County Health Status Profiles 2020

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH AND CALIFORNIA CONFERENCE OF LOCAL HEALTH OFFICERS

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COUNTY HEALTH STATUS PROFILES 2020

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Cover photography: Photograph by Debra Gonzalez: “Founders Tree,” Avenue of the Giants, Humboldt County, California.

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Dear Colleagues:

We are pleased to present California's County Health Status Profiles *(Profiles)* report for 2020. *Profiles* has been published annually for the State of California by California Department of Public Health (CDPH) and the California Conference of Local Health Officers since 1993, and is updated each year in accordance with priorities developed by CDPH.

Profiles (2020) includes the years 2012-2018 and represents the 28th 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 National Objectives (HP 2020).

The HP 2020 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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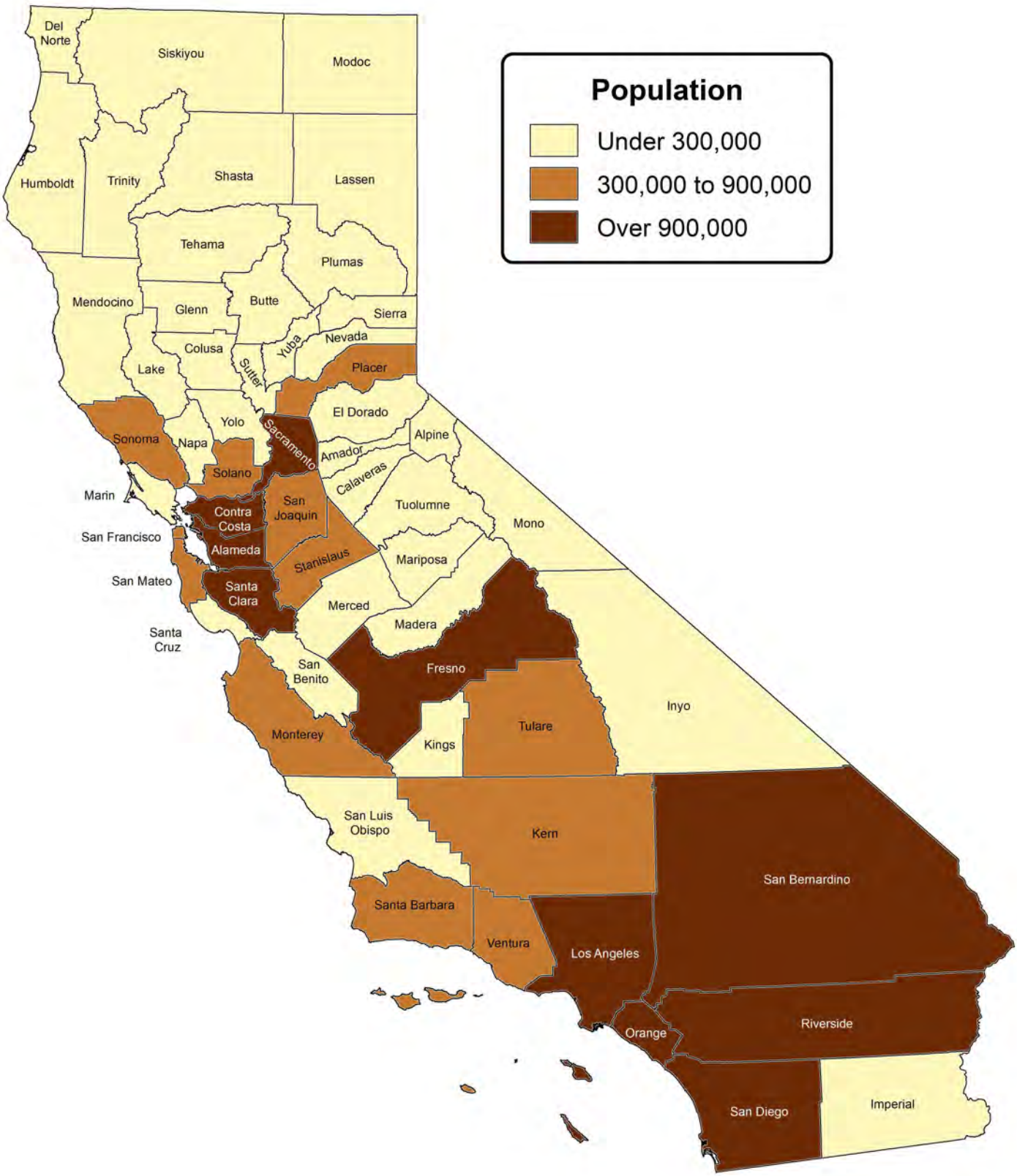
The thematic maps are color-coded with a unique color scheme based on the health status indicator type.

- Mortality (Tables #1 to 19) = Blue
- Morbidity (Tables #20 to 23M) = Pink
- Birth Cohort Infant Mortality (Tables #24A to 24E) = Green
- Natality and Breastfeeding Initiation (Tables #25 to 28) = Orange
- Poverty (Table #29) = Brown

CALIFORNIA COUNTIES

2017 STATEWIDE POPULATION: 39,610,556



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, May 2019.

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 collaboration with the California Conference of Local Health Officers. *Profiles* current report includes data from years 2012-2018 and represents the 28th 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 102) provides a summary table of California's rates for selected health status indicators, target rates established for Healthy People 2020 National Objectives (HP 2020), 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 contains 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 92 to 101). 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 with greater than zero and less than 100 events, 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. Confidence intervals are not calculated for zero events.

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 (DOF), Demographic Research Unit, provided the population estimates stratified by county, age, and gender, with the exceptions of Tables 23C, 24A-E, 25, 27A-27B, and 28, where the live births to residents were used. Rates/percentages developed for the current (2016-2018) and previous (2013-2015) periods used 2017 and 2014 population estimates, respectively, from the DOF, as of May 2019. The rates/averages for HIV/AIDS (Table 20) and Infant Mortality (Tables 24A-E), however, are calculated for the current period of 2015 to 2017 and previous period of 2012 to 2014. Table 20 used the 2016 population estimate from DOF and Tables 24A-E used the average number of live births as the denominator, collected by CDPH Center for Health Statistics and Informatics, for each measurement period.

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

Estimates of persons under 18 years old 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, visit the CDPH, CHSI Vital Records Data and Statistics web page.

If you would like additional copies, 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. The health indicators presented in *Profiles* are selected jointly by the CDPH and CCLHO. This series of reports represent a broad historical perspective on the health status of California's counties over a span of 28 years.

Profiles provides unique insights that raise awareness of some county health issues. The report presents selected public health indicators and provides California state and county rates or percentages for natality, mortality, infant mortality, and morbidity conditions, assisting the counties in identifying health disparities, inequities, and areas of progress. State and county data are ranked and compared with the target rates established for Healthy People 2020 National Objectives (HP 2020), where available and applicable. The rates and percentages presented are based on a three-year average case count divided by the mid-year population or the average population for the measurement years: 2016-2018 for mortality and morbidity; 2015-2017 for HIV/AIDS and infant mortality; and 2017 for poverty. *Profiles* (2020) also presents rates and percentages for the previous three-year period, which refers to the measurement years: 2013-2015 for mortality and morbidity; and 2012-2014 for HIV/AIDS and infant mortality. The measurement years are in calendar years.

Counties are ranked in order by increasing rates or percentages then by decreasing population size. The ranking of counties for Table 27A: Prenatal Care Begun During the First Trimester of Pregnancy and Table 27B: Adequate/Adequate Plus Prenatal Care; however, are done in order by decreasing percentages then by decreasing population size.

NOTABLE POINTS IN *PROFILES* (2020)

Profiles (2020) displays statewide notable improvements for the following health indicators compared to the previous three-year period:

- lung cancer has a reduction in mortality rate by about 18 percent and coronary heart disease has a reduction in mortality rate by about 10 percent (Tables 4 and 9); and,
- a decrease in the number of births to adolescent mothers between the ages of 15 to 19 years old by about 39 percent (Table 26).

Profiles (2020) also reveals an increase in the rates of all measured sexually transmitted infections compared to the previous three-year period:

- the rate of individuals living with HIV/AIDS has increased by about 3.9 percent (Table 20);
- new cases of chlamydia have increased by about 19.4 percent (Table 21);
- new cases of gonorrhea among females between the ages of 15 to 44 years old have increased by about 47.8 percent (Table 22F);

- new cases of gonorrhea among males between the ages of 15 to 44 years old have increased by about 63.7 percent (Table 22M);
- new cases of congenital syphilis have increased by about 182 percent. The following counties had more than 150 percent increase of new congenital syphilis cases: Los Angeles (158 percent), San Bernardino (516 percent), and San Joaquin (497 percent) (Table 23C);
- new cases of primary and secondary syphilis among the female population have increased by about 176 percent (Table 23F); and,
- new cases of primary and secondary syphilis among the male population have increased by about 50 percent (Table 23M).

NOTABLE OUTLIERS

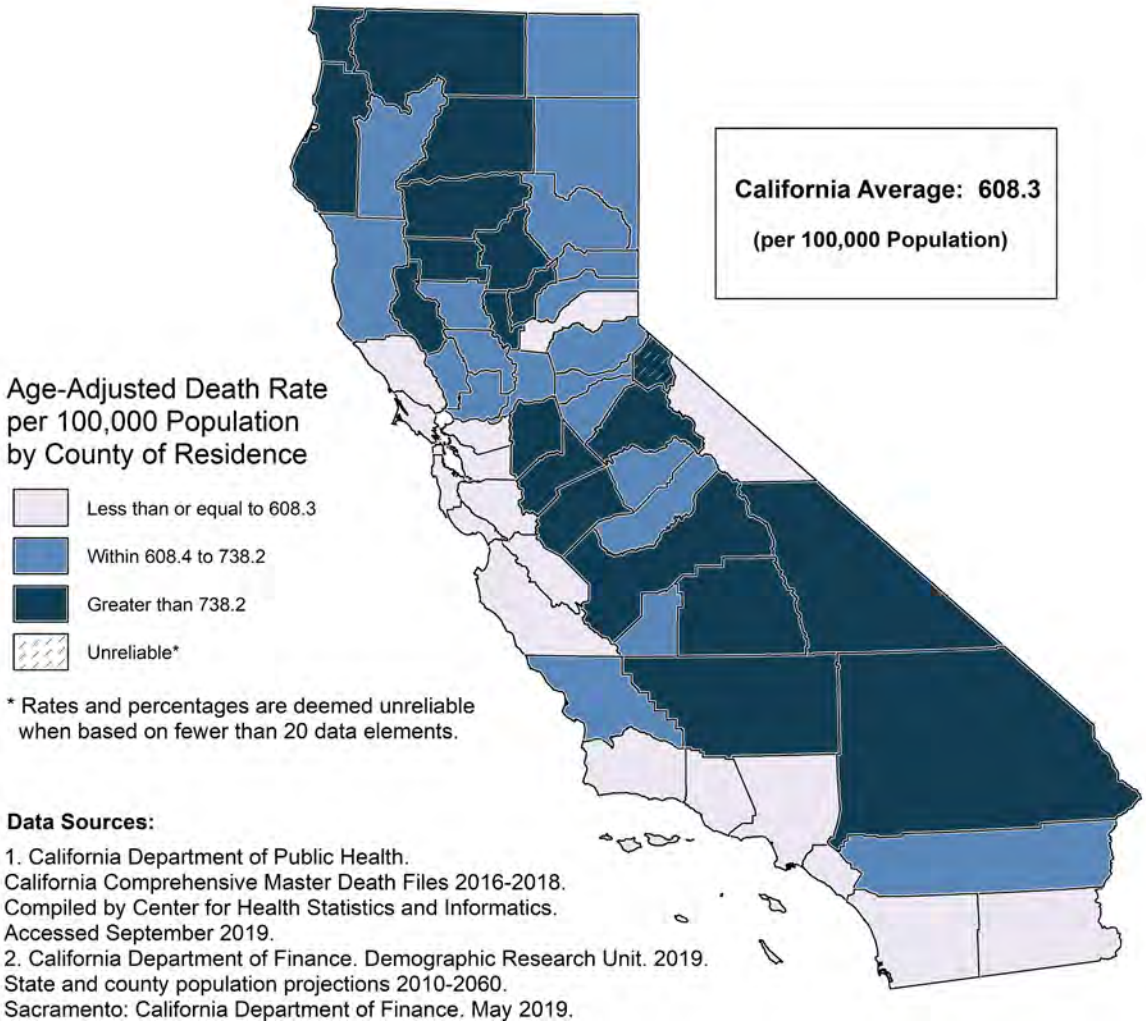
- HIV/AIDS in Amador County: The rate of people living with HIV/AIDS has increased by about 70 percent in Amador County, from 292.6 cases per 100,000, as reported in *Profiles* (2019) (measurement years: 2014-2016) to 497.5 cases per 100,000 population for *Profiles* (2020) (measurement years: 2015-2017). The rates reflect the average number of cases for the corresponding three-year measurement period. The transfer of inmates to Amador County has contributed largely to the observed increased rate.
- Alzheimer's Disease in Santa Clara County: Mortality due to Alzheimer's disease has remained an area of high concern for California. Santa Clara, in particular, appears to have a substantial increase in deaths due to Alzheimer's compared to the rate reported in *Profiles* (2019), from 5.5 to 11.6 cases per 100,000 population. However, this increase is due to a change in reporting in 2016 that is more in line with the rest of the counties or statewide standard of Alzheimer's diagnosis.

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 current 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 population estimates from DOF versus those of the U.S. Census).

DEATHS DUE TO ALL CAUSES, 2016-2018



The crude death rate for deaths due to all causes for California averaged 671.6 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 266,020.0 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 1,327.1 in Lake County to a low of 368.3 in Mono County, a factor of 3.6 to 1.

The age-adjusted death rate for deaths due to all causes for California during the 2016 through 2018 three-year period totaled 608.3 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 942.9 in Yuba County to a low of 467.4 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 2013-2015 period averaged 619.1 per 100,000 population.

TABLE 1
DEATHS DUE TO ALL CAUSES
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020: N/A						
1	MARIN	262,092	1,938.7	739.7	467.4	445.8	489.0
2	SANTA CLARA	1,945,911	10,217.0	525.0	467.5	458.3	476.6
3	SAN MATEO	771,902	4,760.0	616.7	470.1	456.5	483.7
4	SAN FRANCISCO	880,955	5,809.7	659.5	498.0	484.9	511.1
5	ORANGE	3,205,855	20,071.7	626.1	548.0	540.3	555.7
6	MONTEREY	442,196	2,612.7	590.8	556.0	534.3	577.7
7	ALAMEDA	1,651,319	9,956.3	602.9	562.9	551.7	574.1
8	MONO	13,846	51.0	368.3	567.9	422.9	746.7
9	LOS ANGELES	10,261,736	63,559.0	619.4	568.4	563.9	572.9
10	SANTA CRUZ	275,859	1,743.3	632.0	575.3	547.5	603.1
11	CONTRA COSTA	1,138,201	7,842.3	689.0	582.1	569.0	595.2
12	IMPERIAL	187,943	1,126.3	599.3	587.9	553.1	622.7
13	SAN DIEGO	3,320,387	21,623.7	651.2	588.7	580.8	596.7
14	SAN BENITO	60,291	342.3	567.8	588.9	525.2	652.6
15	PLACER	382,977	3,281.0	856.7	591.5	570.9	612.2
16	VENTURA	854,987	5,792.7	677.5	593.7	578.1	609.2
17	SANTA BARBARA	450,138	3,207.0	712.4	596.6	575.5	617.7
18	SONOMA	503,634	4,147.3	823.5	598.2	579.4	616.9
	CALIFORNIA	**39,610,556**	**266,020.0**	**671.6**	**608.3**	**606.0**	**610.7**
19	SIERRA	3,149	36.3	1,153.8	608.9	427.3	841.8
20	NEVADA	98,554	1,047.3	1,062.7	613.2	572.8	653.6
21	SAN LUIS OBISPO	278,680	2,468.3	885.7	614.9	589.6	640.2
22	EL DORADO	186,556	1,567.7	840.3	623.9	591.8	656.0
23	RIVERSIDE	2,392,511	16,807.3	702.5	629.0	619.4	638.6
24	YOLO	219,758	1,322.7	601.9	643.6	608.5	678.7
25	COLUSA	22,632	163.3	721.7	657.9	555.3	760.4
26	NAPA	141,205	1,238.7	877.2	660.8	623.4	698.2
27	TRINITY	13,453	149.0	1,107.6	662.1	540.6	783.7
28	MADERA	156,915	1,096.3	698.7	671.3	631.2	711.4
29	MARIPOSA	17,992	211.0	1,172.7	672.6	570.2	775.0
30	AMADOR	37,405	436.0	1,165.6	680.0	611.3	748.7
31	PLUMAS	19,550	228.0	1,166.2	684.6	583.7	785.4
32	SOLANO	437,434	3,418.0	781.4	686.2	662.8	709.5
33	CALAVERAS	44,656	519.3	1,163.0	686.3	621.1	751.4
34	LASSEN	30,604	250.3	818.0	705.6	616.1	795.0
35	KINGS	150,992	864.7	572.7	709.5	661.6	757.5
36	MENDOCINO	89,071	847.3	951.3	717.7	667.3	768.1
37	MODOC	9,488	112.3	1,184.0	723.9	576.7	871.1
38	SACRAMENTO	1,520,685	11,692.3	768.9	735.7	722.2	749.2

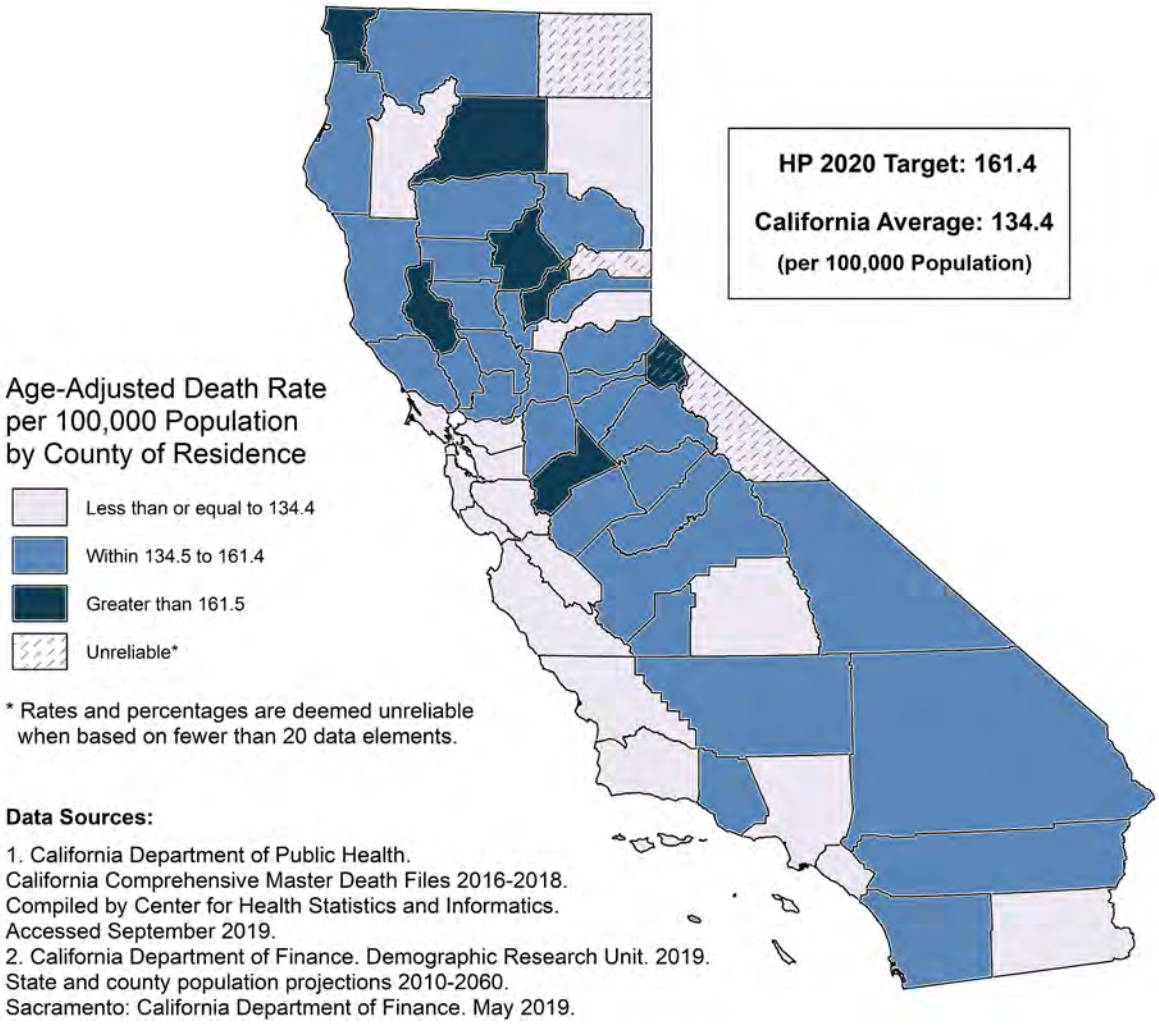
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	FRESNO	1,000,143	6,966.7	696.6	740.6	723.0	758.2
40	TULARE	472,416	3,095.3	655.2	741.0	714.6	767.4
41	SAN BERNARDINO	2,163,561	14,376.0	664.5	756.2	743.6	768.9
42	MERCED	276,611	1,806.0	652.9	759.7	724.2	795.1
43	SUTTER	98,342	841.3	855.5	763.2	711.2	815.3
44	TUOLUMNE	52,862	675.0	1,276.9	776.8	713.8	839.9
45	SAN JOAQUIN	749,810	5,553.7	740.7	782.8	761.9	803.7
46	INYO	18,566	222.0	1,195.7	783.2	673.3	893.2
47	GLENN	29,205	269.3	922.2	791.2	695.3	887.0
48	TEHAMA	64,407	680.0	1,055.8	802.1	739.9	864.2
49	KERN	897,949	6,122.7	681.9	803.8	783.2	824.3
50	STANISLAUS	550,505	4,317.0	784.2	806.9	782.5	831.3
51	SISKIYOU	44,240	585.0	1,322.3	819.2	747.0	891.5
52	HUMBOLDT	135,865	1,351.0	994.4	824.9	779.5	870.3
53	BUTTE	226,661	2,438.7	1,075.9	831.7	797.5	865.8
54	DEL NORTE	26,811	301.3	1,123.9	862.8	762.3	963.3
55	LAKE	64,930	861.7	1,327.1	916.9	852.0	981.9
56	SHASTA	178,240	2,308.3	1,295.1	941.5	901.7	981.2
57	YUBA	76,767	674.0	878.0	942.9	870.1	1,015.8
58	ALPINE	1,146	16.7	1,454.3 *	1,180.9 *	683.7	1,899.4

* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO ALL CANCERS, 2016-2018



The crude death rate from cancer in California averaged 150.4 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 59,573.0 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 293.3 in Plumas County to a low of 119.4 in Tulare County, a factor of 2.5 to 1.

The age-adjusted death rate from cancer for California during the 2016 through 2018 three-year period totaled 134.4 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 198.3 in Yuba County to a low of 94.9 in Trinity County.

Forty-eight counties with reliable 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 2013-2015 period averaged 143.6 per 100,000 population.

