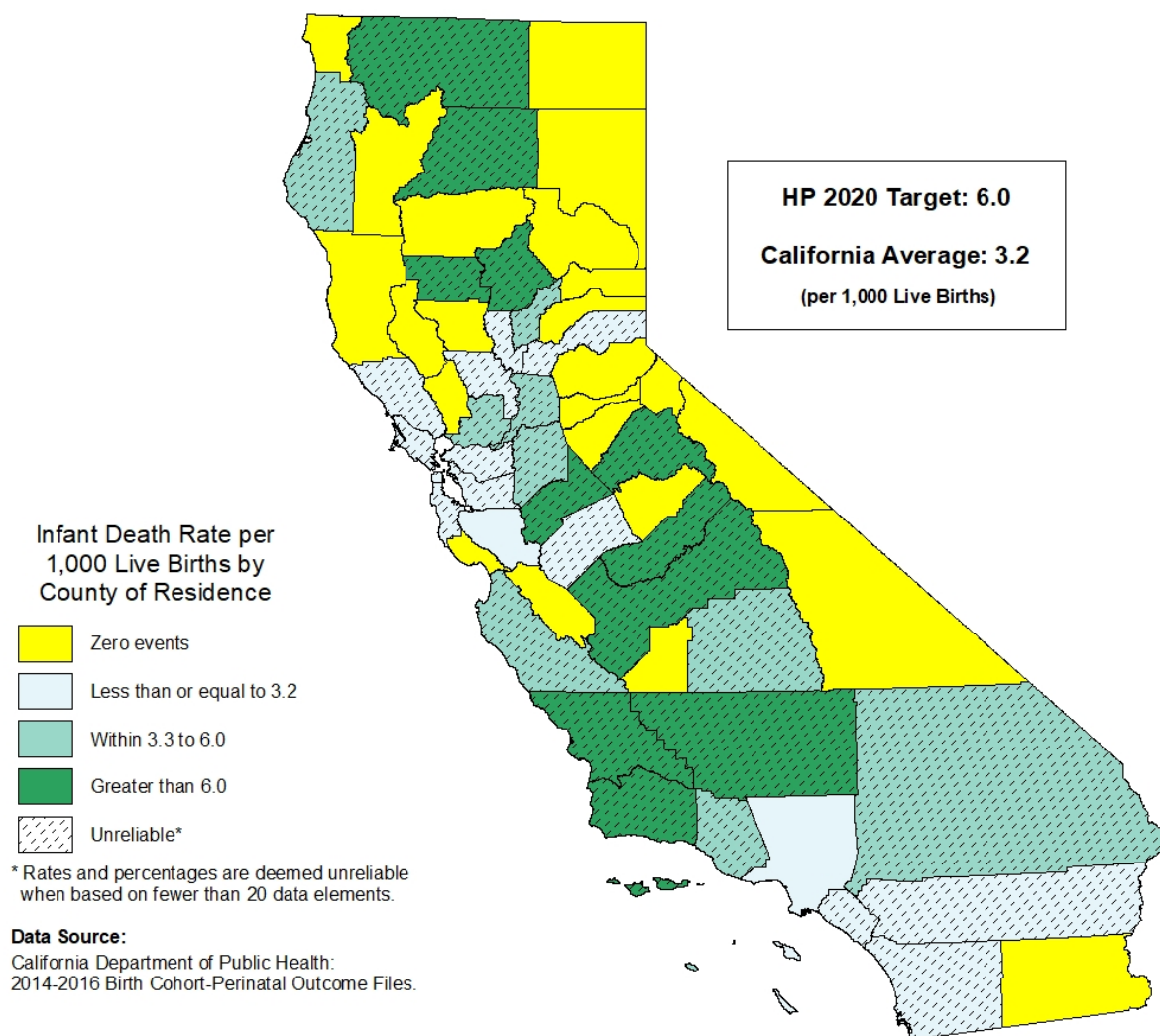
<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. DDG suppressions are listed alphabetically.

Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only. See technical notes for more information.

Note: Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.
Source: California Department of Public Health: 2014-2016 Birth Cohort-Perinatal Outcome Files.

ASIAN/PACIFIC ISLANDER INFANT MORTALITY, 2014-2016



The California birth cohort infant mortality death rate (IMR) for Asian/Pacific Islanders was 3.2 deaths per 1,000 live births, a risk of dying equivalent to approximately one infant death for every 316.1 live births in the infant group. This IMR for Asian/Pacific Islanders was based on a 2014 through 2016 three-year average number of infant deaths equaling 237.3 and live births equaling 75,005.0.

Among counties with reliable rates, the birth cohort IMR for Asian/Pacific Islanders ranged from 3.1 in Los Angeles County to 3.0 in Santa Clara County, a factor of 1.0 to 1.

The Asian/Pacific Islander IMR for 48 counties met the Healthy People (HP) 2020 National Objective MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births, nine of which were reliable; of these 48 counties, two had zero births. Twenty-three counties that met the HP 2020 National Objective had zero deaths. Ten counties did not meet the HP 2020 National Objective, and nine of these counties had unreliable rates.

Thirty-seven counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions may have been applied: three-year average live birth counts, average infant death counts, and IMR. See technical notes for more information regarding DDG.

The California birth cohort IMR for Asian/Pacific Islanders for the 2011-2013 period was 3.6 per 1,000 live births.

**TABLE 24B
ASIAN/PACIFIC ISLANDER INFANT MORTALITY
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2014-2016**

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMITS	
		LIVE BIRTHS	INFANT DEATHS		LOWER	UPPER
1	NAPA	92.7	0.0	-	-	-
2	SANTA CRUZ	83.0	0.0	-	-	-
3	KINGS	77.7	0.0	-	-	-
4	EL DORADO	77.0	0.0	-	-	-
5	IMPERIAL	25.0	0.0	-	-	-
6	DEL NORTE	18.7	0.0	-	-	-
7	SAN BENITO	14.7	0.0	-	-	-
8	MENDOCINO	13.3	0.0	-	-	-
9	NEVADA	13.0	0.0	-	-	-
10	TEHAMA	12.3	0.0	-	-	-
11	LASSEN	12.0	0.0	-	-	-
	AMADOR	<11.0	0.0	-	-	-
	CALAVERAS	<11.0	0.0	-	-	-
	COLUSA	<11.0	0.0	-	-	-
	INYO	<11.0	0.0	-	-	-
	LAKE	<11.0	0.0	-	-	-
	MARIPOSA	<11.0	0.0	-	-	-
	MODOC	<11.0	0.0	-	-	-
	MONO	<11.0	0.0	-	-	-
	PLUMAS	<11.0	0.0	-	-	-
	TRINITY	<11.0	0.0	-	-	-
12	ALPINE	0.0	0.0	-	-	-
13	SIERRA	0.0	0.0	-	-	-
14	ORANGE	9,092.3	19.3	2.1 *	1.3	3.3
15	SAN DIEGO	4,784.3	12.7	2.6 *	1.4	4.6
16	ALAMEDA	6,203.3	16.7	2.7 *	1.6	4.3
17	SANTA CLARA	8,964.0	26.7	3.0	2.0	4.3
18	LOS ANGELES	20,632.7	63.3	3.1	2.4	3.9
	CALIFORNIA	75,005.0	237.3	3.2	2.8	3.6
19	SAN BERNARDINO	2,745.0	12.0	4.4 *	2.3	7.6
20	SACRAMENTO	3,559.3	17.0	4.8 *	2.8	7.6
	CONTRA COSTA	2,037.3	<11.0	M *	0.7	5.5
	HUMBOLDT	66.3	<11.0	M *	<0.1	65.7
	MARIN	193.7	<11.0	M *	<0.1	22.5
	MERCED	321.0	<11.0	M *	<0.1	15.5
	MONTEREY	253.0	<11.0	M *	0.1	22.0
	PLACER	313.3	<11.0	M *	<0.1	15.9
	RIVERSIDE	2,114.3	<11.0	M *	0.4	4.4
	SAN FRANCISCO	2,919.0	<11.0	M *	1.2	5.4
	SAN JOAQUIN	1,548.0	<11.0	M *	1.7	9.0
	SAN MATEO	2,927.7	<11.0	M *	1.3	5.5
	SANTA BARBARA	221.0	<11.0	M *	0.3	27.8
	SOLANO	710.3	<11.0	M *	1.3	13.7
	SONOMA	222.0	<11.0	M *	<0.1	22.4
	SUTTER	211.0	<11.0	M *	<0.1	23.6
	TULARE	216.3	<11.0	M *	0.1	25.8
	VENTURA	667.3	<11.0	M *	0.7	12.4
	YOLO	297.7	<11.0	M *	<0.1	16.7
	YUBA	94.0	<11.0	M *	<0.1	46.4
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-1.3				6.0		
21	FRESNO	1,831.7	13.3	7.3 *	3.9	12.4
	BUTTE	167.0	<11.0	NM *	0.4	36.8
	GLENN	13.7	<11.0	NM *	<0.1	318.9
	KERN	546.3	<11.0	NM *	2.0	18.7
	MADERA	43.7	<11.0	NM *	0.1	114.1
	SAN LUIS OBISPO	79.0	<11.0	NM *	<0.1	63.0
	SHASTA	90.7	<11.0	NM *	<0.1	54.9
	SISKIYOU	<11.0	<11.0	NM *	<0.1	568.5
	STANISLAUS	427.7	<11.0	NM *	1.4	20.5
	TUOLUMNE	<11.0	<11.0	NM *	<0.1	450.9

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

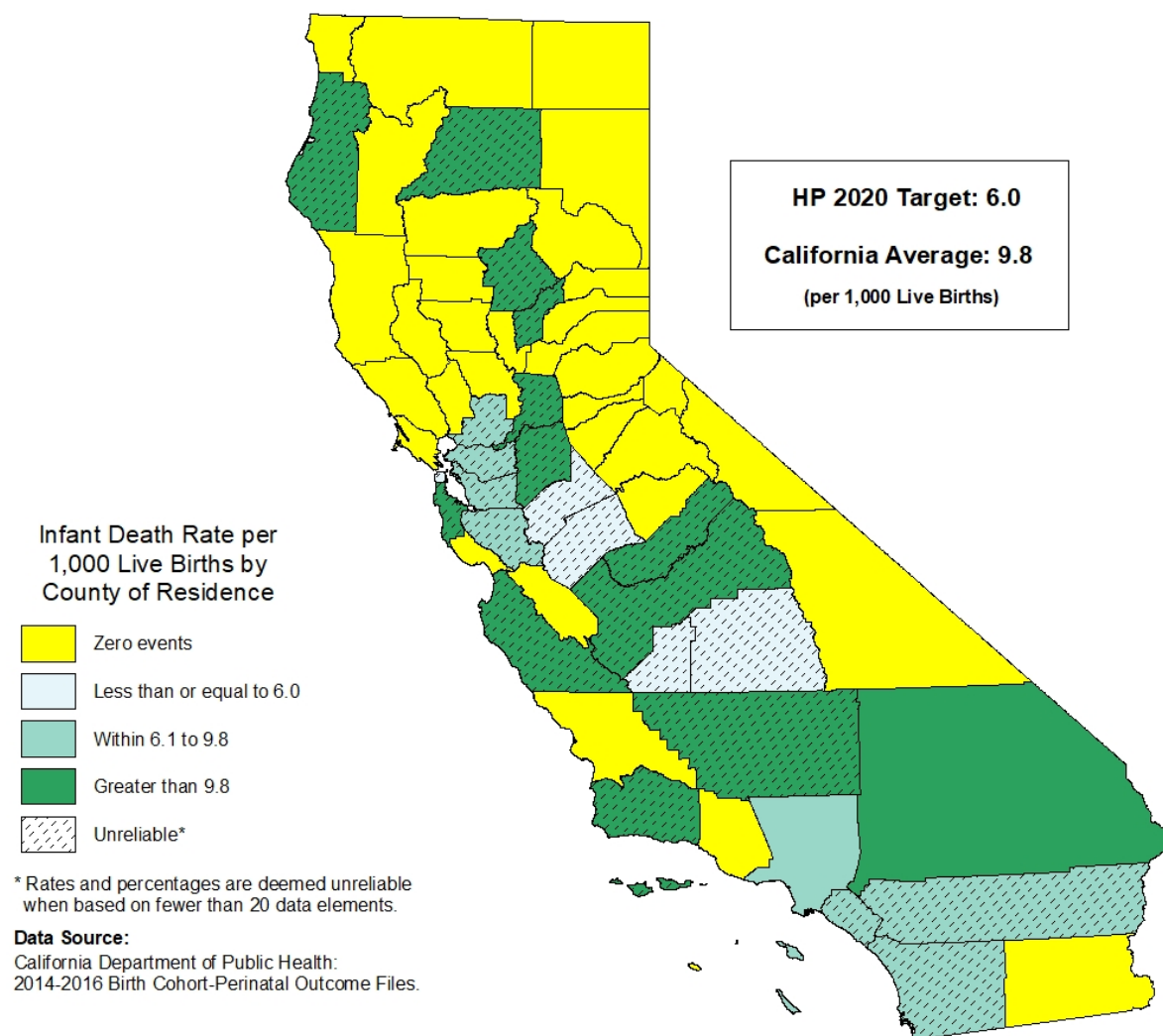
<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. DDG suppressions are listed alphabetically.

Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only. See technical notes for more information.

Note: Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.
Source: California Department of Public Health: 2014-2016 Birth Cohort-Perinatal Outcome Files.

BLACK INFANT MORTALITY, 2014-2016



The California birth cohort infant mortality death rate (IMR) for Blacks was 9.8 deaths per 1,000 live births, a risk of dying equivalent to approximately one infant death for every 102.5 live births in the infant group. This IMR for Blacks was based on the 2014 through 2016 three-year average number of infant deaths equaling 237.3 and equaling 24,333.0 live births.

Among counties with reliable rates, the birth cohort infant death rate for Blacks ranged from 13.1 in San Bernardino County to 9.6 in Los Angeles County, a factor of 1.4 to 1.

The Black IMR for 37 counties met the Healthy People (HP) 2020 National Objective MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births, 5 of which were unreliable; of these 37 counties, five had zero births. Thirty-two counties that met the HP 2020 National Objective had zero deaths. Twenty-one counties, and California as a whole, did not meet the HP 2020 National Objective; of these counties, 16 had unreliable rates.

Thirty-six counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions may have been applied: three-year average live birth counts, average infant death counts, and IMR. See technical notes for more information regarding DDG.

The California birth cohort IMR for Blacks for the 2011-2013 period was 9.6 per 1,000 live births.

**TABLE 24C
BLACK INFANT MORTALITY
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2014-2016**

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMITS	
		LIVE BIRTHS	INFANT DEATHS		LOWER	UPPER
1	VENTURA	103.3	0.0	-	-	-
2	YOLO	59.7	0.0	-	-	-
3	SONOMA	53.7	0.0	-	-	-
4	PLACER	40.7	0.0	-	-	-
5	MARIN	36.3	0.0	-	-	-
6	IMPERIAL	21.3	0.0	-	-	-
7	SUTTER	20.3	0.0	-	-	-
8	SAN LUIS OBISPO	17.7	0.0	-	-	-
9	SANTA CRUZ	15.0	0.0	-	-	-
10	LAKE	12.3	0.0	-	-	-
11	NAPA	12.0	0.0	-	-	-
	AMADOR	<11.0	0.0	-	-	-
	CALAVERAS	<11.0	0.0	-	-	-
	COLUSA	<11.0	0.0	-	-	-
	DEL NORTE	<11.0	0.0	-	-	-
	EL DORADO	<11.0	0.0	-	-	-
	GLENN	<11.0	0.0	-	-	-
	INYO	<11.0	0.0	-	-	-
	LASSEN	<11.0	0.0	-	-	-
	MARIPOSA	<11.0	0.0	-	-	-
	MENDOCINO	<11.0	0.0	-	-	-
	MONO	<11.0	0.0	-	-	-
	NEVADA	<11.0	0.0	-	-	-
	PLUMAS	<11.0	0.0	-	-	-
	SAN BENITO	<11.0	0.0	-	-	-
	SISKIYOU	<11.0	0.0	-	-	-
	TEHAMA	<11.0	0.0	-	-	-
	TUOLUMNE	<11.0	0.0	-	-	-
12	ALPINE	0.0	0.0	-	-	-
13	SIERRA	0.0	0.0	-	-	-
14	MODOC	0.0	0.0	-	-	-
15	TRINITY	0.0	0.0	-	-	-
	KINGS	83.3	<11.0	M *	<0.1	52.3
	MERCED	102.7	<11.0	M *	<0.1	42.5
	SAN FRANCISCO	365.3	<11.0	M *	0.7	19.8
	STANISLAUS	158.7	<11.0	M *	<0.1	31.4
	TULARE	81.0	<11.0	M *	<0.1	53.8
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-1.3				6.0		
16	ALAMEDA	1,685.3	14.7	8.7 *	4.8	14.4
17	RIVERSIDE	1,612.7	14.3	8.9 *	4.9	14.8
18	SAN DIEGO	1,810.3	16.3	9.0 *	5.2	14.6
19	LOS ANGELES	8,645.0	83.3	9.6	7.7	11.9
	CALIFORNIA	24,333.0	237.3	9.8	8.5	11.0
20	SACRAMENTO	1,890.3	18.7	9.9 *	5.9	15.5
21	SAN BERNARDINO	2,492.0	32.7	13.1	9.0	18.4
22	FRESNO	763.7	12.3	16.2 *	8.4	28.0
	BUTTE	34.3	<11.0	NM *	0.1	145.1
	CONTRA COSTA	976.3	<11.0	NM *	2.9	14.8
	HUMBOLDT	17.0	<11.0	NM *	0.2	293.0
	KERN	737.3	<11.0	NM *	5.3	22.6
	MADERA	30.7	<11.0	NM *	<0.1	142.1
	MONTEREY	66.3	<11.0	NM *	0.1	75.1
	ORANGE	413.0	<11.0	NM *	2.2	23.6
	SAN JOAQUIN	709.7	<11.0	NM *	4.3	21.0
	SAN MATEO	112.3	<11.0	NM *	0.7	54.7
	SANTA BARBARA	46.3	<11.0	NM *	1.6	132.5
	SANTA CLARA	422.0	<11.0	NM *	1.8	22.0
	SHASTA	19.0	<11.0	NM *	<0.1	229.4
	SOLANO	596.7	<11.0	NM *	3.4	21.1
	YUBA	28.7	<11.0	NM *	<0.1	152.0

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

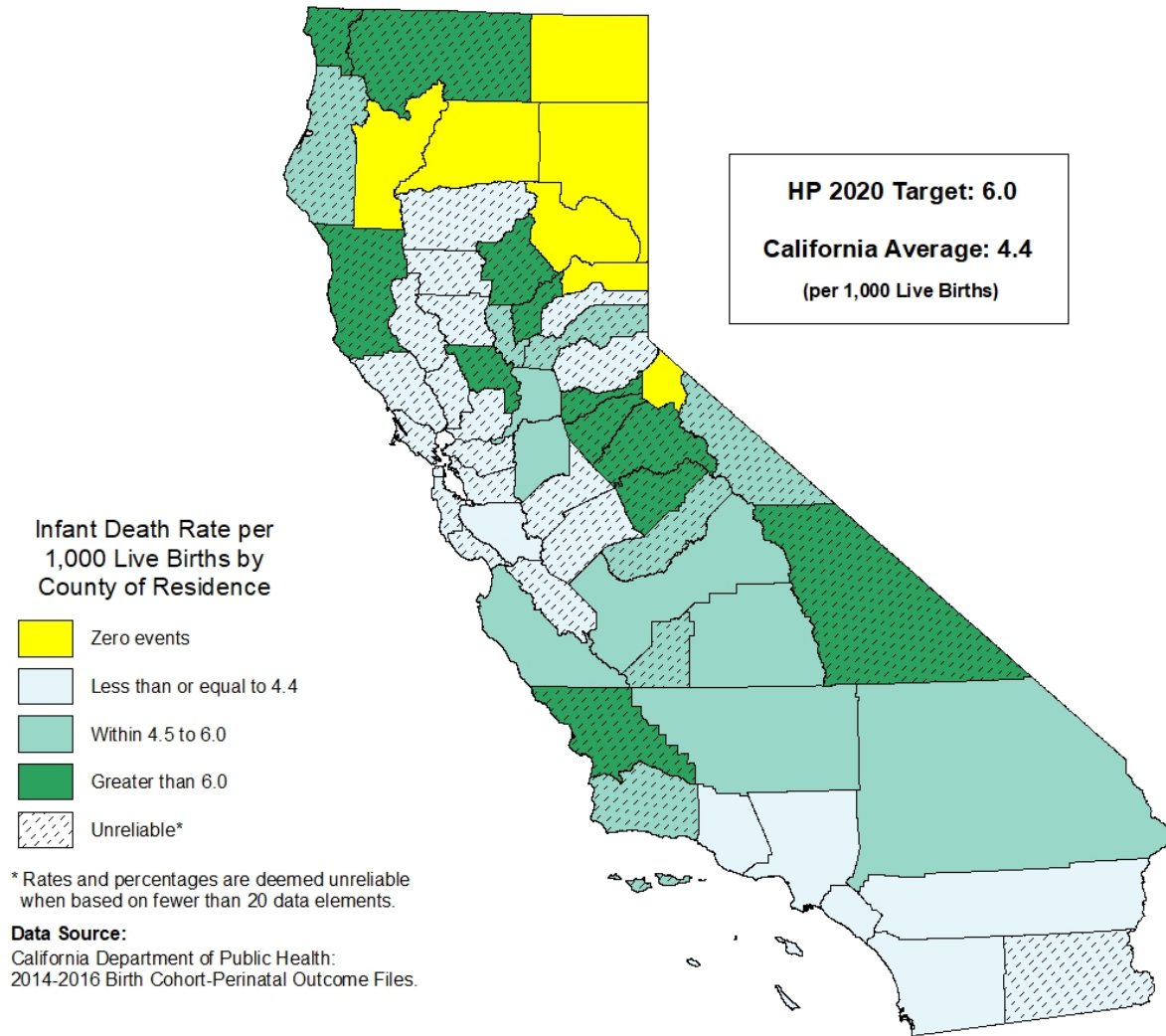
<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. DDG suppressions are listed alphabetically.

Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only. See technical notes for more information.

Note: Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.
Source: California Department of Public Health: 2014-2016 Birth Cohort-Perinatal Outcome Files.

HISPANIC INFANT MORTALITY, 2014-2016



The California birth cohort infant mortality rate (IMR) for Hispanics was 4.4 deaths per 1,000 live births, a risk of dying equivalent to approximately one infant death for every 228.6 live births in the infant group. This IMR for Hispanics was based on a 2014 through 2016 three-year average number of infant deaths equaling 1,020.7 and equaling 233,376.3 live births.

Among counties with reliable rates, the birth cohort IMR for Hispanics ranged from 6.0 in Tulare County to 3.5 in San Diego County, a factor of 1.7 to 1.

The Hispanic IMR for 46 counties, 13 of which were reliable, and California as a whole, met the Healthy People (HP) 2020 National Objective MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births, 26 of which were unreliable; of these 46 counties, 1 had zero births. Seven counties that met the HP 2020 National Objective had zero deaths. Twelve counties with unreliable rates did not meet the HP 2020 National Objective.

Thirty-five counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions may have been applied: three-year average live birth counts, average infant death counts, and IMR. See technical notes for more information regarding DDG.

The California birth cohort IMR for Hispanics for the 2011-2013 period was 4.6 per 1,000 live births.