TABLE 2
DEATHS DUE TO ALL CANCERS
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	SIERRA	3,149	5.3	169.4 *	74.1 *	25.2	168.6
2	MONO	13,846	10.3	74.6 *	81.8 *	39.8	149.0
3	TRINITY	13,453	26.0	193.3	94.9	62.0	139.1
4	MODOC	9,488	17.3	182.7 *	105.4 *	61.8	168.1
5	SANTA CLARA	1,945,911	2,407.0	123.7	110.3	105.8	114.7
6	SAN MATEO	771,902	1,120.7	145.2	111.7	105.1	118.4
7	MARIN	262,092	476.3	181.7	112.0	101.7	122.3
8	IMPERIAL	187,943	227.0	120.8	120.3	104.5	136.2
9	SAN BENITO	60,291	73.0	121.1	120.9	94.8	152.0
10	SAN FRANCISCO	880,955	1,379.3	156.6	122.0	115.4	128.5
11	MONTEREY	442,196	570.3	129.0	122.2	112.0	132.4
12	SANTA CRUZ	275,859	403.0	146.1	125.5	112.8	138.3
13	LASSEN	30,604	47.0	153.6	126.8	93.2	168.7
14	ALAMEDA	1,651,319	2,298.3	139.2	126.9	121.6	132.2
15	ORANGE	3,205,855	4,687.0	146.2	127.2	123.5	130.9
16	LOS ANGELES	10,261,736	14,583.7	142.1	129.9	127.7	132.0
17	CONTRA COSTA	1,138,201	1,807.7	158.8	130.3	124.2	136.5
18	SANTA BARBARA	450,138	687.0	152.6	131.5	121.4	141.5
19	PLACER	382,977	747.0	195.1	132.2	122.6	141.8
20	TULARE	472,416	564.0	119.4	132.4	121.3	143.5
21	SAN LUIS OBISPO	278,680	551.3	197.8	132.4	121.0	143.8
	CALIFORNIA	**39,610,556**	**59,573.0**	**150.4**	**134.4**	**133.3**	**135.5**
22	EL DORADO	186,556	367.0	196.7	135.5	121.2	149.8
23	NEVADA	98,554	241.7	245.2	136.0	117.6	154.4
24	VENTURA	854,987	1,358.0	158.8	136.2	128.8	143.5
25	SAN DIEGO	3,320,387	5,060.7	152.4	137.3	133.4	141.1
26	RIVERSIDE	2,392,511	3,709.0	155.0	137.4	133.0	141.9
27	SONOMA	503,634	988.3	196.2	138.2	129.4	147.1
28	FRESNO	1,000,143	1,325.7	132.5	139.5	131.9	147.1
29	COLUSA	22,632	34.7	153.2	139.8	97.2	194.7
30	YOLO	219,758	292.0	132.9	141.4	125.0	157.9
31	MARIPOSA	17,992	48.0	266.8	144.0	106.2	190.9
32	MADERA	156,915	240.7	153.4	144.4	126.0	162.8
33	CALAVERAS	44,656	125.7	281.4	145.6	118.7	172.5
34	MENDOCINO	89,071	186.3	209.2	146.8	124.8	168.8
35	NAPA	141,205	284.3	201.4	148.1	130.5	165.7
36	KERN	897,949	1,171.7	130.5	149.2	140.4	157.9
37	AMADOR	37,405	106.0	283.4	149.9	120.2	179.6
38	SAN BERNARDINO	2,163,561	3,002.0	138.8	151.2	145.6	156.7
39	KINGS	150,992	187.0	123.8	151.4	129.4	173.4

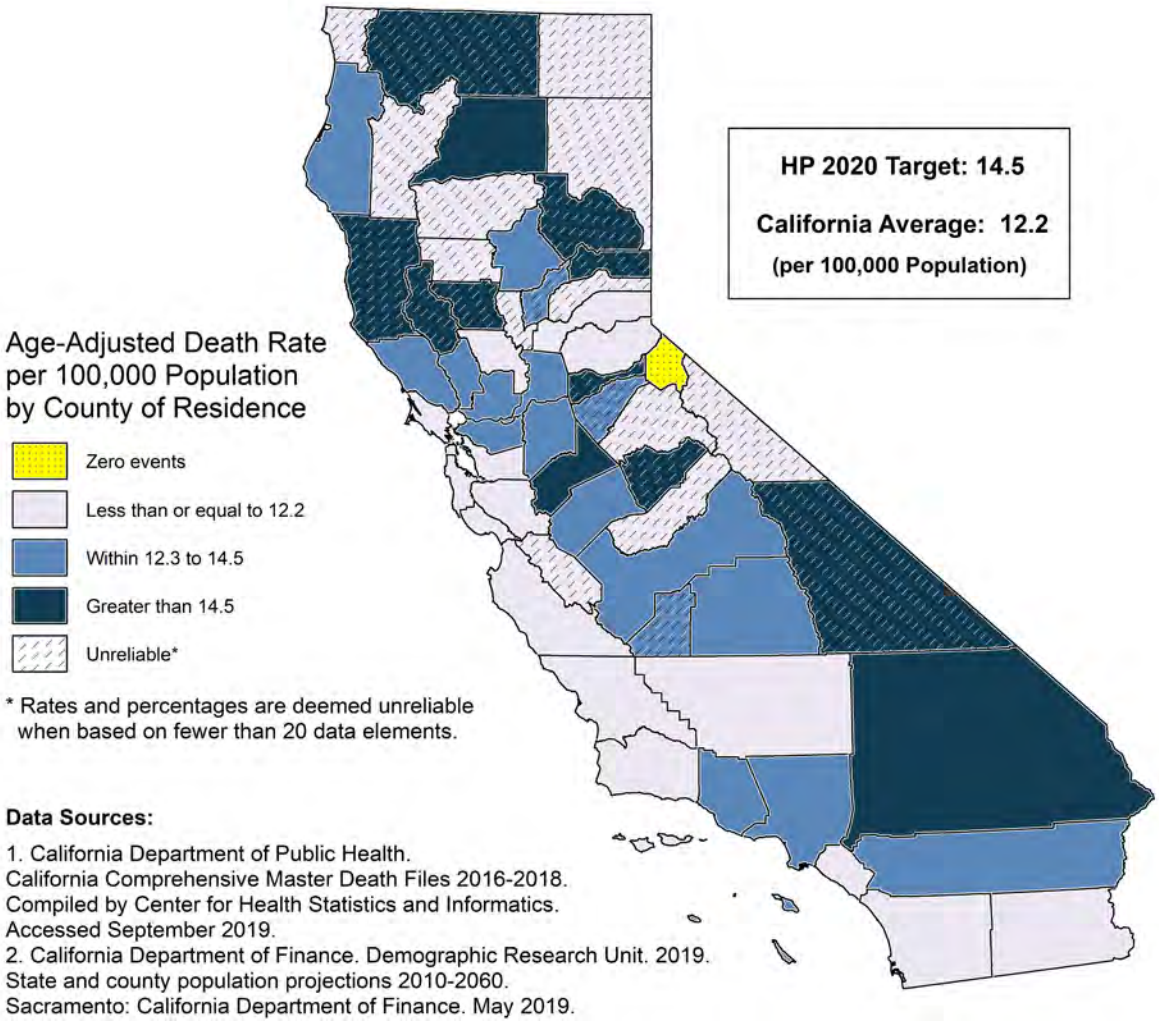
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	INYO	18,566	45.0	242.4	151.7	110.6	203.0
41	SISKIYOU	44,240	119.3	269.7	152.3	123.7	181.0
42	SACRAMENTO	1,520,685	2,512.3	165.2	154.7	148.5	160.8
43	TEHAMA	64,407	138.3	214.8	154.8	128.3	181.2
44	SAN JOAQUIN	749,810	1,136.0	151.5	155.4	146.2	164.6
45	PLUMAS	19,550	57.3	293.3	156.9	118.9	203.1
46	TUOLUMNE	52,862	148.7	281.2	157.6	131.0	184.3
47	MERCED	276,611	379.7	137.3	157.9	141.8	174.0
48	SUTTER	98,342	179.7	182.7	157.9	134.6	181.2
49	GLENN	29,205	55.0	188.3	158.2	119.1	205.9
50	SOLANO	437,434	840.3	192.1	160.1	149.1	171.1
51	HUMBOLDT	135,865	283.3	208.5	161.2	141.8	180.6
	HPO 2020: C-1				**161.4**		
52	STANISLAUS	550,505	890.0	161.7	162.2	151.4	173.1
53	DEL NORTE	26,811	60.7	226.3	163.3	124.8	209.9
54	BUTTE	226,661	502.7	221.8	169.5	154.2	184.7
55	ALPINE	1,146	2.7	232.7 *	174.1 *	31.4	539.5
56	SHASTA	178,240	465.3	261.1	179.7	162.9	196.5
57	LAKE	64,930	189.7	292.1	186.9	159.1	214.6
58	YUBA	76,767	149.7	195.0	198.3	165.8	230.9

* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO COLORECTAL CANCER, 2016-2018



The crude death rate from colorectal cancer for California averaged 13.7 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 through 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 5,415.3 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 23.0 in Shasta County to a low of 10.0 in Yolo County, a factor of 2.3 to 1.

The age-adjusted death rate from colorectal cancer for California during the 2016 through 2018 three-year period totaled 12.2 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 16.5 in Shasta County to a low of 9.1 in Marin County.

Thirty counties with reliable 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 fifteen 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 2013-2015 period averaged 13.2 per 100,000 population.

TABLE 3
DEATHS DUE TO COLORECTAL CANCER
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	ALPINE	1,146	0.0	-	-	-	-
2	MARIN	262,092	38.7	14.8	9.1	6.5	12.5
3	NEVADA	98,554	16.3	16.6 *	9.3 *	5.4	15.1
4	SANTA CLARA	1,945,911	208.7	10.7	9.3	8.1	10.6
5	SAN MATEO	771,902	95.3	12.4	9.5	7.7	11.7
6	LASSEN	30,604	3.7	12.0 *	9.6 *	2.4	25.5
7	TRINITY	13,453	2.3	17.3 *	9.9 *	1.5	33.0
8	SANTA BARBARA	450,138	53.0	11.8	10.1	7.6	13.2
9	GLENN	29,205	3.3	11.4 *	10.4 *	2.4	28.8
10	SAN BENITO	60,291	6.3	10.5 *	10.4 *	4.0	22.2
11	TUOLUMNE	52,862	10.0	18.9 *	10.5 *	5.0	19.3
12	MONTEREY	442,196	49.3	11.2	10.5	7.8	13.9
13	ORANGE	3,205,855	399.3	12.5	10.7	9.7	11.8
14	DEL NORTE	26,811	4.0	14.9 *	10.9 *	3.0	27.9
15	IMPERIAL	187,943	21.0	11.2	10.9	6.8	16.7
16	YOLO	219,758	22.0	10.0	11.0	6.9	16.6
17	MONO	13,846	1.7	12.0 *	11.1 *	1.0	44.5
18	MODOC	9,488	2.0	21.1 *	11.3 *	1.4	40.8
19	SAN LUIS OBISPO	278,680	47.3	17.0	11.3	8.3	15.1
20	SUTTER	98,342	13.0	13.2 *	11.4 *	6.1	19.5
21	PLACER	382,977	64.7	16.9	11.5	8.9	14.7
22	TEHAMA	64,407	10.3	16.0 *	11.6 *	5.6	21.1
23	SANTA CRUZ	275,859	36.7	13.3	11.6	8.1	16.0
24	SAN FRANCISCO	880,955	130.7	14.8	11.6	9.6	13.6
25	MADERA	156,915	19.3	12.3 *	11.8 *	7.1	18.3
26	ALAMEDA	1,651,319	212.0	12.8	11.9	10.2	13.5
27	EL DORADO	186,556	31.0	16.6	12.0	8.1	17.0
28	SAN DIEGO	3,320,387	445.7	13.4	12.1	11.0	13.3
29	KERN	897,949	95.7	10.7	12.2	9.9	14.9
	CALIFORNIA	**39,610,556**	**5,415.3**	**13.7**	**12.2**	**11.9**	**12.6**
30	CONTRA COSTA	1,138,201	169.0	14.8	12.3	10.4	14.2
31	SONOMA	503,634	86.7	17.2	12.5	10.0	15.5
32	FRESNO	1,000,143	119.7	12.0	12.5	10.3	14.8
33	KINGS	150,992	15.7	10.4 *	12.6 *	7.2	20.6
34	LOS ANGELES	10,261,736	1,418.3	13.8	12.6	12.0	13.3
35	SACRAMENTO	1,520,685	212.3	14.0	13.0	11.2	14.7
36	TULARE	472,416	55.7	11.8	13.0	9.8	17.0
37	VENTURA	854,987	130.0	15.2	13.1	10.8	15.4
38	RIVERSIDE	2,392,511	356.0	14.9	13.1	11.8	14.5
39	BUTTE	226,661	39.0	17.2	13.5	9.6	18.4

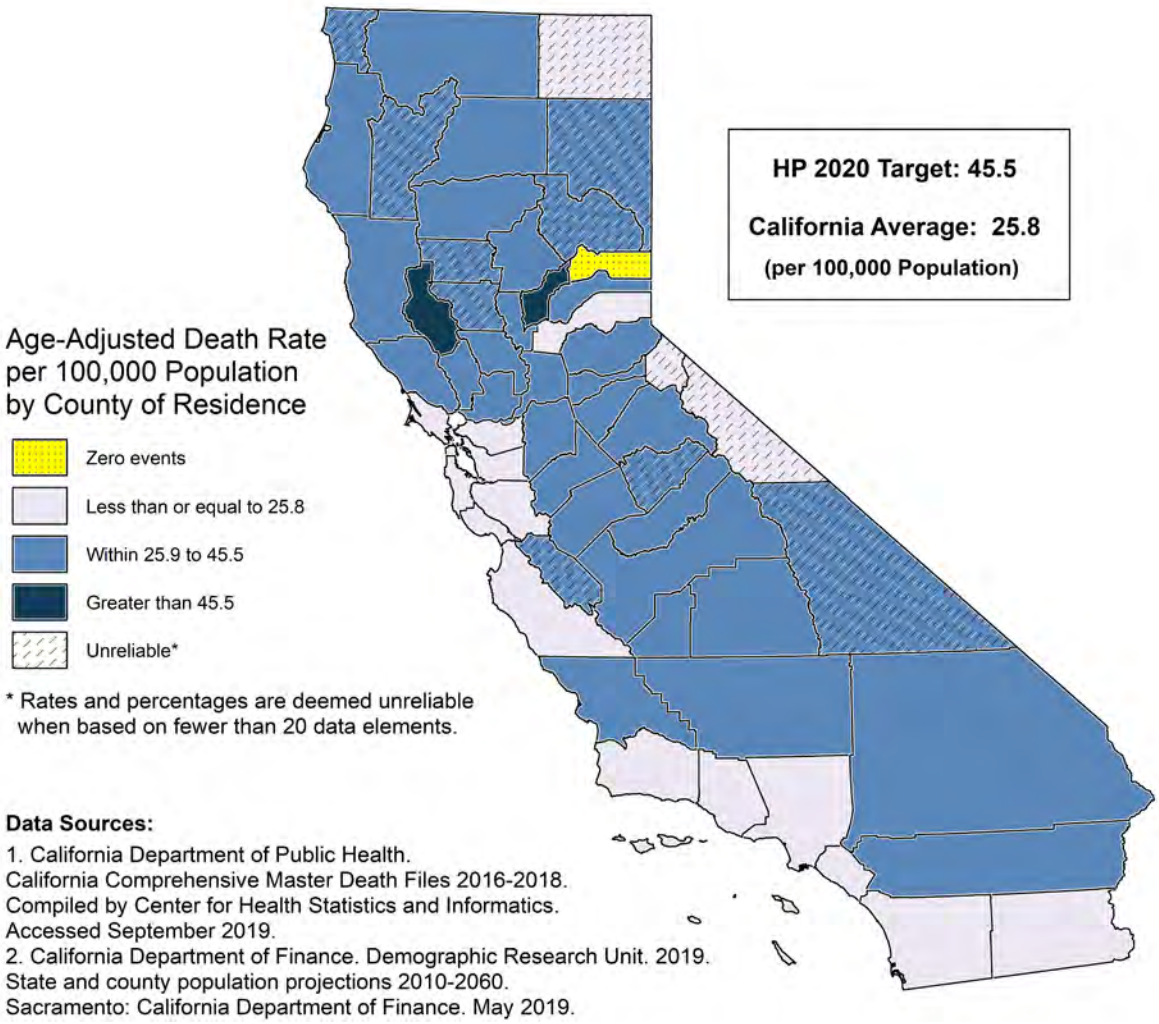
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	HUMBOLDT	135,865	23.3	17.2	13.5	8.6	20.2
41	NAPA	141,205	25.3	17.9	13.5	8.8	19.9
42	SOLANO	437,434	69.3	15.9	13.6	10.6	17.2
43	YUBA	76,767	10.0	13.0 *	13.6 *	6.5	25.0
44	CALAVERAS	44,656	11.7	26.1 *	13.8 *	7.0	24.2
45	SAN JOAQUIN	749,810	101.0	13.5	14.1	11.3	16.9
46	MERCED	276,611	34.0	12.3	14.5	10.0	20.2
	HPO 2020: C-5				**14.5**		
47	MENDOCINO	89,071	17.3	19.5 *	14.6 *	8.5	23.2
48	SISKIYOU	44,240	11.3	25.6 *	14.6 *	7.4	25.9
49	SAN BERNARDINO	2,163,561	292.7	13.5	14.7	13.0	16.5
50	MARIPOSA	17,992	5.3	29.6 *	15.5 *	5.3	35.2
51	AMADOR	37,405	10.0	26.7 *	15.5 *	7.4	28.5
52	COLUSA	22,632	3.7	16.2 *	15.8 *	4.0	42.0
53	STANISLAUS	550,505	85.3	15.5	15.9	12.7	19.6
54	LAKE	64,930	16.7	25.7 *	16.4 *	9.5	26.4
55	SHASTA	178,240	41.0	23.0	16.5	11.8	22.4
56	PLUMAS	19,550	5.3	27.3 *	18.0 *	6.1	40.8
57	INYO	18,566	5.0	26.9 *	18.3 *	5.9	42.6
58	SIERRA	3,149	1.3	42.3 *	20.2 *	1.1	92.8

- Rates, percentages, and confidence limits are not calculated for zero events.
* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO LUNG CANCER, 2016-2018



The crude death rate from lung cancer for California averaged 28.9 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 through 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 11,437.7 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 80.2 in Amador County to a low of 19.9 in Imperial County, a factor of 4 to 1.

The age-adjusted death rate from lung cancer for California during the 2016 through 2018 three-year period totaled 25.8 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 53.3 in Yuba County to a low of 19.8 in Marin County.

Forty-three counties with reliable 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 twelve counties with unreliable rates and one county with zero deaths due to lung cancer also met the objective.

The California age-adjusted death rate from lung cancer for the 2013-2015 period averaged 30.5 per 100,000 population.

TABLE 4
DEATHS DUE TO LUNG CANCER
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	SIERRA	3,149	0.0	-	-	-	-
2	MONO	13,846	1.7	12.0 *	9.0 *	0.8	36.3
3	MODOC	9,488	3.0	31.6 *	17.2 *	3.5	50.2
4	MARIN	262,092	85.3	32.6	19.8	15.8	24.4
5	ALPINE	1,146	0.3	29.1 *	19.9 *	<0.1	260.6
6	SAN MATEO	771,902	199.3	25.8	20.0	17.2	22.8
7	IMPERIAL	187,943	37.3	19.9	20.1	14.2	27.6
8	SANTA CLARA	1,945,911	440.0	22.6	20.2	18.3	22.1
9	SANTA CRUZ	275,859	72.3	26.2	22.6	17.7	28.5
10	MONTEREY	442,196	107.0	24.2	23.0	18.5	27.4
11	LOS ANGELES	10,261,736	2,596.0	25.3	23.3	22.4	24.2
12	SANTA BARBARA	450,138	125.0	27.8	23.9	19.7	28.2
13	ORANGE	3,205,855	884.0	27.6	24.1	22.5	25.7
14	SAN FRANCISCO	880,955	276.0	31.3	24.3	21.4	27.3
15	VENTURA	854,987	245.0	28.7	24.4	21.3	27.5
16	PLACER	382,977	141.7	37.0	24.5	20.5	28.6
17	ALAMEDA	1,651,319	446.3	27.0	24.8	22.5	27.2
18	CONTRA COSTA	1,138,201	353.3	31.0	25.4	22.7	28.2
19	SAN DIEGO	3,320,387	943.3	28.4	25.6	23.9	27.2
	CALIFORNIA	**39,610,556**	**11,437.7**	**28.9**	**25.8**	**25.3**	**26.3**
20	TULARE	472,416	112.7	23.8	26.2	21.3	31.2
21	NEVADA	98,554	48.3	49.0	26.4	19.5	35.0
22	YOLO	219,758	54.7	24.9	26.4	19.9	34.4
23	SAN LUIS OBISPO	278,680	113.0	40.5	26.5	21.6	31.5
24	EL DORADO	186,556	76.0	40.7	26.9	21.2	33.6
25	MADERA	156,915	46.0	29.3	27.0	19.8	36.0
26	SONOMA	503,634	198.0	39.3	27.5	23.6	31.4
27	RIVERSIDE	2,392,511	754.3	31.5	27.8	25.8	29.8
28	MARIPOSA	17,992	9.0	50.0 *	28.0 *	12.8	53.1
29	INYO	18,566	9.0	48.5 *	28.1 *	12.8	53.3
30	NAPA	141,205	55.7	39.4	28.3	21.3	36.7
31	FRESNO	1,000,143	267.7	26.8	28.3	24.9	31.8
32	SAN BERNARDINO	2,163,561	559.7	25.9	28.5	26.0	30.9
33	TRINITY	13,453	8.0	59.5 *	28.6 *	12.3	56.3
34	COLUSA	22,632	7.3	32.4 *	28.6 *	11.8	58.0
35	LASSEN	30,604	11.0	35.9 *	28.9 *	14.4	51.8
36	SAN JOAQUIN	749,810	219.3	29.3	29.7	25.7	33.7
37	SAN BENITO	60,291	16.7	27.6 *	30.4 *	17.6	48.8
38	MENDOCINO	89,071	41.0	46.0	30.5	21.9	41.4
39	KERN	897,949	242.0	27.0	31.0	27.0	35.0

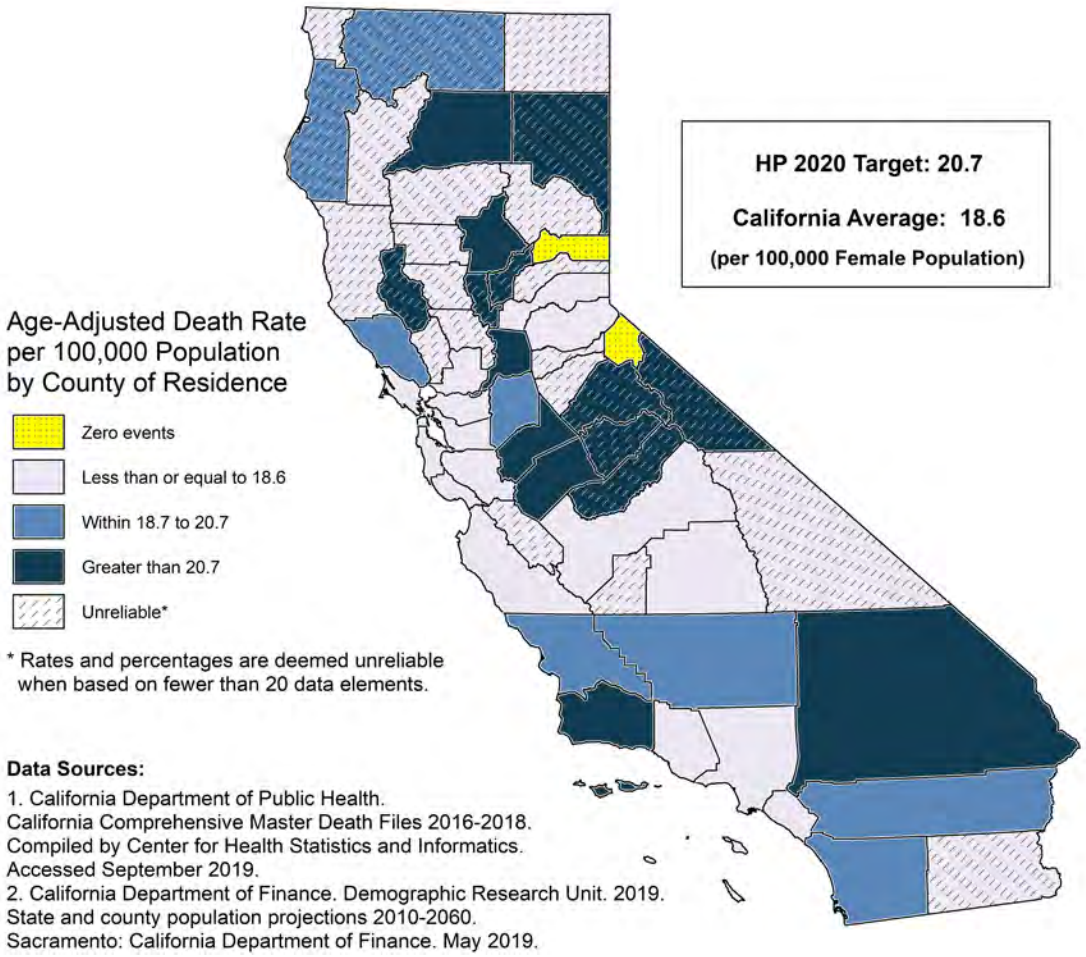
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	SOLANO	437,434	169.7	38.8	31.7	26.9	36.5
41	SACRAMENTO	1,520,685	519.0	34.1	32.0	29.2	34.8
42	MERCED	276,611	81.3	29.4	33.7	26.8	41.9
43	SUTTER	98,342	40.0	40.7	34.6	24.7	47.1
44	STANISLAUS	550,505	191.3	34.8	34.7	29.7	39.7
45	TUOLUMNE	52,862	34.0	64.3	35.1	24.3	49.0
46	TEHAMA	64,407	33.0	51.2	35.4	24.3	49.7
47	KINGS	150,992	43.7	28.9	36.3	26.3	48.7
48	CALAVERAS	44,656	33.3	74.6	36.8	25.4	51.6
49	GLENN	29,205	13.0	44.5 *	37.0 *	19.7	63.3
50	HUMBOLDT	135,865	68.3	50.3	37.0	28.8	46.9
51	DEL NORTE	26,811	14.0	52.2 *	37.6 *	20.6	63.1
52	PLUMAS	19,550	14.7	75.0 *	37.7 *	20.9	62.5
53	SISKIYOU	44,240	30.3	68.6	38.1	25.8	54.3
54	BUTTE	226,661	118.7	52.4	38.5	31.4	45.5
55	AMADOR	37,405	30.0	80.2	40.3	27.2	57.6
56	SHASTA	178,240	108.7	61.0	40.5	32.8	48.3
	HPO 2020: C-2				**45.5**		
57	LAKE	64,930	48.0	73.9	46.1	34.0	61.2
58	YUBA	76,767	40.3	52.5	53.3	38.2	72.5

- Rates, percentages, and confidence limits are not calculated for zero events.
* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO FEMALE BREAST CANCER, 2016-2018



The crude death rate from female breast cancer for California averaged 22.5 deaths per 100,000 female population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 4,483.0 with a female population count of 19,925,547 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 33.7 in Shasta County to a low of 15.5 in Monterey County, a factor of 2.2 to 1.

The age-adjusted death rate from female breast cancer for California during the 2015 through 2017 three-year period totaled 18.6 deaths per 100,000 female population. The reliable age-adjusted death rates ranged from a high of 22.7 in Shasta County to a low of 13.3 in Monterey County.

Twenty-two counties with reliable 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 nineteen counties with unreliable rates and two counties with zero deaths due to breast cancer also met this objective.