**TABLE 24D
HISPANIC INFANT MORTALITY
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2014-2016**

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMITS	
		LIVE BIRTHS	INFANT DEATHS		LOWER	UPPER
1	SHASTA	210.3	0.0	-	-	-
2	LASSEN	54.7	0.0	-	-	-
3	PLUMAS	19.0	0.0	-	-	-
4	MODOC	12.0	0.0	-	-	-
	SIERRA	<11.0	0.0	-	-	-
	TRINITY	<11.0	0.0	-	-	-
5	ALPINE	0.0	0.0	-	-	-
6	CONTRA COSTA	4,163.7	13.7	3.3 *	1.8	5.5
7	SAN DIEGO	17,408.0	61.0	3.5	2.7	4.5
8	ALAMEDA	5,243.7	19.3	3.7 *	2.2	5.7
9	SANTA CLARA	7,142.0	26.3	3.7	2.4	5.4
10	ORANGE	16,037.7	60.3	3.8	2.9	4.8
11	MERCED	2,818.0	11.3	4.0 *	2.0	7.1
12	STANISLAUS	4,216.3	17.0	4.0 *	2.3	6.5
13	RIVERSIDE	17,630.7	74.0	4.2	3.3	5.3
14	VENTURA	5,626.0	23.7	4.2	2.7	6.3
15	LOS ANGELES	69,657.7	293.7	4.2	3.7	4.7
	CALIFORNIA	233,376.3	1,020.7	4.4	4.1	4.6
16	SANTA BARBARA	3,672.7	17.0	4.6 *	2.7	7.4
17	SACRAMENTO	5,267.0	26.0	4.9	3.2	7.2
18	SAN JOAQUIN	4,930.3	25.0	5.1	3.3	7.5
19	MONTEREY	4,758.7	24.3	5.1	3.3	7.6
20	KERN	8,497.3	44.3	5.2	3.8	7.0
21	SAN BERNARDINO	17,798.7	98.0	5.5	4.5	6.7
22	FRESNO	9,289.0	54.3	5.8	4.4	7.6
23	TULARE	5,371.0	32.3	6.0	4.1	8.5
	COLUSA	212.0	<11.0	M *	<0.1	20.6
	EL DORADO	279.0	<11.0	M *	0.1	20.0
	GLENN	192.0	<11.0	M *	<0.1	25.9
	HUMBOLDT	219.0	<11.0	M *	0.1	25.4
	IMPERIAL	2,872.3	<11.0	M *	1.5	6.1
	KINGS	1,415.0	<11.0	M *	2.3	10.8
	LAKE	215.0	<11.0	M *	<0.1	23.2
	MADERA	1,674.7	<11.0	M *	1.9	9.1
	MARIN	686.0	<11.0	M *	0.2	9.8
	MONO	65.0	<11.0	M *	<0.1	67.1
	NAPA	722.7	<11.0	M *	0.2	9.3
	NEVADA	137.3	<11.0	M *	<0.1	31.7
	PLACER	669.3	<11.0	M *	0.9	13.1
	SAN BENITO	492.7	<11.0	M *	0.2	12.5
	SAN FRANCISCO	1,634.3	<11.0	M *	1.6	8.5
	SAN MATEO	2,599.3	<11.0	M *	1.5	6.4
	SANTA CRUZ	1,580.0	<11.0	M *	1.6	8.8
	SOLANO	1,760.0	<11.0	M *	1.7	8.4
	SONOMA	1,858.3	<11.0	M *	0.7	5.8
	SUTTER	508.3	<11.0	M *	0.7	15.2
	TEHAMA	284.7	<11.0	M *	0.1	19.6
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-1.3				6.0		
	AMADOR	47.7	<11.0	NM *	<0.1	91.4
	BUTTE	480.0	<11.0	NM *	1.3	18.3
	CALAVERAS	49.3	<11.0	NM *	<0.1	88.3
	DEL NORTE	54.0	<11.0	NM *	<0.1	80.7
	INYO	55.0	<11.0	NM *	0.1	90.6
	MARIPOSA	20.7	<11.0	NM *	<0.1	210.9
	MENDOCINO	377.3	<11.0	NM *	2.5	25.9
	SAN LUIS OBISPO	873.3	<11.0	NM *	2.5	15.0
	SISKIYOU	80.3	<11.0	NM *	<0.1	62.0
	TUOLUMNE	78.7	<11.0	NM *	<0.1	63.3
	YOLO	962.0	<11.0	NM *	2.7	14.5
	YUBA	386.0	<11.0	NM *	1.2	21.4

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

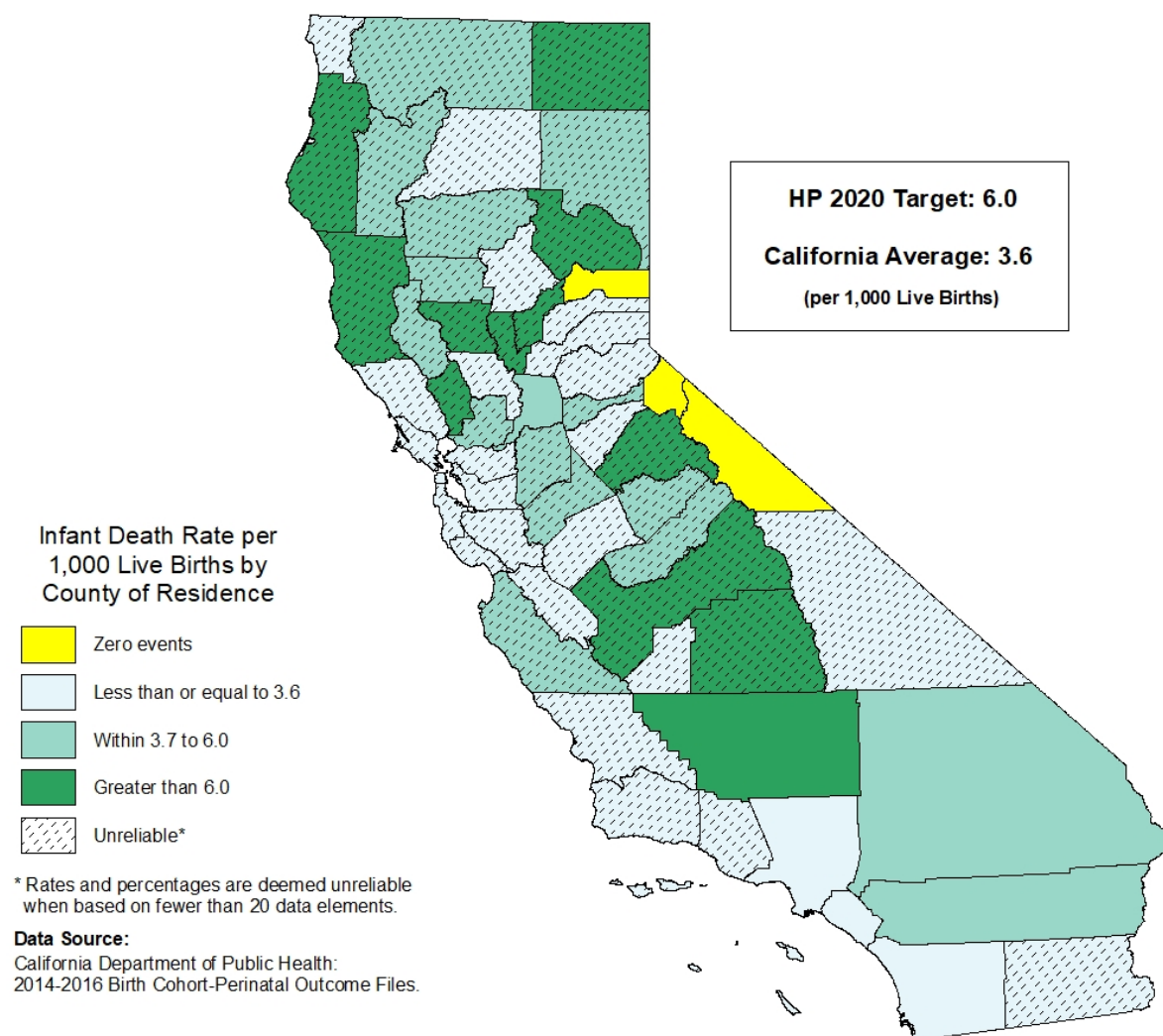
<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. DDG suppressions are listed alphabetically.

Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only. See technical notes for more information.

Note: Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.
Source: California Department of Public Health: 2014-2016 Birth Cohort-Perinatal Outcome Files.

WHITE INFANT MORTALITY, 2014-2016



The California birth cohort infant mortality rate (IMR) for Whites was 3.6 deaths per 1,000 live births, a risk of dying equivalent to approximately one infant death for every 281.0 live births in the infant group. This IMR for Whites was based on a 2014 through 2016 three-year average number of infant deaths equaling 482.7 and equaling 135,631.0 live births.

Among counties with reliable rates, the birth cohort IMR for Whites ranged from 6.5 in Kern County to 2.4 in Orange County, a factor of 2.7 to 1.

The White IMR for 46 counties met the Healthy People (HP) 2020 National Objective MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births, six of which were reliable. Three counties that met the HP 2020 National Objective had zero deaths. Twelve counties did not meet the HP 2020 National Objective, and eleven of these counties had unreliable rates.

Forty-five counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions may have been applied: three-year average live birth counts, average infant death counts, and IMR. See technical notes for more information regarding DDG.

The California birth cohort IMR for Whites for the 2011-2013 period was 3.9 per 1,000 live births.

**TABLE 24E
WHITE INFANT MORTALITY
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2014-2016**

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMITS	
		LIVE BIRTHS	INFANT DEATHS		LOWER	UPPER
1	MONO	72.3	0.0	-	-	-
2	SIERRA	20.7	0.0	-	-	-
	ALPINE	<11.0	0.0	-	-	-
3	ORANGE	11,145.3	27.0	2.4	1.6	3.5
4	SAN DIEGO	14,862.7	42.0	2.8	2.0	3.8
5	LOS ANGELES	23,195.3	66.7	2.9	2.2	3.7
6	ALAMEDA	4,527.7	15.3	3.4 *	1.9	5.6
	CALIFORNIA	135,631.0	482.7	3.6	3.2	3.9
7	SACRAMENTO	7,426.0	30.7	4.1	2.8	5.9
8	RIVERSIDE	7,797.7	33.0	4.2	2.9	5.9
9	SAN JOAQUIN	2,391.0	12.3	5.2 *	2.7	8.9
10	SAN BERNARDINO	6,933.0	37.3	5.4	3.8	7.4
11	STANISLAUS	2,578.0	14.7	5.7 *	3.2	9.4
	AMADOR	227.0	<11.0	M *	0.3	27.0
	BUTTE	1,616.3	<11.0	M *	0.7	6.3
	CALAVERAS	286.3	<11.0	M *	0.1	19.5
	CONTRA COSTA	4,240.3	<11.0	M *	1.2	4.4
	DEL NORTE	178.3	<11.0	M *	<0.1	24.4
	EL DORADO	1,157.0	<11.0	M *	0.8	8.4
	GLENN	174.0	<11.0	M *	<0.1	28.6
	IMPERIAL	187.0	<11.0	M *	<0.1	23.3
	INYO	98.7	<11.0	M *	<0.1	44.2
	KINGS	616.0	<11.0	M *	0.4	11.7
	LAKE	435.0	<11.0	M *	0.6	16.6
	LASSEN	210.3	<11.0	M *	0.1	26.5
	MADERA	482.7	<11.0	M *	1.0	17.1
	MARIN	1,242.0	<11.0	M *	0.2	5.8
	MARIPOSA	118.0	<11.0	M *	<0.1	42.2
	MERCED	813.7	<11.0	M *	0.6	10.2
	MONTEREY	1,127.0	<11.0	M *	2.0	11.6
	NEVADA	618.3	<11.0	M *	0.1	9.9
	PLACER	2,483.0	<11.0	M *	1.4	6.3
	SAN BENITO	186.3	<11.0	M *	<0.1	26.7
	SAN FRANCISCO	3,641.3	<11.0	M *	0.6	3.5
	SAN LUIS OBISPO	1,504.0	<11.0	M *	1.2	8.1
	SAN MATEO	2,716.0	<11.0	M *	0.4	3.8
	SANTA BARBARA	1,567.7	<11.0	M *	0.7	6.5
	SANTA CLARA	5,081.0	<11.0	M *	0.9	3.5
	SANTA CRUZ	1,121.7	<11.0	M *	0.7	8.3
	SHASTA	1,584.7	<11.0	M *	1.1	7.7
	SISKIYOU	310.3	<11.0	M *	0.5	21.6
	SOLANO	1,652.7	<11.0	M *	2.5	10.3
	SONOMA	2,239.0	<11.0	M *	1.1	6.0
	TEHAMA	471.3	<11.0	M *	0.8	16.4
	TRINITY	90.0	<11.0	M *	<0.1	48.4
	VENTURA	3,212.7	<11.0	M *	1.5	5.7
	YOLO	952.0	<11.0	M *	0.8	9.7
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-1.3				6.0		
12	FRESNO	3,034.0	19.3	6.4 *	3.9	9.9
13	KERN	3,705.7	24.0	6.5	4.1	9.6
	COLUSA	75.3	<11.0	NM *	<0.1	66.1
	HUMBOLDT	951.0	<11.0	NM *	2.5	14.2
	MENDOCINO	517.0	<11.0	NM *	3.5	23.5
	MODOC	66.0	<11.0	NM *	0.1	75.5
	NAPA	557.0	<11.0	NM *	1.7	17.5
	PLUMAS	123.0	<11.0	NM *	0.2	45.3
	SUTTER	534.7	<11.0	NM *	2.4	20.1
	TULARE	1,532.3	<11.0	NM *	3.0	11.7
	TUOLUMNE	335.7	<11.0	NM *	1.4	24.6
	YUBA	605.3	<11.0	NM *	2.4	18.5

- Rates, percentages, and confidence limits are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

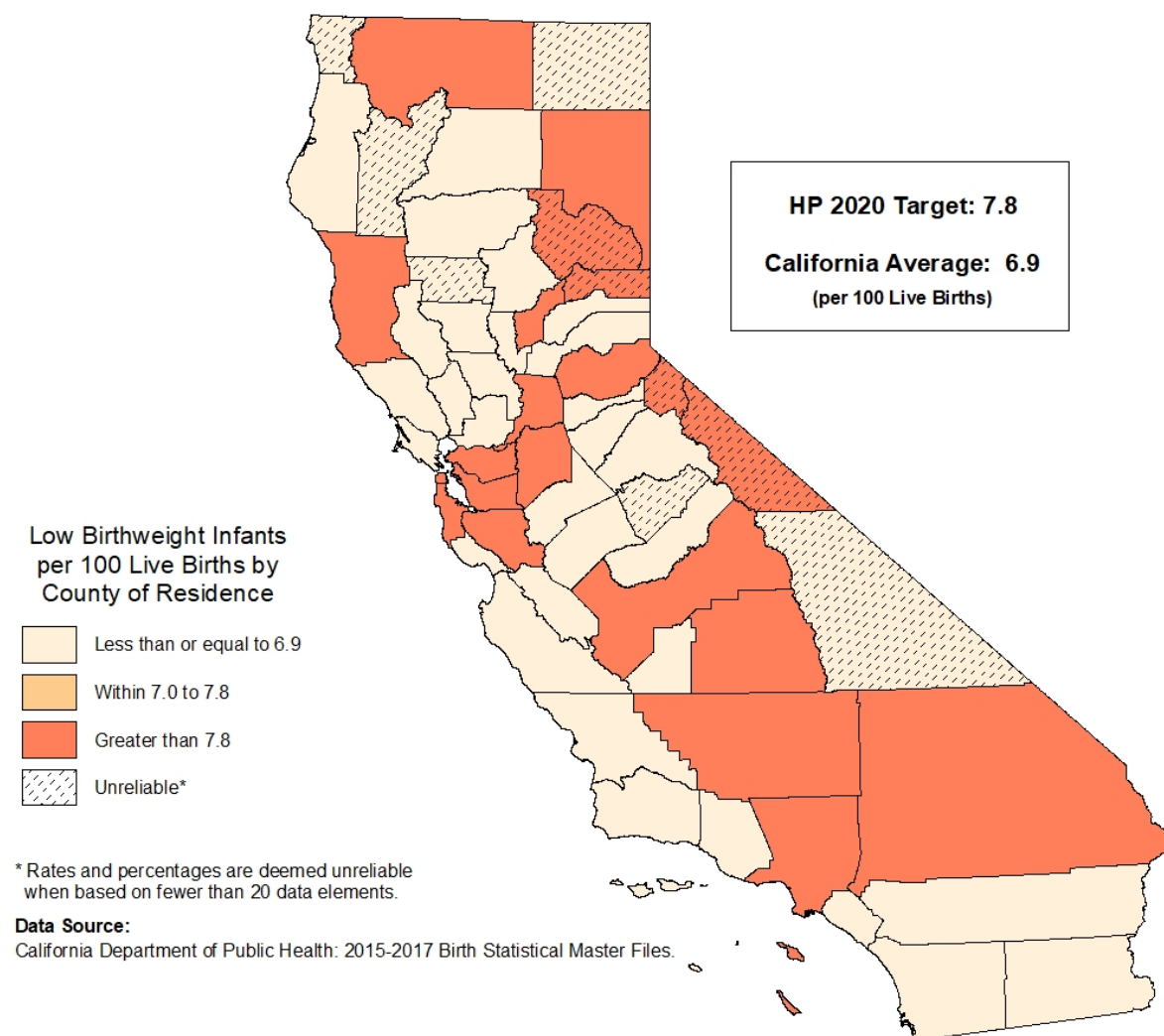
<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. DDG suppressions are listed alphabetically.

Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only. See technical notes for more information.

Note: Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.

Source: California Department of Public Health: 2014-2016 Birth Cohort-Perinatal Outcome Files.

LOW BIRTHWEIGHT INFANTS, 2015-2017



The percentage of low birthweight infants for California was 6.9 per 100 live births, or about one infant with low birthweight for every 14.5 live births. The percentage for California was based on a 2015 through 2017 three-year average number of low birthweight infants equaling 33,283.3 and live births count of 484,130.7.

Among counties with reliable percentages, the percentage of low birthweight infants ranged from 8.1 in Lassen County to 5.5 percent in Imperial County, a factor of 1.5 to 1.

Forty-six counties with reliable percentages, and California as a whole, met the Healthy People 2020 National Objective MICH-8.1 of reducing the incidence of low birthweight infants to no more than 7.8 percent of live births. Seven counties with an unreliable percentage met the objective.

Five counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions may have been applied: the three-year average live births, low birthweight count, and low birthweight percentage. See technical notes for more information regarding DDG.

The California percentage of low birthweight infants for the 2012-2014 period was 6.7 per 100 live births.

**TABLE 25
LOW BIRTHWEIGHT INFANTS
RANKED BY THREE-YEAR AVERAGE LOW BIRTHWEIGHT PERCENTAGE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2015-2017 LIVE BIRTHS (AVERAGE)			95% CONFIDENCE LIMITS	
		LIVE BIRTHS	LOW BIRTHWEIGHT		LOWER	UPPER
			NUMBER	PERCENT		
1	GLENN	377.3	18.7	4.9 *	3.0	7.8
2	IMPERIAL	3,043.0	167.3	5.5	4.7	6.3
3	NAPA	1,384.0	78.0	5.6	4.5	7.0
4	MARIN	2,260.3	129.7	5.7	4.7	6.7
5	PLACER	3,723.3	214.0	5.7	5.0	6.5
6	SONOMA	4,874.3	281.7	5.8	5.1	6.5
7	HUMBOLDT	1,436.3	83.0	5.8	4.6	7.2
8	VENTURA	9,658.3	561.7	5.8	5.3	6.3
9	CALAVERAS	391.3	23.0	5.9	3.7	8.8
10	YOLO	2,365.0	140.0	5.9	4.9	6.9
11	SAN LUIS OBISPO	2,599.0	154.3	5.9	5.0	6.9
12	BUTTE	2,439.7	146.3	6.0	5.0	7.0
13	SANTA CRUZ	2,768.3	168.3	6.1	5.2	7.0
14	LAKE	741.0	45.3	6.1	4.5	8.2
15	ORANGE	37,711.3	2,310.0	6.1	5.9	6.4
16	MONTEREY	6,153.7	377.3	6.1	5.5	6.8
17	NEVADA	818.3	50.7	6.2	4.6	8.1
18	TEHAMA	786.7	49.3	6.3	4.6	8.3
19	DEL NORTE	292.7	18.7	6.4 *	3.8	10.0
20	TUOLUMNE	464.0	29.7	6.4	4.3	9.1
21	MADERA	2,233.3	143.0	6.4	5.4	7.5
22	MERCED	4,141.3	266.0	6.4	5.7	7.2
23	KINGS	2,299.3	150.0	6.5	5.5	7.6
24	SOLANO	5,175.7	339.0	6.5	5.9	7.2
25	SAN DIEGO	42,647.0	2,801.7	6.6	6.3	6.8
26	COLUSA	302.3	20.0	6.6	4.0	10.2
27	STANISLAUS	7,666.0	510.3	6.7	6.1	7.2
28	SHASTA	2,043.0	136.3	6.7	5.6	7.8
29	SAN BENITO	743.3	50.0	6.7	5.0	8.9
30	RIVERSIDE	30,355.7	2,065.0	6.8	6.5	7.1
31	SUTTER	1,310.7	89.3	6.8	5.5	8.4
32	SANTA BARBARA	5,568.3	380.7	6.8	6.1	7.5
33	INYO	199.0	13.7	6.9 *	3.7	11.6
34	AMADOR	305.0	21.0	6.9	4.3	10.5
	MARIPOSA	151.7	<11.0	M *	3.2	12.1
	MODOC	88.3	<11.0	M *	2.1	13.7
	TRINITY	112.3	<11.0	M *	0.2	6.4
	CALIFORNIA	484,130.7	33,283.3	6.9	6.8	6.9
35	SANTA CLARA	22,855.7	1,590.3	7.0	6.6	7.3
36	SAN MATEO	8,861.7	616.7	7.0	6.4	7.5
37	SAN FRANCISCO	8,994.0	626.7	7.0	6.4	7.5
38	TULARE	7,229.7	506.0	7.0	6.4	7.6
39	SACRAMENTO	19,407.0	1,358.7	7.0	6.6	7.4
40	CONTRA COSTA	12,375.7	867.3	7.0	6.5	7.5
41	EL DORADO	1,588.7	113.3	7.1	5.8	8.4
42	MENDOCINO	1,022.0	73.0	7.1	5.6	9.0
43	ALAMEDA	19,304.0	1,393.0	7.2	6.8	7.6
44	LOS ANGELES	121,405.7	8,797.0	7.2	7.1	7.4
45	YUBA	1,192.7	87.0	7.3	5.8	9.0
46	FRESNO	15,012.7	1,095.3	7.3	6.9	7.7
47	SAN BERNARDINO	30,479.3	2,240.0	7.3	7.0	7.7
48	SAN JOAQUIN	10,061.3	753.7	7.5	7.0	8.0
49	KERN	13,603.0	1,020.0	7.5	7.0	8.0
50	MONO	143.3	11.0	7.7 *	3.8	13.7
	HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-8.1			7.8		
51	SISKIYOU	458.0	36.3	7.9	5.6	11.0
52	LASSEN	300.3	24.3	8.1	5.2	12.0
53	PLUMAS	168.3	19.3	11.5 *	6.9	17.9
	ALPINE	<11.0	<11.0	NM *	0.1	87.9
	SIERRA	31.7	<11.0	NM *	2.4	29.3

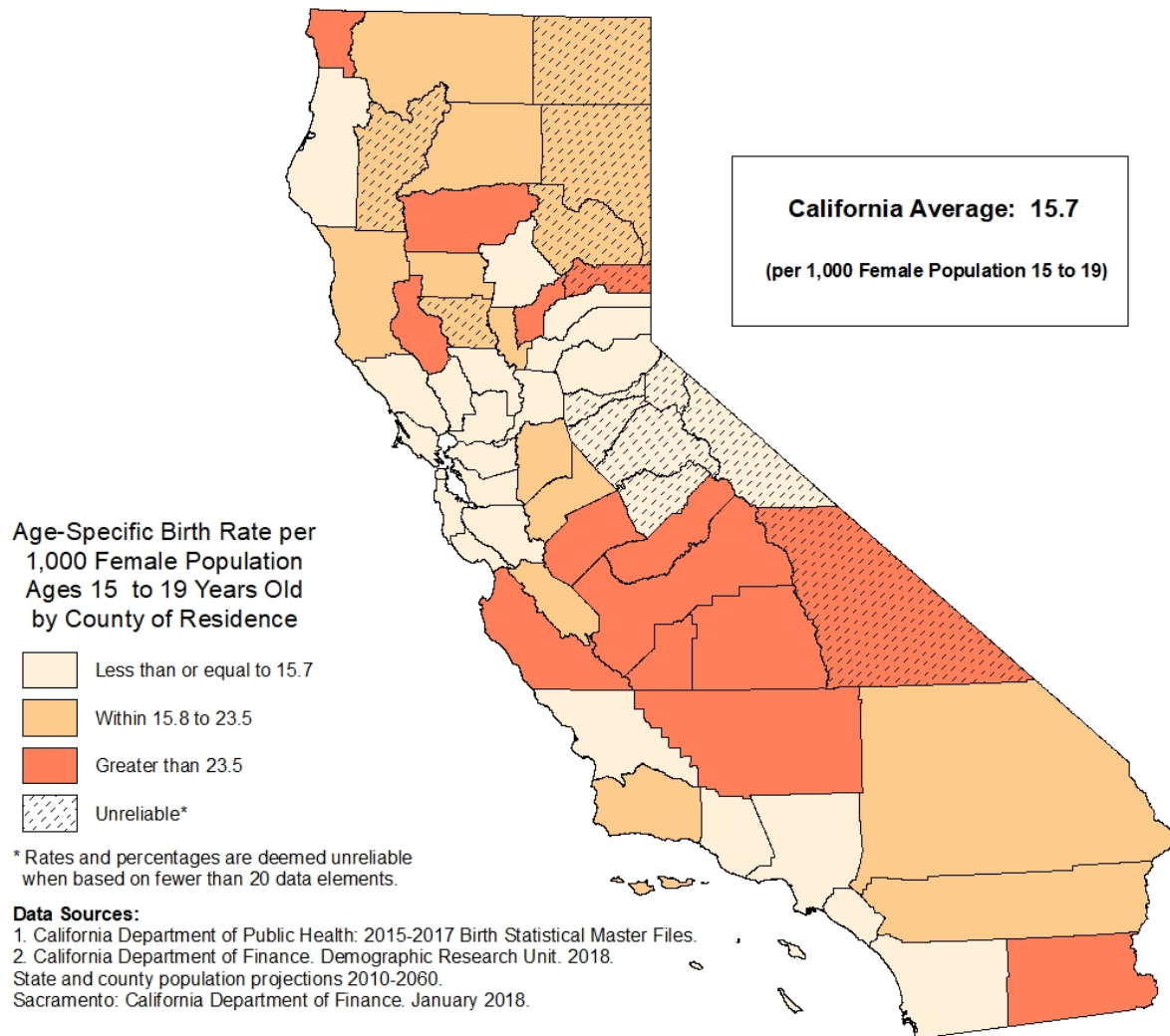
* Rates are deemed unreliable when based on fewer than 20 data elements.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data.

Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.

Note: Counties were rank ordered by increasing case rate. DDG suppressions are listed alphabetically. See technical notes for more information.
Source: California Department of Public Health: 2015-2017 Birth Statistical Master Files.

BIRTHS TO ADOLESCENT MOTHERS, 15 TO 19 YEARS OLD, 2015-2017



The age-specific birth rate to adolescent mothers, ages 15 to 19 years old, in California was 15.7 births per 1,000 female population, or approximately one birth for every 63.5 females in the corresponding age group. The age-specific birth rate for California was based on a 2015 through 2017 three-year average number of births to adolescent mothers, equaling 21,517.3 and a population count for females of 1,366,958 as of July 1, 2016.

Among counties with reliable rates, the age-specific birth rate of births to adolescent mothers ranged from 33.4 in Del Norte County and Imperial County to 6.2 in Marin County, a factor of 5.4 to 1.

A Healthy People 2020 National Objective for births to adolescent mothers, ages 15 to 19 years old, has not been established.

Seven counties' data were suppressed per the Data De-Identification Guidelines (DDG). For these counties, the three-year average live births and age specific birth rate were suppressed. See technical notes for more information regarding DDG.

The California age-specific birth rate to adolescent mothers for the 2012-2014 period was 22.2 per 1,000 female population in the corresponding age group.

TABLE 26
BIRTHS TO ADOLESCENT MOTHERS, 15 TO 19 YEARS OLD
RANKED BY THREE-YEAR AVERAGE AGE-SPECIFIC BIRTH RATE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	2016 FEMALE POPULATION 15-19 YRS OLD	2015-2017 LIVE BIRTHS (AVERAGE)	AGE-SPECIFIC BIRTHRATE	95% CONFIDENCE LIMITS	
					LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: NOT ESTABLISHED						
1	MARIN	7,143	44.3	6.2	4.5	8.3
2	SAN FRANCISCO	17,408	114.0	6.5	5.3	7.8
3	PLACER	11,853	84.7	7.1	5.7	8.8
4	EL DORADO	6,247	49.0	7.8	5.8	10.4
5	YOLO	10,709	84.7	7.9	6.3	9.8
6	ALAMEDA	51,711	437.7	8.5	7.7	9.3
7	SANTA CLARA	59,654	519.0	8.7	8.0	9.4
8	SAN MATEO	19,755	179.0	9.1	7.7	10.4
9	SONOMA	16,157	150.7	9.3	7.8	10.8
10	NEVADA	2,712	27.0	10.0	6.6	14.5
11	CONTRA COSTA	35,597	354.7	10.0	8.9	11.0
12	SANTA CRUZ	12,006	120.7	10.1	8.3	11.8
13	SAN LUIS OBISPO	10,396	108.3	10.4	8.5	12.4
14	ORANGE	112,405	1,216.0	10.8	10.2	11.4
15	NAPA	4,771	54.3	11.4	8.6	14.8
16	HUMBOLDT	4,854	57.3	11.8	9.0	15.3
17	AMADOR	953	12.0	12.6 *	6.5	22.0
18	TUOLUMNE	1,357	17.3	12.8 *	7.5	20.4
19	SOLANO	15,117	198.0	13.1	11.3	14.9
20	CALAVERAS	1,283	17.0	13.3 *	7.7	21.2
21	SAN DIEGO	109,669	1,499.3	13.7	13.0	14.4
22	BUTTE	8,645	121.7	14.1	11.6	16.6
23	VENTURA	29,651	427.3	14.4	13.0	15.8
24	SACRAMENTO	53,082	790.3	14.9	13.9	15.9
25	LOS ANGELES	353,045	5,307.3	15.0	14.6	15.4
	ALPINE	40	<11.0	NA *	<0.1	109.0
	MARIPOSA	449	<11.0	NA *	6.3	32.1
	MONO	374	<11.0	NA *	5.4	33.7
	CALIFORNIA	1,366,958	21,517.3	15.7	15.5	16.0
26	SUTTER	3,569	61.7	17.3	13.2	22.2
27	SAN BENITO	2,173	38.0	17.5	12.4	24.0
28	RIVERSIDE	91,120	1,621.0	17.8	16.9	18.7
29	SANTA BARBARA	19,084	353.3	18.5	16.6	20.4
30	SAN JOAQUIN	28,659	563.3	19.7	18.0	21.3
31	SISKIYOU	1,321	27.0	20.4	13.5	29.7
32	SHASTA	5,507	114.0	20.7	16.9	24.5
33	LASSEN	771	16.3	21.2 *	12.2	34.2
34	MENDOCINO	2,627	56.7	21.6	16.3	28.0
35	SAN BERNARDINO	83,159	1,823.7	21.9	20.9	22.9
36	STANISLAUS	21,162	467.3	22.1	20.1	24.1
37	GLENN	1,052	24.7	23.4	15.1	34.7
38	COLUSA	821	19.3	23.5 *	14.2	36.6
39	MONTEREY	15,939	412.3	25.9	23.4	28.4
40	MERCED	11,875	309.0	26.0	23.1	28.9
41	INYO	497	13.0	26.2 *	13.9	44.7
42	TEHAMA	2,121	56.0	26.4	19.9	34.3
43	FRESNO	40,128	1,065.0	26.5	24.9	28.1
44	YUBA	2,649	73.3	27.7	21.7	34.8
45	LAKE	1,801	51.3	28.5	21.2	37.4
46	KINGS	5,810	176.7	30.4	25.9	34.9
47	MADERA	5,708	179.7	31.5	26.9	36.1
48	KERN	34,657	1,099.7	31.7	29.9	33.6
49	TULARE	18,724	608.0	32.5	29.9	35.1
50	DEL NORTE	879	29.3	33.4	22.4	47.8
51	IMPERIAL	6,865	229.3	33.4	29.1	37.7
	MODOC	288	<11.0	NA *	5.0	38.9
	PLUMAS	508	<11.0	NA *	9.0	35.3
	SIERRA	69	<11.0	NA *	3.5	104.7
	TRINITY	372	<11.0	NA *	8.1	40.0

* Rates are deemed unreliable when based on fewer than 20 data elements.

<0.1 Indicates lower confidence limit is less than 0.1 but greater than 0.0.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. Objective Not Applicable (NA) refers to the Healthy People 2020 National Objectives only.

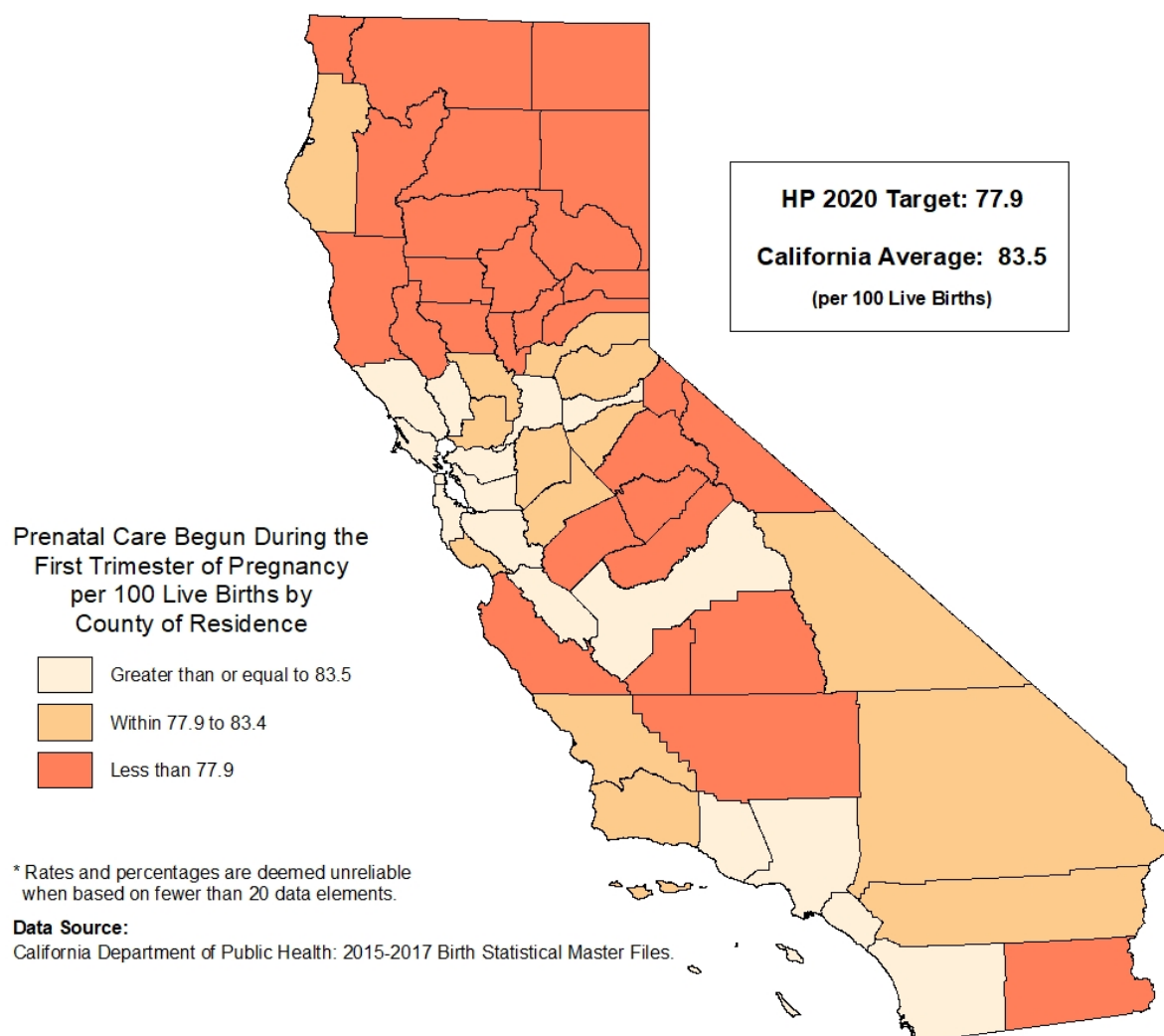
Note: Counties were rank ordered by age-specific birth rate. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources: 1. California Department of Public Health: 2015-2017 Birth Statistical Master Files.

2. California Department of Finance. Demographic Research Unit. 2018. State and county population projections 2010-2060.

Sacramento: California Department of Finance. January 2018.

PRENATAL CARE BEGUN DURING THE FIRST TRIMESTER OF PREGNANCY, 2015-2017



The percentage of births to California mothers whose prenatal care begun during the first trimester of pregnancy was 83.5 per 100 live births. The percentage for California was based on a 2015 through 2017 three-year average number of births to mothers whose prenatal care begun during the first trimester of pregnancy equaling 398,563.7 and 477,096.7 total live births; the total number of live births excludes births with an unknown number of prenatal visits.

Among counties with reliable percentages, the percentage of births to mothers whose prenatal care begun during the first trimester of pregnancy ranged from 90.8 in San Mateo County to 47.6 in Imperial County, a factor of 1.9 to 1.

Thirty counties with reliable percentages, and California as a whole, met the Healthy People 2020 National Objective MICH-10.1 where at least 77.9 percent of live births were to mothers whose prenatal care begun in the first trimester. Zero counties with unreliable percentages met the objective.

The data for one county were suppressed per the Data De-Identification Guidelines (DDG). Specifically, the county's prenatal care count and percentage were suppressed. See technical notes for more information regarding DDG.

The California percentage of births to mothers whose prenatal care begun during the first trimester of pregnancy for the 2012-2014 period was 83.5 per 100 live births.

**TABLE 27A
PRENATAL CARE BEGUN DURING THE FIRST TRIMESTER OF PREGNANCY
RANKED BY PERCENTAGE OF THREE-YEAR AVERAGE FIRST TRIMESTER PRENATAL CARE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2015-2017 LIVE BIRTHS (AVERAGE)			95% CONFIDENCE LIMITS	
		TOTAL NUMBER	FIRST TRIMESTER PRENATAL CARE		LOWER	UPPER
			NUMBER	PERCENT		
1	SAN MATEO	8,826.0	8,013.3	90.8	88.8	92.8
2	ALAMEDA	19,108.3	17,121.0	89.6	88.3	90.9
3	FRESNO	14,808.0	13,029.3	88.0	86.5	89.5
4	NAPA	1,374.0	1,207.0	87.8	82.9	92.8
5	SONOMA	4,861.7	4,255.3	87.5	84.9	90.2
6	CONTRA COSTA	12,337.7	10,793.7	87.5	85.8	89.1
7	SAN FRANCISCO	8,912.0	7,776.0	87.3	85.3	89.2
8	ORANGE	37,152.3	32,230.7	86.8	85.8	87.7
9	MARIN	2,245.7	1,946.3	86.7	82.8	90.5
10	SANTA CLARA	22,778.3	19,616.7	86.1	84.9	87.3
11	AMADOR	302.7	259.3	85.7	75.3	96.1
12	SAN BENITO	732.7	624.7	85.3	78.6	91.9
13	LOS ANGELES	118,913.7	100,862.0	84.8	84.3	85.3
14	SACRAMENTO	19,040.0	16,131.0	84.7	83.4	86.0
15	SAN DIEGO	42,560.7	35,904.7	84.4	83.5	85.2
16	VENTURA	9,641.0	8,115.3	84.2	82.3	86.0
17	RIVERSIDE	30,175.7	25,201.0	83.5	82.5	84.5
	CALIFORNIA	477,096.7	398,563.7	83.5	83.3	83.8
18	SAN BERNARDINO	30,270.0	25,215.7	83.3	82.3	84.3
19	SANTA CRUZ	2,713.0	2,255.0	83.1	79.7	86.5
20	PLACER	3,708.0	3,069.7	82.8	79.9	85.7
21	YOLO	2,323.7	1,912.3	82.3	78.6	86.0
22	STANISLAUS	6,993.0	5,647.0	80.8	78.6	82.9
23	SOLANO	5,145.3	4,135.7	80.4	77.9	82.8
24	SAN LUIS OBISPO	2,578.0	2,050.7	79.5	76.1	83.0
25	SAN JOAQUIN	9,915.3	7,857.7	79.2	77.5	81.0
26	HUMBOLDT	1,422.3	1,114.7	78.4	73.8	83.0
27	EL DORADO	1,581.0	1,237.0	78.2	73.9	82.6
28	SANTA BARBARA	5,554.0	4,337.7	78.1	75.8	80.4
29	INYO	196.0	153.0	78.1	65.7	90.4
30	CALAVERAS	385.7	300.3	77.9	69.1	86.7
	HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-10.1			77.9		
31	KERN	12,613.3	9,742.3	77.2	75.7	78.8
32	SISKIYOU	448.0	341.0	76.1	68.0	84.2
33	MADERA	2,219.0	1,666.0	75.1	71.5	78.7
34	MONTEREY	6,132.3	4,585.0	74.8	72.6	76.9
35	DEL NORTE	289.3	213.7	73.8	63.9	83.7
36	MONO	142.0	104.3	73.5	59.4	87.6
37	TULARE	7,143.7	5,241.7	73.4	71.4	75.4
38	NEVADA	811.0	594.0	73.2	67.4	79.1
39	SHASTA	2,018.3	1,440.0	71.3	67.7	75.0
40	KINGS	2,294.0	1,631.0	71.1	67.6	74.5
41	LASSEN	288.7	202.7	70.2	60.5	79.9
42	BUTTE	2,432.0	1,703.7	70.1	66.7	73.4
43	TUOLUMNE	458.7	321.0	70.0	62.3	77.6
44	TEHAMA	783.3	546.3	69.7	63.9	75.6
45	SUTTER	1,305.7	910.0	69.7	65.2	74.2
46	SIERRA	30.7	21.3	69.6	43.2	100.0
47	LAKE	724.7	501.7	69.2	63.2	75.3
48	PLUMAS	160.3	110.7	69.0	56.2	81.9
49	YUBA	1,189.0	816.3	68.7	63.9	73.4
50	GLENN	376.7	257.0	68.2	59.9	76.6
51	MENDOCINO	996.7	672.7	67.5	62.4	72.6
52	MERCED	4,084.0	2,755.3	67.5	64.9	70.0
53	COLUSA	299.0	197.3	66.0	56.8	75.2
54	MARIPOSA	147.3	92.0	62.4	50.3	76.6
55	TRINITY	111.0	68.7	61.9	48.1	78.3
56	MODOC	83.3	46.3	55.6	40.8	74.1
57	IMPERIAL	2,954.0	1,406.7	47.6	45.1	50.1
	ALPINE	<11.0	<11.0	NM *	1.5	100.0

* Rates are deemed unreliable when based on fewer than 20 data elements.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data.

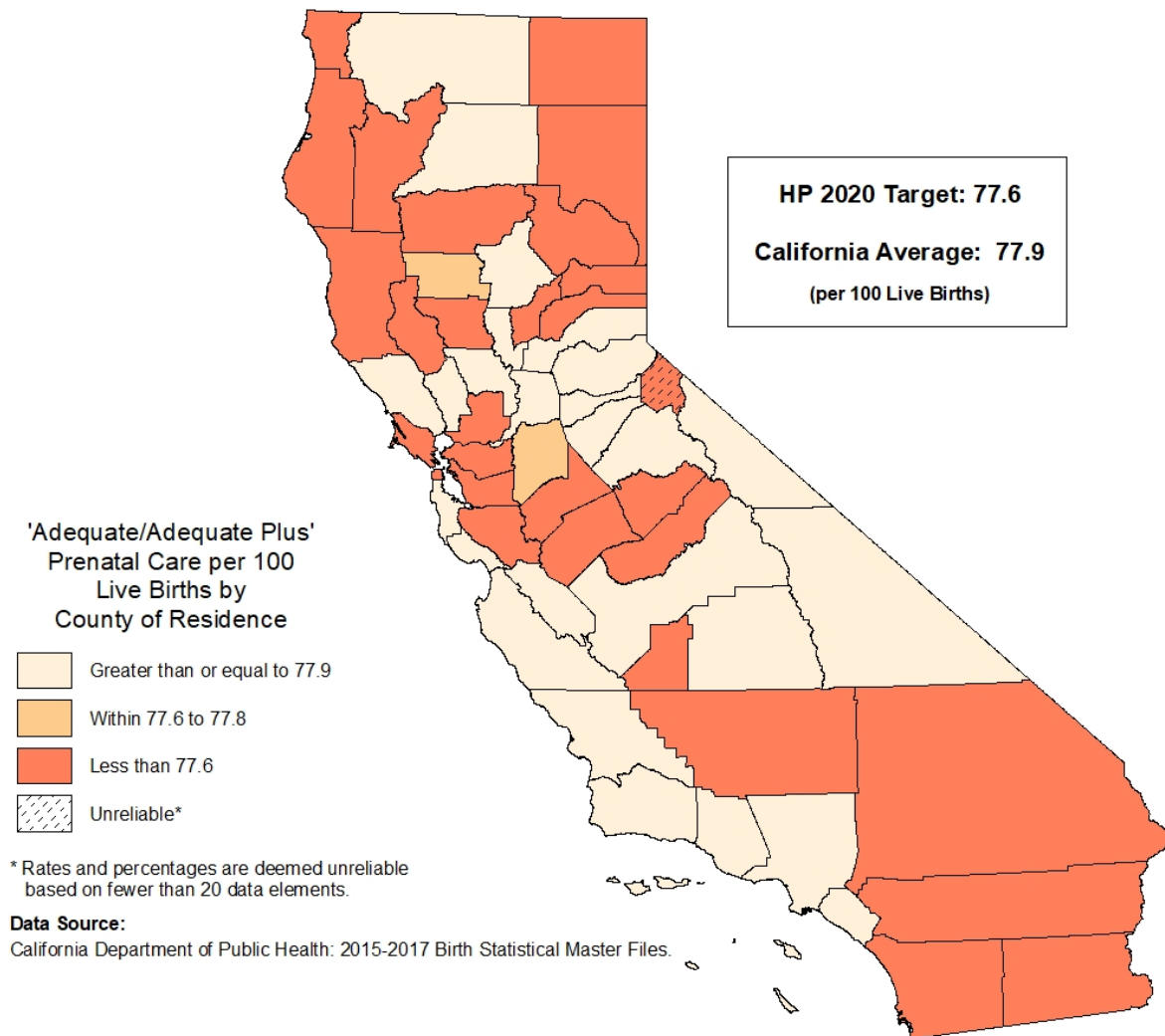
Not Met (NM) refers to the Healthy People 2020 National Objectives only.

Note: Counties were rank ordered first by decreasing percentage of births to mothers with first trimester care (calculated to 15 decimal places), second by decreasing size of the total number of live births.

DDG suppressions are listed alphabetically. See technical notes for more information.

Source: California Department of Public Health: 2015-2017 Birth Statistical Master Files.

**'ADEQUATE/ADEQUATE PLUS' PRENATAL CARE
(ADEQUACY OF PRENATAL CARE UTILIZATION INDEX), 2015-2017**



The percentage of births to mothers in California who received 'Adequate/Adequate Plus' prenatal care was 77.9. The percentage for California was based on a 2015 through 2017 three-year average number of births to mothers who received 'Adequate/Adequate Plus' prenatal care equaling 369,829.7, and a live birth count of 474,618.7.

Among counties with reliable percentages, the percentage of births to mothers who received 'Adequate/Adequate Plus' prenatal care ranged from 88.2 in Fresno County to 50.5 in Imperial County, a factor of 1.7 to 1.

Twenty-eight counties with reliable percentages, and California as a whole, met the Healthy People 2020 National Objective MICH-10.2 of increasing the proportion of pregnant women receiving early and adequate prenatal care to at least 77.6 percent of total births according to the Adequacy of Prenatal Care Utilization Index. Zero counties with unreliable percentages met the objective. See Technical Notes, Natality Section, for determination of 'Adequate/Adequate Plus' definition and additional clarification.

The data for one county were suppressed per the Data De-Identification Guidelines (DDG). Specifically, the total number of live births, 'Adequate/Adequate Plus' prenatal care count, and percentage for the county were suppressed. See technical notes for more information regarding DDG.

The California percentage of births to mothers who received 'Adequate/Adequate Plus' prenatal care for the 2012-2014 period was 78.6 per 100 live births.

TABLE 27B
'ADEQUATE/ADEQUATE PLUS' PRENATAL CARE (ADEQUACY OF PRENATAL CARE UTILIZATION INDEX)
RANKED BY PERCENTAGE OF THREE-YEAR 'ADEQUATE/ADEQUATE PLUS' PRENATAL CARE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	2015-2017 LIVE BIRTHS (AVERAGE)			95% CONFIDENCE LIMITS	
		TOTAL NUMBER	ADEQUATE / ADEQUATE PLUS PRENATAL CARE		LOWER	UPPER
			NUMBER	PERCENT		
1	FRESNO	14,756.7	13,012.0	88.2	86.7	89.7
2	SAN LUIS OBISPO	2,572.3	2,220.0	86.3	82.7	89.9
3	VENTURA	9,633.7	8,263.7	85.8	83.9	87.6
4	AMADOR	301.7	257.7	85.4	75.0	95.8
5	SANTA BARBARA	5,550.7	4,712.3	84.9	82.5	87.3
6	SANTA CRUZ	2,675.3	2,242.7	83.8	80.4	87.3
7	ORANGE	36,994.0	30,972.3	83.7	82.8	84.7
8	MONO	142.0	118.7	83.6	68.5	98.6
9	SAN BENITO	730.7	610.0	83.5	76.9	90.1
10	PLACER	3,704.7	3,062.0	82.7	79.7	85.6
11	CALAVERAS	385.0	316.0	82.1	73.0	91.1
12	YOLO	2,321.0	1,891.7	81.5	77.8	85.2
13	SACRAMENTO	18,996.7	15,417.3	81.2	79.9	82.4
14	LOS ANGELES	118,089.0	95,314.7	80.7	80.2	81.2
15	SAN MATEO	8,822.0	7,098.7	80.5	78.6	82.3
16	INYO	195.3	157.0	80.4	67.8	92.9
17	SHASTA	2,012.3	1,604.0	79.7	75.8	83.6
18	NAPA	1,368.3	1,090.3	79.7	75.0	84.4
19	SUTTER	1,305.0	1,037.7	79.5	74.7	84.4
20	TUOLUMNE	456.3	362.0	79.3	71.2	87.5
21	MONTEREY	6,121.7	4,836.3	79.0	76.8	81.2
22	EL DORADO	1,577.3	1,239.7	78.6	74.2	83.0
23	TULARE	7,123.3	5,568.3	78.2	76.1	80.2
24	SISKIYOU	446.7	349.0	78.1	69.9	86.3
25	BUTTE	2,429.3	1,897.7	78.1	74.6	81.6
26	SONOMA	4,859.0	3,792.3	78.0	75.6	80.5
	CALIFORNIA	474,618.7	369,829.7	77.9	77.7	78.2
27	GLENN	376.3	292.7	77.8	68.9	86.7
28	SAN JOAQUIN	9,839.7	7,637.3	77.6	75.9	79.4
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-10.2				77.6		
29	DEL NORTE	289.0	224.0	77.5	67.4	87.7
30	TEHAMA	781.7	605.7	77.5	71.3	83.7
31	YUBA	1,187.7	920.0	77.5	72.5	82.5
32	SAN FRANCISCO	8,896.0	6,853.3	77.0	75.2	78.9
33	NEVADA	790.7	608.0	76.9	70.8	83.0
34	MENDOCINO	989.7	760.3	76.8	71.4	82.3
35	SANTA CLARA	22,760.7	17,345.3	76.2	75.1	77.3
36	CONTRA COSTA	12,328.0	9,349.3	75.8	74.3	77.4
37	HUMBOLDT	1,414.0	1,059.3	74.9	70.4	79.4
38	SAN DIEGO	42,466.0	31,782.7	74.8	74.0	75.7
39	RIVERSIDE	30,110.0	22,266.3	73.9	73.0	74.9
40	COLUSA	298.3	219.3	73.5	63.8	83.2
41	SIERRA	30.0	22.0	73.3	46.0	100.0
42	MARIN	2,244.0	1,637.0	73.0	69.4	76.5
43	KERN	12,462.3	9,042.3	72.6	71.1	74.1
44	ALAMEDA	18,966.7	13,647.3	72.0	70.7	73.2
45	SAN BERNARDINO	30,086.0	21,636.0	71.9	71.0	72.9
46	TRINITY	111.0	79.7	71.8	56.9	89.4
47	STANISLAUS	6,612.3	4,739.7	71.7	69.6	73.7
48	MADERA	2,209.3	1,531.0	69.3	65.8	72.8
49	KINGS	2,293.3	1,585.0	69.1	65.7	72.5
50	SOLANO	5,140.0	3,530.3	68.7	66.4	70.9
51	LAKE	720.7	494.0	68.5	62.5	74.6
52	MERCED	4,020.3	2,620.3	65.2	62.7	67.7
53	MARIPOSA	142.7	92.0	64.5	52.0	79.1
54	LASSEN	286.7	177.3	61.9	52.8	71.0
55	MODOC	83.0	47.3	57.0	42.0	75.8
56	PLUMAS	159.0	89.0	56.0	45.0	68.9
57	IMPERIAL	2,948.7	1,489.3	50.5	47.9	53.1
	ALPINE	<11.0	<11.0	NM *	7.1	100.0

* Rates are deemed unreliable when based on fewer than 20 data elements.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data.

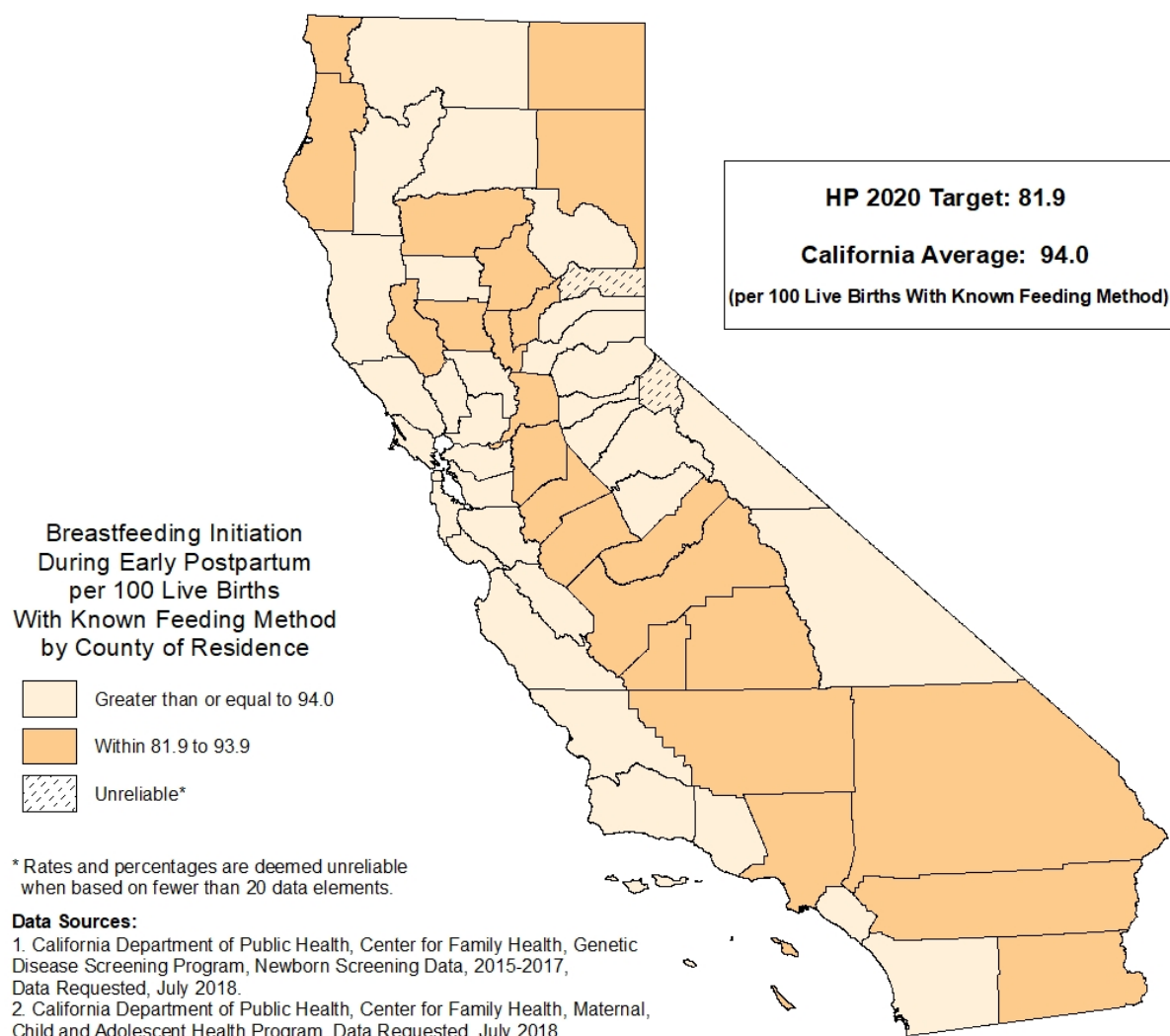
Not Met (NM) refers to the Healthy People 2020 National Objectives only.

Note: Counties were rank ordered first by decreasing percentage of births to mothers with 'adequate/adequate plus' prenatal care (calculated to 15 decimal places), second by decreasing size of the total number of live births.

DDG suppressions are listed alphabetically. See technical notes for more information.

Source: California Department of Public Health: 2015-2017 Birth Statistical Master Files.

BREASTFEEDING INITIATION DURING EARLY POSTPARTUM, 2015-2017



The California percentage of breastfed infants was 94.0. This was based on a 2015 through 2017 three-year average of 396,916.7 breastfed infants and 422,326.7 births with a known feeding method.

Among counties with reliable percentages, the percentage of breastfed infants ranged from 98.9 in Santa Cruz County to 88.1 in Fresno County, a factor of 1.1 to 1.

Fifty-six counties with reliable percentages, and California as a whole, met the Healthy People 2020 National Objective MICH-21.1 of increasing the proportion of mothers who breastfeed in the early postpartum period, usually 24 to 48 hours since birth, to at least 81.9 percent of total births. Two counties with unreliable percentages met the objective.

Data for one county were suppressed per the Data De-Identification Guidelines (DDG). For the county, the three-year average live birth count, three-year average breastfeeding count, and percentage were suppressed. See technical notes for more information regarding DDG.

The percentage of breastfed infants in California for the 2012-2014 period was 92.9 per 100 live births where the feeding method was known.

**TABLE 28
BREASTFEEDING INITIATION DURING EARLY POSTPARTUM
RANKED BY THREE YEAR AVERAGE BREASTFEEDING INITIATION PERCENTAGE
CALIFORNIA COUNTIES, 2015-2017**

RANK ORDER	COUNTY OF RESIDENCE	2015-2017 BIRTHS (AVERAGE) WITH KNOWN FEEDING METHOD			95% CONFIDENCE LIMITS	
		TOTAL NUMBER	BREASTFED			
			NUMBER	PERCENT	LOWER	UPPER
1	SANTA CRUZ	2,446.7	2,419.3	98.9	94.9	100.0
2	MARIN	1,987.0	1,961.0	98.7	94.3	100.0
3	SIERRA	16.3	16.0	98.0 *	56.0	100.0
4	NEVADA	672.0	657.0	97.8	90.3	100.0
5	INYO	167.0	163.0	97.6	82.6	100.0
6	MONO	108.3	105.7	97.5	78.9	100.0
7	SAN LUIS OBISPO	2,241.7	2,183.3	97.4	93.3	100.0
8	SONOMA	4,301.0	4,188.7	97.4	94.4	100.0
9	ALAMEDA	16,914.0	16,457.0	97.3	95.8	98.8
10	SANTA CLARA	20,429.7	19,865.7	97.2	95.9	98.6
11	SAN MATEO	8,023.7	7,801.7	97.2	95.1	99.4
12	NAPA	1,181.3	1,147.3	97.1	91.5	100.0
13	SAN FRANCISCO	7,957.0	7,723.0	97.1	94.9	99.2
14	YOLO	2,111.7	2,049.0	97.0	92.8	100.0
15	EL DORADO	1,357.0	1,315.0	96.9	91.7	100.0
16	CONTRA COSTA	10,917.7	10,564.0	96.8	94.9	98.6
17	AMADOR	270.0	261.0	96.7	84.9	100.0
18	MONTEREY	5,303.7	5,117.0	96.5	93.8	99.1
19	VENTURA	8,567.0	8,257.7	96.4	94.3	98.5
20	PLACER	3,254.7	3,134.0	96.3	92.9	99.7
21	MENDOCINO	885.3	852.3	96.3	89.8	100.0
22	SAN DIEGO	34,113.3	32,800.3	96.2	95.1	97.2
23	TUOLUMNE	396.3	380.7	96.0	86.4	100.0
24	SANTA BARBARA	4,951.7	4,751.7	96.0	93.2	98.7
25	PLUMAS	118.0	112.7	95.5	77.8	100.0
26	TRINITY	102.3	97.7	95.4	77.5	100.0
27	GLENN	325.0	310.0	95.4	84.8	100.0
28	SHASTA	1,817.3	1,729.3	95.2	90.7	99.6
29	CALAVERAS	334.0	317.3	95.0	84.6	100.0
30	ORANGE	34,345.7	32,616.0	95.0	93.9	96.0
31	SOLANO	4,205.7	3,993.7	95.0	92.0	97.9
32	SISKIYOU	314.7	298.3	94.8	84.1	100.0
33	SAN BENITO	634.7	600.7	94.6	87.1	100.0
34	MARIPOSA	134.3	126.7	94.3	77.9	100.0
	CALIFORNIA	422,326.7	396,916.7	94.0	93.7	94.3
35	TEHAMA	661.0	621.0	93.9	86.6	100.0
36	LOS ANGELES	107,479.7	100,965.3	93.9	93.4	94.5
37	LASSEN	224.7	211.0	93.9	81.2	100.0
38	HUMBOLDT	1,260.0	1,177.3	93.4	88.1	98.8
39	SUTTER	1,126.0	1,049.0	93.2	87.5	98.8
40	MODOC	28.3	26.3	92.9	60.9	100.0
41	COLUSA	274.3	254.7	92.8	81.4	100.0
42	LAKE	615.0	570.7	92.8	85.2	100.0
43	SACRAMENTO	16,921.3	15,693.3	92.7	91.3	94.2
44	IMPERIAL	2,567.7	2,380.3	92.7	89.0	96.4
45	RIVERSIDE	26,289.3	24,301.3	92.4	91.3	93.6
46	MERCED	3,640.0	3,358.7	92.3	89.2	95.4
47	BUTTE	2,139.3	1,971.0	92.1	88.1	96.2
48	YUBA	1,008.0	914.7	90.7	84.9	96.6
49	MADERA	1,944.0	1,760.0	90.5	86.3	94.8
50	DEL NORTE	245.0	221.7	90.5	78.6	100.0
51	TULARE	6,170.3	5,571.7	90.3	87.9	92.7
52	KERN	11,797.0	10,604.0	89.9	88.2	91.6
53	KINGS	2,012.7	1,807.0	89.8	85.6	93.9
54	SAN BERNARDINO	26,309.7	23,596.0	89.7	88.5	90.8
55	SAN JOAQUIN	8,552.3	7,661.7	89.6	87.6	91.6
56	STANISLAUS	6,797.7	6,055.7	89.1	86.8	91.3
57	FRESNO	13,354.0	11,767.0	88.1	86.5	89.7
	ALPINE	<11.0	<11.0	M *	25.2	100.0
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: MICH-21.1				81.9		

* Rates are deemed unreliable based on fewer than 20 data elements.

<11.0 refers to Data De-Identification Guidelines (DDG) used to assess risk of publicly released data; as a result, suppression and masking have been applied to this tabular data. Met (M) refers to the Healthy People 2020 National Objectives only.

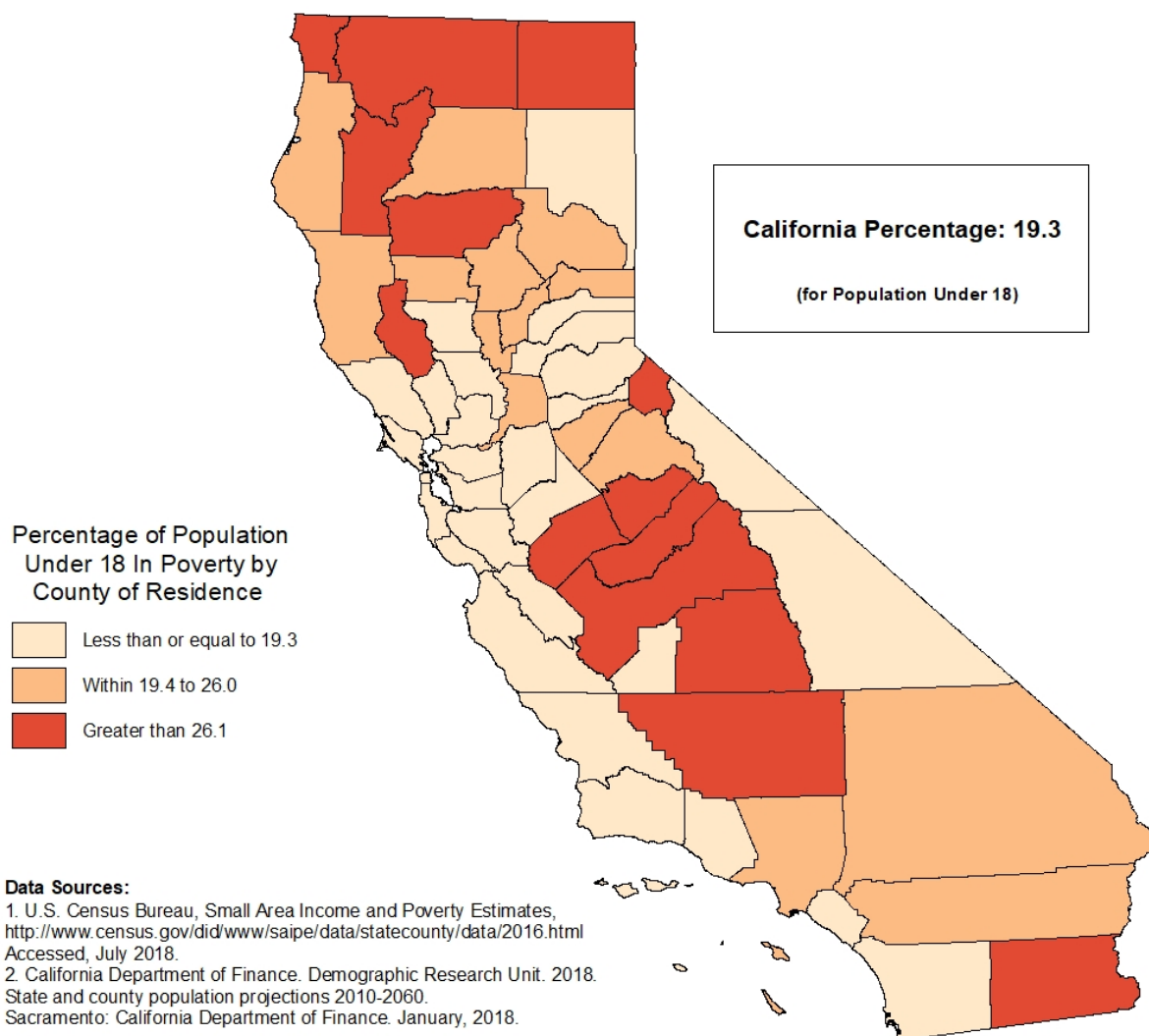
Note: Counties were rank ordered first by decreasing breastfed percentage (calculated to 15 decimal places), second by decreasing number of births.

Sources: 1. California Department of Public Health, Center for Family Health, Genetic Disease Screening Program,

Newborn Screening Data, 2015-2017, Data Requested, July 2018.

2. California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Program, Data Requested, July 2018.

PERSONS UNDER 18 IN POVERTY, 2016



The percentage of Californians under the age of 18, and in poverty, was 19.3 during 2016. This was based on the U.S. Census Bureau, American Community Survey 2016 estimate of persons under 18 years of age in poverty of 1,782,761 and a corresponding population count of 9,257,380 as of July 1, 2016.

All fifty-eight counties demonstrated reliable rates for persons under 18 years of age and in poverty. The percentages ranged from 36.5 in Fresno County to 7.6 in San Mateo County, a factor of 4.8 to 1.

A Healthy People 2020 National Objective for persons under 18 years of age and in poverty has not been established.

The California percentage of persons under 18 years of age and in poverty in 2015 was 20.7 for the population under 18.

TABLE 29
PERSONS UNDER 18 IN POVERTY
RANKED BY PERCENTAGE OF CENSUS POPULATION UNDER 18 BELOW POVERTY
CALIFORNIA COUNTIES, 2016

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION UNDER 18	IN POVERTY UNDER 18		95% CONFIDENCE LIMITS	
			NUMBER	PERCENT	LOWER	UPPER
HEALTHY PEOPLE 2020 NATIONAL OBJECTIVE: NOT ESTABLISHED						
1	SAN MATEO	161,878	12,298	7.6	7.5	7.7
2	PLACER	78,193	6,419	8.2	8.0	8.4
3	MARIN	52,858	4,514	8.5	8.3	8.8
4	NAPA	29,907	2,884	9.6	9.3	10.0
5	SANTA CLARA	446,411	44,669	10.0	9.9	10.1
6	EL DORADO	36,677	3,742	10.2	9.9	10.5
7	SAN FRANCISCO	126,208	13,039	10.3	10.2	10.5
8	CONTRA COSTA	252,258	26,704	10.6	10.5	10.7
9	SAN LUIS OBISPO	51,859	5,537	10.7	10.4	11.0
10	SONOMA	99,716	11,094	11.1	10.9	11.3
11	ALAMEDA	349,269	42,498	12.2	12.1	12.3
12	VENTURA	200,204	24,516	12.2	12.1	12.4
13	SANTA CRUZ	60,233	8,034	13.3	13.0	13.6
14	MONO	2,859	395	13.8	12.5	15.2
15	YOLO	49,888	6,903	13.8	13.5	14.2
16	ORANGE	730,547	101,693	13.9	13.8	14.0
17	NEVADA	16,468	2,331	14.2	13.6	14.7
18	COLUSA	6,130	911	14.9	13.9	15.8
19	SAN DIEGO	790,021	117,505	14.9	14.8	15.0
20	SAN BENITO	14,580	2,241	15.4	14.7	16.0
21	SANTA BARBARA	103,069	15,975	15.5	15.3	15.7
22	SOLANO	100,543	15,893	15.8	15.6	16.1
23	AMADOR	5,689	960	16.9	15.8	17.9
24	INYO	3,865	698	18.1	16.7	19.4
25	MONTEREY	115,112	21,202	18.4	18.2	18.7
26	LASSEN	5,343	1,008	18.9	17.7	20.0
27	SAN JOAQUIN	200,036	37,859	18.9	18.7	19.1
28	KINGS	45,526	8,657	19.0	18.6	19.4
29	STANISLAUS	145,153	27,760	19.1	18.9	19.3
	CALIFORNIA	9,257,380	1,782,761	19.3	19.2	19.3
30	SIERRA	465	90	19.4	15.6	23.8
31	HUMBOLDT	27,946	5,570	19.9	19.4	20.5
32	TUOLUMNE	8,748	1,789	20.5	19.5	21.4
33	CALAVERAS	7,393	1,536	20.8	19.7	21.8
34	RIVERSIDE	601,433	126,620	21.1	20.9	21.2
35	BUTTE	46,365	10,257	22.1	21.7	22.6
36	PLUMAS	3,197	708	22.1	20.5	23.8
37	LOS ANGELES	2,319,464	519,545	22.4	22.3	22.5
38	YUBA	21,480	4,824	22.5	21.8	23.1
39	GLENN	7,543	1,707	22.6	21.6	23.7
40	SACRAMENTO	361,947	82,956	22.9	22.8	23.1
41	SHASTA	37,816	9,251	24.5	24.0	25.0
42	SUTTER	25,173	6,201	24.6	24.0	25.2
43	SAN BERNARDINO	580,699	145,211	25.0	24.9	25.1
44	MENDOCINO	19,134	4,969	26.0	25.2	26.7
45	MERCED	80,372	21,400	26.6	26.3	27.0
46	MARIPOSA	2,886	779	27.0	25.1	28.9
47	SISKIYOU	8,719	2,362	27.1	26.0	28.2
48	MODOC	1,821	498	27.3	24.9	29.7
49	TEHAMA	15,456	4,299	27.8	27.0	28.6
50	LAKE	13,538	3,879	28.7	27.8	29.6
51	DEL NORTE	5,857	1,699	29.0	27.6	30.4
52	MADERA	42,402	12,689	29.9	29.4	30.4
53	TRINITY	2,169	655	30.2	27.9	32.5
54	ALPINE	210	65	31.0	23.9	39.5
55	KERN	255,253	79,255	31.0	30.8	31.3
56	IMPERIAL	54,402	16,920	31.1	30.6	31.6
57	TULARE	144,319	46,578	32.3	32.0	32.6
58	FRESNO	280,673	102,510	36.5	36.3	36.7

Note: Counties were rank ordered first by increasing percentage of persons under 18 in poverty (calculated to 15 decimal places), second by decreasing size of the same age group population. Percentage based on the population under 18 years of age for which the poverty status was determined and excludes persons of unknown poverty status.

Sources: 1. U.S. Census Bureau, Small Area Income and Poverty Estimates. <http://www.census.gov/data/datasets/2016/demo/saie/2016-state-and-county.html>. Accessed, July 2018.

2. California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060. Sacramento: California Department of Finance. January 2018.