The California age-adjusted death rate from female breast cancer for the 2013-2015 period averaged 19.8 per 100,000 female population.

TABLE 5
DEATHS DUE TO FEMALE BREAST CANCER
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 FEMALE POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	SIERRA	1,562	0.0	-	-	-	-
2	ALPINE	565	0.0	-	-	-	-
3	TRINITY	6,633	0.3	5.0 *	2.0 *	<0.1	26.3
4	COLUSA	11,046	0.7	6.0 *	5.8 *	<0.1	43.3
5	MODOC	4,736	0.7	14.1 *	7.0 *	<0.1	52.3
6	PLUMAS	9,797	1.7	17.0 *	7.6 *	0.7	30.4
7	INYO	9,150	1.7	18.2 *	9.4 *	0.8	37.7
8	MONTEREY	215,546	33.3	15.5	13.3	9.2	18.7
9	SAN MATEO	392,035	76.7	19.6	13.9	11.0	17.4
10	IMPERIAL	92,735	14.0	15.1 *	14.0 *	7.6	23.5
11	GLENN	14,424	2.7	18.5 *	14.3 *	2.6	44.2
12	SAN FRANCISCO	435,568	87.7	20.1	14.8	11.8	18.2
13	MARIN	132,827	34.7	26.1	15.3	10.7	21.3
14	CALAVERAS	22,436	7.3	32.7 *	15.6 *	6.4	31.5
15	SANTA CLARA	966,233	183.3	19.0	15.6	13.3	17.9
16	MENDOCINO	44,614	10.7	23.9 *	15.9 *	7.9	28.8
17	NAPA	70,942	17.7	24.9 *	16.1 *	9.5	25.5
18	KINGS	68,748	10.0	14.5 *	16.3 *	7.8	30.0
19	SAN BENITO	30,170	6.0	19.9 *	16.6 *	6.1	36.0
20	SANTA CRUZ	137,846	30.3	22.0	16.8	11.4	24.0
21	FRESNO	500,813	88.0	17.6	17.0	13.7	21.0
22	SOLANO	219,825	49.0	22.3	17.1	12.6	22.6
23	AMADOR	17,401	6.3	36.4 *	17.2 *	6.5	36.7
24	ALAMEDA	840,889	173.7	20.7	17.2	14.6	19.8
25	TULARE	236,240	39.3	16.6	17.3	12.3	23.6
26	DEL NORTE	12,449	3.7	29.5 *	17.6 *	4.4	46.8
27	EL DORADO	92,757	25.0	27.0	17.7	11.5	26.1
28	ORANGE	1,616,575	358.3	22.2	17.8	16.0	19.7
29	NEVADA	49,774	16.0	32.1 *	18.1 *	10.3	29.3
30	VENTURA	430,094	96.7	22.5	18.1	14.7	22.1
31	PLACER	195,369	56.0	28.7	18.4	13.9	23.9
32	TEHAMA	32,480	9.3	28.7 *	18.5 *	8.6	34.7
33	CONTRA COSTA	581,872	139.0	23.9	18.5	15.3	21.7
34	LOS ANGELES	5,201,009	1,157.0	22.2	18.6	17.5	19.7
35	YOLO	112,815	19.7	17.4 *	18.6 *	11.3	28.9
	CALIFORNIA	**19,925,547**	**4,483.0**	**22.5**	**18.6**	**18.1**	**19.2**
36	SISKIYOU	22,344	7.3	32.8 *	18.7 *	7.7	37.8
37	SAN LUIS OBISPO	136,312	39.3	28.9	18.8	13.4	25.6
38	SAN JOAQUIN	376,186	77.7	20.6	19.1	15.1	23.8
39	RIVERSIDE	1,204,837	280.3	23.3	19.6	17.3	22.0

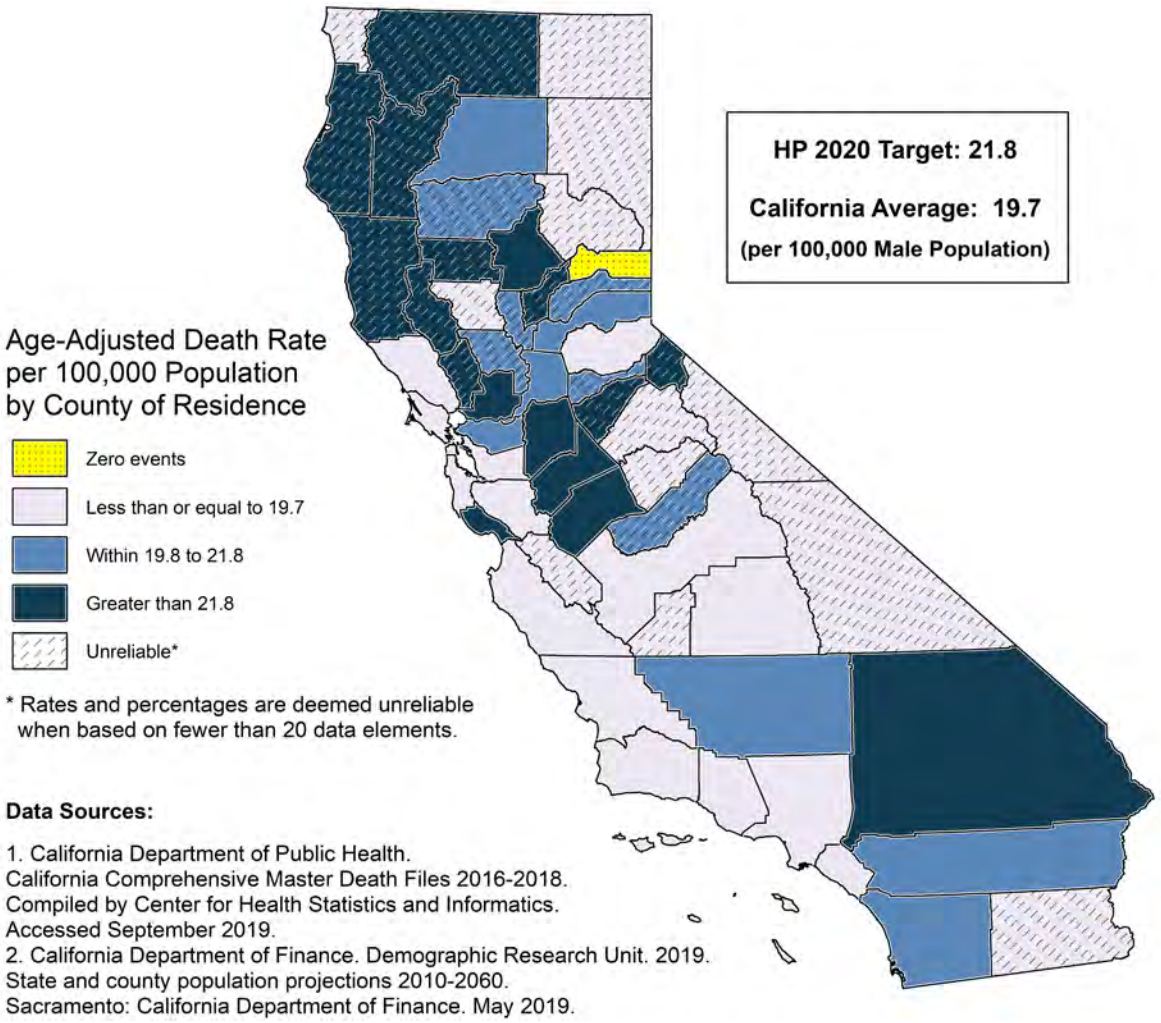
RANK ORDER	COUNTY OF RESIDENCE	2017 FEMALE POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	HUMBOLDT	67,818	18.7	27.5 *	20.0 *	12.0	31.3
41	SONOMA	256,019	78.0	30.5	20.0	15.8	25.0
42	SAN DIEGO	1,653,392	405.3	24.5	20.3	18.3	22.3
43	KERN	437,977	88.0	20.1	20.5	16.5	25.3
	HPO 2020: C-3				**20.7**		
44	SACRAMENTO	774,927	190.3	24.6	21.0	17.9	24.0
45	MADERA	81,156	19.0	23.4 *	21.0 *	12.7	32.8
46	BUTTE	113,976	33.3	29.2	21.4	14.8	30.0
47	MERCED	137,258	28.0	20.4	21.8	14.5	31.5
48	SANTA BARBARA	223,491	60.7	27.1	22.1	16.9	28.4
49	LASSEN	11,639	3.7	31.5 *	22.2 *	5.6	59.1
50	SAN BERNARDINO	1,090,399	247.0	22.7	22.3	19.4	25.1
51	STANISLAUS	277,906	67.3	24.2	22.3	17.3	28.4
52	SUTTER	49,446	13.7	27.6 *	22.6 *	12.3	38.1
53	SHASTA	90,894	30.7	33.7	22.7	15.4	32.3
54	MARIPOSA	8,906	4.3	48.7 *	22.8 *	6.6	56.3
55	TUOLUMNE	25,454	11.0	43.2 *	23.0 *	11.5	41.1
56	LAKE	32,492	12.0	36.9 *	23.6 *	12.2	41.2
57	YUBA	38,200	10.3	27.1 *	26.1 *	12.7	47.5
58	MONO	6,543	0.7	10.2 *	76.4 *	0.4	570.8

- Rates, percentages, and confidence limits are not calculated for zero events.
* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO PROSTATE CANCER, 2016-2018



The crude death rate from prostate cancer for California averaged 18.3 deaths per 100,000 male population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 3,593.0 with a male population count of 19,685,009 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 26.3 in Placer County and Shasta County to a low of 12.6 in Tulare County, a factor of 2.1 to 1.

The age-adjusted death rate from prostate cancer for California during the 2016 through 2018 three-year period totaled 19.7 deaths per 100,000 male population. The reliable age-adjusted death rates ranged from a high of 28.0 in Solano County to a low of 13.6 in Santa Clara County.

Twenty-two counties with reliable 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 and one county with zero deaths due to prostate cancer also met the objective.

The California age-adjusted death rate from prostate cancer for the 2013-2015 period averaged 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 MALE POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	SIERRA	1,587	0.0	-	-	-	-
2	PLUMAS	9,753	1.0	10.3 *	4.3 *	0.1	24.1
3	MARIPOSA	9,086	2.0	22.0 *	10.6 *	1.3	38.2
4	SANTA CLARA	979,678	125.3	12.8	13.6	11.2	16.1
5	MONO	7,303	1.0	13.7 *	14.1 *	0.4	78.6
6	LASSEN	18,965	2.3	12.3 *	14.9 *	2.3	49.3
7	TUOLUMNE	27,408	6.7	24.3 *	14.9 *	5.8	31.2
8	MODOC	4,752	1.3	28.1 *	15.3 *	0.8	70.4
9	SAN FRANCISCO	445,387	78.0	17.5	15.7	12.4	19.6
10	SAN BENITO	30,121	4.0	13.3 *	16.2 *	4.4	41.4
11	MARIN	129,265	30.3	23.5	16.5	11.2	23.6
12	KINGS	82,244	8.3	10.1 *	17.0 *	7.5	33.0
13	SAN MATEO	379,867	71.7	18.9	17.3	13.6	21.9
14	TULARE	236,176	29.7	12.6	17.4	11.7	24.9
15	MONTEREY	226,650	34.3	15.1	17.7	12.3	24.7
16	ORANGE	1,589,280	270.7	17.0	17.8	15.6	19.9
17	ALAMEDA	810,430	129.7	16.0	17.9	14.7	21.0
18	IMPERIAL	95,208	15.0	15.8 *	17.9 *	10.0	29.5
19	SANTA BARBARA	226,647	41.0	18.1	18.0	12.9	24.4
20	SONOMA	247,615	53.7	21.7	18.2	13.7	23.8
21	FRESNO	499,330	70.0	14.0	18.5	14.4	23.4
22	INYO	9,416	2.3	24.8 *	18.6 *	2.8	61.6
23	COLUSA	11,586	2.0	17.3 *	18.8 *	2.3	67.9
24	SAN LUIS OBISPO	142,368	35.7	25.1	18.8	13.2	26.1
25	DEL NORTE	14,362	3.0	20.9 *	19.1 *	3.9	55.8
26	EL DORADO	93,799	24.3	25.9	19.3	12.4	28.7
27	VENTURA	424,893	79.3	18.7	19.5	15.4	24.3
28	LOS ANGELES	5,060,727	890.3	17.6	19.6	18.3	20.9
	CALIFORNIA	**19,685,009**	**3,593.0**	**18.3**	**19.7**	**19.1**	**20.4**
29	CONTRA COSTA	556,329	111.3	20.0	19.8	16.0	23.6
30	MADERA	75,759	14.7	19.4 *	19.9 *	11.1	33.0
31	NEVADA	48,780	17.3	35.5 *	20.1 *	11.8	32.0
32	PLACER	187,608	49.3	26.3	20.1	14.9	26.5
33	SHASTA	87,346	23.0	26.3	20.4	12.9	30.6
34	SACRAMENTO	745,758	131.3	17.6	20.6	17.0	24.2
35	SUTTER	48,896	10.3	21.1 *	20.7 *	10.0	37.6
36	RIVERSIDE	1,187,674	245.3	20.7	20.8	18.2	23.4
37	AMADOR	20,004	6.3	31.7 *	20.9 *	7.9	44.6
38	TEHAMA	31,927	8.3	26.1 *	21.1 *	9.3	41.1
39	SAN DIEGO	1,666,995	327.3	19.6	21.4	19.1	23.8

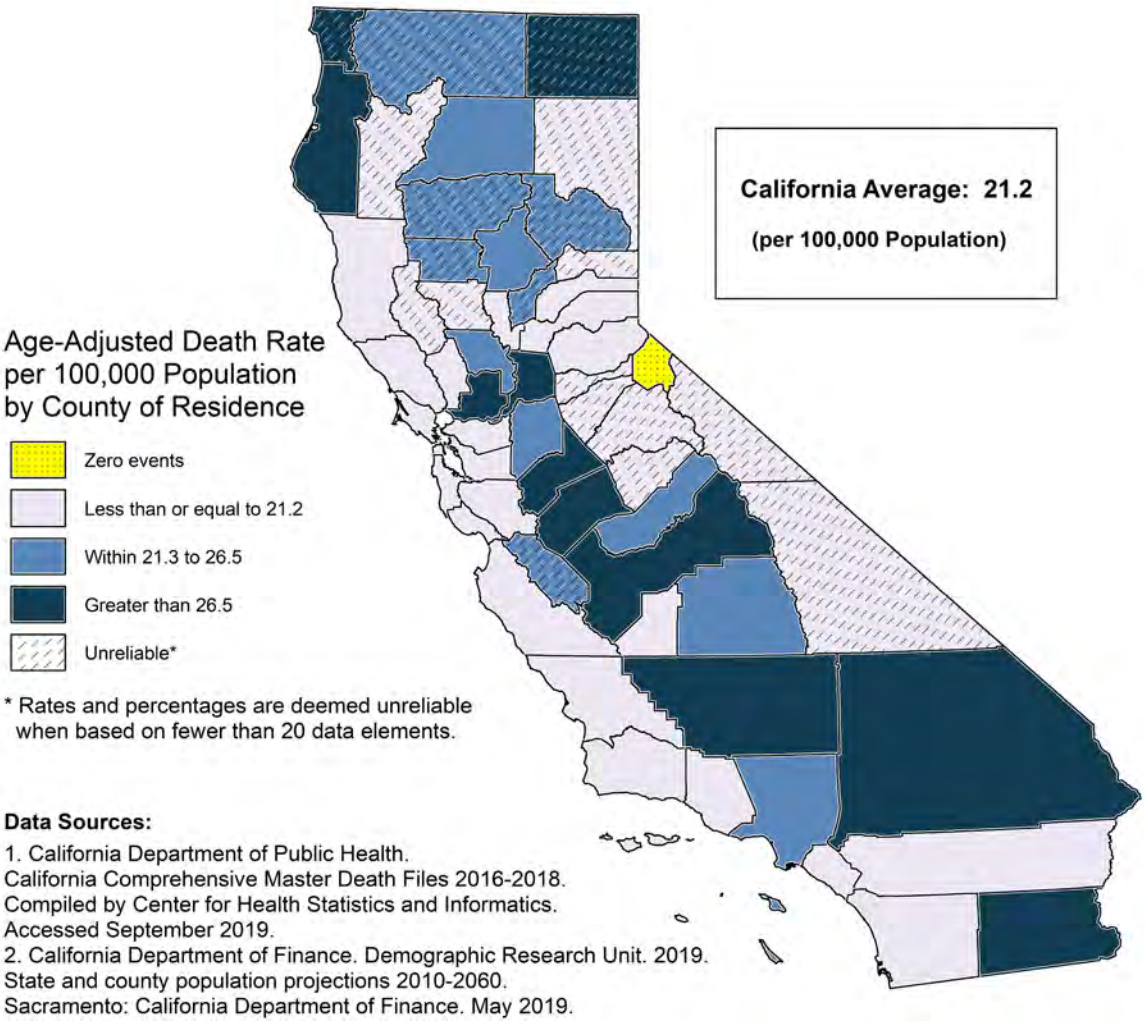
RANK ORDER	COUNTY OF RESIDENCE	2017 MALE POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	YOLO	106,943	17.0	15.9 *	21.4 *	12.5	34.3
41	KERN	459,972	67.3	14.6	21.4	16.6	27.2
	HPO 2020: C-7				**21.8**		
42	BUTTE	112,685	28.0	24.8	22.1	14.7	32.0
43	SANTA CRUZ	138,013	29.3	21.3	22.5	15.1	32.2
44	MERCED	139,353	22.3	16.0	22.6	14.2	34.1
45	TRINITY	6,820	3.3	48.9 *	23.4 *	5.4	64.9
46	CALAVERAS	22,220	9.3	42.0 *	23.7 *	11.0	44.4
47	LAKE	32,438	10.7	32.9 *	23.8 *	11.7	43.0
48	SAN BERNARDINO	1,073,162	189.0	17.6	25.1	21.4	28.8
49	SISKIYOU	21,896	9.0	41.1 *	25.3 *	11.6	48.0
50	HUMBOLDT	68,047	18.3	26.9 *	25.4 *	15.2	40.1
51	MENDOCINO	44,457	13.0	29.2 *	25.8 *	13.8	44.2
52	STANISLAUS	272,599	56.7	20.8	27.1	20.5	35.2
53	SAN JOAQUIN	373,624	74.7	20.0	27.1	21.3	34.0
54	YUBA	38,567	8.0	20.7 *	28.0 *	12.1	55.2
55	SOLANO	217,609	55.7	25.6	28.0	21.1	36.4
56	NAPA	70,263	18.7	26.6 *	28.5 *	17.1	44.6
57	GLENN	14,781	4.3	29.3 *	29.9 *	8.7	74.0
58	ALPINE	581	0.7	114.7 *	48.9 *	0.2	365.1

- Rates, percentages, and confidence limits are not calculated for zero events.
* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO DIABETES, 2016-2018



The crude death rate from diabetes for California was 23.7 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 9,399.3 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 36.5 in Solano County to a low of 14.0 in Marin County, a factor of 2.6 to 1.

The age-adjusted death rate from diabetes for California during the 2016 through 2018 three-year period totaled 21.2 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 38.4 in Kern County to a low of 8.6 in Marin County.

The Healthy People 2020 National Objective D-3 for diabetes mortality does not apply to the County Health Status Profiles 2020 report as the calculations do not include data for multiple causes of death.

The California age-adjusted death rate from diabetes for the 2013-2015 period averaged 20.6 per 100,000 population.

TABLE 7
DEATHS DUE TO DIABETES
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020 D-3: N/A						
1	ALPINE	1,146	0.0	-	-	-	-
2	MONO	13,846	0.3	2.4 *	4.3 *	<0.1	56.5
3	MARIN	262,092	36.7	14.0	8.6	6.1	11.9
4	SAN MATEO	771,902	111.3	14.4	11.1	9.0	13.1
5	AMADOR	37,405	8.0	21.4 *	11.3 *	4.9	22.3
6	TRINITY	13,453	2.3	17.3 *	11.5 *	1.7	38.2
7	TUOLUMNE	52,862	10.7	20.2 *	11.6 *	5.7	21.0
8	SIERRA	3,149	0.3	10.6 *	11.7 *	<0.1	153.4
9	SAN FRANCISCO	880,955	138.0	15.7	11.9	9.9	14.0
10	EL DORADO	186,556	33.3	17.9	12.7	8.8	17.8
11	SAN LUIS OBISPO	278,680	52.0	18.7	13.0	9.7	17.1
12	COLUSA	22,632	3.3	14.7 *	13.3 *	3.1	36.8
13	NEVADA	98,554	22.0	22.3	13.7	8.6	20.8
14	ORANGE	3,205,855	517.3	16.1	14.1	12.9	15.3
15	SANTA CRUZ	275,859	45.0	16.3	14.6	10.6	19.5
16	PLACER	382,977	87.3	22.8	15.5	12.4	19.1
17	CALAVERAS	44,656	12.0	26.9 *	15.8 *	8.2	27.6
18	SANTA BARBARA	450,138	84.0	18.7	15.8	12.6	19.6
19	MARIPOSA	17,992	5.7	31.5 *	16.4 *	5.8	36.5
20	MONTEREY	442,196	76.0	17.2	16.6	13.1	20.8
21	CONTRA COSTA	1,138,201	235.7	20.7	17.0	14.8	19.3
22	SONOMA	503,634	121.7	24.2	17.4	14.2	20.6
23	KINGS	150,992	21.7	14.3	18.1	11.3	27.5
24	RIVERSIDE	2,392,511	488.7	20.4	18.2	16.6	19.8
25	NAPA	141,205	35.3	25.0	18.3	12.8	25.4
26	ALAMEDA	1,651,319	335.3	20.3	18.5	16.5	20.5
27	MENDOCINO	89,071	24.7	27.7	18.9	12.2	28.0
28	VENTURA	854,987	192.3	22.5	19.3	16.5	22.1
29	LASSEN	30,604	7.3	24.0 *	20.0 *	8.2	40.5
30	SANTA CLARA	1,945,911	442.7	22.7	20.2	18.3	22.0
31	LAKE	64,930	19.0	29.3 *	20.3 *	12.2	31.7
32	SAN DIEGO	3,320,387	773.7	23.3	20.8	19.3	22.3
33	SUTTER	98,342	23.7	24.1	21.1	13.5	31.6
34	INYO	18,566	5.7	30.5 *	21.2 *	7.5	47.1
	CALIFORNIA	**39,610,556**	**9,399.3**	**23.7**	**21.2**	**20.8**	**21.7**
35	SHASTA	178,240	53.3	29.9	21.6	16.2	28.2
36	MADERA	156,915	35.7	22.7	21.7	15.1	30.0
37	TEHAMA	64,407	19.7	30.5 *	21.8 *	13.3	33.8
38	YUBA	76,767	16.0	20.8 *	22.4 *	12.8	36.3

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	TULARE	472,416	97.0	20.5	22.6	18.3	27.6
40	BUTTE	226,661	64.0	28.2	23.2	17.8	29.6
41	LOS ANGELES	10,261,736	2,615.7	25.5	23.2	22.3	24.1
42	PLUMAS	19,550	8.7	44.3 *	23.4 *	10.5	45.0
43	YOLO	219,758	50.3	22.9	25.1	18.6	33.0
44	SAN BENITO	60,291	15.7	26.0 *	25.5 *	14.5	41.6
45	SISKIYOU	44,240	19.3	43.7 *	25.6 *	15.5	39.8
46	GLENN	29,205	8.7	29.7 *	26.5 *	11.9	50.9
47	SAN JOAQUIN	749,810	197.0	26.3	26.5	22.8	30.3
48	FRESNO	1,000,143	258.0	25.8	27.4	24.0	30.8
49	DEL NORTE	26,811	10.0	37.3 *	27.8 *	13.3	51.1
50	STANISLAUS	550,505	156.3	28.4	28.5	24.0	33.0
51	SACRAMENTO	1,520,685	466.7	30.7	28.5	25.9	31.2
52	HUMBOLDT	135,865	49.3	36.3	29.3	21.7	38.7
53	MERCED	276,611	71.3	25.8	30.2	23.6	38.0
54	MODOC	9,488	5.0	52.7 *	30.4 *	9.9	71.0
55	SOLANO	437,434	159.7	36.5	31.7	26.7	36.7
56	IMPERIAL	187,943	66.3	35.3	34.9	27.0	44.4
57	SAN BERNARDINO	2,163,561	692.0	32.0	35.1	32.4	37.8
58	KERN	897,949	290.7	32.4	38.4	33.9	42.9

- Rates, percentages, and confidence limits are not calculated for zero events.
* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
Counties were rank ordered first by increasing age-adjusted death rate (calculated to 15 decimal places), second by decreasing size of population.

Sources:

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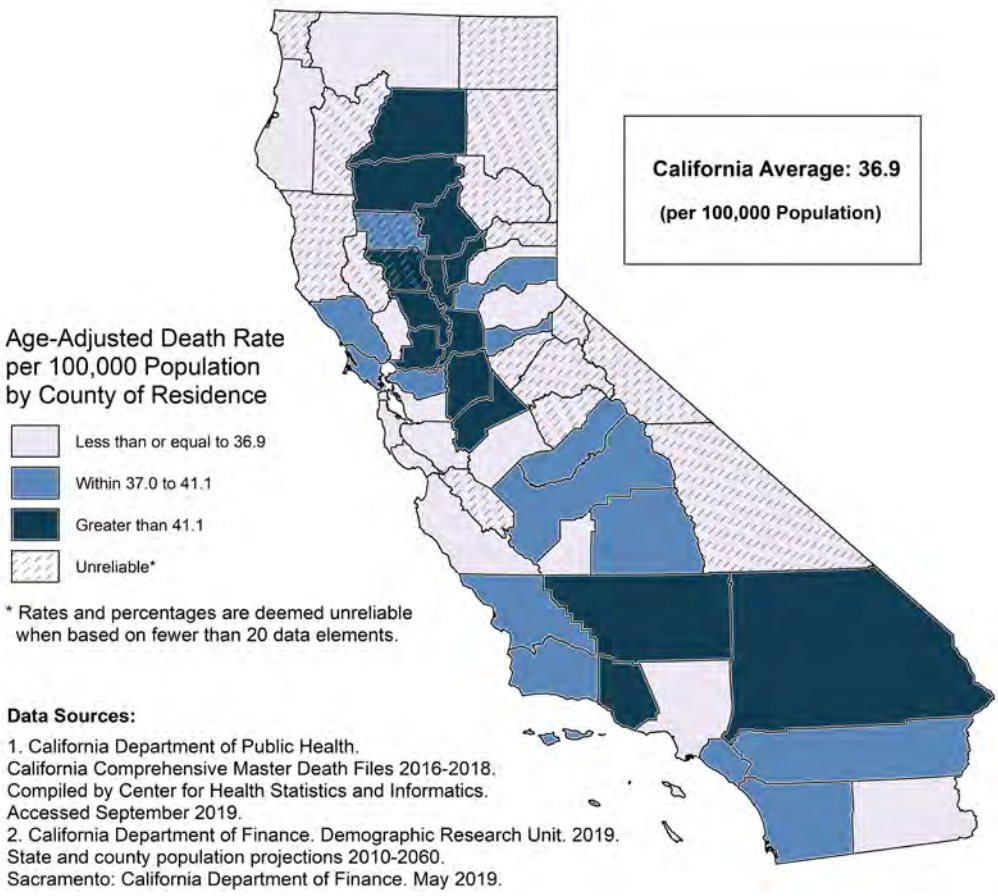
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO ALZHEIMER'S DISEASE, 2016-2018



The crude death rate from Alzheimer's disease for California averaged 40.7 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 16,126.7 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 86.0 in Shasta County to a low of 13.3 in Santa Clara County†, a factor of 6.5 to 1.

The age-adjusted death rate from Alzheimer's disease for California during the 2016 through 2018 three-year period totaled 36.9 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 60.9 in Shasta County to a low of 11.6 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 2013-2015 period averaged 32.6 per 100,000 population.

† CDPH has identified significant changes in reporting practices among certifiers in Santa Clara County that have decreased this rate; while the rate has recently increased for Santa Clara, the average rate is still affected. 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020: N/A						
1	SANTA CLARA	1,945,911	258.7	13.3 †	11.6 †	10.2	13.0
2	DEL NORTE	26,811	4.7	17.4 *	12.5 *	3.9	30.1
3	INYO	18,566	3.7	19.7 *	12.9 *	3.3	34.4
4	LASSEN	30,604	4.3	14.2 *	13.0 *	3.8	32.3
5	MENDOCINO	89,071	16.0	18.0 *	13.5 *	7.7	21.9
6	TUOLUMNE	52,862	13.0	24.6 *	13.8 *	7.4	23.7
7	SAN BENITO	60,291	7.3	12.2 *	13.9 *	5.7	28.1
8	IMPERIAL	187,943	28.7	15.3	14.0	9.3	20.1
9	MODOC	9,488	2.7	28.1 *	15.0 *	2.7	46.6
10	SIERRA	3,149	1.0	31.8 *	16.2 *	0.4	90.3
11	LAKE	64,930	19.7	30.3 *	19.7 *	12.0	30.6
12	ALPINE	1,146	0.3	29.1 *	19.9 *	<0.1	260.6
13	MARIPOSA	17,992	7.3	40.8 *	20.2 *	8.3	40.9
14	TRINITY	13,453	5.3	39.6 *	20.5 *	7.0	46.7
15	NEVADA	98,554	40.0	40.6	21.0	15.0	28.6
16	PLUMAS	19,550	8.3	42.6 *	22.7 *	10.0	44.2
17	HUMBOLDT	135,865	39.0	28.7	23.7	16.8	32.3
18	SAN FRANCISCO	880,955	338.7	38.4	25.6	22.9	28.4
19	CALAVERAS	44,656	19.3	43.3 *	25.7 *	15.5	39.9
20	MONTEREY	442,196	126.3	28.6	26.2	21.6	30.8
21	MONO	13,846	1.7	12.0 *	26.4 *	2.3	106.0
22	SAN MATEO	771,902	312.0	40.4	28.8	25.5	32.0
23	MERCED	276,611	63.0	22.8	29.0	22.3	37.0
24	EL DORADO	186,556	71.3	38.2	29.3	22.9	37.0
25	KINGS	150,992	34.0	22.5	31.2	21.6	43.6
26	SISKIYOU	44,240	25.3	57.3	31.6	20.5	46.5
27	SANTA CRUZ	275,859	95.0	34.4	32.7	26.4	40.0
28	ALAMEDA	1,651,319	609.0	36.9	35.5	32.7	38.3
29	LOS ANGELES	10,261,736	4,097.0	39.9	36.2	35.1	37.3
30	NAPA	141,205	69.3	49.1	36.6	28.5	46.3
	CALIFORNIA	**39,610,556**	**16,126.7**	**40.7**	**36.9**	**36.3**	**37.4**
31	RIVERSIDE	2,392,511	1,020.0	42.6	37.3	35.0	39.6
32	SAN LUIS OBISPO	278,680	167.0	59.9	38.8	32.9	44.7
33	SAN DIEGO	3,320,387	1,446.3	43.6	38.8	36.8	40.9
34	FRESNO	1,000,143	356.3	35.6	39.0	34.9	43.0
35	ORANGE	3,205,855	1,449.0	45.2	39.0	37.0	41.0
36	AMADOR	37,405	26.3	70.4	39.2	25.7	57.3
37	MADERA	156,915	64.0	40.8	39.7	30.6	50.7
38	SONOMA	503,634	283.0	56.2	39.8	35.1	44.4

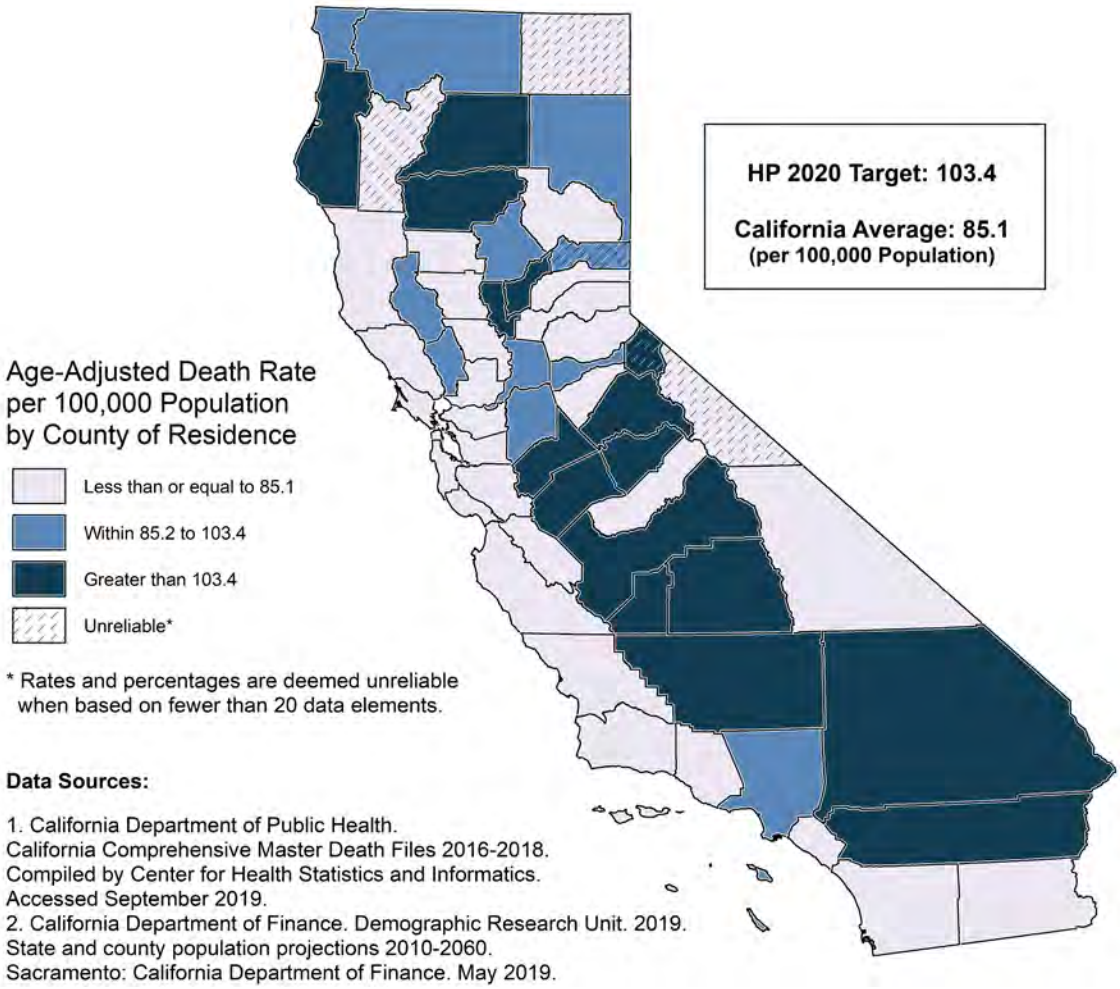
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	TULARE	472,416	154.0	32.6	39.8	33.5	46.1
40	MARIN	262,092	176.7	67.4	40.4	34.4	46.4
41	SANTA BARBARA	450,138	237.7	52.8	40.5	35.3	45.8
42	CONTRA COSTA	1,138,201	544.7	47.9	40.5	37.1	44.0
43	PLACER	382,977	237.7	62.1	40.5	35.4	45.7
44	GLENN	29,205	14.0	47.9 *	40.8 *	22.3	68.4
45	TEHAMA	64,407	36.3	56.4	41.4	29.0	57.2
46	VENTURA	854,987	420.7	49.2	43.1	38.9	47.2
47	SOLANO	437,434	211.7	48.4	44.3	38.3	50.3
48	COLUSA	22,632	11.3	50.1 *	44.4 *	22.4	78.7
49	SAN BERNARDINO	2,163,561	746.0	34.5	45.4	42.1	48.6
50	SAN JOAQUIN	749,810	293.3	39.1	45.6	40.4	50.9
51	YOLO	219,758	92.7	42.2	46.4	37.5	56.9
52	SUTTER	98,342	51.3	52.2	46.4	34.6	61.0
53	YUBA	76,767	29.0	37.8	47.5	31.8	68.3
54	SACRAMENTO	1,520,685	745.0	49.0	48.7	45.2	52.2
55	KERN	897,949	346.3	38.6	53.2	47.6	58.8
56	STANISLAUS	550,505	299.3	54.4	59.7	52.9	66.5
57	BUTTE	226,661	191.7	84.6	60.0	51.5	68.6
58	SHASTA	178,240	153.3	86.0	60.9	51.2	70.6

* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO CORONARY HEART DISEASE, 2016-2018



The crude death rate from coronary heart disease for California averaged 95.4 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 37,799.3 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 203.8 in Mariposa County to a low of 57.1 in Monterey County, a factor of 3.6 to 1.

The age-adjusted death rate from coronary heart disease for California during the 2016 through 2018 three-year period totaled 85.1 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 137.4 in Yuba County to a low of 46.5 in Marin County.

Thirty-eight counties with reliable 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 2013-2015 period averaged 93.8 per 100,000 population.

TABLE 9
DEATHS DUE TO CORONARY HEART DISEASE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	MARIN	262,092	203.3	77.6	46.5	40.0	53.0
2	SAN MATEO	771,902	545.3	70.6	52.4	48.0	56.9
3	MONTEREY	442,196	252.7	57.1	53.0	46.3	59.6
4	SAN FRANCISCO	880,955	643.0	73.0	53.1	48.9	57.3
5	SANTA CLARA	1,945,911	1,185.3	60.9	53.5	50.4	56.6
6	CONTRA COSTA	1,138,201	784.3	68.9	57.0	52.9	61.0
7	ALAMEDA	1,651,319	1,033.7	62.6	58.2	54.6	61.8
8	SANTA CRUZ	275,859	182.3	66.1	58.3	49.6	67.0
9	SOLANO	437,434	330.0	75.4	65.0	57.9	72.1
10	SAN LUIS OBISPO	278,680	274.0	98.3	65.3	57.3	73.2
11	TRINITY	13,453	17.3	128.8 *	66.0 *	38.7	105.3
12	SAN BENITO	60,291	38.7	64.1	67.8	48.1	92.8
13	MODOC	9,488	11.7	123.0 *	68.2 *	34.9	120.1
14	YOLO	219,758	146.3	66.6	69.7	58.3	81.1
15	PLUMAS	19,550	28.0	143.2	69.8	46.4	100.9
16	SANTA BARBARA	450,138	398.0	88.4	71.6	64.5	78.8
17	SONOMA	503,634	516.0	102.5	71.7	65.4	78.0
18	PLACER	382,977	412.3	107.7	71.9	64.9	79.0
19	IMPERIAL	187,943	142.3	75.7	73.6	61.4	85.8
20	INYO	18,566	24.0	129.3	74.7	47.9	111.1
21	SAN DIEGO	3,320,387	2,819.0	84.9	75.5	72.7	78.3
22	ORANGE	3,205,855	2,817.7	87.9	75.5	72.7	78.3
23	GLENN	29,205	27.7	94.7	77.2	51.2	111.9
24	MADERA	156,915	131.7	83.9	79.7	66.0	93.5
25	NEVADA	98,554	149.7	151.9	80.1	66.9	93.4
26	COLUSA	22,632	21.0	92.8	80.6	49.9	123.2
27	MENDOCINO	89,071	99.7	111.9	81.1	66.0	98.7
28	MONO	13,846	6.3	45.7 *	81.4 *	30.9	173.7
29	CALAVERAS	44,656	65.0	145.6	82.2	63.5	104.8
30	VENTURA	854,987	818.7	95.8	82.3	76.6	88.0
31	EL DORADO	186,556	221.0	118.5	83.5	72.1	94.8
	CALIFORNIA	**39,610,556**	**37,799.3**	**95.4**	**85.1**	**84.2**	**86.0**
32	AMADOR	37,405	58.7	156.8	85.9	65.3	110.8
33	NAPA	141,205	167.0	118.3	86.6	73.4	99.9
34	BUTTE	226,661	266.0	117.4	88.0	77.1	98.8
35	SISKIYOU	44,240	65.7	148.4	88.5	68.4	112.6
36	SIERRA	3,149	6.0	190.5 *	89.1 *	32.7	193.9
37	SAN JOAQUIN	749,810	646.3	86.2	91.2	84.0	98.3
38	DEL NORTE	26,811	34.7	129.3	94.8	65.9	132.0
39	SACRAMENTO	1,520,685	1,546.7	101.7	96.1	91.3	101.0

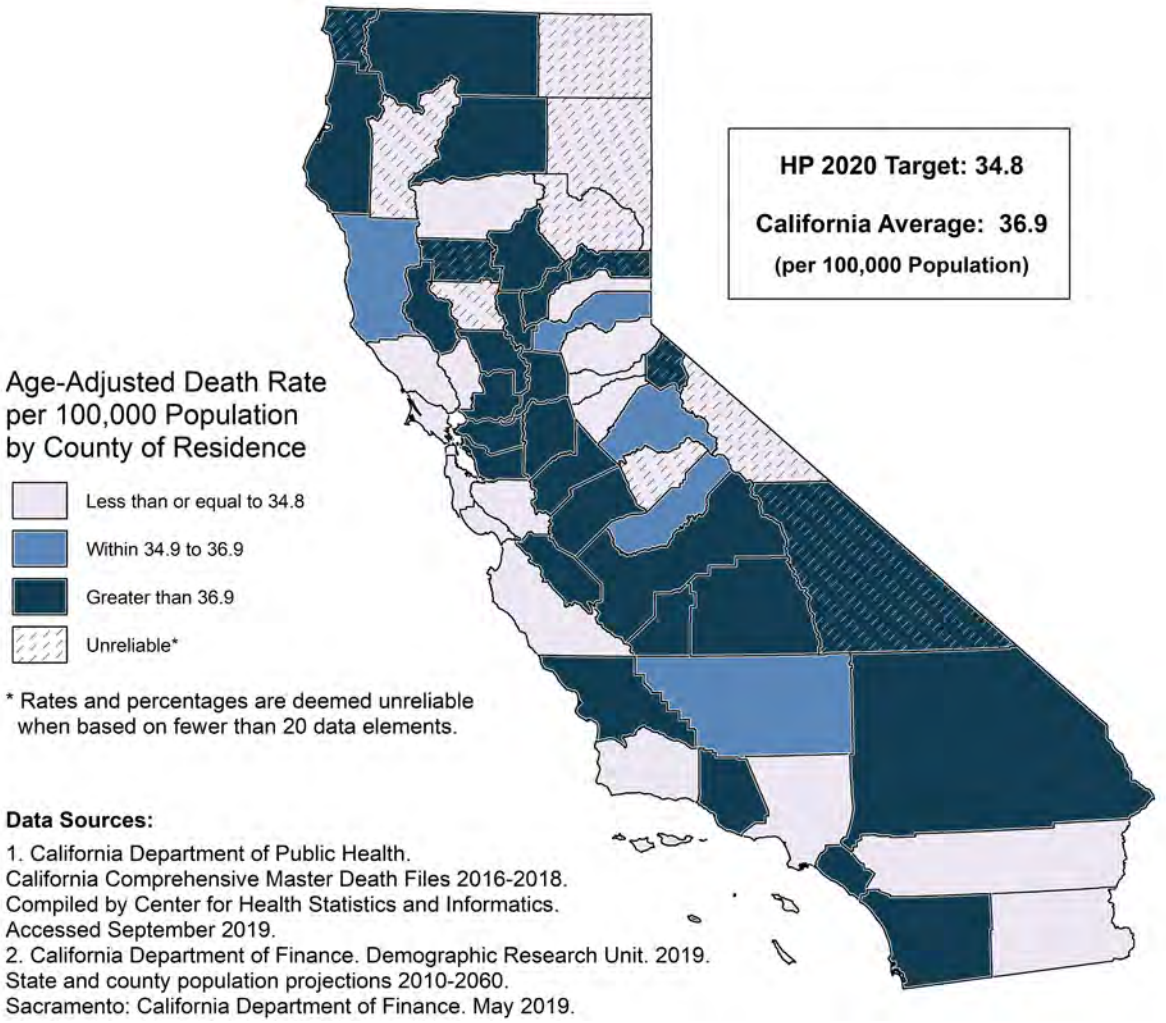
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	LAKE	64,930	97.3	149.9	96.7	78.4	117.9
41	LOS ANGELES	10,261,736	11,240.0	109.5	98.9	97.0	100.7
42	LASSEN	30,604	36.0	117.6	99.2	69.4	137.3
	HPO 2020: HDS-2				**103.4**		
43	MARIPOSA	17,992	36.7	203.8	103.6	72.8	143.0
44	RIVERSIDE	2,392,511	2,881.3	120.4	105.7	101.8	109.6
45	TUOLUMNE	52,862	98.3	186.0	106.1	86.1	129.2
46	MERCED	276,611	248.7	89.9	106.4	93.0	119.8
47	FRESNO	1,000,143	1,005.3	100.5	107.0	100.4	113.7
48	SAN BERNARDINO	2,163,561	1,946.3	90.0	107.4	102.6	112.3
49	HUMBOLDT	135,865	182.7	134.4	108.6	92.4	124.8
50	TEHAMA	64,407	95.3	148.0	110.0	89.0	134.4
51	KINGS	150,992	133.7	88.5	112.3	93.1	131.6
52	SUTTER	98,342	127.3	129.5	114.7	94.6	134.7
53	TULARE	472,416	481.7	102.0	117.6	107.0	128.2
54	SHASTA	178,240	318.7	178.8	123.5	109.7	137.3
55	KERN	897,949	945.7	105.3	125.7	117.6	133.9
56	STANISLAUS	550,505	685.0	124.4	127.4	117.8	137.1
57	YUBA	76,767	99.7	129.8	137.4	111.8	167.2
58	ALPINE	1,146	2.7	232.7 *	195.3 *	35.2	605.2

* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO CEREBROVASCULAR DISEASE (STROKE), 2016-2018



The crude death rate from cerebrovascular disease for California averaged 40.7 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 16,140.0 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 93.5 in Humboldt County to a low of 29.8 in Kings County, a factor of 3.1 to 1.

The age-adjusted death rate from cerebrovascular disease for California during the 2016 through 2018 three-year period totaled 36.9 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 77.1 in Humboldt County to a low of 22.3 in Marin County.

Seventeen counties with reliable 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 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 2013-2015 period averaged 35.0 per 100,000 population.

TABLE 10
DEATHS DUE TO CEREBROVASCULAR DISEASE (STROKE)
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	MARIN	262,092	96.0	36.6	22.3	18.0	27.2
2	PLUMAS	19,550	9.3	47.7 *	26.9 *	12.5	50.6
3	LASSEN	30,604	9.3	30.5 *	27.4 *	12.7	51.4
4	SANTA CLARA	1,945,911	628.0	32.3	28.3	26.1	30.6
5	MARIPOSA	17,992	10.0	55.6 *	28.6 *	13.7	52.7
6	SAN MATEO	771,902	301.0	39.0	28.9	25.5	32.2
7	COLUSA	22,632	7.0	30.9 *	29.0 *	11.7	59.7
8	CALAVERAS	44,656	23.7	53.0	29.1	18.6	43.4
9	MONO	13,846	1.7	12.0 *	29.3 *	2.6	117.5
10	IMPERIAL	187,943	57.0	30.3	29.6	22.4	38.3
11	TRINITY	13,453	7.0	52.0 *	29.8 *	12.0	61.3
12	EL DORADO	186,556	75.0	40.2	29.9	23.5	37.5
13	SANTA CRUZ	275,859	90.7	32.9	30.9	24.9	38.0
14	TEHAMA	64,407	27.0	41.9	31.1	20.5	45.3
15	MONTEREY	442,196	149.3	33.8	31.7	26.5	36.8
16	MODOC	9,488	6.0	63.2 *	31.7 *	11.6	69.0
17	NEVADA	98,554	59.7	60.5	32.3	24.6	41.6
18	SAN FRANCISCO	880,955	392.0	44.5	32.3	29.1	35.6
19	SANTA BARBARA	450,138	183.7	40.8	32.8	27.9	37.6
20	LOS ANGELES	10,261,736	3,731.3	36.4	33.4	32.3	34.5
21	AMADOR	37,405	23.3	62.4	33.9	21.6	50.8
22	SONOMA	503,634	240.0	47.7	33.9	29.6	38.3
23	NAPA	141,205	65.3	46.3	34.1	26.3	43.4
24	RIVERSIDE	2,392,511	931.0	38.9	34.5	32.2	36.7
	HPO 2020: HDS-3				**34.8**		
25	PLACER	382,977	206.3	53.9	35.8	30.9	40.8
26	TUOLUMNE	52,862	32.7	61.8	36.1	24.8	50.8
27	MADERA	156,915	60.7	38.7	36.8	28.1	47.2
28	MENDOCINO	89,071	43.7	49.0	36.8	26.7	49.4
29	KERN	897,949	270.0	30.1	36.8	32.3	41.3
	CALIFORNIA	**39,610,556**	**16,140.0**	**40.7**	**36.9**	**36.3**	**37.5**
30	DEL NORTE	26,811	13.0	48.5 *	37.1 *	19.8	63.5
31	INYO	18,566	10.0	53.9 *	37.2 *	17.8	68.4
32	YOLO	219,758	77.0	35.0	37.7	29.7	47.1
33	SISKIYOU	44,240	30.0	67.8	37.7	25.4	53.8
34	SAN DIEGO	3,320,387	1,403.3	42.3	38.0	36.0	40.0
35	ORANGE	3,205,855	1,405.3	43.8	38.0	36.0	40.0
36	KINGS	150,992	45.0	29.8	38.5	28.1	51.5
37	VENTURA	854,987	382.3	44.7	39.0	35.1	43.0
38	SAN BENITO	60,291	24.0	39.8	40.6	26.0	60.4