TABLE 30
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	ALL CANCERS		COLORECTAL CANCER		LUNG CANCER	
	2012-2014	2015-2017	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	146.5	137.4	13.4	12.5	31.7	27.5
ALAMEDA	142.6	129.6	12.9	12.0	31.1	26.2
ALPINE	116.5 *	69.9 *	-	-	-	34.9 *
AMADOR	151.0	153.2	12.4 *	16.7 *	43.8	41.1
BUTTE	170.1	164.6	14.5	15.1	45.1	36.6
CALAVERAS	158.1	143.8	14.0 *	15.3 *	41.6	33.6
COLUSA	115.4	139.9	5.9 *	16.0 *	30.2 *	26.1 *
CONTRA COSTA	145.6	134.8	13.1	12.7	33.8	27.9
DEL NORTE	165.5	156.4	15.7 *	10.5 *	45.6 *	37.7 *
EL DORADO	139.5	141.0	12.1	12.7	31.7	30.8
FRESNO	148.1	141.0	13.0	12.5	34.4	29.1
GLENN	171.3	150.6	14.0 *	8.2 *	52.0 *	42.3 *
HUMBOLDT	171.3	160.5	13.0	12.7	37.3	37.1
IMPERIAL	125.5	121.3	10.0 *	11.6	25.7	18.7
INYO	130.5	155.3	16.2 *	11.3 *	33.9 *	33.5 *
KERN	158.8	150.0	13.1	12.1	39.4	31.4
KINGS	152.5	152.8	14.1 *	15.1 *	33.0	38.4
LAKE	193.4	195.9	14.7 *	14.8 *	56.2	46.7
LASSEN	105.4	131.3	11.7 *	11.2 *	31.1 *	33.0 *
LOS ANGELES	140.6	132.8	13.7	13.1	27.4	24.8
MADERA	139.4	149.3	13.6 *	11.6 *	33.0	29.7
MARIN	123.2	114.9	8.4	9.7	25.4	20.2
MARIPOSA	132.4	140.8	14.3 *	15.4 *	29.1 *	33.6 *
MENDOCINO	164.4	157.2	15.2 *	13.9 *	38.2	34.0
MERCED	162.4	158.1	15.9	14.4	39.6	33.4
MODOC	136.8	144.7	8.6 *	15.8 *	19.7 *	27.4 *
MONO	105.1 *	127.1 *	16.0 *	10.1 *	17.7 *	21.6 *
MONTEREY	135.1	125.8	9.8	10.1	27.1	23.1
NAPA	161.3	150.8	11.1 *	11.6	36.4	30.6
NEVADA	147.9	132.1	12.4 *	9.3 *	30.9	24.8
ORANGE	138.2	129.1	12.0	10.8	29.2	25.8
PLACER	148.0	139.3	11.0	11.3	30.3	27.5
PLUMAS	128.5	155.7	7.1 *	18.0 *	30.2 *	37.2 *
RIVERSIDE	150.3	141.1	14.4	13.7	34.9	29.5
SACRAMENTO	167.0	158.4	15.6	13.7	40.7	33.9
SAN BENITO	133.3	122.2	11.2 *	10.8 *	26.0 *	27.4 *
SAN BERNARDINO	163.0	155.1	16.5	15.4	36.0	30.9
SAN DIEGO	150.9	140.5	13.4	12.7	32.9	27.3
SAN FRANCISCO	135.2	125.0	12.4	12.3	30.4	25.8
SAN JOAQUIN	170.3	156.8	16.1	14.9	41.1	32.4
SAN LUIS OBISPO	141.9	130.6	13.0	11.2	31.7	27.4
SAN MATEO	130.1	115.9	11.3	10.3	26.0	22.3
SANTA BARBARA	147.9	130.4	13.0	8.9	25.5	24.9
SANTA CLARA	127.4	115.5	11.0	9.7	26.3	23.0
SANTA CRUZ	138.5	128.8	12.2	10.2	26.1	24.7
SHASTA	182.6	183.6	15.6	16.7	46.0	45.7
SIERRA	151.2 *	71.3 *	6.6 *	16.5 *	38.4 *	4.0 *
SISKIYOU	178.6	162.0	12.2 *	12.2 *	40.2	38.7
SOLANO	174.9	159.3	16.6	13.2	41.9	32.4
SONOMA	151.4	140.2	13.3	12.2	33.3	29.3
STANISLAUS	171.9	166.7	17.7	15.5	39.1	37.1
SUTTER	151.5	155.7	8.4 *	11.1 *	43.5	34.3
TEHAMA	187.4	144.1	19.2 *	11.8 *	51.5	35.5
TRINITY	160.3	123.8	15.2 *	10.4 *	38.1 *	36.8 *
TULARE	144.9	135.3	11.6	13.8	34.9	28.6
TUOLUMNE	161.6	143.9	14.3 *	8.0 *	31.9	32.8
VENTURA	143.4	140.0	13.1	12.9	27.2	26.2
YOLO	157.9	140.1	12.6	10.5	33.5	28.2
YUBA	172.6	199.5	15.0 *	15.9 *	46.4	54.3

- Rates and percentages are not calculated for zero events.
* Rates and percentages are deemed unreliable when based on fewer than 20 data elements.
Note: Age-adjusted death rates are per 100,000 population and exclude multiple causes of death.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	FEMALE BREAST CANCER		PROSTATE CANCER		DIABETES	
	2012-2014	2015-2017	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	20.3	18.9	19.5	19.4	20.4	21.2
ALAMEDA	19.2	17.8	18.4	17.3	21.5	19.3
ALPINE	46.3 *	-	-	24.9 *	-	-
AMADOR	19.3 *	19.6 *	13.5 *	20.4 *	7.7 *	10.0 *
BUTTE	18.6	21.0	24.1	19.0	18.2	23.0
CALAVERAS	16.3 *	15.1 *	15.2 *	20.0 *	14.7 *	12.1 *
COLUSA	20.1 *	5.3 *	12.9 *	13.0 *	15.1 *	18.1 *
CONTRA COSTA	20.8	18.7	18.9	20.0	16.2	18.1
DEL NORTE	17.2 *	12.8 *	23.4 *	25.2 *	15.0 *	24.4 *
EL DORADO	19.1	19.2	19.0 *	20.2	7.9 *	12.4
FRESNO	21.1	16.9	16.8	17.0	28.5	25.7
GLENN	17.6 *	16.0 *	8.9 *	33.4 *	28.0 *	23.4 *
HUMBOLDT	24.8	20.7 *	23.6 *	29.3	23.8	26.9
IMPERIAL	15.8 *	11.5 *	22.1 *	18.8 *	27.3	34.6
INYO	7.5 *	13.8 *	11.6 *	13.7 *	18.9 *	22.7 *
KERN	22.0	21.3	23.6	20.4	34.5	37.1
KINGS	19.5 *	18.5 *	23.7 *	19.8 *	30.7	22.3
LAKE	21.7 *	29.2 *	22.0 *	26.5 *	16.5 *	20.5 *
LASSEN	6.8 *	12.9 *	13.5 *	13.6 *	19.7 *	21.3 *
LOS ANGELES	20.9	18.5	18.8	19.2	22.3	22.9
MADERA	17.8 *	22.0 *	17.4 *	19.8 *	18.8	19.3
MARIN	18.9	16.2	15.8	15.3	7.8	7.9
MARIPOSA	19.4 *	22.7 *	21.8 *	11.2 *	18.1 *	10.1 *
MENDOCINO	21.3 *	19.9 *	20.8 *	27.9 *	17.5	18.8
MERCED	19.4	22.8	20.8 *	23.1	28.1	31.1
MODOC	34.0 *	14.6 *	5.1 *	23.9 *	25.3 *	21.2 *
MONO	22.0 *	2.6 *	23.5 *	36.8 *	32.0 *	3.9 *
MONTEREY	19.0	16.7	19.6	17.3	20.1	18.9
NAPA	15.2 *	18.0 *	25.8 *	26.6	11.7	19.0
NEVADA	23.9	22.4	19.8 *	19.5 *	8.4 *	12.6
ORANGE	19.0	18.2	18.1	17.7	14.3	13.9
PLACER	18.9	19.5	23.0	20.2	14.7	15.9
PLUMAS	22.8 *	10.2 *	18.3 *	8.1 *	10.0 *	18.4 *
RIVERSIDE	20.4	21.1	19.6	19.9	19.0	19.1
SACRAMENTO	20.9	21.8	21.2	19.6	23.8	26.7
SAN BENITO	13.6 *	17.7 *	28.6 *	14.9 *	17.1 *	25.5 *
SAN BERNARDINO	23.9	22.3	24.0	26.1	32.0	34.5
SAN DIEGO	20.6	19.7	21.4	21.5	18.8	20.7
SAN FRANCISCO	17.1	14.6	14.0	14.1	11.9	13.6
SAN JOAQUIN	21.7	21.4	24.2	25.9	28.1	26.4
SAN LUIS OBISPO	23.5	19.3	19.0	18.9	12.6	13.9
SAN MATEO	19.4	15.0	16.5	15.7	12.7	12.0
SANTA BARBARA	21.4	20.8	22.6	16.1	14.5	16.8
SANTA CLARA	16.2	16.4	16.0	14.6	22.0	20.8
SANTA CRUZ	21.0	16.8	17.7	21.6	16.2	14.3
SHASTA	21.0	21.0	23.8	20.8	18.9	22.3
SIERRA	8.2 *	22.3 *	49.7 *	7.7 *	18.7 *	15.1 *
SISKIYOU	33.4 *	19.5 *	33.6 *	28.4 *	21.4 *	23.9 *
SOLANO	21.7	20.0	24.3	26.3	25.6	31.5
SONOMA	20.8	19.7	19.7	18.2	17.4	17.9
STANISLAUS	22.3	18.8	22.0	26.7	21.5	27.6
SUTTER	15.9 *	20.1 *	16.5 *	17.9 *	22.8	18.4
TEHAMA	21.0 *	16.9 *	20.0 *	18.2 *	24.5 *	16.2 *
TRINITY	16.2 *	7.5 *	5.3 *	14.2 *	12.5 *	8.6 *
TULARE	20.5	17.4	21.4	17.3	26.6	26.1
TUOLUMNE	18.7 *	20.4 *	16.5 *	15.0 *	16.1 *	12.9 *
VENTURA	20.1	17.8	18.2	19.2	17.3	19.4
YOLO	20.8	16.7 *	22.6 *	21.3 *	23.2	26.7
YUBA	20.3 *	26.1 *	33.9 *	27.2 *	16.2 *	23.8 *

- Rates and percentages are not calculated for zero events.
* Rates and percentages are deemed unreliable when based on fewer than 20 data elements.
Note: Age-adjusted death rates are per 100,000 population and exclude multiple causes of death.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	ALZHEIMER'S DISEASE		CORONARY HEART DISEASE		CEREBROVASCULAR DISEASE (STROKE)	
	2012-2014	2015-2017	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	30.7	35.7	97.4	87.4	34.7	36.3
ALAMEDA	27.8	33.8	71.4	61.3	35.4	40.6
ALPINE	-	21.7 *	41.3 *	195.9 *	35.8 *	-
AMADOR	34.4	41.6	95.3	82.5	36.0	29.4
BUTTE	43.0	53.2	95.8	85.6	38.5	42.7
CALAVERAS	18.8 *	23.2 *	99.1	83.5	30.9	25.8
COLUSA	13.7 *	30.4 *	74.5 *	105.7	28.6 *	33.5 *
CONTRA COSTA	34.3	38.3	67.5	59.5	39.2	44.3
DEL NORTE	13.5 *	8.6 *	90.9	100.9	40.8 *	37.7 *
EL DORADO	27.3	27.9	85.3	82.1	23.2	25.4
FRESNO	35.4	38.1	113.6	106.7	45.5	45.0
GLENN	24.0 *	36.3 *	88.2	75.1	36.8 *	48.7 *
HUMBOLDT	26.0	26.1	105.0	107.0	61.8	67.6
IMPERIAL	9.2 *	10.1 *	106.3	81.2	30.7	27.5
INYO	1.8 *	10.9 *	73.9	69.5	33.4 *	34.9 *
KERN	39.3	53.4	136.7	127.0	38.8	34.7
KINGS	36.1	37.2	98.1	102.9	33.4	37.1
LAKE	29.8	26.5	130.7	105.7	41.3	45.7
LASSEN	11.1 *	15.2 *	79.4	105.2	25.4 *	22.6 *
LOS ANGELES	26.5	35.6	114.4	101.7	33.1	34.0
MADERA	37.9	42.4	122.6	83.5	41.0	41.9
MARIN	37.5	39.4	58.3	48.2	25.5	23.6
MARIPOSA	20.3 *	18.2 *	118.6	112.5	24.3 *	20.3 *
MENDOCINO	17.2 *	11.8 *	103.2	85.0	39.6	37.2
MERCED	27.3	27.7	119.9	113.3	41.9	44.1
MODOC	4.9 *	11.9 *	96.2 *	74.3 *	34.3 *	31.9 *
MONO	11.0 *	25.0 *	96.1 *	97.4 *	39.0 *	43.8 *
MONTEREY	19.9	26.9	68.3	55.9	36.9	31.4
NAPA	30.7	31.2	80.5	86.2	36.5	35.0
NEVADA	37.6	26.0	92.2	77.9	30.0	33.9
ORANGE	35.3	38.6	92.7	77.2	34.2	35.9
PLACER	33.9	38.4	85.1	71.7	29.3	33.8
PLUMAS	17.9 *	21.1 *	87.9	72.9	29.8 *	24.9 *
RIVERSIDE	30.6	37.8	113.2	106.0	32.9	34.9
SACRAMENTO	29.5	42.1	106.2	100.4	40.0	43.9
SAN BENITO	10.2 *	12.0 *	67.8	59.3	33.1 *	35.4
SAN BERNARDINO	32.4	43.3	112.5	106.5	38.7	42.0
SAN DIEGO	36.9	38.0	89.4	79.2	32.5	35.6
SAN FRANCISCO	27.2	26.4	61.6	55.7	30.1	30.9
SAN JOAQUIN	53.7	51.6	106.8	96.2	46.2	48.5
SAN LUIS OBISPO	19.8	41.1	70.8	65.8	52.7	47.6
SAN MATEO	29.4	27.9	65.8	54.1	25.9	28.9
SANTA BARBARA	31.0	38.5	85.2	75.1	35.1	32.4
SANTA CLARA	19.3	5.5	66.7	56.6	25.8	26.8
SANTA CRUZ	35.6	32.2	78.1	63.2	29.7	31.6
SHASTA	44.8	55.7	121.2	127.0	44.0	42.4
SIERRA	-	25.5 *	80.3 *	101.6 *	25.2 *	30.6 *
SISKIYOU	29.0	31.6	96.3	87.2	37.0	36.4
SOLANO	42.7	43.7	72.1	66.0	38.4	48.1
SONOMA	40.4	40.0	79.9	72.9	34.1	33.4
STANISLAUS	40.6	55.1	145.6	131.1	44.4	40.7
SUTTER	19.1 *	32.3	123.8	124.4	39.6	54.1
TEHAMA	25.0	37.0	100.9	101.7	43.0	36.7
TRINITY	23.9 *	28.3 *	95.9	77.5 *	30.7 *	28.8 *
TULARE	22.9	32.3	124.2	121.2	42.8	43.0
TUOLUMNE	11.6 *	12.4 *	94.9	101.2	31.5	38.4
VENTURA	32.7	42.6	81.8	82.3	33.2	37.6
YOLO	37.0	48.3	77.4	73.3	36.0	38.3
YUBA	19.7 *	36.7	148.0	131.2	50.9	52.4

- Rates and percentages are not calculated for zero events.
 * Rates and percentages are deemed unreliable when based on fewer than 20 data elements.
 Note: Age-adjusted death rates are per 100,000 population and exclude multiple causes of death.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	INFLUENZA/PNEUMONIA		CHRONIC LOWER RESPIRATORY DISEASE		CHRONIC LIVER DISEASE AND CIRRHOSIS	
	2012-2014	2015-2017	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	15.5	14.2	33.9	32.0	11.7	12.2
ALAMEDA	13.3	12.3	27.3	25.3	9.4	8.6
ALPINE	-	-	-	21.7 *	12.5 *	128.0 *
AMADOR	24.7 *	16.9 *	33.9	36.8	12.2 *	17.6 *
BUTTE	16.0	14.9	52.7	46.8	17.4	18.7
CALAVERAS	16.3 *	13.0 *	39.0	37.8	10.8 *	11.7 *
COLUSA	7.0 *	11.9 *	37.3 *	46.9 *	14.4 *	9.5 *
CONTRA COSTA	10.0	10.8	32.6	28.1	8.3	8.4
DEL NORTE	23.2 *	21.4 *	54.6 *	69.1	16.3 *	26.5 *
EL DORADO	12.1	12.2	36.6	39.7	14.2	15.0
FRESNO	21.1	16.8	35.2	34.9	14.6	16.6
GLENN	20.9 *	13.7 *	52.9 *	50.8 *	15.8 *	13.2 *
HUMBOLDT	7.6 *	11.3 *	53.1	45.2	23.2	19.2
IMPERIAL	14.8	27.7	18.8	21.9	15.1	14.1
INYO	6.1 *	14.5 *	43.9 *	55.3 *	12.4 *	16.6 *
KERN	15.7	12.7	56.9	53.6	13.4	15.6
KINGS	22.0	14.3 *	39.1	41.6	19.1	15.7
LAKE	18.2 *	19.4 *	67.6	58.6	24.8	28.2
LASSEN	17.3 *	25.8 *	30.9 *	44.4 *	8.3 *	10.6 *
LOS ANGELES	21.4	18.7	29.1	28.2	12.4	13.2
MADERA	15.0	13.2	41.8	37.9	19.1	19.3
MARIN	9.7	11.5	20.6	19.6	6.8	5.0
MARIPOSA	9.9 *	7.2 *	43.0 *	36.4 *	14.1 *	11.9 *
MENDOCINO	14.5 *	14.8 *	48.7	40.1	16.9 *	9.3 *
MERCED	17.5	18.4	42.9	47.2	16.2	15.7
MODOC	18.9 *	13.2 *	65.0 *	67.1 *	9.0 *	26.4 *
MONO	13.0 *	9.1 *	19.4 *	29.5 *	10.4 *	5.7 *
MONTEREY	12.2	11.0	27.3	27.1	9.4	11.1
NAPA	14.0	13.7	28.5	26.9	9.6 *	11.4 *
NEVADA	13.7	13.4	40.4	35.2	10.7 *	14.9 *
ORANGE	16.4	15.1	28.8	26.8	9.7	10.7
PLACER	10.0	12.0	33.5	31.7	10.7	12.0
PLUMAS	15.4 *	11.0 *	41.5 *	44.9 *	18.2 *	18.3 *
RIVERSIDE	11.3	11.3	42.9	40.3	12.6	13.0
SACRAMENTO	15.8	14.9	41.1	39.3	11.3	12.2
SAN BENITO	24.0 *	13.7 *	30.3 *	34.6	9.1 *	9.3 *
SAN BERNARDINO	14.3	13.4	54.3	51.5	14.5	15.8
SAN DIEGO	9.3	9.9	32.0	28.4	9.8	10.8
SAN FRANCISCO	12.0	10.5	18.9	18.9	7.9	8.8
SAN JOAQUIN	18.8	18.1	46.8	47.3	16.9	18.0
SAN LUIS OBISPO	9.6	10.2	33.3	36.1	13.9	12.4
SAN MATEO	14.1	10.3	22.6	20.2	8.6	7.6
SANTA BARBARA	11.2	9.5	26.0	31.0	12.5	11.9
SANTA CLARA	12.3	9.3	22.4	18.5	8.2	7.7
SANTA CRUZ	11.7	12.7	28.2	24.5	12.9	11.9
SHASTA	12.6	17.0	74.4	66.3	18.2	18.3
SIERRA	-	4.0 *	25.8 *	76.9 *	19.8 *	14.1 *
SISKIYOU	13.2 *	16.6 *	56.9	59.2	21.5 *	18.3 *
SOLANO	17.8	17.6	40.5	34.0	10.6	12.3
SONOMA	8.9	9.9	34.4	29.7	12.0	9.6
STANISLAUS	17.6	17.3	46.8	50.2	14.9	17.0
SUTTER	16.6 *	18.6	49.7	43.1	17.1 *	12.7 *
TEHAMA	16.2 *	10.8 *	63.3	59.4	19.3 *	18.4 *
TRINITY	8.9 *	11.6 *	45.5 *	43.4 *	26.3 *	30.9 *
TULARE	23.2	21.3	44.3	41.0	18.3	20.3
TUOLUMNE	14.6 *	13.6 *	44.8	48.0	14.7 *	21.2 *
VENTURA	9.7	8.9	31.1	31.3	9.9	10.7
YOLO	14.7	14.4	45.2	40.3	14.8	14.0
YUBA	21.7 *	19.8 *	76.6	73.6	15.2 *	18.5 *

- Rates and percentages are not calculated for zero events.
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Note: Age-adjusted death rates are per 100,000 population and exclude multiple causes of death.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	ACCIDENTS (UNINTENTIONAL INJURIES)		MOTOR VEHICLE TRAFFIC CRASHES		SUICIDE	
	2012-2014	2015-2017	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	28.3	32.2	7.9	9.5	10.2	10.5
ALAMEDA	23.9	24.5	5.2	5.7	8.9	8.6
ALPINE	36.4 *	33.5 *	-	-	-	-
AMADOR	44.6	48.4	13.5 *	16.0 *	29.0 *	20.5 *
BUTTE	62.7	59.1	10.5	14.9	15.7	18.7
CALAVERAS	45.9	51.3	25.1 *	26.2 *	20.0 *	25.9 *
COLUSA	36.9 *	47.4 *	15.7 *	24.1 *	29.0 *	9.5 *
CONTRA COSTA	25.4	27.1	5.6	7.6	9.4	10.3
DEL NORTE	70.7	68.6	26.2 *	19.4 *	24.8 *	12.9 *
EL DORADO	43.3	48.6	10.6	13.9	15.0	18.6
FRESNO	38.8	45.8	13.1	15.7	10.5	11.0
GLENN	54.3 *	56.6 *	10.3 *	22.9 *	7.9 *	28.3 *
HUMBOLDT	69.6	73.9	19.7	20.4	25.2	23.2
IMPERIAL	40.9	42.7	12.9	10.7 *	6.8 *	9.2 *
INYO	51.5 *	51.9 *	10.2 *	11.6 *	18.0 *	15.8 *
KERN	44.9	58.6	13.2	18.8	13.3	14.1
KINGS	39.0	38.6	13.0 *	15.5	10.0 *	12.6 *
LAKE	83.5	89.6	21.7 *	26.2 *	25.8 *	29.3
LASSEN	50.3 *	60.1	12.2 *	14.6 *	22.3 *	25.0 *
LOS ANGELES	20.9	23.7	6.7	7.9	7.6	8.0
MADERA	40.6	49.2	15.8	17.9	15.2	11.3 *
MARIN	29.6	30.4	4.3 *	4.6 *	12.3	12.7
MARIPOSA	60.2 *	69.1 *	21.4 *	35.7 *	32.5 *	33.2 *
MENDOCINO	54.7	67.1	17.3 *	15.5 *	24.2	21.3
MERCED	46.7	54.6	16.0	22.0	9.5	11.9
MODOC	78.0 *	66.1 *	23.0 *	5.8 *	24.2 *	15.2 *
MONO	61.5 *	45.2 *	25.8 *	14.8 *	12.0 *	10.9 *
MONTEREY	30.0	33.9	7.5	11.0	9.2	9.2
NAPA	31.4	35.7	8.3 *	7.6 *	12.1 *	10.1 *
NEVADA	53.3	46.9	14.2 *	11.5 *	19.1	18.6
ORANGE	22.5	26.5	5.8	7.0	10.0	9.3
PLACER	27.2	34.2	6.1	9.8	11.2	12.1
PLUMAS	71.8 *	68.5 *	12.1 *	18.3 *	22.6 *	23.7 *
RIVERSIDE	31.9	38.0	10.0	12.0	10.7	11.3
SACRAMENTO	34.0	39.5	8.6	10.8	13.6	13.0
SAN BENITO	44.0	48.6	15.7 *	21.5 *	4.5 *	11.3 *
SAN BERNARDINO	26.2	30.9	11.5	13.4	10.3	11.0
SAN DIEGO	30.9	32.5	6.4	7.3	12.7	12.4
SAN FRANCISCO	27.6	34.6	3.3	4.2	7.8	10.5
SAN JOAQUIN	37.5	45.9	10.1	16.4	11.4	10.3
SAN LUIS OBISPO	34.6	38.3	10.0	9.8	16.5	17.1
SAN MATEO	20.5	22.5	5.2	5.6	7.0	7.4
SANTA BARBARA	25.5	36.7	6.4	8.3	11.2	12.9
SANTA CLARA	22.9	25.0	5.5	6.8	7.9	7.4
SANTA CRUZ	35.6	43.3	7.7	9.3	14.5	16.0
SHASTA	59.9	58.8	13.3	17.2	21.4	24.0
SIERRA	26.9 *	67.3 *	-	36.4 *	25.1 *	52.8 *
SISKIYOU	57.6	82.4	17.6 *	24.1 *	23.9 *	22.2 *
SOLANO	33.2	34.9	10.0	9.7	11.4	11.4
SONOMA	28.3	34.9	5.8	8.2	12.1	12.4
STANISLAUS	37.0	44.6	12.8	15.1	10.8	10.3
SUTTER	34.9	39.5	14.6 *	16.0 *	16.9 *	14.1 *
TEHAMA	55.1	52.4	18.4 *	18.5 *	19.0 *	19.2 *
TRINITY	87.4 *	84.6 *	28.5 *	38.4 *	21.4 *	44.0 *
TULARE	34.4	41.6	14.3	18.2	10.5	11.2
TUOLUMNE	54.2	61.8	13.0 *	12.0 *	14.2 *	18.9 *
VENTURA	29.5	34.3	6.8	8.7	11.2	10.8
YOLO	36.2	35.6	10.5	11.4	8.7 *	12.5
YUBA	62.5	63.7	12.5 *	22.2 *	15.8 *	19.3 *

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Note: Age-adjusted death rates are per 100,000 population and exclude multiple causes of death.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	HOMICIDE		FIREARM RELATED DEATHS		DRUG INDUCED DEATHS	
	2012-2014	2015-2017	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	5.0	5.2	7.6	7.9	11.4	12.7
ALAMEDA	7.4	6.5	9.0	7.6	9.6	9.9
ALPINE	-	48.1 *	-	48.1 *	-	-
AMADOR	5.7 *	4.6 *	11.3 *	13.5 *	24.3 *	15.8 *
BUTTE	4.1 *	3.8 *	10.3	13.3	31.5	26.8
CALAVERAS	4.4 *	7.6 *	16.1 *	23.5 *	19.3 *	17.9 *
COLUSA	1.4 *	-	20.1 *	4.1 *	7.7 *	16.1 *
CONTRA COSTA	6.3	6.5	9.3	9.2	11.7	10.9
DEL NORTE	4.2 *	15.7 *	22.5 *	15.2 *	15.4 *	24.6 *
EL DORADO	3.2 *	2.4 *	9.9	11.0	19.5	21.1
FRESNO	7.8	7.5	10.7	9.8	11.7	16.3
GLENN	4.0 *	7.2 *	7.0 *	17.7 *	20.5 *	9.9 *
HUMBOLDT	6.2 *	8.0 *	13.9 *	19.9	34.6	37.9
IMPERIAL	2.6 *	3.6 *	4.0 *	4.4 *	15.3	20.6
INYO	-	3.4 *	5.9 *	10.1 *	23.8 *	23.5 *
KERN	8.7	9.7	12.2	13.1	22.3	26.0
KINGS	5.0 *	7.1 *	4.8 *	10.5 *	13.7 *	11.3 *
LAKE	11.8 *	14.7 *	17.1 *	25.9 *	43.6	40.4
LASSEN	6.4 *	6.9 *	13.9 *	15.8 *	27.5 *	22.8 *
LOS ANGELES	5.6	6.1	6.9	7.4	7.2	8.5
MADERA	6.5 *	4.3 *	11.2 *	8.4 *	16.4	15.1
MARIN	1.2 *	2.1 *	4.6 *	5.5 *	10.8	12.4
MARIPOSA	9.1 *	-	23.4 *	23.8 *	26.3 *	17.5 *
MENDOCINO	3.8 *	6.0 *	15.0 *	14.3 *	19.3 *	26.2
MERCED	9.3	7.8	11.1	9.1	14.3	15.8
MODOC	21.8 *	13.2 *	32.7 *	7.5 *	39.3 *	21.3 *
MONO	-	7.5 *	4.0 *	13.4 *	9.3 *	5.9 *
MONTEREY	9.6	12.2	11.9	13.8	12.1	11.2
NAPA	1.6 *	1.3 *	5.9 *	5.4 *	10.4 *	10.4 *
NEVADA	1.8 *	1.0 *	11.1 *	11.9 *	22.3	22.1
ORANGE	1.9	2.3	4.7	4.6	10.8	12.1
PLACER	2.3 *	1.8 *	6.8	6.0	9.5	12.0
PLUMAS	6.4 *	-	15.5 *	19.3 *	43.0 *	26.0 *
RIVERSIDE	4.5	4.3	7.5	7.6	14.1	16.4
SACRAMENTO	6.2	6.8	10.0	10.0	15.9	17.1
SAN BENITO	4.1 *	3.5 *	3.3 *	7.5 *	10.3 *	10.3 *
SAN BERNARDINO	6.4	6.4	9.1	10.3	10.3	12.1
SAN DIEGO	2.9	2.9	6.2	6.2	13.1	13.8
SAN FRANCISCO	3.9	5.1	3.9	5.4	15.3	19.1
SAN JOAQUIN	10.5	10.3	12.7	12.6	16.3	17.9
SAN LUIS OBISPO	1.7 *	2.2 *	9.5	7.5	13.8	17.5
SAN MATEO	2.2 *	2.3 *	3.9	4.4	7.2	8.2
SANTA BARBARA	2.5 *	3.3 *	5.6	7.5	12.3	16.0
SANTA CLARA	2.9	2.6	4.4	4.3	7.5	7.7
SANTA CRUZ	4.1 *	2.3 *	8.1	7.8	19.2	17.7
SHASTA	6.2 *	5.9 *	14.3	15.1	27.4	22.8
SIERRA	-	-	15.8 *	52.8 *	18.0 *	-
SISKIYOU	4.6 *	10.7 *	16.2 *	19.1 *	17.7 *	31.8 *
SOLANO	8.8	8.6	13.1	12.3	12.0	13.5
SONOMA	1.6 *	2.8 *	6.0	5.0	11.0	14.4
STANISLAUS	6.5	5.7	10.0	8.0	14.8	18.7
SUTTER	3.9 *	6.1 *	14.3 *	12.3 *	13.0 *	11.5 *
TEHAMA	7.1 *	4.6 *	16.1 *	10.7 *	14.1 *	10.5 *
TRINITY	16.7 *	15.7 *	37.4 *	44.2 *	21.9 *	19.4 *
TULARE	8.8	8.6	11.5	12.4	8.5	10.8
TUOLUMNE	2.4 *	2.9 *	11.0 *	10.6 *	23.4 *	32.4 *
VENTURA	3.3	3.4	7.2	6.8	14.1	14.7
YOLO	2.5 *	2.9 *	5.2 *	5.7 *	12.8	15.2
YUBA	5.1 *	7.8 *	8.7 *	17.4 *	10.5 *	23.2 *

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Note: Age-adjusted death rates are per 100,000 population and exclude multiple causes of death.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	MORBIDITY RATES (THREE-YEAR AVERAGE)					
	REPORTED HIV AIDS INFECTION AGES 13 YEARS & OLDER		REPORTED INCIDENCE OF CHLAMYDIA		REPORTED INCIDENCE OF FEMALE GONORRHEA AGES 15-44	
	2011-2013	2014-2016	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	385.0	397.7	444.6	514.6	171.5	252.4
ALAMEDA	435.5	451.3	422.6	517.9	202.6	251.3
ALPINE	-	LNE *	LNE *	LNE *	-	-
AMADOR	162.4	292.6	172.1	203.5	LNE *	LNE *
BUTTE	115.5	125.8	429.1	538.3	177.5	312.7
CALAVERAS	72.7	98.5	164.8	166.9	LNE *	LNE *
COLUSA	LNE *	LNE *	148.7	266.0	LNE *	LNE *
CONTRA COSTA	241.4	256.7	370.1	462.8	215.1	278.6
DEL NORTE	87.0	85.7 *	135.5	317.8	LNE *	585.2
EL DORADO	103.8	109.5	166.9	238.5	42.8 *	133.9
FRESNO	207.8	231.9	620.2	659.4	422.0	470.8
GLENN	50.7 *	60.9 *	274.3	356.4	LNE *	206.3 *
HUMBOLDT	157.0	185.7	303.7	511.5	237.9	342.1
IMPERIAL	167.0	185.9	347.4	463.2	67.2	187.2
INYO	79.9 *	126.6	365.9	310.9	LNE *	LNE *
KERN	233.3	231.4	720.1	725.3	347.0	419.4
KINGS	137.3	143.6	367.0	547.0	149.3	350.1
LAKE	170.0	232.7	259.3	412.6	291.7	885.7
LASSEN	84.1	87.4	220.9	270.2	LNE *	LNE *
LOS ANGELES	571.6	595.9	520.4	589.4	180.8	277.3
MADERA	132.7	147.0	453.3	497.5	225.5	312.1
MARIN	366.4	391.1	198.3	296.9	72.4	137.0
MARIPOSA	113.5 *	118.2 *	156.1	179.1	LNE *	LNE *
MENDOCINO	211.9	240.8	364.6	404.4	100.0 *	451.3
MERCED	84.6	101.3	400.4	410.7	122.5	251.1
MODOC	LNE *	LNE *	LNE *	161.3 *	LNE *	LNE *
MONO	LNE *	LNE *	172.6	219.8	LNE *	LNE *
MONTEREY	185.5	192.9	392.2	435.4	152.7	150.5
NAPA	154.0	193.9	243.9	337.9	63.6 *	123.3
NEVADA	84.7	107.5	194.1	234.3	LNE *	142.4
ORANGE	269.3	271.5	284.7	401.3	72.9	143.0
PLACER	71.6	84.1	225.4	261.5	84.7	142.3
PLUMAS	LNE *	71.1 *	283.3	331.0	LNE *	LNE *
RIVERSIDE	302.3	361.2	392.0	417.6	125.6	201.7
SACRAMENTO	307.0	323.2	548.9	592.6	347.9	390.5
SAN BENITO	90.7	82.4	331.3	333.3	111.5 *	207.7
SAN BERNARDINO	193.9	215.0	535.0	555.9	238.3	338.2
SAN DIEGO	471.7	487.2	501.9	578.0	125.3	193.6
SAN FRANCISCO	1960.1	1782.3	630.0	954.7	120.4	237.3
SAN JOAQUIN	207.5	229.5	497.4	512.3	290.7	357.1
SAN LUIS OBISPO	274.5	215.0	351.6	418.1	64.8	154.3
SAN MATEO	228.5	233.1	259.0	339.7	50.7	99.4
SANTA BARBARA	155.1	164.2	431.5	525.6	82.8	151.5
SANTA CLARA	223.4	216.8	308.3	369.6	106.8	154.9
SANTA CRUZ	194.1	211.8	342.9	372.7	94.1	163.5
SHASTA	129.5	135.4	345.8	352.6	405.0	431.0
SIERRA	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
SISKIYOU	92.8	124.5	184.4	217.1	LNE *	LNE *
SOLANO	329.1	351.5	503.4	570.7	270.4	370.2
SONOMA	299.9	319.8	309.2	385.2	82.6	172.2
STANISLAUS	131.4	148.8	385.9	456.8	207.4	273.2
SUTTER	97.6	100.1	294.2	341.5	149.2	236.7
TEHAMA	76.1	77.6	317.0	349.1	229.1	381.1
TRINITY	112.9 *	135.6 *	102.4 *	168.0	LNE *	LNE *
TULARE	82.9	104.2	492.8	524.6	128.8	319.0
TUOLUMNE	79.5	83.5	169.4	237.6	LNE *	188.5 *
VENTURA	136.5	144.2	301.4	318.5	90.1	155.9
YOLO	125.2	146.6	324.7	439.3	104.1	165.3
YUBA	100.5	122.8	290.5	366.0	187.0	303.9

- Rates are not calculated for zero events.
 * Rates are deemed unreliable when based on fewer than 20 data elements.
 LNE: Low Number Evaluated; rates/percentages are masked per Data De-Identification Guidelines. See technical notes for more information.
 Note: The morbidity rates are crude case rates per 100,000 population.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	MORBIDITY RATES (THREE-YEAR AVERAGE)					
	REPORTED INCIDENCE OF MALE GONORRHEA AGES 15-44		REPORTED INCIDENCE OF TUBERCULOSIS		REPORTED INCIDENCE OF CONGENITAL SYPHILIS	
	2012-2014	2015-2017	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	255.2	444.8	5.6	5.3	12.9	44.4
ALAMEDA	288.3	541.6	7.9	8.4	LNE *	LNE *
ALPINE	-	-	-	-	-	-
AMADOR	LNE *	LNE *	0.9 *	-	-	-
BUTTE	153.0	285.7	2.1 *	1.2 *	-	LNE *
CALAVERAS	LNE *	LNE *	1.5 *	3.0 *	-	-
COLUSA	LNE *	LNE *	3.0 *	1.5 *	-	LNE *
CONTRA COSTA	187.5	358.3	4.9	4.3	LNE *	LNE *
DEL NORTE	LNE *	295.9 *	-	-	-	-
EL DORADO	60.1 *	130.1	1.5 *	1.6 *	-	-
FRESNO	301.7	406.1	4.3	5.5	71.6 *	341.9
GLENN	LNE *	LNE *	4.6 *	2.3 *	-	-
HUMBOLDT	197.3	430.5	2.2 *	2.0 *	-	-
IMPERIAL	65.7	142.8	19.4	20.6	LNE *	LNE *
INYO	LNE *	LNE *	-	1.8 *	-	-
KERN	374.5	480.3	3.9	2.8	LNE *	218.0
KINGS	111.4	276.9	3.1 *	2.5 *	LNE *	LNE *
LAKE	143.9 *	681.6	2.1 *	3.1 *	LNE *	-
LASSEN	LNE *	LNE *	2.1 *	1.1 *	-	-
LOS ANGELES	360.1	616.7	6.6	5.8	12.0 *	29.4
MADERA	181.9	220.1	5.3 *	2.6 *	-	LNE *
MARIN	93.4	222.9	4.4 *	2.7 *	-	-
MARIPOSA	LNE *	LNE *	-	-	-	-
MENDOCINO	LNE *	344.8	1.5 *	1.5 *	-	LNE *
MERCED	115.8	271.9	4.7 *	4.2 *	LNE *	-
MODOC	LNE *	LNE *	-	-	-	-
MONO	LNE *	LNE *	-	2.4 *	-	-
MONTEREY	146.0	197.0	4.1 *	4.5	-	LNE *
NAPA	67.3 *	181.4	2.2 *	2.6 *	-	-
NEVADA	LNE *	170.1	0.3 *	1.4 *	-	-
ORANGE	131.3	272.4	6.1	5.4	LNE *	LNE *
PLACER	78.6	175.7	1.5 *	1.8 *	-	-
PLUMAS	LNE *	LNE *	-	1.7 *	-	-
RIVERSIDE	138.6	279.2	2.6	2.3	LNE *	LNE *
SACRAMENTO	306.8	462.9	4.9	4.3	LNE *	LNE *
SAN BENITO	97.1 *	252.5	1.2 *	1.1 *	-	-
SAN BERNARDINO	211.3	348.3	2.6	3.0	LNE *	62.3 *
SAN DIEGO	231.1	408.8	6.9	7.4	LNE *	LNE *
SAN FRANCISCO	956.2	1799.9	13.2	11.6	-	LNE *
SAN JOAQUIN	262.2	379.6	6.7	6.9	LNE *	129.2 *
SAN LUIS OBISPO	92.2	172.4	1.2 *	1.1 *	LNE *	LNE *
SAN MATEO	128.1	288.3	8.3	7.1	LNE *	LNE *
SANTA BARBARA	76.2	175.1	6.0	2.8 *	LNE *	LNE *
SANTA CLARA	159.3	290.5	9.2	9.4	LNE *	LNE *
SANTA CRUZ	120.7	220.2	2.1 *	1.7 *	LNE *	LNE *
SHASTA	366.3	384.3	1.3 *	1.3 *	-	LNE *
SIERRA	LNE *	LNE *	-	-	-	-
SISKIYOU	LNE *	LNE *	0.7 *	-	LNE *	-
SOLANO	223.9	399.4	4.2 *	5.6	LNE *	-
SONOMA	99.8	280.1	2.2 *	1.9 *	LNE *	LNE *
STANISLAUS	232.5	327.3	1.9 *	2.6 *	LNE *	LNE *
SUTTER	124.2	247.9	3.8 *	4.1 *	-	-
TEHAMA	217.6	310.6	-	0.5 *	-	LNE *
TRINITY	LNE *	LNE *	-	2.5 *	-	-
TULARE	145.2	310.3	3.3 *	3.8 *	LNE *	LNE *
TUOLUMNE	LNE *	171.6 *	-	-	-	LNE *
VENTURA	102.7	192.2	4.3	3.2	-	LNE *
YOLO	149.2	248.8	2.7 *	4.0 *	-	-
YUBA	140.6	306.1	4.0 *	2.6 *	-	LNE *

- Rates are not calculated for zero events.

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LNE: Low Number Evaluated; rates/percentages are masked per Data De-Identification Guidelines. See technical notes for more information.

Note: The morbidity rates are crude case rates per 100,000 population.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	MORBIDITY RATES (THREE-YEAR AVERAGE)				MORTALITY RATES (THREE-YEAR AVERAGE)	
	INCIDENCE OF FEMALE PRIMARY/SECONDARY SYPHILIS		INCIDENCE OF MALE PRIMARY/SECONDARY SYPHILIS		INFANT MORTALITY ALL RACE/ETHNIC GROUPS	
	2012-2014	2015-2017	2012-2014	2015-2017	2011-2013	2014-2016
CALIFORNIA	1.1	3.5	16.9	26.2	4.7	4.4
ALAMEDA	1.8 *	2.5	17.2	21.1	4.2	4.0
ALPINE	-	-	-	-	-	-
AMADOR	-	LNE *	LNE *	LNE *	LNE *	LNE *
BUTTE	-	LNE *	LNE *	20.3	5.6 *	4.5 *
CALAVERAS	-	LNE *	LNE *	LNE *	LNE *	LNE *
COLUSA	-	-	-	LNE *	LNE *	LNE *
CONTRA COSTA	LNE *	LNE *	12.2	16.5	4.7	3.4
DEL NORTE	-	-	-	LNE *	LNE *	LNE *
EL DORADO	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
FRESNO	5.6	23.4	13.9	39.9	7.6	6.8
GLENN	-	-	-	LNE *	LNE *	LNE *
HUMBOLDT	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
IMPERIAL	LNE *	LNE *	LNE *	12.7 *	LNE *	3.8 *
INYO	-	-	-	-	LNE *	LNE *
KERN	5.9	15.0	19.6	34.5	6.7	6.1
KINGS	LNE *	LNE *	LNE *	19.7 *	5.9 *	LNE *
LAKE	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
LASSEN	-	-	-	LNE *	LNE *	LNE *
LOS ANGELES	0.8	2.4	20.9	33.4	4.6	4.3
MADERA	LNE *	16.6 *	LNE *	24.8 *	5.9 *	5.2 *
MARIN	LNE *	LNE *	11.2 *	13.9 *	LNE *	LNE *
MARIPOSA	-	LNE *	LNE *	LNE *	LNE *	LNE *
MENDOCINO	-	LNE *	LNE *	LNE *	LNE *	LNE *
MERCED	LNE *	LNE *	LNE *	15.5	5.0	4.0 *
MODOC	-	-	-	-	LNE *	LNE *
MONO	LNE *	-	-	LNE *	LNE *	LNE *
MONTEREY	LNE *	LNE *	10.8	14.9	4.8	5.3
NAPA	-	LNE *	LNE *	LNE *	LNE *	LNE *
NEVADA	-	LNE *	LNE *	LNE *	LNE *	LNE *
ORANGE	LNE *	1.0 *	10.6	18.7	3.6	3.1
PLACER	LNE *	LNE *	LNE *	9.2 *	4.9 *	3.9 *
PLUMAS	-	-	-	-	LNE *	LNE *
RIVERSIDE	LNE *	1.3 *	12.3	19.9	4.9	4.5
SACRAMENTO	LNE *	3.7	17.8	29.5	5.2	5.2
SAN BENITO	-	LNE *	LNE *	LNE *	LNE *	LNE *
SAN BERNARDINO	LNE *	2.5	6.7	14.4	6.3	6.2
SAN DIEGO	0.9 *	1.3	21.2	31.1	4.2	3.9
SAN FRANCISCO	LNE *	3.3 *	108.0	112.2	3.3	2.8
SAN JOAQUIN	LNE *	26.1	19.1	44.1	6.3	5.4
SAN LUIS OBISPO	LNE *	LNE *	LNE *	8.4 *	6.1 *	4.8 *
SAN MATEO	LNE *	LNE *	13.1	14.9	2.3	3.1
SANTA BARBARA	LNE *	LNE *	7.8 *	13.5	3.4 *	4.6
SANTA CLARA	LNE *	2.2	12.3	17.1	3.3	3.3
SANTA CRUZ	LNE *	LNE *	15.3	21.0	4.6 *	4.3 *
SHASTA	-	LNE *	LNE *	14.9 *	5.9 *	LNE *
SIERRA	-	-	-	-	-	-
SISKIYOU	LNE *	-	LNE *	LNE *	LNE *	LNE *
SOLANO	LNE *	LNE *	11.9	16.2	5.0	5.7
SONOMA	LNE *	LNE *	11.9	16.3	3.6 *	3.0 *
STANISLAUS	LNE *	9.0	17.7	24.6	6.4	5.1
SUTTER	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
TEHAMA	-	LNE *	LNE *	LNE *	LNE *	LNE *
TRINITY	-	-	-	LNE *	LNE *	LNE *
TULARE	LNE *	LNE *	7.4 *	12.5	4.7	6.2
TUOLUMNE	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
VENTURA	LNE *	LNE *	6.4	8.2	5.0	3.9
YOLO	LNE *	LNE *	LNE *	19.6	LNE *	4.7 *
YUBA	-	LNE *	LNE *	LNE *	LNE *	LNE *

- Rates are not calculated for zero events.

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LNE: Low Number Evaluated; rates/percentages are masked per Data De-Identification Guidelines. See technical notes for more information.

Note: The morbidity rates are crude case rates per 100,000 population.