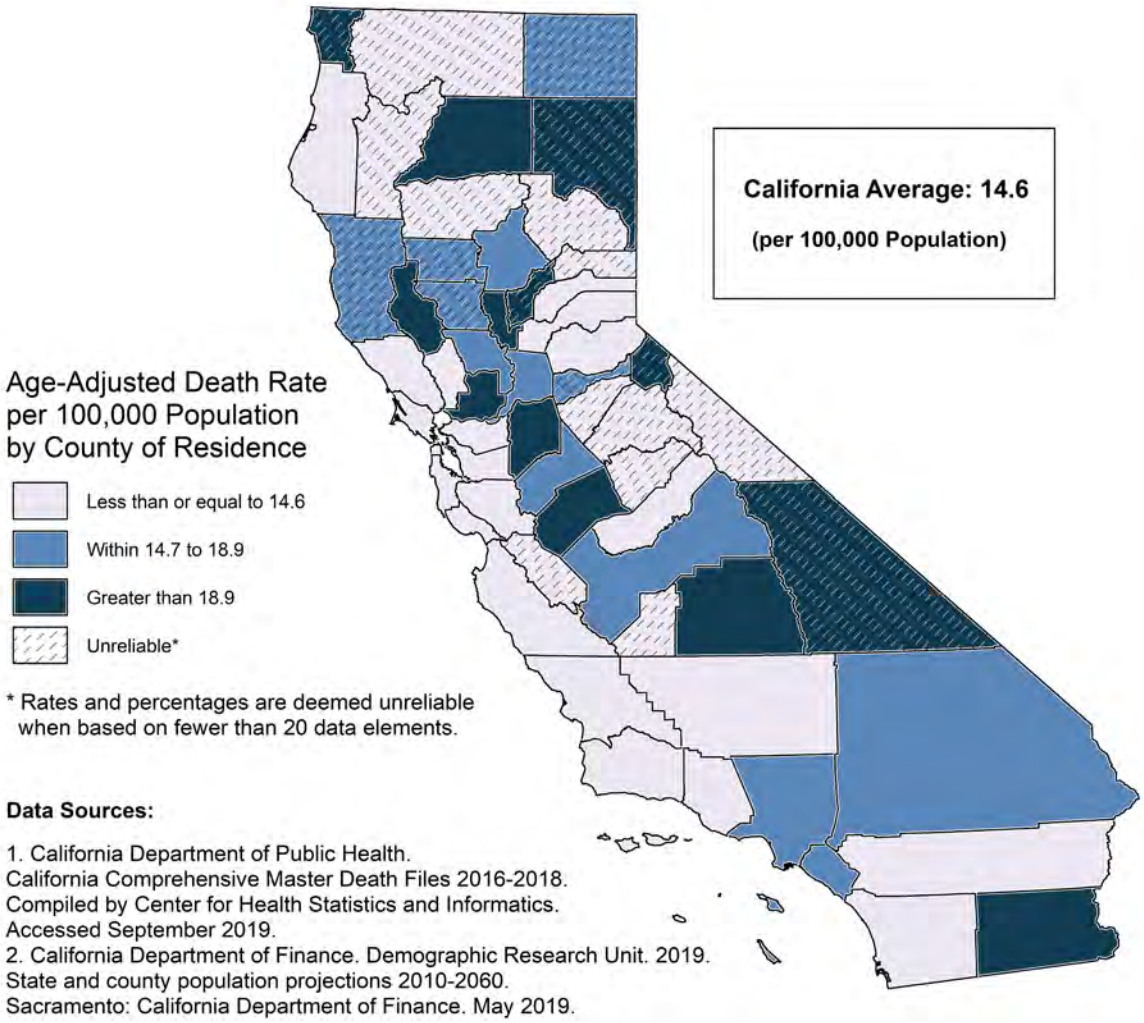
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	ALAMEDA	1,651,319	711.0	43.1	40.8	37.7	43.8
40	MERCED	276,611	95.7	34.6	41.7	33.8	51.0
41	SHASTA	178,240	103.0	57.8	42.2	33.8	50.6
42	STANISLAUS	550,505	223.0	40.5	42.2	36.6	47.8
43	SAN BERNARDINO	2,163,561	764.0	35.3	42.4	39.3	45.4
44	CONTRA COSTA	1,138,201	583.0	51.2	43.3	39.7	46.8
45	LAKE	64,930	41.7	64.2	43.8	31.5	59.2
46	TULARE	472,416	180.3	38.2	44.2	37.6	50.7
47	SIERRA	3,149	2.7	84.7 *	44.5 *	8.0	137.8
48	SACRAMENTO	1,520,685	700.3	46.1	44.6	41.2	47.9
49	BUTTE	226,661	136.3	60.1	44.8	37.1	52.4
50	FRESNO	1,000,143	419.0	41.9	45.2	40.9	49.6
51	SOLANO	437,434	233.0	53.3	47.2	41.1	53.3
52	SUTTER	98,342	55.7	56.6	50.9	38.4	66.2
53	YUBA	76,767	33.3	43.4	51.0	35.2	71.6
54	SAN LUIS OBISPO	278,680	218.3	78.3	51.5	44.6	58.5
55	SAN JOAQUIN	749,810	364.7	48.6	53.6	48.0	59.1
56	GLENN	29,205	19.3	66.2 *	56.9 *	34.4	88.5
57	HUMBOLDT	135,865	127.0	93.5	77.1	63.6	90.7
58	ALPINE	1,146	1.0	87.3 *	80.7 *	2.0	449.9

* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO INFLUENZA/PNEUMONIA, 2016-2018



The crude death rate from influenza or pneumonia for California averaged 16.2 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 6,405.3 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 30.8 in Lake County to a low of 10.3 in Ventura County, a factor of 3 to 1.

The age-adjusted death rate from influenza or pneumonia for California during the 2016 through 2018 three-year period totaled 14.6 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 22.4 in Sutter County to a low of 9.0 in Ventura County.

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

The California age-adjusted death rate from influenza or pneumonia for the 2013-2015 period averaged 15.4 per 100,000 population.

TABLE 11
DEATHS DUE TO INFLUENZA/PNEUMONIA
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020: N/A						
1	SIERRA	3,149	0.3	10.6 *	3.9 *	<0.1	50.5
2	MONO	13,846	0.7	4.8 *	5.6 *	<0.1	41.7
3	PLUMAS	19,550	3.0	15.3 *	7.4 *	1.5	21.7
4	VENTURA	854,987	88.3	10.3	9.0	7.2	11.0
5	MARIPOSA	17,992	3.0	16.7 *	9.1 *	1.9	26.5
6	SANTA CLARA	1,945,911	211.0	10.8	9.5	8.2	10.8
7	SAN MATEO	771,902	106.3	13.8	10.1	8.2	12.1
8	SANTA BARBARA	450,138	57.7	12.8	10.2	7.8	13.2
9	SONOMA	503,634	75.0	14.9	10.4	8.2	13.1
10	SAN FRANCISCO	880,955	130.7	14.8	10.7	8.8	12.6
11	SAN DIEGO	3,320,387	403.0	12.1	10.9	9.8	11.9
12	SAN LUIS OBISPO	278,680	46.0	16.5	11.1	8.1	14.7
13	MARIN	262,092	47.3	18.1	11.1	8.2	14.8
14	MONTEREY	442,196	52.7	11.9	11.1	8.3	14.6
15	EL DORADO	186,556	30.0	16.1	11.7	7.9	16.7
16	RIVERSIDE	2,392,511	320.0	13.4	11.8	10.5	13.1
17	TEHAMA	64,407	10.7	16.6 *	12.0 *	5.9	21.7
18	CONTRA COSTA	1,138,201	163.3	14.4	12.2	10.3	14.1
19	HUMBOLDT	135,865	21.0	15.5	12.4	7.7	18.9
20	NEVADA	98,554	23.3	23.7	12.7	8.1	19.1
21	ALAMEDA	1,651,319	226.0	13.7	12.9	11.2	14.6
22	PLACER	382,977	75.3	19.7	13.2	10.4	16.5
23	KERN	897,949	100.0	11.1	13.4	10.7	16.1
24	SANTA CRUZ	275,859	39.0	14.1	13.6	9.7	18.6
25	TUOLUMNE	52,862	13.3	25.2 *	13.7 *	7.4	23.4
26	CALAVERAS	44,656	11.0	24.6 *	13.8 *	6.9	24.8
27	MADERA	156,915	22.3	14.2	14.1	8.8	21.2
28	NAPA	141,205	27.3	19.4	14.2	9.4	20.6
29	KINGS	150,992	17.3	11.5 *	14.2 *	8.3	22.6
30	TRINITY	13,453	4.0	29.7 *	14.3 *	3.9	36.6
31	SISKIYOU	44,240	11.7	26.4 *	14.3 *	7.3	25.2
32	SAN BENITO	60,291	8.0	13.3 *	14.4 *	6.2	28.4
	CALIFORNIA	**39,610,556**	**6,405.3**	**16.2**	**14.6**	**14.3**	**15.0**
33	SAN BERNARDINO	2,163,561	274.3	12.7	14.9	13.1	16.7
34	COLUSA	22,632	3.7	16.2 *	15.0 *	3.8	39.9
35	YOLO	219,758	31.7	14.4	15.1	10.3	21.3
36	ORANGE	3,205,855	555.0	17.3	15.2	13.9	16.4
37	SACRAMENTO	1,520,685	249.7	16.4	15.6	13.7	17.6
38	GLENN	29,205	5.3	18.3 *	15.8 *	5.4	35.9

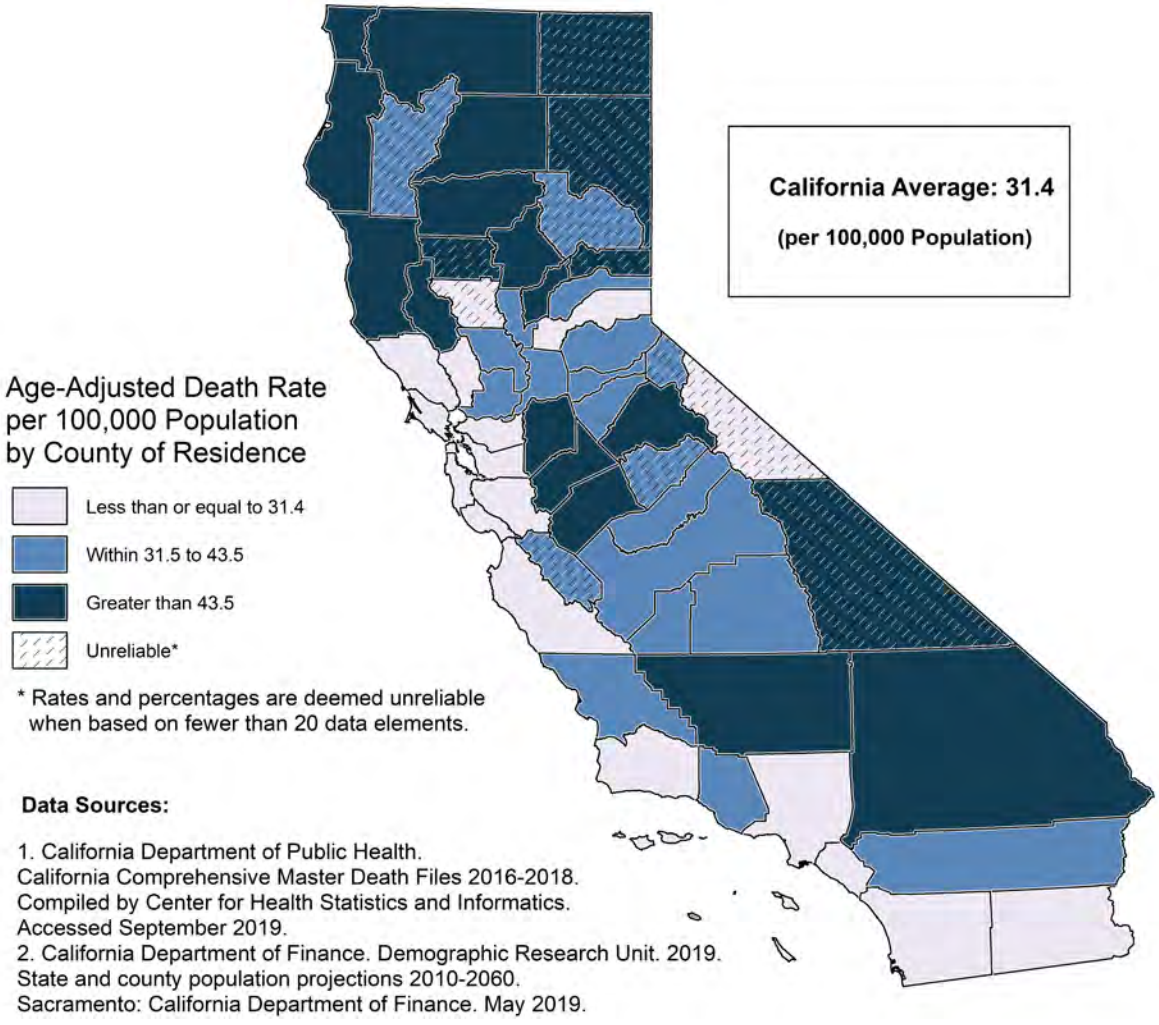
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	MENDOCINO	89,071	17.7	19.8 *	15.9 *	9.4	25.2
40	STANISLAUS	550,505	83.3	15.1	16.2	12.9	20.1
41	AMADOR	37,405	11.7	31.2 *	16.2 *	8.3	28.5
42	BUTTE	226,661	48.7	21.5	16.4	12.1	21.7
43	MODOC	9,488	3.0	31.6 *	17.0 *	3.5	49.6
44	FRESNO	1,000,143	162.7	16.3	17.4	14.7	20.1
45	LOS ANGELES	10,261,736	2,072.7	20.2	18.5	17.7	19.4
46	SOLANO	437,434	95.3	21.8	19.2	15.5	23.4
47	SAN JOAQUIN	749,810	133.3	17.8	19.4	16.1	22.8
48	MERCED	276,611	45.7	16.5	19.6	14.3	26.2
49	SHASTA	178,240	50.0	28.1	20.0	14.9	26.4
50	LAKE	64,930	20.0	30.8	20.2	12.3	31.2
51	DEL NORTE	26,811	7.3	27.4 *	20.6 *	8.5	41.8
52	LASSEN	30,604	7.0	22.9 *	21.1 *	8.5	43.5
53	TULARE	472,416	86.7	18.3	21.3	17.0	26.2
54	IMPERIAL	187,943	42.0	22.3	21.9	15.8	29.6
55	SUTTER	98,342	24.7	25.1	22.4	14.4	33.1
56	INYO	18,566	7.3	39.5 *	25.0 *	10.3	50.7
57	YUBA	76,767	17.3	22.6 *	25.6 *	15.0	40.7
58	ALPINE	1,146	0.7	58.2 *	26.0 *	0.1	194.0

* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO CHRONIC LOWER RESPIRATORY DISEASE, 2016-2018



The crude death rate from chronic lower respiratory disease for California averaged 34.7 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 13,727.0 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 110.0 in Siskiyou County to a low of 19.1 in Santa Clara County, a factor of 5.8 to 1.

The age-adjusted death rate from chronic lower respiratory disease for California during the 2016 through 2018 three-year period totaled 31.4 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 73.5 in Yuba County to a low of 17.2 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 2013-2015 period averaged 33.3 per 100,000 population.

TABLE 12
DEATHS DUE TO CHRONIC LOWER RESPIRATORY DISEASE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020: N/A						
1	SANTA CLARA	1,945,911	371.7	19.1	17.2	15.5	19.0
2	SAN FRANCISCO	880,955	213.7	24.3	17.9	15.5	20.3
3	SAN MATEO	771,902	201.0	26.0	19.8	17.1	22.6
4	MARIN	262,092	87.7	33.4	20.4	16.3	25.1
5	MONO	13,846	2.0	14.4 *	21.9 *	2.7	79.1
6	IMPERIAL	187,943	43.3	23.1	22.1	16.0	29.7
7	SANTA CRUZ	275,859	71.7	26.0	23.6	18.5	29.8
8	ALAMEDA	1,651,319	414.7	25.1	23.7	21.4	26.0
9	MONTEREY	442,196	119.0	26.9	25.1	20.5	29.6
10	ORANGE	3,205,855	958.7	29.9	26.4	24.7	28.0
11	NAPA	141,205	51.7	36.6	26.6	19.8	34.9
12	COLUSA	22,632	6.7	29.5 *	26.7 *	10.4	56.0
13	CONTRA COSTA	1,138,201	364.0	32.0	26.8	24.0	29.6
14	SONOMA	503,634	197.3	39.2	27.6	23.7	31.6
15	LOS ANGELES	10,261,736	3,093.7	30.1	27.8	26.8	28.8
16	SAN DIEGO	3,320,387	1,028.0	31.0	28.0	26.3	29.8
17	SANTA BARBARA	450,138	167.3	37.2	30.4	25.8	35.1
18	PLACER	382,977	178.0	46.5	30.8	26.2	35.3
	CALIFORNIA	**39,610,556**	**13,727.0**	**34.7**	**31.4**	**30.9**	**31.9**
19	VENTURA	854,987	310.0	36.3	31.6	28.0	35.1
20	NEVADA	98,554	58.3	59.2	31.9	24.2	41.2
21	SAN BENITO	60,291	18.3	30.4 *	32.6 *	19.4	51.3
22	SOLANO	437,434	165.3	37.8	32.8	27.8	37.9
23	ALPINE	1,146	0.7	58.2 *	32.9 *	0.2	245.9
24	TRINITY	13,453	9.3	69.4 *	33.3 *	15.5	62.5
25	MARIPOSA	17,992	12.7	70.4 *	33.8 *	17.8	58.2
26	AMADOR	37,405	23.7	63.3	34.3	21.9	51.2
27	FRESNO	1,000,143	331.3	33.1	36.1	32.2	40.1
28	PLUMAS	19,550	14.7	75.0 *	36.3 *	20.2	60.3
29	YOLO	219,758	76.0	34.6	37.1	29.2	46.4
30	SAN LUIS OBISPO	278,680	157.7	56.6	37.5	31.6	43.5
31	SUTTER	98,342	43.0	43.7	38.2	27.6	51.5
32	SACRAMENTO	1,520,685	607.3	39.9	38.8	35.6	41.9
33	EL DORADO	186,556	102.3	54.9	38.8	31.2	46.5
34	KINGS	150,992	46.3	30.7	39.8	29.2	53.1
35	MADERA	156,915	66.7	42.5	39.9	30.9	50.7
36	RIVERSIDE	2,392,511	1,079.3	45.1	39.9	37.5	42.3
37	CALAVERAS	44,656	35.7	79.9	41.5	29.0	57.6
38	TULARE	472,416	175.7	37.2	42.7	36.3	49.1

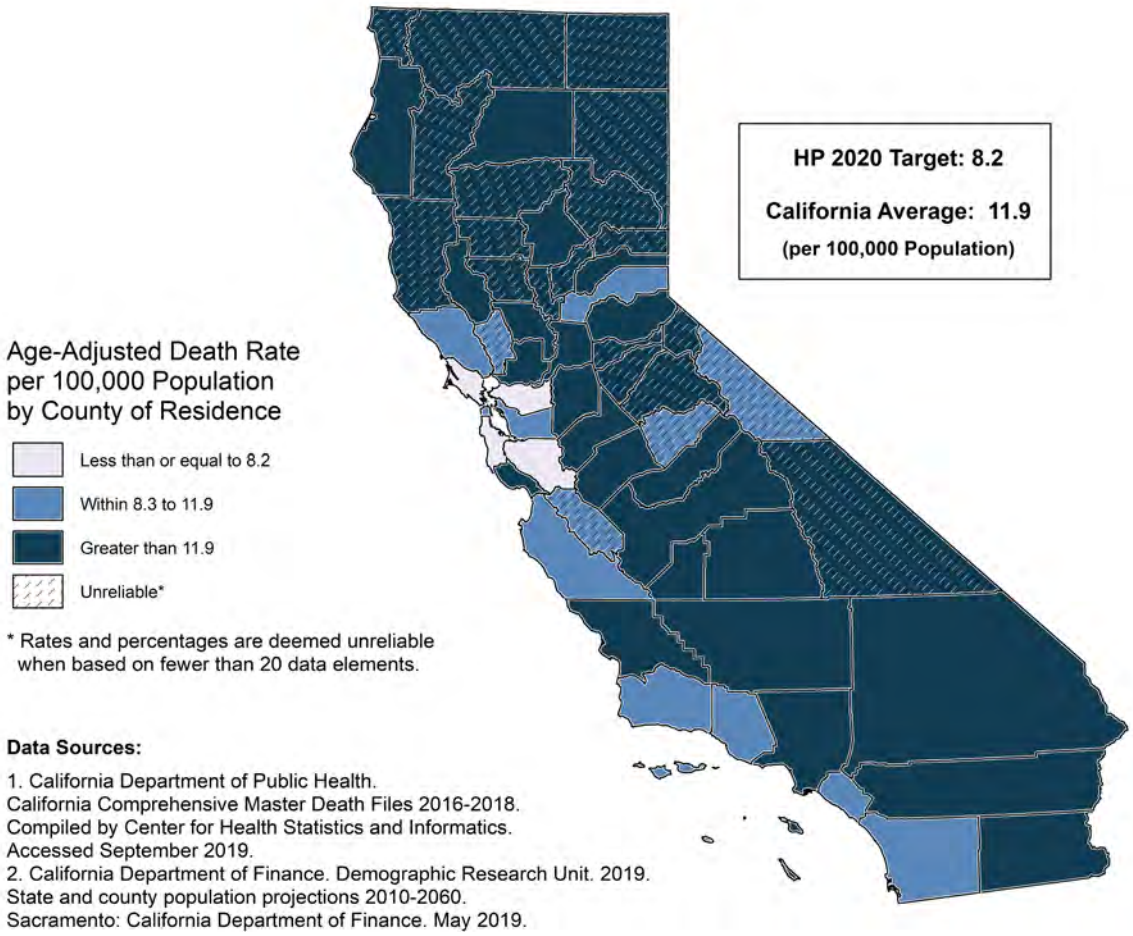
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	MENDOCINO	89,071	54.3	61.0	44.2	33.2	57.6
40	SAN JOAQUIN	749,810	316.7	42.2	44.5	39.5	49.5
41	HUMBOLDT	135,865	79.3	58.4	46.1	36.5	57.4
42	BUTTE	226,661	144.3	63.7	46.1	38.5	53.7
43	STANISLAUS	550,505	249.0	45.2	46.2	40.4	52.1
44	MERCED	276,611	110.0	39.8	47.1	38.1	56.0
45	LASSEN	30,604	18.0	58.8 *	49.5 *	29.3	78.2
46	SAN BERNARDINO	2,163,561	928.0	42.9	50.8	47.5	54.2
47	GLENN	29,205	18.3	62.8 *	52.2 *	31.1	82.1
48	KERN	897,949	395.3	44.0	53.9	48.5	59.3
49	TUOLUMNE	52,862	52.3	99.0	54.0	40.4	70.8
50	TEHAMA	64,407	52.0	80.7	57.3	42.8	75.2
51	LAKE	64,930	60.3	92.9	57.8	44.1	74.3
52	DEL NORTE	26,811	23.3	87.0	61.1	38.9	91.4
53	SISKIYOU	44,240	48.7	110.0	61.4	45.4	81.3
54	INYO	18,566	18.7	100.5 *	62.2 *	37.2	97.5
55	SIERRA	3,149	4.3	137.6 *	66.2 *	19.3	163.7
56	SHASTA	178,240	182.3	102.3	69.2	59.1	79.4
57	YUBA	76,767	54.0	70.3	73.5	55.2	95.9
58	MODOC	9,488	13.3	140.5 *	74.6 *	40.1	126.8

* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO CHRONIC LIVER DISEASE AND CIRRHOSIS, 2016-2018



The crude death rate from chronic liver disease and cirrhosis for California averaged 13.4 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 5,325.0 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 37.5 in Lake County to a low of 7.7 in Santa Clara County, a factor of 4.8 to 1.

The age-adjusted death rate from chronic liver disease and cirrhosis for California during the 2016 through 2018 three-year period totaled 11.9 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 27.7 in Lake County to a low of 5.8 in Marin County.