Tables 24B-24E are omitted from this section due to a high amount of data suppression.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	PERCENT (THREE-YEAR AVERAGE)		AGE-SPECIFIC BIRTH RATE (THREE-YEAR AVERAGE)		PERCENT (THREE-YEAR AVERAGE)	
	LOW BIRTHWEIGHT INFANTS		BIRTHS TO ADOLESCENT MOTHERS, 15 TO 19 YEARS OLD		FIRST TRIMESTER PRENATAL CARE	
	2012-2014	2015-2017	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	6.7	6.9	22.2	15.7	83.5	83.5
ALAMEDA	7.3	7.2	13.4	8.5	90.1	89.6
ALPINE	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
AMADOR	7.2	6.9	19.9 *	12.6 *	86.5	85.7
BUTTE	6.2	6.0	19.3	14.1	74.9	70.1
CALAVERAS	5.8	5.9	11.1 *	13.3 *	79.7	77.9
COLUSA	6.4 *	6.6	31.8	23.5 *	71.4	66.0
CONTRA COSTA	6.8	7.0	14.1	10.0	86.0	87.5
DEL NORTE	4.9 *	6.4 *	42.6	33.4	75.7	73.8
EL DORADO	6.0	7.1	10.7	7.8	79.5	78.2
FRESNO	7.9	7.3	36.8	26.5	87.9	88.0
GLENN	7.2	4.9 *	31.1	23.4	66.7	68.2
HUMBOLDT	5.6	5.8	20.0	11.8	77.2	78.4
IMPERIAL	5.6	5.5	43.8	33.4	43.4	47.6
INYO	8.0 *	6.9 *	31.9 *	26.2 *	77.6	78.1
KERN	7.0	7.5	43.2	31.7	76.1	77.2
KINGS	6.1	6.5	35.7	30.4	71.1	71.1
LAKE	6.8	6.1	35.0	28.5	70.9	69.2
LASSEN	7.0	8.1	28.0	21.2 *	78.0	70.2
LOS ANGELES	7.0	7.2	21.8	15.0	84.9	84.8
MADERA	6.0	6.4	42.1	31.5	72.8	75.1
MARIN	6.1	5.7	7.3	6.2	92.6	86.7
MARIPOSA	LNE *	LNE *	23.5 *	LNE *	69.7	62.4
MENDOCINO	5.9	7.1	31.7	21.6	68.8	67.5
MERCED	6.3	6.4	35.0	26.0	64.5	67.5
MODOC	LNE *	LNE *	LNE *	LNE *	66.7	55.6
MONO	8.6 *	7.7 *	LNE *	LNE *	76.9	73.5
MONTEREY	5.9	6.1	34.4	25.9	73.9	74.8
NAPA	6.3	5.6	16.9	11.4	88.5	87.8
NEVADA	5.8	6.2	11.8	10.0	73.9	73.2
ORANGE	6.3	6.1	15.9	10.8	89.1	86.8
PLACER	5.6	5.7	9.4	7.1	83.0	82.8
PLUMAS	LNE *	11.5 *	LNE *	LNE *	74.2	69.0
RIVERSIDE	6.6	6.8	23.8	17.8	83.8	83.5
SACRAMENTO	6.8	7.0	21.1	14.9	81.7	84.7
SAN BENITO	5.9	6.7	21.1	17.5	82.4	85.3
SAN BERNARDINO	7.3	7.3	29.5	21.9	83.4	83.3
SAN DIEGO	6.4	6.6	20.4	13.7	84.5	84.4
SAN FRANCISCO	7.0	7.0	9.6	6.5	88.9	87.3
SAN JOAQUIN	7.1	7.5	27.1	19.7	76.5	79.2
SAN LUIS OBISPO	5.9	5.9	14.2	10.4	80.3	79.5
SAN MATEO	6.7	7.0	12.9	9.1	90.2	90.8
SANTA BARBARA	6.1	6.8	23.1	18.5	76.8	78.1
SANTA CLARA	6.9	7.0	13.9	8.7	84.8	86.1
SANTA CRUZ	5.4	6.1	16.4	10.1	82.3	83.1
SHASTA	6.0	6.7	24.7	20.7	67.9	71.3
SIERRA	LNE *	LNE *	LNE *	LNE *	68.6	69.6
SISKIYOU	8.0	7.9	29.8	20.4	77.9	76.1
SOLANO	7.0	6.5	20.2	13.1	79.7	80.4
SONOMA	5.7	5.8	13.6	9.3	85.0	87.5
STANISLAUS	6.3	6.7	28.6	22.1	78.7	80.8
SUTTER	6.3	6.8	23.6	17.3	68.4	69.7
TEHAMA	6.0	6.3	33.1	26.4	69.7	69.7
TRINITY	LNE *	LNE *	LNE *	LNE *	56.6	61.9
TULARE	6.4	7.0	45.9	32.5	80.8	73.4
TUOLUMNE	6.0	6.4	17.3	12.8 *	77.6	70.0
VENTURA	6.3	5.8	21.2	14.4	82.6	84.2
YOLO	5.7	5.9	11.8	7.9	83.2	82.3
YUBA	5.9	7.3	30.4	27.7	69.8	68.7

- Rates are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

LNE: Low Number Evaluated; rates/percentages are masked per Data De-Identification Guidelines. See technical notes for more information.

Note: The morbidity rates are crude case rates per 100,000 population.

Tables 24B-24E are omitted from this section due to a high amount of data suppression.

TABLE 30 (continued)
A COMPARISON OF THREE-YEAR AVERAGE RATES OR PERCENTAGES
AMONG SELECTED HEALTH STATUS INDICATORS

COUNTY OF RESIDENCE	PERCENT (THREE-YEAR AVERAGE)		PERCENT BREASTFED (THREE-YEAR AVERAGE)	
	ADEQUATE/ADEQUATE PLUS PRENATAL CARE		BIRTHS WITH KNOWN FEEDING METHOD	
	2012-2014	2015-2017	2012-2014	2015-2017
CALIFORNIA	78.6	77.9	92.9	94.0
ALAMEDA	77.5	72.0	96.9	97.3
ALPINE	LNE *	LNE *	LNE *	LNE *
AMADOR	85.4	85.4	95.0	96.7
BUTTE	78.5	78.1	92.0	92.1
CALAVERAS	79.2	82.1	95.0	95.0
COLUSA	77.9	73.5	90.6	92.8
CONTRA COSTA	77.4	75.8	96.2	96.8
DEL NORTE	79.1	77.5	91.0	90.5
EL DORADO	78.8	78.6	96.7	96.9
FRESNO	89.5	88.2	85.5	88.1
GLENN	78.2	77.8	92.4	95.4
HUMBOLDT	75.6	74.9	93.3	93.4
IMPERIAL	50.3	50.5	89.9	92.7
INYO	78.2	80.4	98.1	97.6
KERN	72.1	72.6	87.4	89.9
KINGS	67.7	69.1	82.9	89.8
LAKE	64.4	68.5	92.0	92.8
LASSEN	62.4	61.9	94.3	93.9
LOS ANGELES	80.3	80.7	92.8	93.9
MADERA	67.0	69.3	91.8	90.5
MARIN	89.3	73.0	98.8	98.7
MARIPOSA	61.4	64.5	95.7	94.3
MENDOCINO	76.0	76.8	95.6	96.3
MERCED	60.3	65.2	90.4	92.3
MODOC	58.2	57.0	88.7	92.9
MONO	80.2	83.6	96.1	97.5
MONTEREY	74.8	79.0	96.8	96.5
NAPA	78.8	79.7	97.1	97.1
NEVADA	75.8	76.9	97.4	97.8
ORANGE	87.6	83.7	94.0	95.0
PLACER	83.0	82.7	95.6	96.3
PLUMAS	61.9	56.0	95.8	95.5
RIVERSIDE	79.1	73.9	91.9	92.6
SACRAMENTO	78.4	81.2	91.5	92.7
SAN BENITO	79.4	83.5	94.6	94.6
SAN BERNARDINO	73.6	71.9	88.2	89.7
SAN DIEGO	74.1	74.8	95.6	96.2
SAN FRANCISCO	80.8	77.0	96.7	97.1
SAN JOAQUIN	71.8	77.6	88.3	89.6
SAN LUIS OBISPO	86.9	86.3	97.1	97.4
SAN MATEO	83.9	80.5	97.2	97.2
SANTA BARBARA	83.2	84.9	95.3	96.0
SANTA CLARA	76.9	76.2	96.5	97.2
SANTA CRUZ	84.6	83.8	98.2	98.9
SHASTA	77.0	79.7	94.9	95.2
SIERRA	64.7 *	73.3	90.9 *	98.0 *
SISKIYOU	78.0	78.1	92.1	94.8
SOLANO	69.2	68.7	94.4	95.0
SONOMA	78.4	78.0	97.5	97.4
STANISLAUS	68.7	71.7	87.9	89.1
SUTTER	80.2	79.5	90.4	93.2
TEHAMA	75.9	77.5	93.2	93.9
TRINITY	63.4	71.8	96.7	95.4
TULARE	81.3	78.2	87.7	90.3
TUOLUMNE	78.5	79.3	95.5	96.0
VENTURA	83.6	85.8	95.5	96.4
YOLO	81.7	81.5	96.0	97.0
YUBA	78.4	77.5	88.0	90.7

- Rates are not calculated for zero events.

* Rates are deemed unreliable when based on fewer than 20 data elements.

LNE: Low Number Evaluated; rates/percentages are masked per Data De-identification Guidelines. See technical notes for more information.

Note: The morbidity rates are crude case rates per 100,000 population.

TECHNICAL NOTES

DATA SOURCES

The Center for Health Statistics and Informatics (CHSI) birth and death registration systems were the sources for the birth and death data in this report. Data were tabulated from the Birth Statistical Master Files for the years 2012 through 2017. Death data were tabulated from the Static Death Statistical Master Files for the years 2012 to 2013, and Vital Records Business Intelligence System (VRBIS) for the data years 2014 through 2017. The data extracted from VRBIS were used to create the static California Comprehensive Master Death Data Files (CCMDF). The CCMDF provides an annual compilation of continuously evolving data, which were extracted at a single point in time and include out-of-state deaths. Extractions for *Profiles* are referred to in the table and map footnotes as CCMDF 2015-2017. The linked births-deaths in the Birth Cohort-Perinatal Outcome Files for the years 2011 through 2016 are based on the Birth and Death Statistical Master Files. For additional information, please visit the [Vital Statistics Data](#).

The [Division of Communicable Disease Control](#), [Sexually Transmitted Diseases Control Branch](#), and the [Tuberculosis Control Branch](#) were the sources for the reported case incidence of chlamydia, gonorrhea, congenital syphilis, primary/secondary syphilis, and tuberculosis. The [Office of AIDS, Surveillance Section](#) provided incidence data of diagnosed HIV and AIDS cases. The [Center for Family Health, Maternal, Child, and Adolescent Health Program](#) prepared the breastfeeding initiation data, having utilized information collected by the Center for Family Health, Genetic Disease Screening Program, and Newborn Screening Data.

The [State of California, Department of Finance, Report P-3: State and County population projections by Race, Ethnicity, Detailed Age, and Gender 2010-2060](#) Sacramento: California January 2018, were provided by the Demographic Research Unit. Projections were used in the development of the age-adjusted rates, crude case rates, and age-specific birth rates for the current (2015-2017) and previous (2012-2014) periods.

Estimates of persons under age 18 in poverty were obtained from the U.S. Census Bureau [Small Area Income and Poverty Estimates \(SAIPE\) Program](#).

Tables in this report may reflect small undercounts where case data were received late or vital event data were registered after the cutoff date for the creation of the data files.

Website addresses can be found at the conclusion of this report.

DATA DEFINITIONS

Data De-Identification: In order to prevent inadvertent or intentional re-identification of individuals from the County Health Status Profiles (*Profiles*) data, the CHSI reviews all tables prior to release, and implements cell suppression procedures in accordance with the [California Health and Human Services Agency \(CHHS\) Data De-Identification Guidelines](#) (DDG).

Mortality (Tables 1-19): Use of the consensus set of health status indicators has been facilitated by reference to the causes of mortality coded using the International Classification of Diseases, Tenth Revision (ICD-10).

Beginning with 1999 mortality data, changes to ICD-10 follows a worldwide standard set by the World Health Organization. Standards for ICD-10 implementation were set by the National Center for Health Statistics (NCHS).

The following is a list of the mortality tables in this report and the ICD-10 codes used to create these tables. The ICD-10 codes used to collect the mortality data for the tables, per *Healthy People (HP) 2020 National Objectives*, where applicable, are current as of January 2, 2019.

Table 1: All Causes of Death	A00-Y89
Table 2: All Cancers	C00-C97
Table 3: Colorectal Cancer	C18-C21, C26.0
Table 4: Lung Cancer	C34
Table 5: Female Breast Cancer	C50
Table 6: Prostate Cancer	C61
Table 7: Diabetes	E10-E14
Table 8: Alzheimer's Disease	G30
Table 9: Coronary Heart Disease	I20-I25
Table 10: Cerebrovascular Disease (Stroke)	I60-I69
Table 11: Influenza/Pneumonia	J09-18
Table 12: Chronic Lower Respiratory Disease	J40-J47
Table 13: Chronic Liver Disease and Cirrhosis	K70, K73-74
Table 14: Accidents (Unintentional Injuries)	V01-X59, Y85-Y86
Table 15: Motor Vehicle Traffic Crashes	V02-V04 (.1, .9), V09.2, V12-V14 (.3-.9), V19 (.4-.6), V20-V28 (.3-.9), V29-V79 (.4-.9), V80 (.3-.5), V81.1, V82.1, V83-V86 (.0-.3), V87 (.0-.8), V89.2
Table 16: Suicide	U03, X60-X84, Y87.0
Table 17: Homicide	U01-U02, X85-Y09, Y87.1
Table 18: Firearm Related Deaths	U01.4, W32-W34, X72-74, X93-X95, Y22-Y24, Y35.0
Table 19: Drug Induced Deaths	D52.1, D59.0, D59.2, D61.1, D64.2, E06.4, E16.0, E23.1, E24.2, E27.3, E66.1, F11.0-F11.5, F11.7-F11.9, F12.0- F12.5, F12.7-F12.9, F13.0-F13.5, F13.7- F13.9, F14.0-F14.5, F14.7-F14.9, F15.0- F15.5, F15.7-F15.9, F16.0-F16.5, F16.7- F16.9, F17.0, F17.3-F17.5, F17.7-F17.9, F18.0-F18.5, F18.7-F18.9, F19.0-F19.5, F19.7-F19.9, G21.1, G24.0, G25.1, G25.4, G25.6, G44.4, G62.0, G72.0, I95.2, J70.2-J70.4, L10.5, L27.0, L27.1, M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R78.1-R78.5, X40-X44, X60-X64, X85, Y10-Y14

Morbidity (Tables 20-23): In general, the case definition of a disease means positive laboratory test results, or in the absence of a confirmatory test, a constellation of clearly specified signs and symptoms that meet a series of clinical criteria as defined by the Centers for Disease Control and Prevention (CDC). These criteria can be found at the [CDC - Online case definitions](#) web page.

Due to incomplete reporting of infectious and communicable diseases by many health care providers, caution is advised in interpreting morbidity tables. Many factors contribute to the underreporting of these diseases. These factors include lack of awareness regarding disease surveillance; lack of follow-up by support staff assigned to report; failure to perform diagnostic lab tests to confirm or to rule out infectious etiology; concern for anonymity of the client; and expedited treatment in lieu of waiting for laboratory results because of time or cost constraints. County designation reflects county of residence. Although table headings indicate the data shown are reported cases, please contact the [Division of Communicable Disease Control](#) and the [Office of AIDS](#), Surveillance Section for complete morbidity reporting technical definitions and procedures.

HIV/AIDS (Table 20): Effective 2018, counts and rates are based on a population of 13 years and older having HIV or AIDS. Since *Profiles'* inception in 1993, the California Department of Public Health (CDPH) had collected only the reported incidences of AIDS among the population of 13 years and older. Accordingly, the inclusion of data that reports, both HIV positive counts as well as clinically diagnosed AIDS incidence, are not made available until March of each year and are therefore presented with a one-year delay for this publication. Consequently, Table 20 reflects data from 2014-2016.

Tuberculosis (Table 23): A Tuberculosis (TB) case submitted to the TB Control Branch Registry by April 12, 2017 was included as a 2016 case in this report if the case was confirmed as active TB between January 1 and December 31, 2016. After reporting the case, a jurisdiction may subsequently decide that a reported case did not have TB. Also, a few cases may be reported after the submission deadline. These changes will be reflected in future reports. Therefore, the total number of TB cases counted in a given year may change, usually by a small number of cases. This small change in case numbers may also be reflected in the two sets of TB numbers released each year, a provisional case count used in early reports and materials generated in March for World TB Day, and a final case count which is used in this report.

For surveillance purposes, a case of TB is defined by laboratory and clinical evidence of disease caused by *Mycobacterium tuberculosis* (*Mtb*) complex. TB cases with culture or nucleic acid amplification evidence of *Mtb*, or acid-fast bacilli in a smear from a clinical specimen (when either a culture could not be obtained, or positive results were negative or contaminated), were classified as laboratory confirmed. In the absence of laboratory confirmation, cases that were reported from a positive tuberculin skin test (TST) or positive interferon gamma release assay (IGRA) for *Mtb*, or abnormal chest imaging (in those with pulmonary disease), and persons who have undergone treatment with two or more anti-TB medications, were classified as clinically confirmed TB. Reported cases not meeting one or more of the clinical criteria for TB were classified as provider-diagnosed cases because the health care provider determined there was sufficient evidence of active TB disease to report the case. All of these cases were considered active cases of disease and were reportable.

Birth Cohort Infant Mortality (Table 24A-E): The [infant mortality](#) rate is the number of deaths among infants under one year of age per 1,000 live births. It is a universally accepted and easily understood indicator, which represents the overall health status of a community.

Studies of infant mortality that are based on information from death certificates alone have been found to underestimate infant death rates for all race/ethnic groups. Due to problems such as confusion about event registration requirements, incomplete data, and transfers of newborns

from one facility to another for medical care, infant mortality rates in this report are based on linked birth and infant death records in the Birth Cohort-Perinatal Outcome Files, which generate more accurate estimates of the total number of infant deaths as well as race-specific infant mortality rates.

Because birth and death certificate registration data are included in the Birth Cohort-Perinatal Outcome Files after the Birth and Death Statistical Master Files have been closed to further processing, and hospital follow-back is conducted to resolve questionable cases, cohort files cannot be as timely as the Statistical Master Files. However, the Birth Cohort-Perinatal Outcome Files are more complete and consequently more accurate.

The data/results for tables 24C – Black Infant Mortality, 24D – Hispanic Infant Mortality and 24E – White Infant Mortality were mostly suppressed due to DDG. In accordance with California Government Code Section 8310.7(e), data within this report do not include disaggregated subcategories of Asian and Pacific Islanders because such tabulations would result in statistical unreliability and possible re-identification.

Natality (Tables 25-27B): The natality data were obtained from the Birth Statistical Master Files for years 2015 through 2017. Records with unknown attributes were excluded from the total number of live births in developing certain tables as follows: Table 25 excludes unknown birthweights; Table 27A excludes unknown prenatal care; and Table 27B excludes unknown adequacy of prenatal care.

Low birthweight has been associated with negative birth outcomes and may indicate a lack of access to health care or preventive care, and/or the need for prenatal care services. Prevalence of low birthweight is defined as the percentage of live births weighing less than 2,500 grams (approximately 5.5 pounds). Birth rates for adolescents are an indicator of other [high-risk pregnancy factors](#). Adolescent birth rate is defined as the number of births to mothers 15 to 19 years of age per 1,000 female population.

The prenatal care indicator, Month Prenatal Care Began, has been associated with access to care. However, the percentage of births in which the mother's prenatal care began in the first trimester, as a health indicator, does not readily permit an unambiguous interpretation. Accordingly, it may fail to document whether or not prenatal care actually continues throughout the pregnancy. Therefore, in addition to Prenatal Care Begun during the First Trimester of Pregnancy, this report includes adequacy of prenatal care based on the Adequacy of Prenatal Care Utilization Index.

From 1995 through 1998, the Kessner Index was used to measure the adequacy of prenatal care (Kessner, 1973). The Kessner Index was replaced in the 1999 report by the Adequacy of Prenatal Care Utilization Index, which is the methodology specified in *HP 2020 National Objectives*.

The Adequacy of Prenatal Care Utilization Index developed by Milton Kotelchuck (1994) attempts to characterize prenatal care utilization in two independent and distinctive dimensions: adequacy of prenatal care initiation and services received (once prenatal care has begun). The initial dimension, adequacy of prenatal care initiation, characterizes the month prenatal care began and its timeliness. The second dimension, adequacy of received services, characterizes the number of prenatal care visits received from the time the mother began prenatal care until delivery. The adequacy of prenatal visits is based on the recommendations established by the American College of Obstetricians and Gynecologists. These two dimensions are then combined into a single summary prenatal care utilization index, which contains the following five categories for adequacy of prenatal care:

- (1) Adequate Plus: Prenatal care begun by the fourth month and 110 percent or more of the recommended visits received.
- (2) Adequate: Prenatal care begun by the fourth month and 80 to 109 percent of the recommended visits received.
- (3) Intermediate: Prenatal care begun by the fourth month and 50 to 79 percent of the recommended visits received.
- (4) Inadequate: Prenatal care begun after the fourth month, or less than 50 percent of the recommended visits received.
- (5) Missing Information: Unknown adequacy of prenatal care.

Only adequate and adequate plus prenatal care is used in Table 27B to measure the adequacy of prenatal care utilization. Also, please note the two-factor index does not assess the access to or quality of the prenatal care that was delivered, but simply its utilization. For further information on the Adequacy of Prenatal Care Utilization Index, see Kotelchuck (1994).

Breastfeeding Initiation During Early Postpartum (Table 28): The 2010 data serve as the new baseline for future comparisons and trends of in-hospital breastfeeding practices in California. The 2010 data should not be compared to data published in prior years (2004-2009) due to revisions to the Newborn Screening Program (NBS) data collection tool (NBS Form), as well as changes in the data analysis methodology during this time period.

The primary change, the exclusion of data for infants who were in a Neonatal Intensive Care Unit (NICU) nursery at the time of specimen collection, was done in order to better align with the new perinatal quality measure on exclusive breast milk feeding endorsed by the National Quality Forum, the Joint Commission, and the Leapfrog Group. For additional information on the methods used to compute this indicator, visit the [CDPH Breastfeeding Data](#) web page.

Breastfeeding initiation data are obtained from the Center for Family Health's Genetic Disease Screening Program, and Newborn Screening Data with analyses by the Maternal, Child, and Adolescent Health Program. All non-military hospitals providing maternity services are required to complete the Newborn Screening Test Form prior to an infant's discharge. The analysis is limited to cases reported on the Newborn Screening Test Form [Version NBS-I (D)].

Infant feeding data presented in this report include all feedings from birth to time of specimen collection, usually 24 to 48 hours. To complete the form, staff must select from the following three categories to describe all feeding since birth: (1) Only Human Milk; (2) Only Formula; and (3) Human Milk & Formula. In Table 28, the number for "BREASTFED" includes records marked 'Only Human Milk' or 'Human Milk & Formula'. The "TOTAL NUMBER" excludes data for infants who were in a Neonatal Intensive Care Unit (NICU) nursery or received Total Parenteral Nutrition (TPN) at the time of specimen collection. Also, excluded are cases with an unknown method of feeding. Statewide, approximately 2.2 percent of cases have missing feeding information and/or receive TPN at the time of specimen collection. For this same period, approximately 0.6 percent of cases are missing maternal county of residence data.

There are compelling advantages to infants, mothers, and families from breastfeeding and the use of human milk for infant feeding. Breastfeeding provides advantages to infants and mothers with regard to the general health, growth, and development of infants, while potentially decreasing risk for a number of acute and chronic diseases.

CDPH compiles data from a variety of sources to monitor progress towards achieving *HP 2020 National Objectives* for breastfeeding initiation, duration and exclusivity, and hospital and worksite support for breastfeeding mothers and infants. For additional breastfeeding indicators visit the [CDPH Breastfeeding Data](#) web page. Many CDPH programs and initiatives promote breastfeeding. For information on these CDPH programs and initiatives, as well as resources that can help pregnant or breastfeeding women, visit the [CDPH Breastfeeding Data](#) web page.

Childhood Poverty (Table 29): Children under the age of 18 living in families with income at or below the poverty level define the category of the population under 18 in poverty. The percent of children under 18 in this category is an indicator of global risk factors that have implications for accessibility to health services.

CRUDE RATES AND AGE-ADJUSTED RATES

Crude rates and age-adjusted rates are calculated for mortality data. The numerator data used to compute mortality rates and percentages were three-year averages compiled by county of residence of the decedent; mother's county of residence for birth data (including linked birth-death data for infant mortality); and county of residence for morbidity data. Three-year averages tend to reduce the year-to-year fluctuations and increase the reliability of estimates.

A non-standardized rate (or "crude rate") is calculated by dividing the total number of events (e.g., deaths) by the total population at risk, then multiplying by a base (e.g., 100,000). Sub-populations, such as counties with varying age compositions, can have highly disparate crude death rates, since the risk of dying is primarily a function of age. Therefore, counties with a large component of elderly experience a higher death rate. The effect of different age compositions among counties or other demographic groups can be removed from the death rates by the "age-adjustment" process. This produces age-adjusted rates that permit comparisons among geographic and demographic groups, which are directly comparable with those *HP 2020 National Objectives* that are expressed as age-adjusted rates.

Age-adjusted death rates are hypothetical rates obtained by calculating age-specific rates for each county and multiplying these rates by proportions of the same age categories in a "standard population," then summing the apportioned specific rates to a county total. The "standard population" used in the age-adjusted rates in this report is drawn from the 2000 U.S. Standard Population distribution that applies the same age groupings and proportions as those established by NCHS for the United States Department of Health and Human Services. These age-adjusted rates permit direct comparisons among counties and other national reports. It is important to understand that age-adjusted death rates should be viewed as constructs or index numbers rather than as actual measures of the risk of mortality. Crude death rates, which include the effect of age, are the rates that should be applied when measuring the actual risk of dying in a specific population. For further information on age-adjusted rates, see NCHS report by Curtin and Klein, 1995 listed in the bibliography.

Data for the morbidity tables were not age-adjusted due to the unavailability of the morbidity data by age. Hence, only crude case rates were calculated. Although age and aging do affect morbidity, the effect is not as prominent as their impact on mortality. Birth cohort infant death rates are not age-adjusted. Since the deaths are linked to the births on a record-by-record basis, these rates are based on a numerator (deaths) and a denominator (births) from the same record. Birth cohort comparisons among counties reflect the actual risk of dying within one year of birth, are unaffected by confounding age compositions because the cohorts represent the same age group (under one year).