Four counties with reliable death rates 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. 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 2013-2015 period averaged 12.1 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	MARIN	262,092	23.7	9.0	5.8	3.7	8.7
2	SANTA CLARA	1,945,911	150.7	7.7	6.8	5.7	7.9
3	SAN MATEO	771,902	74.3	9.6	7.5	5.9	9.5
4	CONTRA COSTA	1,138,201	111.3	9.8	7.8	6.3	9.3
	HPO 2020: SA-11				**8.2**		
5	SAN FRANCISCO	880,955	90.0	10.2	8.4	6.8	10.3
6	MONO	13,846	1.7	12.0 *	8.6 *	0.8	34.6
7	ALAMEDA	1,651,319	164.0	9.9	8.8	7.4	10.2
8	SONOMA	503,634	61.7	12.2	9.2	7.0	11.8
9	SAN DIEGO	3,320,387	368.0	11.1	10.0	8.9	11.0
10	ORANGE	3,205,855	385.7	12.0	10.4	9.3	11.4
11	NAPA	141,205	17.7	12.5 *	10.5 *	6.2	16.7
12	VENTURA	854,987	109.0	12.7	10.8	8.7	12.9
13	PLACER	382,977	54.7	14.3	11.0	8.2	14.3
14	MONTEREY	442,196	51.3	11.6	11.1	8.3	14.6
15	MARIPOSA	17,992	2.3	13.0 *	11.1 *	1.7	37.0
16	SAN BENITO	60,291	6.7	11.1 *	11.3 *	4.4	23.6
17	SANTA BARBARA	450,138	54.3	12.1	11.7	8.8	15.2
	CALIFORNIA	**39,610,556**	**5,325.0**	**13.4**	**11.9**	**11.6**	**12.3**
18	SANTA CRUZ	275,859	38.0	13.8	12.1	8.5	16.6
19	SACRAMENTO	1,520,685	203.7	13.4	12.3	10.6	14.0
20	SOLANO	437,434	64.3	14.7	12.3	9.5	15.7
21	MENDOCINO	89,071	14.3	16.1 *	12.3 *	6.8	20.6
22	LASSEN	30,604	4.7	15.2 *	12.4 *	3.8	29.7
23	LOS ANGELES	10,261,736	1,438.0	14.0	12.6	11.9	13.2
24	RIVERSIDE	2,392,511	338.0	14.1	12.7	11.3	14.0
25	SUTTER	98,342	14.0	14.2 *	12.7 *	6.9	21.3
26	SAN LUIS OBISPO	278,680	40.7	14.6	12.8	9.2	17.4
27	GLENN	29,205	4.0	13.7 *	13.2 *	3.6	33.7
28	IMPERIAL	187,943	25.0	13.3	13.4	8.7	19.8
29	YOLO	219,758	30.0	13.7	14.1	9.5	20.2
30	MERCED	276,611	37.3	13.5	14.5	10.2	19.9
31	CALAVERAS	44,656	10.7	23.9 *	14.7 *	7.2	26.5
32	EL DORADO	186,556	40.3	21.6	14.9	10.7	20.3
33	SAN BERNARDINO	2,163,561	335.3	15.5	15.5	13.8	17.2
34	KERN	897,949	133.0	14.8	15.8	13.1	18.5
35	FRESNO	1,000,143	157.3	15.7	16.4	13.8	19.0
36	NEVADA	98,554	22.0	22.3	16.7	10.5	25.3
37	TEHAMA	64,407	14.3	22.3 *	16.8 *	9.2	28.0
38	STANISLAUS	550,505	97.7	17.7	17.1	13.8	20.8

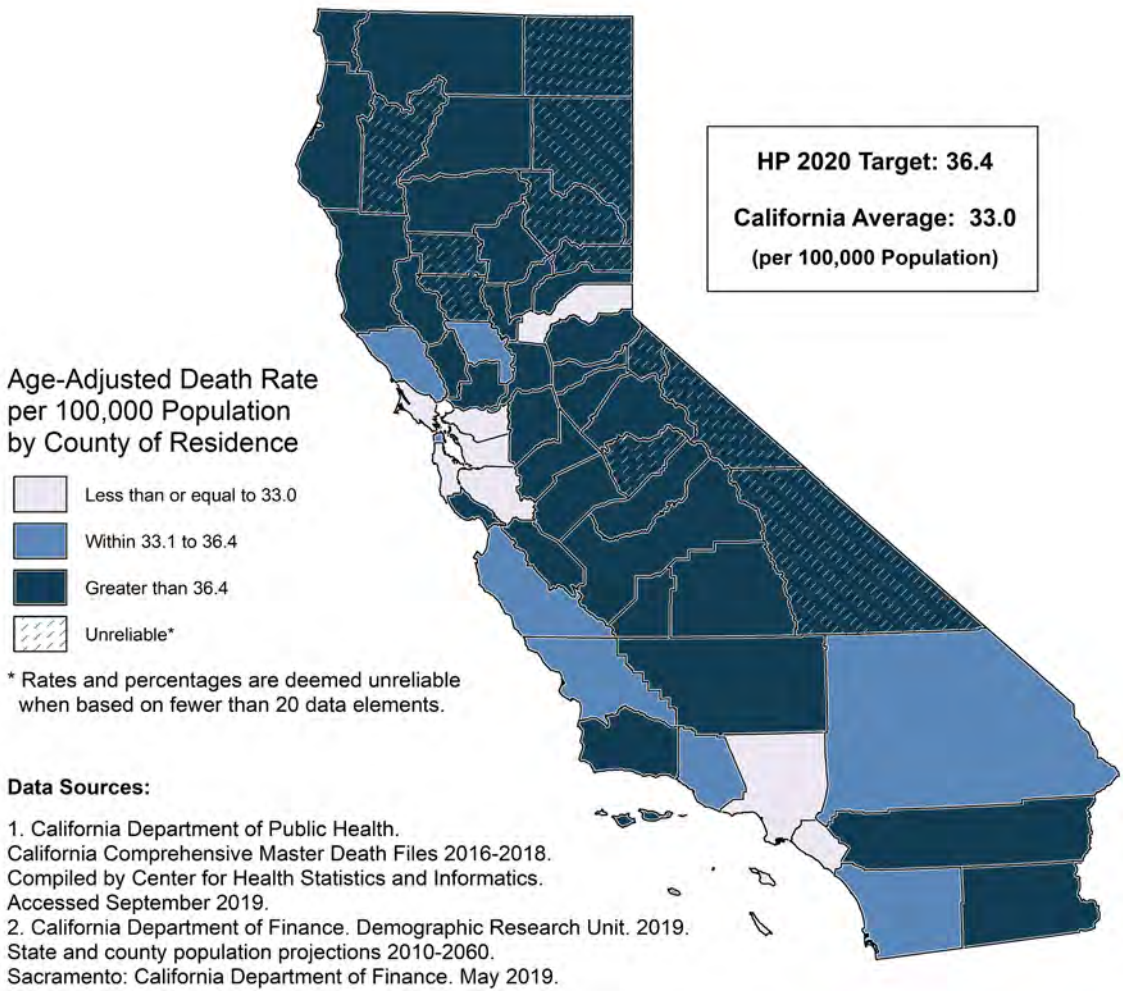
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	YUBA	76,767	13.3	17.4 *	17.3 *	9.3	29.4
40	KINGS	150,992	23.0	15.2	17.8	11.3	26.7
41	SIERRA	3,149	1.3	42.3 *	18.3 *	1.0	84.1
42	SAN JOAQUIN	749,810	143.0	19.1	18.6	15.4	21.7
43	COLUSA	22,632	4.0	17.7 *	18.6 *	5.1	47.7
44	PLUMAS	19,550	4.3	22.2 *	18.7 *	5.4	46.2
45	BUTTE	226,661	47.7	21.0	18.8	13.9	25.0
46	SISKIYOU	44,240	11.3	25.6 *	20.2 *	10.2	35.9
47	HUMBOLDT	135,865	33.7	24.8	20.3	14.0	28.4
48	MADERA	156,915	33.0	21.0	20.7	14.2	29.0
49	SHASTA	178,240	48.7	27.3	20.9	15.4	27.7
50	AMADOR	37,405	11.7	31.2 *	21.4 *	11.0	37.7
51	TUOLUMNE	52,862	14.0	26.5 *	21.6 *	11.8	36.3
52	TULARE	472,416	95.0	20.1	21.7	17.5	26.5
53	INYO	18,566	6.7	35.9 *	22.3 *	8.7	46.6
54	DEL NORTE	26,811	9.0	33.6 *	25.1 *	11.5	47.7
55	LAKE	64,930	24.3	37.5	27.7	17.8	41.2
56	MODOC	9,488	3.7	38.6 *	28.0 *	7.1	74.5
57	TRINITY	13,453	6.3	47.1 *	31.3 *	11.9	66.8
58	ALPINE	1,146	1.3	116.3 *	66.8 *	3.7	307.4

* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO ACCIDENTS (UNINTENTIONAL INJURIES), 2016-2018



The crude death rate from accidents for California averaged 34.7 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 13,747.7 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 104.7 in Lake County to a low of 25.5 in Los Angeles County, a factor of 4.1 to 1.

The age-adjusted death rate from accidents for California during the 2016 through 2018 three-year period totaled 33.0 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 84.0 in Lake County to a low of 22.4 in San Mateo County.

Sixteen counties with reliable 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.

The California age-adjusted death rate from accidents for the 2013-2015 period averaged 29.5 per 100,000 population.

TABLE 14
DEATHS DUE TO ACCIDENTS (UNINTENTIONAL INJURIES)
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	SAN MATEO	771,902	197.7	25.6	22.4	19.2	25.7
2	ALAMEDA	1,651,319	422.7	25.6	24.1	21.8	26.5
3	LOS ANGELES	10,261,736	2,615.0	25.5	24.3	23.4	25.3
4	SANTA CLARA	1,945,911	520.0	26.7	24.8	22.6	26.9
5	ORANGE	3,205,855	923.0	28.8	27.2	25.4	29.0
6	CONTRA COSTA	1,138,201	355.0	31.2	29.4	26.2	32.5
7	MARIN	262,092	100.0	38.2	31.0	25.2	37.7
8	PLACER	382,977	150.0	39.2	32.9	27.4	38.4
	CALIFORNIA	**39,610,556**	**13,747.7**	**34.7**	**33.0**	**32.5**	**33.6**
9	SAN FRANCISCO	880,955	357.0	40.5	33.7	30.1	37.2
10	SAN DIEGO	3,320,387	1,205.7	36.3	34.5	32.6	36.5
11	SAN BERNARDINO	2,163,561	729.3	33.7	34.8	32.3	37.4
12	SONOMA	503,634	198.7	39.4	35.0	29.9	40.1
13	YOLO	219,758	73.0	33.2	35.1	27.5	44.1
14	MONTEREY	442,196	161.3	36.5	35.6	30.0	41.2
15	VENTURA	854,987	317.7	37.2	35.6	31.6	39.6
16	SAN LUIS OBISPO	278,680	111.0	39.8	36.1	28.9	43.3
	HPO 2020: IVP-11				**36.4**		
17	NAPA	141,205	61.7	43.7	36.5	27.9	46.8
18	SOLANO	437,434	170.0	38.9	37.0	31.3	42.7
19	SANTA BARBARA	450,138	183.0	40.7	37.9	32.2	43.5
20	ALPINE	1,146	1.0	87.3 *	38.3 *	1.0	213.2
21	MONO	13,846	4.7	33.7 *	39.2 *	12.1	94.1
22	RIVERSIDE	2,392,511	972.7	40.7	39.4	36.9	41.9
23	SACRAMENTO	1,520,685	636.0	41.8	40.3	37.1	43.5
24	KINGS	150,992	55.7	36.9	40.4	30.5	52.5
25	TULARE	472,416	187.7	39.7	42.2	36.1	48.4
26	SAN BENITO	60,291	25.3	42.0	42.7	27.7	62.9
27	SUTTER	98,342	44.7	45.4	43.5	31.7	58.3
28	SANTA CRUZ	275,859	127.3	46.2	44.1	36.1	52.0
29	STANISLAUS	550,505	239.3	43.5	44.6	38.9	50.3
30	MADERA	156,915	71.3	45.5	45.7	35.7	57.7
31	FRESNO	1,000,143	438.3	43.8	45.8	41.5	50.2
32	COLUSA	22,632	11.0	48.6 *	46.3 *	23.1	82.8
33	EL DORADO	186,556	94.7	50.7	46.4	37.5	56.7
34	IMPERIAL	187,943	85.0	45.2	46.4	37.0	57.6
35	SAN JOAQUIN	749,810	344.7	46.0	46.9	41.9	52.0
36	NEVADA	98,554	59.0	59.9	49.3	37.6	63.6
37	CALAVERAS	44,656	24.7	55.2	51.8	33.4	76.7
38	LASSEN	30,604	18.3	59.9 *	52.9 *	31.5	83.2

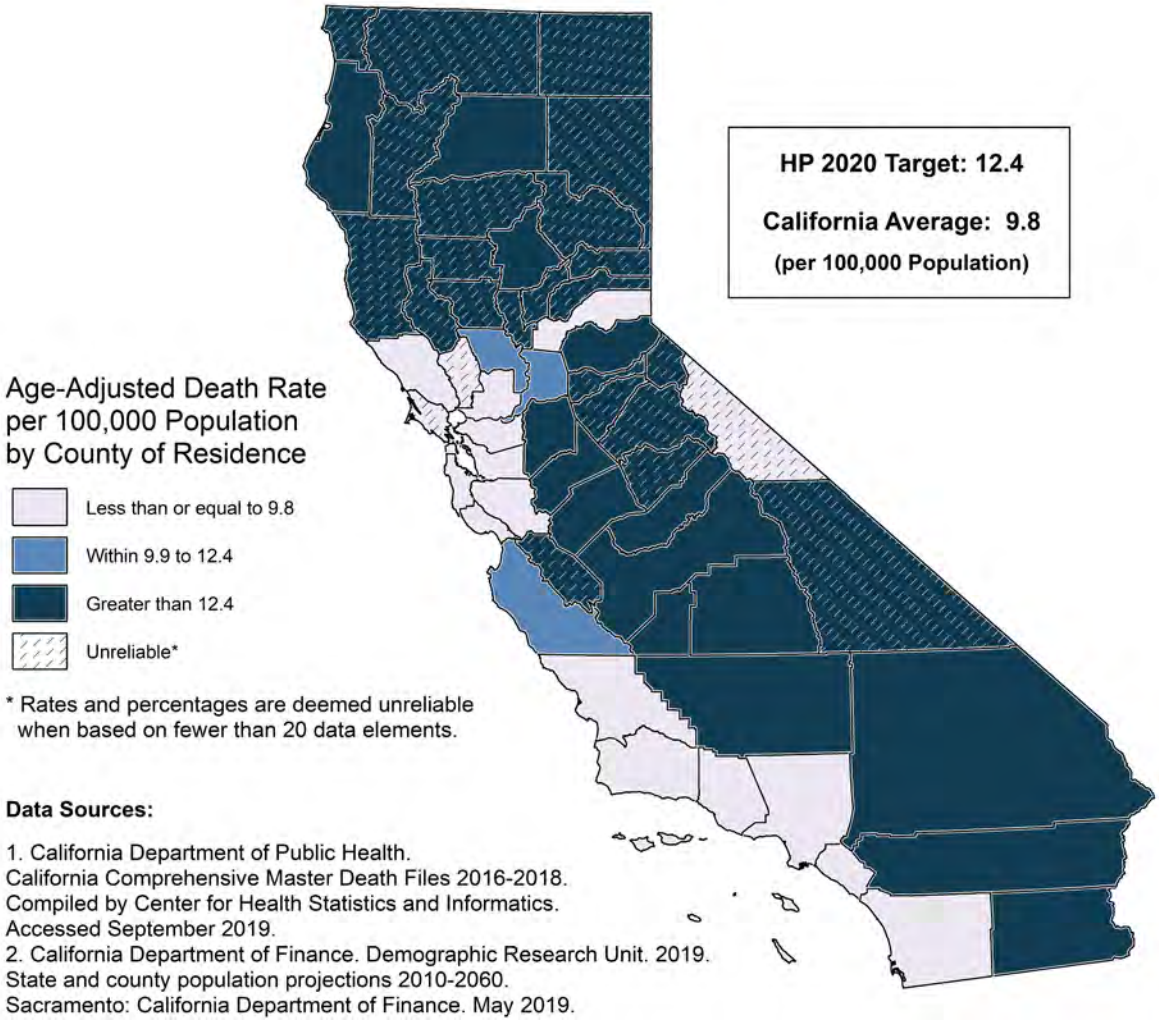
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	MERCED	276,611	141.3	51.1	54.3	45.2	63.4
40	AMADOR	37,405	24.0	64.2	56.2	36.0	83.6
41	KERN	897,949	487.7	54.3	57.5	52.3	62.7
42	GLENN	29,205	17.3	59.4 *	57.6 *	33.7	91.8
43	TUOLUMNE	52,862	34.3	64.9	57.8	40.1	80.6
44	INYO	18,566	12.3	66.4 *	59.9 *	31.3	103.8
45	TEHAMA	64,407	41.3	64.2	60.8	43.7	82.4
46	YUBA	76,767	45.7	59.5	62.4	45.6	83.3
47	SHASTA	178,240	124.3	69.8	63.2	51.5	74.9
48	BUTTE	226,661	172.0	75.9	68.5	57.7	79.4
49	MODOC	9,488	7.7	80.8 *	70.0 *	29.6	139.9
50	DEL NORTE	26,811	21.3	79.6	70.4	43.8	107.3
51	HUMBOLDT	135,865	101.3	74.6	71.5	57.0	86.0
52	MENDOCINO	89,071	71.7	80.5	74.1	58.0	93.4
53	PLUMAS	19,550	16.7	85.3 *	76.0 *	44.0	122.3
54	MARIPOSA	17,992	15.3	85.2 *	76.6 *	43.2	125.7
55	SIERRA	3,149	3.3	105.9 *	80.3 *	18.5	223.2
56	SISKIYOU	44,240	37.0	83.6	80.7	56.9	111.3
57	LAKE	64,930	68.0	104.7	84.0	65.2	106.4
58	TRINITY	13,453	12.0	89.2 *	84.9 *	43.9	148.3

* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO MOTOR VEHICLE TRAFFIC CRASHES, 2016-2018



The crude death rate from motor vehicle traffic crashes for California averaged 10.2 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 4,023.3 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 20.8 in Merced County to a low of 4.3 in San Francisco County, a factor of 4.8 to 1.

The age-adjusted death rate from motor vehicle traffic crashes for California during the 2016 through 2018 three-year period totaled 9.8 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 21.0 in Merced County to a low of 3.7 in San Francisco County.

Eighteen counties with reliable 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 three counties with unreliable rates also met the objective.

The California age-adjusted death rate from motor vehicle traffic crashes for the 2013-2015 period averaged 8.3 per 100,000 population.

TABLE 15
DEATHS DUE TO MOTOR VEHICLE TRAFFIC CRASHES
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	MONO	13,846	0.7	4.8 *	2.7 *	<0.1	20.2
2	SAN FRANCISCO	880,955	38.0	4.3	3.7	2.6	5.0
3	MARIN	262,092	13.7	5.2 *	4.7 *	2.6	8.0
4	SAN MATEO	771,902	42.0	5.4	5.2	3.7	7.0
5	ALAMEDA	1,651,319	99.7	6.0	5.7	4.7	7.0
6	SANTA CLARA	1,945,911	124.7	6.4	6.2	5.1	7.3
7	ORANGE	3,205,855	236.0	7.4	7.2	6.2	8.1
8	NAPA	141,205	12.3	8.7 *	7.5 *	3.9	13.0
9	SAN DIEGO	3,320,387	257.7	7.8	7.6	6.7	8.5
10	CONTRA COSTA	1,138,201	92.7	8.1	8.2	6.6	10.0
11	LOS ANGELES	10,261,736	878.0	8.6	8.2	7.7	8.8
12	SANTA BARBARA	450,138	40.0	8.9	8.3	5.9	11.3
13	VENTURA	854,987	75.3	8.8	8.7	6.8	10.9
14	SONOMA	503,634	47.7	9.5	9.0	6.6	11.9
15	SAN LUIS OBISPO	278,680	26.3	9.4	9.2	6.0	13.4
16	PLACER	382,977	35.0	9.1	9.2	6.4	12.8
17	SOLANO	437,434	43.0	9.8	9.6	7.0	13.0
18	SANTA CRUZ	275,859	27.0	9.8	9.7	6.4	14.1
	CALIFORNIA	**39,610,556**	**4,023.3**	**10.2**	**9.8**	**9.5**	**10.2**
19	SACRAMENTO	1,520,685	177.3	11.7	11.4	9.7	13.0
20	MONTEREY	442,196	50.7	11.5	11.4	8.5	15.0
21	YOLO	219,758	24.3	11.1	12.0	7.7	17.7
	HPO 2020: IVP-13.1				**12.4**		
22	RIVERSIDE	2,392,511	307.3	12.8	12.6	11.2	14.1
23	ALPINE	1,146	0.3	29.1 *	13.0 *	<0.1	169.8
24	INYO	18,566	2.3	12.6 *	13.1 *	2.0	43.4
25	IMPERIAL	187,943	24.7	13.1	13.3	8.6	19.7
26	EL DORADO	186,556	25.0	13.4	13.3	8.6	19.6
27	NEVADA	98,554	14.3	14.5 *	13.9 *	7.7	23.2
28	SAN BERNARDINO	2,163,561	309.7	14.3	14.2	12.6	15.8
29	MODOC	9,488	1.0	10.5 *	14.5 *	0.4	80.9
30	TUOLUMNE	52,862	8.0	15.1 *	14.6 *	6.3	28.7
31	LASSEN	30,604	5.0	16.3 *	14.6 *	4.8	34.2
32	SUTTER	98,342	16.3	16.6 *	16.0 *	9.2	25.8
33	FRESNO	1,000,143	157.3	15.7	16.2	13.6	18.7
34	BUTTE	226,661	37.0	16.3	16.3	11.5	22.4
35	STANISLAUS	550,505	90.0	16.3	16.6	13.3	20.4
36	SHASTA	178,240	31.0	17.4	16.6	11.3	23.6
37	KINGS	150,992	24.3	16.1	16.7	10.7	24.8
38	SAN JOAQUIN	749,810	126.0	16.8	16.8	13.9	19.8

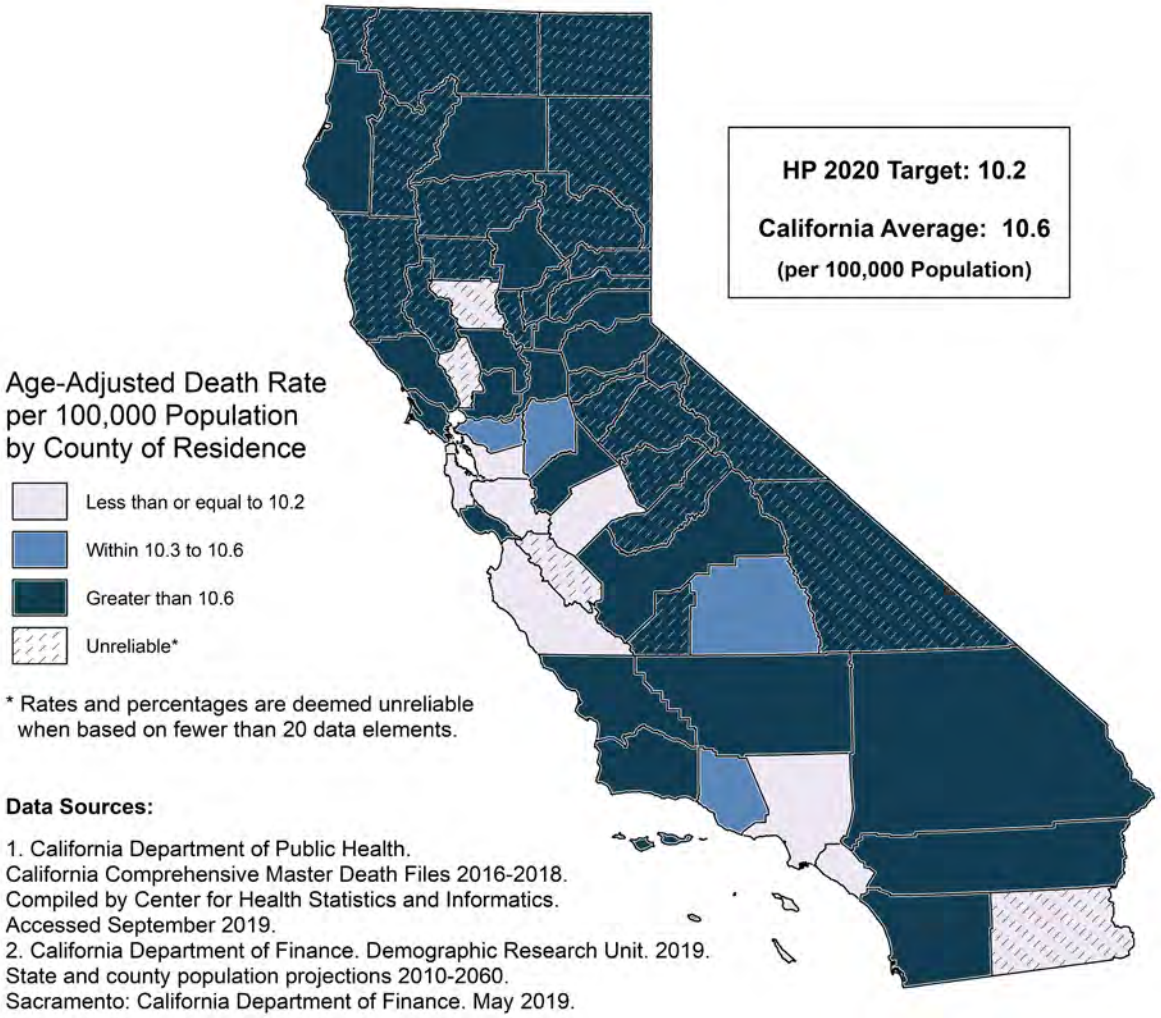
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	TULARE	472,416	78.3	16.6	17.1	13.5	21.4
40	MADERA	156,915	27.0	17.2	17.5	11.6	25.5
41	SAN BENITO	60,291	11.0	18.2 *	18.0 *	9.0	32.3
42	KERN	897,949	165.0	18.4	18.7	15.8	21.7
43	DEL NORTE	26,811	5.7	21.1 *	19.6 *	6.9	43.6
44	AMADOR	37,405	7.7	20.5 *	20.7 *	8.8	41.4
45	HUMBOLDT	135,865	28.0	20.6	20.8	13.8	30.1
46	MERCED	276,611	57.7	20.8	21.0	15.9	27.1
47	MENDOCINO	89,071	19.0	21.3 *	21.3 *	12.8	33.2
48	LAKE	64,930	15.0	23.1 *	21.5 *	12.0	35.4
49	YUBA	76,767	16.7	21.7 *	23.5 *	13.6	37.8
50	GLENN	29,205	6.3	21.7 *	23.6 *	9.0	50.4
51	TEHAMA	64,407	14.7	22.8 *	23.7 *	13.2	39.3
52	PLUMAS	19,550	5.3	27.3 *	25.2 *	8.6	57.4
53	CALAVERAS	44,656	12.0	26.9 *	27.8 *	14.4	48.6
54	COLUSA	22,632	7.0	30.9 *	29.2 *	11.7	60.2
55	SISKIYOU	44,240	12.7	28.6 *	30.4 *	16.0	52.4
56	SIERRA	3,149	1.0	31.8 *	31.0 *	0.8	172.6
57	MARIPOSA	17,992	6.3	35.2 *	34.6 *	13.1	73.7
58	TRINITY	13,453	5.3	39.6 *	43.8 *	14.9	99.7

* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO SUICIDE, 2016-2018



The crude death rate from suicide for California averaged 11.0 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 4,361.3 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 26.2 in Shasta County to a low of 7.6 in Santa Clara County, a factor of 3.4 to 1.

The age-adjusted death rate from suicide for California during the 2016 through 2018 three-year period totaled 10.6 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 25.1 in Shasta County to a low of 7.4 in Santa Clara County.