RELIABILITY OF RATES

Age-adjusted rates were calculated using the year 2000 U.S. standard population weights to facilitate meaningful comparison of vital statistics data rates over time and between groups. For additional information on the *HP 2020 National Objectives* recommendations, visit the [Centers for Disease Control and Prevention](#) web page. All vital statistics rates and morbidity rates are subject to random variation. This variation is inversely related to the number of events (e.g., deaths) used in calculating the rate. Small frequencies in the occurrence of events produce a greater likelihood that random fluctuations will be found within a specified time period. Rare

events are relatively less stable in their occurrence from observation to observation. Consequently, counties with a small number of deaths, or few cases of morbidity, can yield highly unstable rates from year to year. The observation of zero events is especially hazardous, regardless of the population size. All observations and comparisons are limited to what was reported to CDPH. This report reduces to an extent the year-to-year fluctuation in the occurrence of infrequent events by basing rates on three-year average numbers of events (e.g., 2015-2017), divided by the population in the middle year (e.g., 2016).

The “standard error of a rate” and “coefficient of variation” or relative standard error (RSE) provided the rational basis for determining which rates may be considered “unreliable.” Conforming to [NCHS standards](#), any rates that are calculated from fewer than 20 data elements, the equivalent of an RSE of 23 percent or more, are considered unreliable. Unreliable rates are notated with an asterisk “*” in data tables and, where applicable, are presumed to have “met” or “not met” the *HP 2020 National Objective* as reported. Unreliable rates should always be interpreted with caution. When rates, percentages, and confidence limits are not calculated due to zero events, they are shown as dashes (-).

The 95 percent confidence limits define the range within which the rate would probably occur in 95 of 100 sets of data (if data similar to the present set were independently acquired on 100 separate occasions). In five of those 100 data sets, the rate or percent would fall outside the limits. Confidence intervals based on 100 or more data elements are calculated utilizing a normal distribution. In cases where there are fewer than 100 data elements, the gamma distribution is used. For appropriate statistical methodologies in comparing independent rates or percentages, please see the NCHS reports listed in the bibliography by Curtin and Klein (1995) on “Direct Standardization” and by Kleinman (1977) on “Infant Mortality.”

RANKING OF COUNTIES

Data for each health indicator are displayed with the counties in rank order by increasing rates or percentages (calculated to 15 decimal places) with the exceptions of prenatal care begun during the first trimester of pregnancy (Table 27A), prenatal care adequacy (Table 27B) and breastfeeding initiation (Table 28). The county with the lowest rate or percentage (and the highest population) is in the first rank moving down the column to the highest rate or percentage. To rank counties regarding their Birth Cohort Infant Mortality, counties were rank ordered by increasing birth cohort death rate and then by the decreasing total number of live births. Data for prenatal care begun during the first trimester of pregnancy, adequacy of prenatal care, and breastfeeding initiation are displayed with the counties in rank order by decreasing percentages (calculated to 15 decimal places). The county possessing the highest percentage is in the first rank and the county with the lowest percentage is in the 58th rank. For all health indicators, counties with identical rates or percentages are ranked first by the largest population or number of births. Rates are masked in accordance with the CHHS DDG and counties have been arranged alphabetically above or below each applicable table’s *HP 2020 National Objective* line. For counties where the rate/percentage met or exceeded the established *HP 2020 National Objective*, the suppressed rates/percentages and counts have been replaced with “Met.” Additionally, these counties have been listed alphabetically above the *HP 2020 National Objective* line. Conversely, counties with rates/percentages that did not meet the established *HP 2020 National Objective* were listed alphabetically below that table’s *HP 2020 National Objective* line. Some of the counties with data that must be suppressed have rates/percentages and counts replaced with “Not Met.” Caution should be used for all average reported counts of less than 20, as these counties had unreliable rates as reported. Consequently, when an *HP 2020 National Objective* exists, these position ranks are presumed for counties with average counts less than 20.

COMPARISON OF RATES AND PERCENTAGES (TABLE 30)

Rates and percentages have been calculated for one prior period, which facilitates comparison between that earlier period and the current reported statistics for selected health indicators. Readers are cautioned against measuring progress toward target attainment for an *HP 2020 National Objective* using only one data point. The *HP 2020 National Objectives* provide basic formulas to measure progress toward achieving a target for the selected health outcome; these can be found at [HP 2020 National Objectives](#). When rates and counts have been suppressed in accordance with the CHHS DDG, the suppressed values are represented in this table as “LNE” (Low Number Evaluated).

THEMATIC MAPS

ArcGIS, version 10.5, ArcMap software was used to create the thematic maps. Mapped data were derived from the rates or percentages displayed in the column to the immediate left of the 95 percent lower confidence limit in the adjacent table. Counties with rates or percentages based on fewer than 20 data elements are shown with an overlay pattern of diagonal dashes to indicate “unreliable rate”, whether or not they are presumed to have met the selected health objective. Counties with zero events are shown in a bright yellow color.

The mapping methodology strives to illustrate rates/percentages for each indicator in a way that highlights a county’s status in meeting the *HP 2020 National Objectives*, if a target exists, and provides a comparison with the California statewide rate. For example, a typical map for an indicator with an *HP 2020 National Objectives* displays counties that achieved the target in the lightest shade; counties with a rate between the California rate and the target in the medium shade; and counties with a rate above the California rate are shown in the darkest shade.

Rates or percentages for health indicators without established *HP 2020 National Objectives*, or with *HP 2020 National Objectives* data collection criteria that California did not meet, are mapped according to counties with rates/percentages at or below the California three-year average rate or percentage. The remaining counties above California’s rate/percentage were divided into two groups in accordance with the 50th percentile of the rates or percentages amongst those counties.

ALZHEIMER’S DISEASE REPORTING – SANTA CLARA COUNTY

Santa Clara County reported an abrupt decline in the number of Alzheimer’s deaths from each year from 2012 to 2017 due to a change in the cause of death reporting practice among some certifiers of death in that county. Therefore, *Profiles 2019* data for Santa Clara County may not reflect a true decline in the number of Alzheimer’s deaths. While Alzheimer’s related deaths were previously reported as “Alzheimer’s disease” or “Alzheimer’s dementia,” many certifiers in Santa Clara County appear to now be reporting those deaths using the more general term of “neurodegenerative disease or disorder.” Accordingly, Santa Clara County has seen a rise in deaths from “neurodegenerative disease or disorder” that is roughly in line with the county’s reported decrease in deaths from Alzheimer’s.

FORMULAS USED IN THIS REPORT

$$CDR = \left(\frac{n^D}{Npop_a} \right) \times B$$

$$ADR = \sum W_a \left(\frac{n^{D_a}}{Npop_a} \right) \times B$$

$$ASDR = \left(\frac{n^{D_a}}{Npop_a} \right) \times B$$

$$SE_x = \left(\frac{CDR}{\sqrt{n^D}} \right) \quad SE_y = \sqrt{\sum \frac{(W_a \times ASDR)^2}{n^{D_a}}}$$

$$RSE_x = \left(\frac{SE_x}{CDR} \right) \quad RSE_y = \left(\frac{SE_y}{ADR} \right) \times 100$$

$$\text{Lower 95\% CL} = ADR - (1.96 \times SE_y) \quad \text{Upper 95\% CL} = ADR + (1.96 \times SE_y)$$

Where: CDR= Crude Death Rate

ADR= Age-Adjusted Death Rate

ASDR= Age-Specific Death Rate

n^D = Number of Deaths

Npop= Population Size

n^{D_a} = Number of Deaths in an Age Group

Npop_a= Population Size in Same Age Group

B= Base

W_a = Age-Specific Weight (Standard Population Proportion)

SE_x = Standard Error of a Crude Death Rate

RSE_x = Relative Standard Error of a Crude Death Rate

SE_y = Standard of Error of an Age-Adjusted Death Rate

RSE_y = Relative Standard Error of an Age-Adjusted Death Rate

CL= Confidence Limit

Gamma Distribution Confidence Intervals

Lower 95% CL = Rate x GamInv (0.025, Numerator or Rate) / Numerator of Rate

Upper 95% CL = Rate x GamInv (0.975, Numerator or Rate + 1) / Numerator of Rate

Where: Rate is CDR or ADR depending on which table is being calculated. GamInv is the gamma inverse function as used in SAS.

PROCEDURE FOR CALCULATING AGE-ADJUSTED RATES BY THE DIRECT METHOD

Age-adjusted rates calculated in this report follow the procedure that was used to set the *HP 2020 National Objectives*. The standard population used the year 2000 U.S. population. The data in the following example were extracted from Table 1: Deaths Due to All Causes, 2015 - 2017 for Alameda County.

ALAMEDA COUNTY					
Age Groups	2015 - 2017 Deaths (Average) (A)	2016 Population (B)	AGE-SPECIFIC RATE/100,000 (C)	2000 U.S. STANDARD POPULATION PROPORTIONS (D)	WEIGHTED RATE FACTORS (E)
Total	9,906.33	1,637,176			
Unknown	3.00				
<1	72.33	19,554	369.92	0.013818	5.1
1-4	8.00	77,487	10.32	0.055317	0.6
5-14	14.00	192,727	7.26	0.145565	1.1
15-24	115.67	226,451	51.08	0.138646	7.1
25-34	184.67	240,405	76.81	0.135573	10.4
35-44	262.00	231,879	112.99	0.162613	18.4
45-54	593.33	225,512	263.10	0.134834	35.5
55-64	1260.00	201,332	625.83	0.087247	54.6
65-74	1731.67	131,732	1314.54	0.066037	86.8
75-84	2131.00	61,234	3480.09	0.044842	156.1
>84	3530.67	28,863	12232.50	0.015508	189.7
AGE-ADJUSTED RATE.....					565.3

STEP 1: Arrange the data for the three-year average number of deaths and population for 11 age groups in columns A and B.

STEP 2: Calculate age-specific rates by dividing the number of deaths in column A (numerator) by the population in column B (denominator). Multiply the result (quotient) by the base of 100,000 to obtain the rates in column C.

STEP 3: Multiply each age-specific rate in column C by the corresponding 2000 U.S. Standard Population proportion in column D and enter the result in column E.

STEP 4: The values for each age group in column E are summed to obtain the Age-Adjusted Death Rate for Alameda County of 565.3 per 100,000 population.

STEP 5: Repeat Steps 1 through 4 for each county and the statewide total. Note that the 2000 U.S. Standard Population proportions remain the same for each county and the State.

Direct comparisons can now be made among the counties, with the removal of the effect that varying county age compositions may have on death rate.

**APPENDIX A
CALIFORNIA'S HEALTH STATUS PROFILE FOR 2019**

MORTALITY

HP 2020 NATIONAL OBJECTIVE	HEALTH STATUS INDICATOR	2015-2017 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMITS		HP 2020 NATIONAL OBJECTIVE	AGE-ADJUSTED DEATH RATE PREVIOUS
					LOWER	UPPER		
	ALL CAUSES	262,663.3	668.1	610.3	608.0	612.7	a	623.2
C-1	ALL CANCERS	59,437.7	151.2	137.4	136.3	138.5	161.4	146.5
C-5	COLORRECTAL CANCER	5,430.7	13.8	12.5	12.2	12.9	14.5	13.4
C-2	LUNG CANCER	11,868.0	30.2	27.5	27.0	28.0	45.5	31.7
C-3	FEMALE BREAST CANCER	4,447.3	22.5	18.9	18.3	19.5	20.7	20.3
C-7	PROSTATE CANCER	3,463.7	17.7	19.4	18.7	20.0	21.8	19.5
	DIABETES	9,172.3	23.3	21.2	20.8	21.7	b	20.4
	ALZHEIMER'S DISEASE	15,603.0	39.7	35.7	35.2	36.3	a	30.7
HDS-2	CORONARY HEART DISEASE	38,154.3	97.1	87.4	86.5	88.3	103.4	97.4
HDS-3	CEREBROVASCULAR DISEASE (STROKE)	15,676.3	39.9	36.3	35.8	36.9	34.8	34.7
	INFLUENZA/PNEUMONIA	6,160.0	15.7	14.2	13.9	14.6	a	15.5
	CHRONIC LOWER RESPIRATORY DISEASE	13,711.3	34.9	32.0	31.5	32.6	a	33.9
SA-11	CHRONIC LIVER DISEASE AND CIRRHOSIS	5,338.7	13.6	12.2	11.9	12.6	8.2	11.7
IVP-11	ACCIDENTS (UNINTENTIONAL INJURIES)	13,255.7	33.7	32.2	31.6	32.7	36.4	28.3
IVP-13.1	MOTOR VEHICLE TRAFFIC CRASHES	3,868.3	9.8	9.5	9.2	9.8	12.4	7.9
MHMD-1	SUICIDE	4,259.0	10.8	10.4	10.1	10.8	10.2	10.2
IVP-29	HOMICIDE	2,032.7	5.2	5.2	5.0	5.4	5.5	5.0
IVP-30	FIREARM RELATED DEATHS	3,148.7	8.0	7.9	7.6	8.1	9.3	7.6
SA-12	DRUG INDUCED DEATHS	5,209.7	13.3	12.7	12.3	13.0	11.3	11.4

MORBIDITY

HP 2020 NATIONAL OBJECTIVE	HEALTH STATUS INDICATOR	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS		HP 2020 NATIONAL OBJECTIVE	CRUDE CASE RATE PREVIOUS
				LOWER	UPPER		
	INCIDENCE OF HIV/AIDS (AGE 13 AND OVER)†	128,937.3	397.7	395.5	399.8	a	385.0
	CHLAMYDIA INCIDENCE	202,311.3	514.6	512.4	516.9	c	444.6
STD-6.1	GONORRHEA INCIDENCE FEMALE AGE 15-44	19,980.7	252.4	248.9	255.8	251.9	171.5
STD-6.2	GONORRHEA INCIDENCE MALE AGE 15-44	37,025.0	444.8	440.3	449.4	194.8	255.2
ID-29	TUBERCULOSIS INCIDENCE	2,082.3	5.3	5.1	5.5	1.0	5.6
STD-8	CONGENITAL SYPHILIS	215.0	44.4	38.5	50.3	9.6	12.9
STD-7.1	PRIMARY SECONDARY SYPHILIS FEMALE	690.3	3.5	3.2	3.8	1.3	1.1
STD-7.2	PRIMARY SECONDARY SYPHILIS MALE	5,130.3	26.2	25.5	26.9	6.7	16.9

INFANT MORTALITY

HP 2020 NATIONAL OBJECTIVE	HEALTH STATUS INDICATOR	2014-2016 DEATHS (AVERAGE)	BIRTH COHORT (BC) INFANT DEATH RATE	95% CONFIDENCE LIMITS		HP 2020 NATIONAL OBJECTIVE	BC INFANT DEATH RATE PREVIOUS
				LOWER	UPPER		
MICH-1.3	INFANT MORTALITY: ALL RACES	2,187.0	4.4	4.2	4.6	6.0	4.7
	INFANT MORTALITY: ASIAN/PI	237.3	3.2	2.8	3.6	6.0	3.6
	INFANT MORTALITY: BLACK	237.3	9.8	8.5	11.0	6.0	9.6
	INFANT MORTALITY: HISPANIC	1,020.7	4.4	4.1	4.6	6.0	4.6
	INFANT MORTALITY: WHITE	482.7	3.6	3.2	3.9	6.0	3.9

NATALITY

HP 2020 NATIONAL OBJECTIVE	HEALTH STATUS INDICATOR	2015-2017 BIRTHS (AVERAGE)	PERCENT	95% CONFIDENCE LIMITS		HP 2020 NATIONAL OBJECTIVE	PERCENT PREVIOUS
				LOWER	UPPER		
MICH-8.1	LOW BIRTHWEIGHT INFANTS	33,283.3	6.9	6.8	6.9	7.8	6.7
MICH-10.1	FIRST TRIMESTER PRENATAL CARE	398,563.7	83.5	83.3	83.8	77.9	83.5
MICH-10.2	ADEQUATE/ADEQUATE PLUS PRENATAL CARE	369,829.7	77.9	77.7	78.2	77.6	78.6

HP 2020 NATIONAL OBJECTIVE	HEALTH STATUS INDICATOR	2015-2017 BIRTHS (AVERAGE)	AGE-SPECIFIC BIRTH RATE	95% CONFIDENCE LIMITS		HP 2020 NATIONAL OBJECTIVE	AGE-SPECIFIC BIRTH RATE PREVIOUS
				LOWER	UPPER		
	BIRTHS TO MOTHERS AGED 15-19	21,517.3	15.7	15.5	16.0	a	22.2

BREASTFEEDING

HP 2020 NATIONAL OBJECTIVE	HEALTH STATUS INDICATOR	2015-2017 BREASTFED (AVERAGE)	PERCENT	95% CONFIDENCE LIMITS		HP 2020 NATIONAL OBJECTIVE	PERCENT PREVIOUS
				LOWER	UPPER		
MICH-21.1	BREASTFEEDING INITIATION	396,916.7	94.0	93.7	94.3	81.9	92.9

CENSUS

HP 2020 NATIONAL OBJECTIVE	HEALTH STATUS INDICATOR	2016 NUMBER	PERCENT	95% CONFIDENCE LIMITS		HP 2020 NATIONAL OBJECTIVE	PERCENT PREVIOUS
				LOWER	UPPER		
	PERSONS UNDER 18 IN POVERTY	1,782,761.0	19.3	19.2	19.3	a	20.7

a Healthy People (HP) 2020 National Objective has not been established.

b HP 2020 National Objective is based on both underlying and contributing cause of death which requires use of multiple cause of death files.

California's data exclude multiple/contributing causes of death.

c Prevalence data are not available in all California counties to evaluate the HP 2020 National Objective STD-1, as the objective is restricted to females who are 15-24 years old and identified at a family planning clinic, and males and females under 24 years old who participate in a national job-training program.

Notes Crude death rates, crude case rates, and age-adjusted death rates are per 100,000 population. Birth cohort infant death rates are per 1,000 live births.

The age-specific birth rates are per 1,000 female population aged 15 to 19 years old.

Previous refers to previous period rates. These periods vary by type of rate: Mortality 2012-2014, Morbidity 2012-2014, Infant Mortality 2011-2013, Natality 2012-2014, Census 2015.

California Department of Public Health, Office of AIDS, Surveillance Section reporting periods are: Current Period 2014-2016, Previous Period 2011-2013.

California Department of Finance, Demographic Research Unit. 2018. State and county population projections 2010-2060. Sacramento: California Department of Finance. January 2018.

California Department of Public Health, California Comprehensive Master Death Files, [2015-2017] Compiled, August 2018.

California Department of Public Health, Office of AIDS, Surveillance Section, Data Requested, August 2018.

California Department of Public Health, STD Control Branch, Data Requested, August 2018. Chlamydia and Gonorrhea data.

California Department of Public Health, Tuberculosis Control Branch, Data Requested, July 2018.

California Department of Public Health: 2014-2016 Birth Cohort-Perinatal Outcome Files.

California Department of Public Health: 2015-2017 Birth Statistical Master Files.

California Department of Public Health, Center for Family Health, Genetic Disease Screening Program, Newborn Screening Data, 2015-2017, Data Requested, July 2018.

California Department of Public Health, Maternal, Child and Adolescent Health Program, Data Requested, July 2018.

U.S. Census Bureau, Small Area Income and Poverty Estimates. <http://www.census.gov/data/datasets/2016/demo/saiper/2016-state-and-county.html>, Accessed, July 2018.

BIBLIOGRAPHY

American Academy of Pediatrics. [Breastfeeding and the Use of Human Milk. *Pediatrics*, Vol. 115, No. 2, February 2005: pp. 496-506. \(doi:10.1542/peds.2004-2491\).](#)

Armitage P, Berry G, Matthews JNS. [*Statistical Methods in Medical Research* \(4th edition\). Oxford: Blackwell Science 2002.](#)

California Department of Public Health. [Programs Page, A to Z index for data sources.](#)

Curtin LR, Klein RJ. [Direct Standardization \(Age-Adjusted Death Rates\), *Healthy People 2000 Statistical Notes*. National Center for Health Statistics, DHHS Pub. No. \(PHS\) 95-1237, March 1995; No. 6-Revised.](#)

Fleiss JL. *Statistical Methods for Rates and Proportions*, second edition. New York: John Wiley and Sons, 1981.

Foster JE. [Using Natality Data in Health Planning. *Statistical Notes for Health Planners*, No. 12. National Center for Health Statistics. November 1980.](#)

Hamilton BE, Mathews TJ, Ventura SJ. [Declines in State Teen Birth Rates by Race and Hispanic Origin. *NCHS Data Brief*, no 123. Hyattsville, MD: National Center for Health Statistics. 2013.](#)

Institute for Medicine. [*The Future of Public Health*. Washington, D.C.: National Academy of Science Press, 1988; pp. 13-15.](#)

Kessner DM, Singer J, Kalk CE, Schlesinger ER. *Infant Death: An Analysis by Maternal Risk and Health Care. Contrasts in Health Status; Vol. I.* Washington, DC: Institute of Medicine, National Academy of Sciences; 1973.

Klein RJ, Schoenborn, CA. [Age Adjustment Using the 2000 Projected U.S. Population. *Healthy People 2010 Statistical Notes*. National Center for Health Statistics, DHHS Publication, Number 20, January 2001.](#)

Kleinman JC. [Mortality. *Statistical Notes for Health Planners*, No. 3. National Center for Health Statistics. February 1977.](#)

Kotelchuck M. [An Evaluation of the Kessner Adequacy of Prenatal Care Index and a Proposed Adequacy of Prenatal Care Utilization Index. *American Journal of Public Health*, Vol. 84, No. 9, pp. 1414-1420. September, 1994.](#)

Lilienfeld AM, Lilienfeld DE. *Foundations of Epidemiology*, second edition. New York: Oxford University Press, 1980.

[Lone Cypress, Alone Beautiful California Coastline]. Retrieved November 2018, from: <https://www.pexels.com/photo/alone-beautiful-california-coastline-414522/>.

MacDorman MF, Mathews TJ. [Recent Trends in Infant Mortality in the United States. *NCHS Data Brief*, no 9. Hyattsville, MD: National Center for Health Statistics. 2008.](#)

BIBLIOGRAPHY

State of California, California Health and Human Services Agency. [Data De-Identification Guidelines \(DDG\)](#) Version 1.0. September 23, 2016.

Tashiro M. A Description of the California Birth Cohort-Perinatal File. *Data Matters* #83-11078. Center for Health Statistics, California Department of Health Services (now California Department of Public Health). February, 1984.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC. <https://www.healthypeople.gov/>

World Health Organization. [International Statistical Classification of Diseases and Related Health Problems, tenth revision](#). Geneva: World Health Organization, 1992.

WEBSITE ADDRESSES

American Journal of Public Health, Adequacy of Prenatal Care Utilization Index
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1615176/pdf/amjph00460-0128.pdf>

California Department of Finance, Demographic Projections
<http://www.dof.ca.gov/Forecasting/Demographics/Projections/>

California Department of Public Health (CDPH)
<https://www.cdph.ca.gov/>

CDPH, Center for Health Statistics and Informatics (CHSI)
<https://www.cdph.ca.gov/Programs/CHSI/Pages/Program-Landing1.aspx>
<https://www.cdph.ca.gov/Programs/CHSI/Pages/County-Health-Status-Profiles.aspx>

CDPH, Division of Communicable Disease Control
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/DCDC.aspx>

CDPH, Genetic Screening Program
<https://www.cdph.ca.gov/Programs/CFH/DGDS/Pages/default.aspx>

CDPH, Maternal, Child and Adolescent Health Division
<https://www.cdph.ca.gov/Programs/CFH/DMCAH/Pages/default.aspx>

CDPH, Office of AIDS, Surveillance Section
<https://www.cdph.ca.gov/Programs/CID/DOA/Pages/OAsre.aspx>

CDPH, Sexually Transmitted Diseases Control Branch
<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/STD.aspx>

California Health and Human Services, Data De-Identification Guidelines
<http://chhsa.ca.gov/dataplaybook/Documents/CHHS-DDG-V1.0-092316.pdf>

Centers for Disease Control and Prevention (CDC), Healthy People 2020 National Objectives
https://www.cdc.gov/nchs/healthy_people/hp2020.htm
<https://www.healthypeople.gov/2020/leading-health-indicators/2020-LHI-Topics>

BIBLIOGRAPHY

CDC, National Center for Health Statistics, Data Briefs

<https://www.cdc.gov/nchs/products/databriefs.htm>

<https://www.cdc.gov/nchs/products/databriefs/db326.htm>

<https://www.cdc.gov/nchs/data/databriefs/db123.htm>

CDC, National Center for Health Statistics, National Vital Statistics System

<https://www.cdc.gov/nchs/nvss/>

https://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_09.pdf

U.S. Census Bureau

<https://www.census.gov/data/datasets/2017/demo/saife/2017-state-and-county.html>

U.S. Office of Management and Budget

https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/federal_register/FR1997/ombdir15.pdf