Eight counties with reliable 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 four counties with unreliable rates also 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 2013-2015 period averaged 10.3 per 100,000 population.

TABLE 16
DEATHS DUE TO SUICIDE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	IMPERIAL	187,943	13.3	7.1 *	7.3 *	3.9	12.4
2	SANTA CLARA	1,945,911	148.7	7.6	7.4	6.2	8.6
3	SAN MATEO	771,902	66.0	8.6	7.9	6.1	10.1
4	LOS ANGELES	10,261,736	887.3	8.6	8.3	7.7	8.8
5	MONTEREY	442,196	37.3	8.4	8.3	5.9	11.4
6	ALAMEDA	1,651,319	156.3	9.5	8.9	7.5	10.3
7	NAPA	141,205	14.0	9.9 *	8.9 *	4.9	15.0
8	COLUSA	22,632	2.0	8.8 *	9.0 *	1.1	32.6
9	MERCED	276,611	23.7	8.6	9.5	6.1	14.2
10	SAN FRANCISCO	880,955	98.0	11.1	9.7	7.9	11.8
11	ORANGE	3,205,855	339.7	10.6	10.0	9.0	11.1
12	SAN BENITO	60,291	6.0	10.0 *	10.1 *	3.7	22.1
	HPO 2020: MHMD-1				**10.2**		
13	CONTRA COSTA	1,138,201	121.7	10.7	10.3	8.4	12.2
14	SAN JOAQUIN	749,810	77.3	10.3	10.3	8.1	12.9
15	TULARE	472,416	46.3	9.8	10.4	7.6	13.8
16	VENTURA	854,987	95.0	11.1	10.5	8.5	12.8
	CALIFORNIA	**39,610,556**	**4,361.3**	**11.0**	**10.6**	**10.3**	**10.9**
17	MONO	13,846	1.3	9.6 *	10.7 *	0.6	49.2
18	STANISLAUS	550,505	59.0	10.7	11.0	8.4	14.2
19	YOLO	219,758	22.7	10.3	11.1	7.0	16.6
20	SAN BERNARDINO	2,163,561	231.0	10.7	11.1	9.6	12.5
21	FRESNO	1,000,143	107.3	10.7	11.4	9.2	13.6
22	SANTA BARBARA	450,138	54.0	12.0	11.4	8.6	14.9
23	RIVERSIDE	2,392,511	288.7	12.1	11.8	10.4	13.2
24	SOLANO	437,434	55.7	12.7	12.3	9.3	16.0
25	MADERA	156,915	19.0	12.1 *	12.5 *	7.5	19.5
26	PLACER	382,977	52.7	13.8	12.6	9.4	16.5
27	SAN DIEGO	3,320,387	431.7	13.0	12.7	11.4	13.9
28	SACRAMENTO	1,520,685	205.0	13.5	13.1	11.2	14.9
29	SUTTER	98,342	13.3	13.6 *	13.1 *	7.0	22.3
30	SONOMA	503,634	72.7	14.4	13.1	10.3	16.5
31	KERN	897,949	115.7	12.9	13.4	10.9	15.9
32	KINGS	150,992	19.0	12.6 *	13.6 *	8.2	21.2
33	MARIN	262,092	42.7	16.3	13.9	10.1	18.8
34	DEL NORTE	26,811	4.7	17.4 *	15.1 *	4.7	36.3
35	SANTA CRUZ	275,859	44.7	16.2	15.5	11.3	20.8
36	EL DORADO	186,556	32.3	17.3	16.8	11.5	23.7
37	PLUMAS	19,550	4.0	20.5 *	17.5 *	4.8	44.7
38	NEVADA	98,554	19.7	20.0 *	17.6 *	10.6	27.3

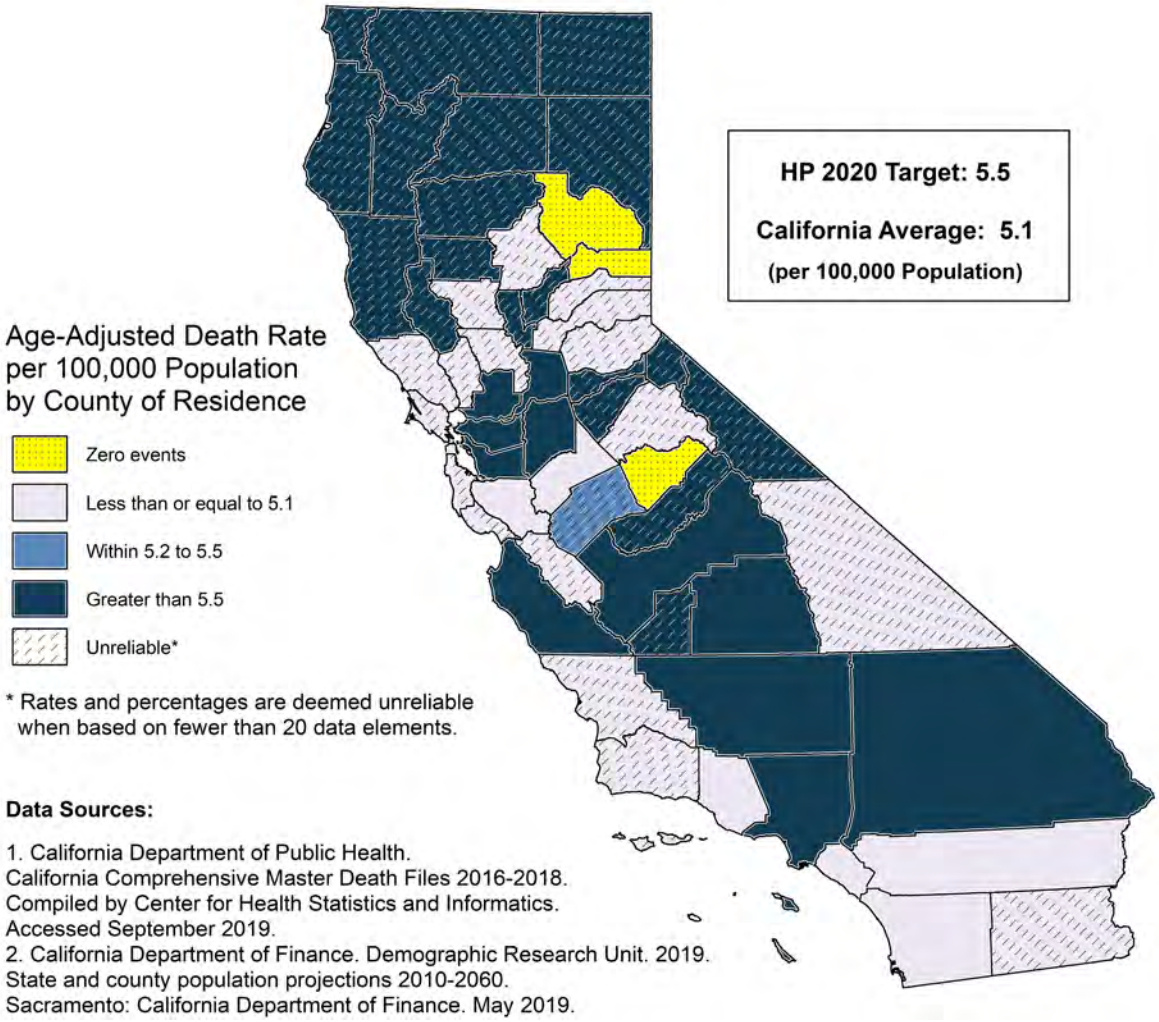
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	SAN LUIS OBISPO	278,680	57.7	20.7	18.2	13.8	23.6
40	CALAVERAS	44,656	10.7	23.9 *	19.4 *	9.5	35.0
41	YUBA	76,767	14.3	18.7 *	19.6 *	10.8	32.6
42	TUOLUMNE	52,862	13.3	25.2 *	19.6 *	10.5	33.3
43	MENDOCINO	89,071	18.3	20.6 *	19.9 *	11.9	31.3
44	BUTTE	226,661	48.7	21.5	20.7	15.3	27.4
45	SISKIYOU	44,240	10.3	23.4 *	21.0 *	10.2	38.2
46	MODOC	9,488	1.7	17.6 *	21.5 *	1.9	86.5
47	GLENN	29,205	7.0	24.0 *	22.1 *	8.9	45.6
48	TEHAMA	64,407	15.0	23.3 *	22.5 *	12.6	37.1
49	INYO	18,566	4.7	25.1 *	22.6 *	7.0	54.2
50	HUMBOLDT	135,865	31.3	23.1	23.2	15.8	32.9
51	SHASTA	178,240	46.7	26.2	25.1	18.4	33.4
52	AMADOR	37,405	11.0	29.4 *	27.3 *	13.6	48.9
53	MARIPOSA	17,992	5.3	29.6 *	29.3 *	9.9	66.6
54	LAKE	64,930	19.0	29.3 *	30.2 *	18.2	47.2
55	LASSEN	30,604	9.7	31.6 *	30.6 *	14.4	56.8
56	SIERRA	3,149	1.7	52.9 *	37.1 *	3.3	148.8
57	TRINITY	13,453	5.3	39.6 *	41.4 *	14.1	94.1
58	ALPINE	1,146	0.3	29.1 *	55.3 *	<0.1	723.2

* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DEATHS DUE TO HOMICIDE, 2016-2018



The crude death rate from homicide for California averaged 5.0 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 2,000.0 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 11.2 in Kern County to a low of 2.3 in Orange County, a factor of 4.9 to 1.

The age-adjusted death rate from homicide for California during the 2016 through 2018 three-year period totaled 5.1 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 11.3 in Kern County to a low of 2.3 in Orange County.

Seven counties with reliable 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 eighteen counties with unreliable rates and three counties with zero deaths due to homicide met the objective.

The California age-adjusted death rate from homicide for the 2013-2015 period averaged 4.9 per 100,000 population.

TABLE 17
DEATHS DUE TO HOMICIDE
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	PLUMAS	19,550	0.0	-	-	-	-
2	MARIPOSA	17,992	0.0	-	-	-	-
3	SIERRA	3,149	0.0	-	-	-	-
4	TUOLUMNE	52,862	1.0	1.9 *	1.9 *	<0.1	10.6
5	SAN MATEO	771,902	15.0	1.9 *	2.1 *	1.2	3.5
6	SAN LUIS OBISPO	278,680	6.3	2.3 *	2.3 *	0.9	4.9
7	ORANGE	3,205,855	73.3	2.3	2.3	1.8	2.9
8	NAPA	141,205	3.0	2.1 *	2.3 *	0.5	6.9
9	MARIN	262,092	6.0	2.3 *	2.3 *	0.9	5.1
10	SANTA CLARA	1,945,911	46.7	2.4	2.4	1.7	3.2
11	PLACER	382,977	8.7	2.3 *	2.4 *	1.1	4.6
12	SONOMA	503,634	11.0	2.2 *	2.4 *	1.2	4.3
13	SANTA CRUZ	275,859	6.3	2.3 *	2.5 *	0.9	5.3
14	NEVADA	98,554	3.0	3.0 *	2.8 *	0.6	8.0
15	SAN DIEGO	3,320,387	93.7	2.8	2.8	2.3	3.5
16	SANTA BARBARA	450,138	13.0	2.9 *	2.9 *	1.5	4.9
17	EL DORADO	186,556	5.3	2.9 *	3.0 *	1.0	6.8
18	YOLO	219,758	5.7	2.6 *	3.2 *	1.1	7.0
19	INYO	18,566	0.7	3.6 *	3.5 *	<0.1	26.5
20	BUTTE	226,661	8.3	3.7 *	3.9 *	1.7	7.5
21	VENTURA	854,987	32.7	3.8	4.0	2.7	5.6
22	SAN BENITO	60,291	2.3	3.9 *	4.0 *	0.6	13.4
23	STANISLAUS	550,505	24.0	4.4	4.5	2.9	6.7
24	RIVERSIDE	2,392,511	107.3	4.5	4.6	3.8	5.5
25	IMPERIAL	187,943	8.3	4.4 *	4.7 *	2.1	9.2
26	SAN FRANCISCO	880,955	44.3	5.0	4.8	3.5	6.4
27	COLUSA	22,632	1.0	4.4 *	5.0 *	0.1	27.6
	CALIFORNIA	**39,610,556**	**2,000.0**	**5.0**	**5.1**	**4.9**	**5.3**
28	MERCED	276,611	14.7	5.3 *	5.3 *	3.0	8.8
	HPO 2020: IVP-29				**5.5**		
29	ALAMEDA	1,651,319	96.0	5.8	5.7	4.6	7.0
30	CONTRA COSTA	1,138,201	62.7	5.5	5.8	4.5	7.5
31	LOS ANGELES	10,261,736	613.3	6.0	6.0	5.5	6.4
32	LASSEN	30,604	1.7	5.4 *	6.0 *	0.5	24.0
33	SACRAMENTO	1,520,685	92.0	6.0	6.1	4.9	7.5
34	TEHAMA	64,407	3.7	5.7 *	6.3 *	1.6	16.8
35	SHASTA	178,240	11.0	6.2 *	6.3 *	3.2	11.3
36	MENDOCINO	89,071	5.7	6.4 *	6.4 *	2.3	14.2
37	SAN BERNARDINO	2,163,561	145.0	6.7	6.8	5.7	7.9
38	MADERA	156,915	9.7	6.2 *	6.8 *	3.2	12.6

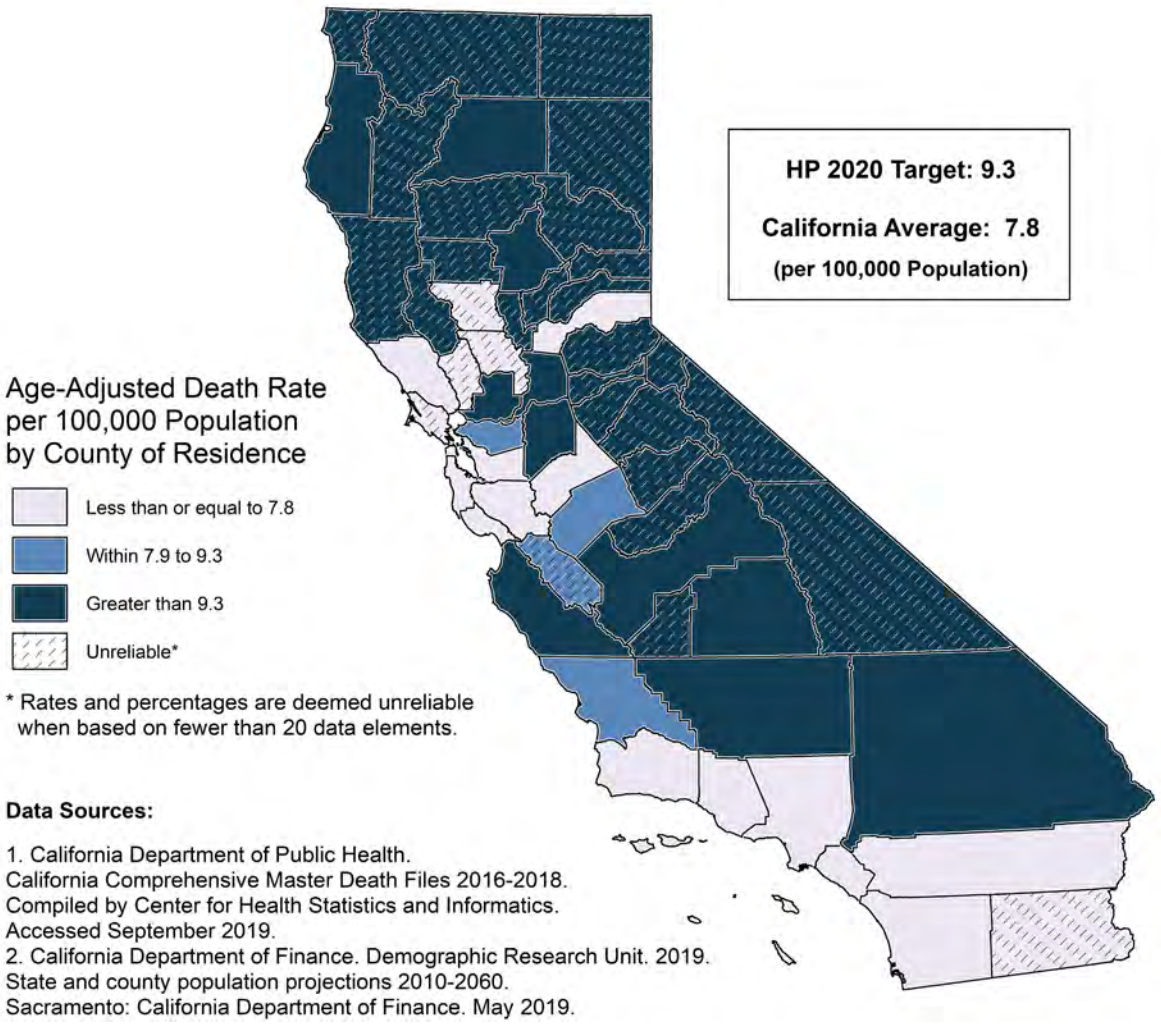
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	KINGS	150,992	10.3	6.8 *	7.0 *	3.4	12.8
40	SUTTER	98,342	6.7	6.8 *	7.0 *	2.7	14.7
41	FRESNO	1,000,143	74.0	7.4	7.4	5.8	9.3
42	GLENN	29,205	2.0	6.8 *	7.5 *	0.9	27.1
43	SOLANO	437,434	31.7	7.2	7.6	5.2	10.7
44	TULARE	472,416	34.7	7.3	7.6	5.3	10.6
45	AMADOR	37,405	2.7	7.1 *	7.9 *	1.4	24.6
46	YUBA	76,767	6.0	7.8 *	8.3 *	3.1	18.2
47	MONO	13,846	1.0	7.2 *	8.4 *	0.2	46.8
48	HUMBOLDT	135,865	11.7	8.6 *	8.7 *	4.5	15.4
49	CALAVERAS	44,656	2.7	6.0 *	8.8 *	1.6	27.2
50	SAN JOAQUIN	749,810	72.0	9.6	9.6	7.5	12.1
51	MONTEREY	442,196	42.7	9.6	9.9	7.2	13.4
52	SISKIYOU	44,240	4.7	10.5 *	11.1 *	3.4	26.7
53	KERN	897,949	100.3	11.2	11.3	9.0	13.5
54	DEL NORTE	26,811	3.3	12.4 *	13.3 *	3.1	36.9
55	MODOC	9,488	1.0	10.5 *	13.4 *	0.3	74.5
56	LAKE	64,930	8.3	12.8 *	14.6 *	6.4	28.5
57	TRINITY	13,453	1.7	12.4 *	18.0 *	1.6	72.1
58	ALPINE	1,146	0.3	29.1 *	47.6 *	<0.1	622.0

- Rates, percentages, and confidence limits are not calculated for zero events.
* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

FIREARM RELATED DEATHS, 2016-2018



The crude death rate from deaths due to firearm related injuries for California averaged 7.9 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 3,131.0 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 17.4 in Humboldt County to a low of 4.0 in Santa Clara County, a factor of 4.3 to 1.

The age-adjusted death rate from firearm related deaths for California during the 2016 through 2018 three-year period totaled 7.8 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 17.4 in Humboldt County to a low of 3.9 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 six 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 2013-2015 period averaged 7.6 per 100,000 population.

TABLE 18
FIREARM RELATED DEATHS
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	SANTA CLARA	1,945,911	78.0	4.0	3.9	3.1	4.8
2	ORANGE	3,205,855	156.3	4.9	4.6	3.9	5.4
3	SAN MATEO	771,902	38.0	4.9	4.8	3.4	6.5
4	YOLO	219,758	10.0	4.6 *	4.8 *	2.3	8.8
5	SONOMA	503,634	28.7	5.7	4.9	3.3	7.0
6	SAN FRANCISCO	880,955	47.0	5.3	5.1	3.8	6.8
7	MARIN	262,092	17.3	6.6 *	5.3 *	3.1	8.4
8	IMPERIAL	187,943	9.7	5.1 *	5.3 *	2.5	9.8
9	PLACER	382,977	24.3	6.4	5.7	3.7	8.5
10	COLUSA	22,632	1.3	5.9 *	5.7 *	0.3	26.5
11	NAPA	141,205	9.7	6.8 *	5.8 *	2.8	10.8
12	SAN DIEGO	3,320,387	217.3	6.5	6.5	5.6	7.3
13	SANTA BARBARA	450,138	31.3	7.0	6.5	4.5	9.3
14	STANISLAUS	550,505	38.0	6.9	7.1	5.0	9.8
15	ALAMEDA	1,651,319	122.7	7.4	7.2	5.9	8.5
16	VENTURA	854,987	63.3	7.4	7.3	5.6	9.3
17	LOS ANGELES	10,261,736	775.0	7.6	7.4	6.9	8.0
18	SANTA CRUZ	275,859	21.0	7.6	7.6	4.7	11.6
19	RIVERSIDE	2,392,511	187.0	7.8	7.8	6.7	9.0
	CALIFORNIA	**39,610,556**	**3,131.0**	**7.9**	**7.8**	**7.5**	**8.1**
20	MERCED	276,611	20.7	7.5	8.0	4.9	12.2
21	CONTRA COSTA	1,138,201	95.3	8.4	8.7	7.0	10.6
22	SAN BENITO	60,291	5.0	8.3 *	8.8 *	2.8	20.4
23	SAN LUIS OBISPO	278,680	28.3	10.2	9.0	6.0	13.0
	HPO 2020: IVP-30				**9.3**		
24	FRESNO	1,000,143	93.3	9.3	9.5	7.7	11.7
25	SACRAMENTO	1,520,685	147.7	9.7	9.6	8.0	11.1
26	EL DORADO	186,556	19.7	10.5 *	9.6 *	5.8	14.9
27	KINGS	150,992	14.3	9.5 *	10.1 *	5.6	16.9
28	SAN BERNARDINO	2,163,561	223.7	10.3	10.6	9.2	12.1
29	MADERA	156,915	15.3	9.8 *	10.7 *	6.0	17.5
30	TULARE	472,416	48.7	10.3	10.9	8.1	14.5
31	MONTEREY	442,196	48.7	11.0	11.0	8.1	14.5
32	SOLANO	437,434	48.7	11.1	11.1	8.2	14.7
33	MODOC	9,488	1.0	10.5 *	11.1 *	0.3	61.8
34	INYO	18,566	2.7	14.4 *	11.4 *	2.1	35.5
35	TUOLUMNE	52,862	8.3	15.8 *	11.9 *	5.2	23.1
36	SAN JOAQUIN	749,810	91.3	12.2	12.0	9.7	14.8
37	NEVADA	98,554	13.3	13.5 *	12.5 *	6.7	21.2
38	SUTTER	98,342	12.0	12.2 *	12.6 *	6.5	22.0

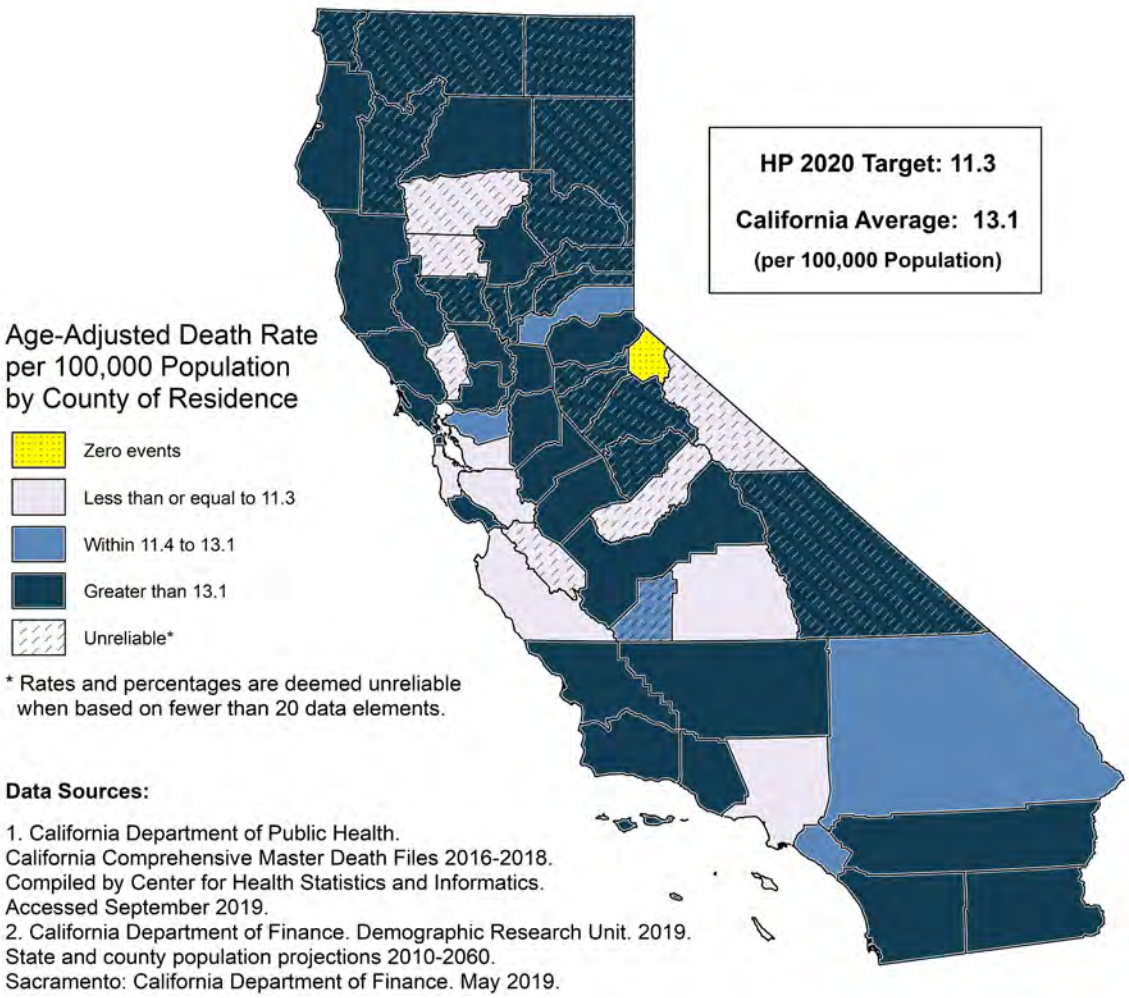
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	KERN	897,949	120.0	13.4	13.6	11.1	16.1
40	MENDOCINO	89,071	13.3	15.0 *	14.1 *	7.6	23.9
41	DEL NORTE	26,811	4.3	16.2 *	14.9 *	4.3	36.9
42	BUTTE	226,661	35.0	15.4	15.0	10.5	20.9
43	TEHAMA	64,407	11.3	17.6 *	15.3 *	7.7	27.1
44	PLUMAS	19,550	3.7	18.8 *	15.4 *	3.9	40.9
45	LASSEN	30,604	5.0	16.3 *	15.5 *	5.0	36.2
46	SHASTA	178,240	31.0	17.4	16.3	11.1	23.1
47	YUBA	76,767	12.0	15.6 *	16.5 *	8.5	28.9
48	SISKIYOU	44,240	8.0	18.1 *	16.8 *	7.3	33.1
49	HUMBOLDT	135,865	23.7	17.4	17.4	11.1	25.9
50	AMADOR	37,405	7.0	18.7 *	17.7 *	7.1	36.5
51	GLENN	29,205	5.7	19.4 *	18.3 *	6.5	40.6
52	MONO	13,846	2.0	14.4 *	18.3 *	2.2	66.1
53	MARIPOSA	17,992	3.7	20.4 *	18.5 *	4.7	49.3
54	CALAVERAS	44,656	9.3	20.9 *	19.0 *	8.8	35.6
55	LAKE	64,930	15.0	23.1 *	25.0 *	14.0	41.3
56	SIERRA	3,149	1.3	42.3 *	32.3 *	1.8	148.8
57	TRINITY	13,453	5.0	37.2 *	41.1 *	13.3	95.9
58	ALPINE	1,146	0.7	58.2 *	102.9 *	0.5	768.6

* Percentages are deemed unreliable when based on fewer than 20 data elements.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

DRUG INDUCED DEATHS, 2016-2018



The crude death rate from drug induced deaths for California averaged 13.7 deaths per 100,000 population. The crude death rate resulted from averaging the number of deaths for 2016 to 2018 and dividing by the 2017 population count. The total number of deaths for the three years averaged 5,408.7 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude death rate ranged from a high of 49.8 in Lake County to 8.8 in Santa Clara County, a factor of 5.7 to 1.

The age-adjusted death rate from drug induced deaths for California during the 2016 through 2018 three-year period totaled 13.1 deaths per 100,000 population. The reliable age-adjusted death rates ranged from a high of 41.3 in Lake County to a low of 8.0 in Santa Clara County.

Six 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 one county 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 2013-2015 period averaged 12.1 per 100,000 population.

TABLE 19
DRUG INDUCED DEATHS
RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	ALPINE	1,146	0.0	-	-	-	-
2	SANTA CLARA	1,945,911	170.7	8.8	8.0	6.8	9.2
3	SAN MATEO	771,902	68.3	8.9	8.2	6.4	10.4
4	LOS ANGELES	10,261,736	962.3	9.4	9.0	8.4	9.6
5	MONO	13,846	1.7	12.0 *	9.5 *	0.8	38.0
6	NAPA	141,205	14.3	10.2 *	9.5 *	5.2	15.8
7	ALAMEDA	1,651,319	173.0	10.5	9.6	8.2	11.1
8	GLENN	29,205	3.3	11.4 *	10.3 *	2.4	28.6
9	SAN BENITO	60,291	6.7	11.1 *	10.3 *	4.0	21.6
10	TEHAMA	64,407	6.0	9.3 *	10.5 *	3.8	22.8
11	TULARE	472,416	49.3	10.4	11.1	8.2	14.7
12	MADERA	156,915	17.3	11.0 *	11.2 *	6.6	17.8
13	MONTEREY	442,196	51.3	11.6	11.3	8.5	14.9
	HPO 2020: SA-12				**11.3**		
14	PLACER	382,977	49.3	12.9	12.0	8.9	15.8
15	CONTRA COSTA	1,138,201	148.0	13.0	12.2	10.2	14.2
16	ORANGE	3,205,855	413.3	12.9	12.4	11.2	13.6
17	KINGS	150,992	16.7	11.0 *	12.7 *	7.4	20.5
18	SAN BERNARDINO	2,163,561	279.3	12.9	12.8	11.3	14.4
	CALIFORNIA	**39,610,556**	**5,408.7**	**13.7**	**13.1**	**12.7**	**13.4**
19	MARIN	262,092	36.0	13.7	13.6	9.5	18.9
20	COLUSA	22,632	2.7	11.8 *	13.8 *	2.5	42.6
21	YOLO	219,758	29.3	13.3	13.9	9.3	19.9
22	SAN DIEGO	3,320,387	496.7	15.0	14.5	13.2	15.8
23	SUTTER	98,342	14.3	14.6 *	14.6 *	8.0	24.3
24	SONOMA	503,634	77.7	15.4	14.8	11.7	18.5
25	SOLANO	437,434	68.3	15.6	14.9	11.5	18.8
26	FRESNO	1,000,143	141.7	14.2	15.0	12.5	17.5
27	MERCED	276,611	40.0	14.5	15.5	11.1	21.1
28	AMADOR	37,405	6.0	16.0 *	15.6 *	5.7	34.0
29	VENTURA	854,987	137.0	16.0	15.6	12.9	18.3
30	SANTA BARBARA	450,138	71.3	15.8	15.8	12.4	19.9
31	SANTA CRUZ	275,859	47.7	17.3	16.3	12.0	21.7
32	SIERRA	3,149	0.7	21.2 *	16.5 *	<0.1	123.4
33	SAN LUIS OBISPO	278,680	47.3	17.0	16.6	12.2	22.0
34	STANISLAUS	550,505	91.3	16.6	17.2	13.8	21.1
35	SACRAMENTO	1,520,685	277.7	18.3	17.2	15.2	19.3
36	PLUMAS	19,550	2.3	11.9 *	17.3 *	2.6	57.6
37	RIVERSIDE	2,392,511	426.0	17.8	17.5	15.8	19.2
38	NEVADA	98,554	17.7	17.9 *	17.8 *	10.5	28.3

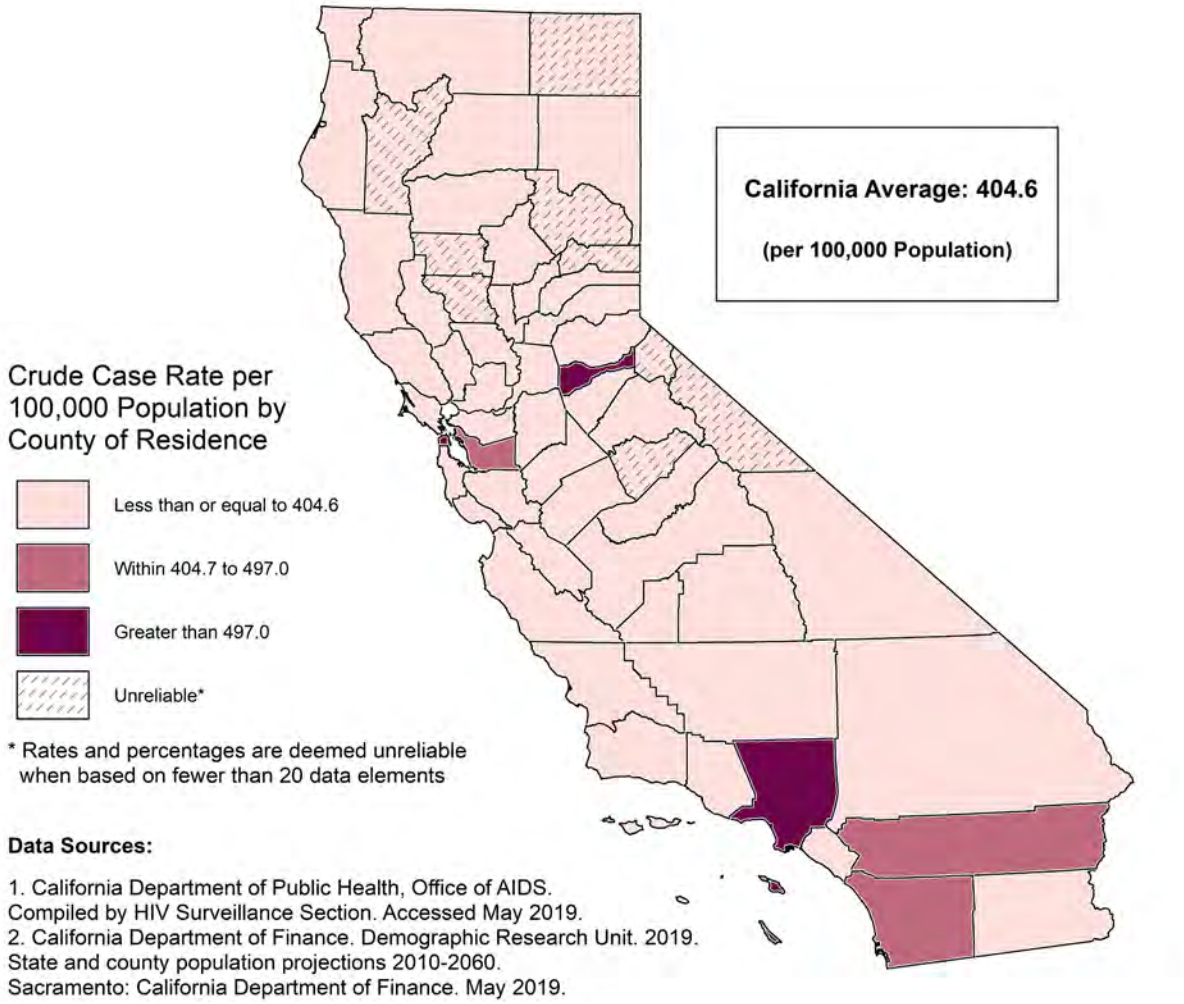
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	CALAVERAS	44,656	8.0	17.9 *	17.9 *	7.7	35.2
40	SAN JOAQUIN	749,810	134.0	17.9	17.9	14.8	21.0
41	MARIPOSA	17,992	3.0	16.7 *	19.4 *	4.0	56.6
42	EL DORADO	186,556	38.0	20.4	20.0	14.2	27.5
43	SAN FRANCISCO	880,955	209.3	23.8	20.3	17.5	23.1
44	MODOC	9,488	2.0	21.1 *	20.4 *	2.5	73.6
45	TRINITY	13,453	2.7	19.8 *	20.8 *	3.7	64.3
46	LASSEN	30,604	7.3	24.0 *	21.1 *	8.7	42.8
47	IMPERIAL	187,943	36.0	19.2	21.4	15.0	29.6
48	SHASTA	178,240	43.3	24.3	23.5	17.0	31.6
49	YUBA	76,767	17.3	22.6 *	23.9 *	14.0	38.1
50	DEL NORTE	26,811	6.0	22.4 *	23.9 *	8.8	52.1
51	TUOLUMNE	52,862	13.3	25.2 *	26.0 *	14.0	44.2
52	KERN	897,949	230.3	25.7	26.6	23.1	30.1
53	SISKIYOU	44,240	13.0	29.4 *	26.6 *	14.2	45.5
54	BUTTE	226,661	62.7	27.6	27.5	21.1	35.2
55	MENDOCINO	89,071	29.3	32.9	30.7	20.6	44.0
56	INYO	18,566	6.7	35.9 *	34.5 *	13.5	72.4
57	HUMBOLDT	135,865	51.3	37.8	37.2	27.7	48.8
58	LAKE	64,930	32.3	49.8	41.3	28.3	58.2

- Rates, percentages, and confidence limits are not calculated for zero events.
* Percentages 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: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
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, [2016-2018]. Compiled, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

REPORTED PREVALENCE OF PERSONS LIVING WITH HIV/AIDS AMONG AGES 13 YEARS AND OLDER, 2015-2017



The crude case rate of persons ages 13 years and older living with HIV/AIDS in California between 2015 and 2017 averaged 404.6 cases per 100,000 persons of corresponding age population[†]. This rate resulted from averaging the total number of cases of persons ages 13 years and older living with HIV/AIDS for 2015 to 2017 and dividing by the corresponding age population count. The total number of HIV/AIDS cases for the three years averaged 132,287.0 with the corresponding age population count of 32,696,844 as of July 1, 2016.

Among counties with reliable rates, the crude case rate ranged from a high of 1,740.4 in San Francisco County to a low of 86.7 in Tehama County, a factor of 20.1 to 1.

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

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

The California crude case rate of reported persons living with HIV/AIDS, ages 13 years and older, for the 2012-2014 period averaged 389.5 per 100,000 persons of the respective age population.

[†] CDPH has identified significant changes in the prevalence rate in Amador County. See technical notes for further detail.

TABLE 20
REPORTED PREVALENCE OF PERSONS LIVING WITH HIV/AIDS
AMONG AGES 13 YEARS AND OVER
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION AGED 13 AND OVER	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020: N/A					
1	GLENN	23,690	18.0	76.0 *	45.0	120.1
2	TEHAMA	53,427	46.3	86.7	63.6	115.6
3	SAN BENITO	49,385	43.3	87.7	63.6	118.1
4	TUOLUMNE	47,182	43.3	91.8	66.6	123.6
5	PLUMAS	17,349	16.0	92.2 *	52.7	149.8
6	LASSEN	26,747	25.3	94.7	61.5	139.5
7	PLACER	323,550	311.3	96.2	85.5	106.9
8	SUTTER	79,990	84.7	105.8	84.5	130.9
9	CALAVERAS	39,806	42.7	107.2	77.5	144.5
10	DEL NORTE	22,782	25.0	109.7	71.0	162.0
11	TULARE	363,175	412.7	113.6	102.7	124.6
12	EL DORADO	160,133	184.7	115.3	98.7	132.0
13	MARIPOSA	16,090	19.0	118.1 *	71.1	184.4
14	MERCED	215,340	254.3	118.1	103.6	132.6
15	NEVADA	87,245	109.7	125.7	102.2	149.2
16	INYO	15,833	20.3	128.4	78.8	197.6
17	BUTTE	192,787	256.7	133.1	116.8	149.4
18	YUBA	59,898	82.3	137.5	109.4	170.5
19	SHASTA	150,654	209.3	138.9	120.1	157.8
20	SISKIYOU	38,220	56.0	146.5	110.7	190.3
21	MADERA	124,859	184.7	147.9	126.6	169.2
22	KINGS	115,950	172.3	148.6	126.4	170.8
23	YOLO	181,752	273.3	150.4	132.6	168.2
24	VENTURA	712,371	1,073.7	150.7	141.7	159.7
25	SANTA BARBARA	374,478	587.7	156.9	144.2	169.6
26	TRINITY	11,892	18.7	157.0 *	94.0	246.1
27	STANISLAUS	439,618	712.0	162.0	150.1	173.9
28	SAN LUIS OBISPO	243,256	445.0	182.9	165.9	199.9
29	HUMBOLDT	115,936	228.3	196.9	171.4	222.5
30	MONTEREY	354,901	701.0	197.5	182.9	212.1
31	IMPERIAL	147,493	298.0	202.0	179.1	225.0
32	SANTA CLARA	1,609,290	3,455.7	214.7	207.6	221.9
33	NAPA	120,891	261.0	215.9	189.7	242.1
34	SANTA CRUZ	233,943	512.7	219.1	200.2	238.1
35	SAN JOAQUIN	597,058	1,340.3	224.5	212.5	236.5
36	KERN	702,086	1,622.3	231.1	219.8	242.3
37	SAN BERNARDINO	1,730,356	4,046.0	233.8	226.6	241.0
38	FRESNO	783,873	1,870.0	238.6	227.7	249.4
39	MENDOCINO	74,878	180.7	241.3	206.1	276.5

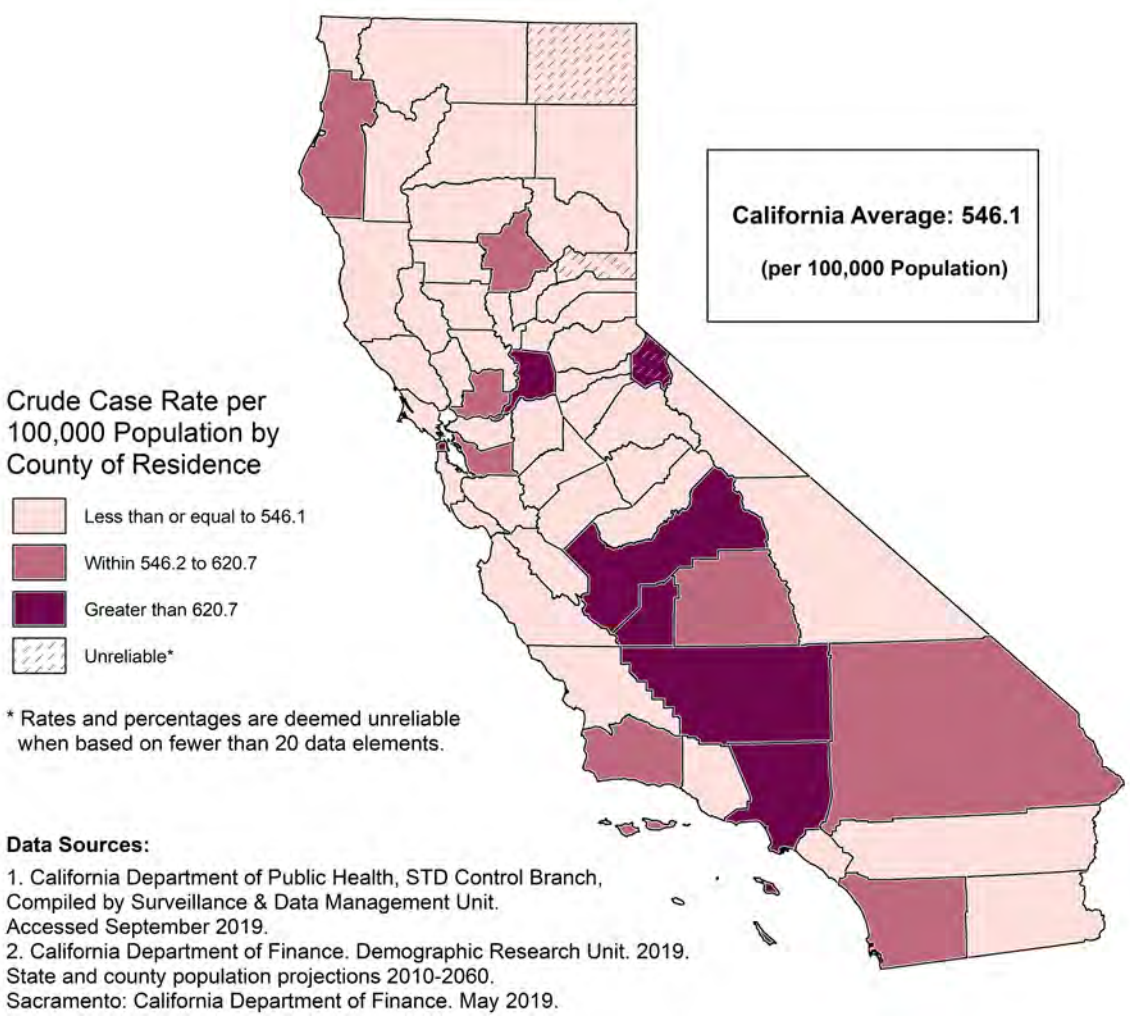
RANK ORDER	COUNTY OF RESIDENCE	2016 POPULATION AGED 13 AND OVER	2015-2017 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	SAN MATEO	647,137	1,583.7	244.7	232.7	256.8
41	LAKE	54,844	144.7	263.8	220.8	306.8
42	CONTRA COSTA	952,479	2,534.7	266.1	255.8	276.5
43	ORANGE	2,666,419	7,208.3	270.3	264.1	276.6
44	SONOMA	433,686	1,449.7	334.3	317.1	351.5
45	SACRAMENTO	1,244,582	4,229.0	339.8	329.6	350.0
46	SOLANO	363,841	1,310.3	360.1	340.6	379.6
47	MARIN	225,721	837.3	371.0	345.8	396.1
	ALPINE	1,021	<11.0	NA *	7.2	601.3
	COLUSA	18,071	<11.0	NA *	16.7	82.3
	MODOC	8,220	<11.0	NA *	1.8	81.4
	MONO	11,718	<11.0	NA *	22.2	119.2
	SIERRA	2,832	<11.0	NA *	57.3	412.0
	CALIFORNIA	**32,696,844**	**132,287.0**	**404.6**	**402.4**	**406.8**
48	RIVERSIDE	1,937,838	7,986.3	412.1	403.1	421.2
49	ALAMEDA	1,384,797	6,317.0	456.2	444.9	467.4
50	SAN DIEGO	2,720,669	13,507.3	496.5	488.1	504.8
51	AMADOR	33,029	164.3	497.5	421.5	573.6
52	LOS ANGELES	8,556,767	51,259.7	599.1	593.9	604.2
53	SAN FRANCISCO	775,009	13,488.3	1,740.4	1,711.0	1,769.8

* 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.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
Counties were rank ordered by increasing case rate (calculated to 15 decimal places), second by decreasing size of the population. 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, May 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

REPORTED INCIDENCE OF CHLAMYDIA, 2016-2018



The crude case rate of reported incidence of chlamydia for California averaged 546.1 cases per 100,000 population. The crude case rate for California resulted from averaging the number of new chlamydia cases for 2016 to 2018 and dividing by the 2017 population count. The total number of chlamydia cases for the three years averaged 216,315.0 with a population count of 39,610,556 as of July 1, 2017.

Among counties with reliable rates, the crude case rate of reported incidence of chlamydia ranged from a high of 1,015.1 in San Francisco County to a low of 156.1 in Trinity County, a factor of 6.5 to 1.

Incidence data are 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 identified at a family planning clinic, and males and females under 24 years old who participate in a national job training program.

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

The California crude case rate of reported incidence of chlamydia for the 2013-2015 period averaged 457.4 per 100,000 population.

TABLE 21
REPORTED INCIDENCE OF CHLAMYDIA
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020: STD-1 N/A					
1	TRINITY	13,453	21.0	156.1	96.6	238.6
2	MARIPOSA	17,992	32.0	177.9	121.7	251.1
3	MODOC	9,488	18.3	193.2 *	115.1	304.1
4	MONO	13,846	27.0	195.0	128.5	283.7
5	AMADOR	37,405	74.7	199.6	156.9	250.3
6	CALAVERAS	44,656	93.3	209.0	168.8	256.0
7	NEVADA	98,554	226.7	230.0	200.1	259.9
8	EL DORADO	186,556	447.3	239.8	217.6	262.0
9	SISKIYOU	44,240	112.7	254.7	207.6	301.7
10	COLUSA	22,632	58.3	257.7	195.9	333.0
11	PLACER	382,977	1,035.7	270.4	254.0	286.9
12	TUOLUMNE	52,862	145.7	275.6	230.8	320.3
13	LASSEN	30,604	95.7	312.6	253.1	381.9
14	DEL NORTE	26,811	84.0	313.3	249.9	387.9
15	MARIN	262,092	826.3	315.3	293.8	336.8
16	PLUMAS	19,550	62.7	320.5	246.1	410.4
17	VENTURA	854,987	2,821.3	330.0	317.8	342.2
18	INYO	18,566	62.3	335.7	257.6	430.1
19	TEHAMA	64,407	221.0	343.1	297.9	388.4
20	SHASTA	178,240	626.0	351.2	323.7	378.7
21	SUTTER	98,342	346.3	352.2	315.1	389.3
22	SAN BENITO	60,291	217.0	359.9	312.0	407.8
23	SAN MATEO	771,902	2,851.0	369.3	355.8	382.9
24	NAPA	141,205	524.7	371.6	339.8	403.4
25	GLENN	29,205	113.0	386.9	315.6	458.3
26	SANTA CLARA	1,945,911	7,659.7	393.6	384.8	402.4
27	YUBA	76,767	305.3	397.7	353.1	442.4
28	SANTA CRUZ	275,859	1,116.3	404.7	380.9	428.4
29	SONOMA	503,634	2,069.0	410.8	393.1	428.5
30	MENDOCINO	89,071	375.7	421.8	379.1	464.4
31	ORANGE	3,205,855	13,739.3	428.6	421.4	435.7
32	SAN LUIS OBISPO	278,680	1,201.7	431.2	406.8	455.6
33	RIVERSIDE	2,392,511	10,407.7	435.0	426.7	443.4
34	LAKE	64,930	292.0	449.7	398.1	501.3
35	MONTEREY	442,196	2,062.7	466.5	446.3	486.6
36	MERCED	276,611	1,297.3	469.0	443.5	494.5
37	YOLO	219,758	1,037.0	471.9	443.2	500.6
38	STANISLAUS	550,505	2,613.0	474.7	456.5	492.9
39	CONTRA COSTA	1,138,201	5,693.3	500.2	487.2	513.2

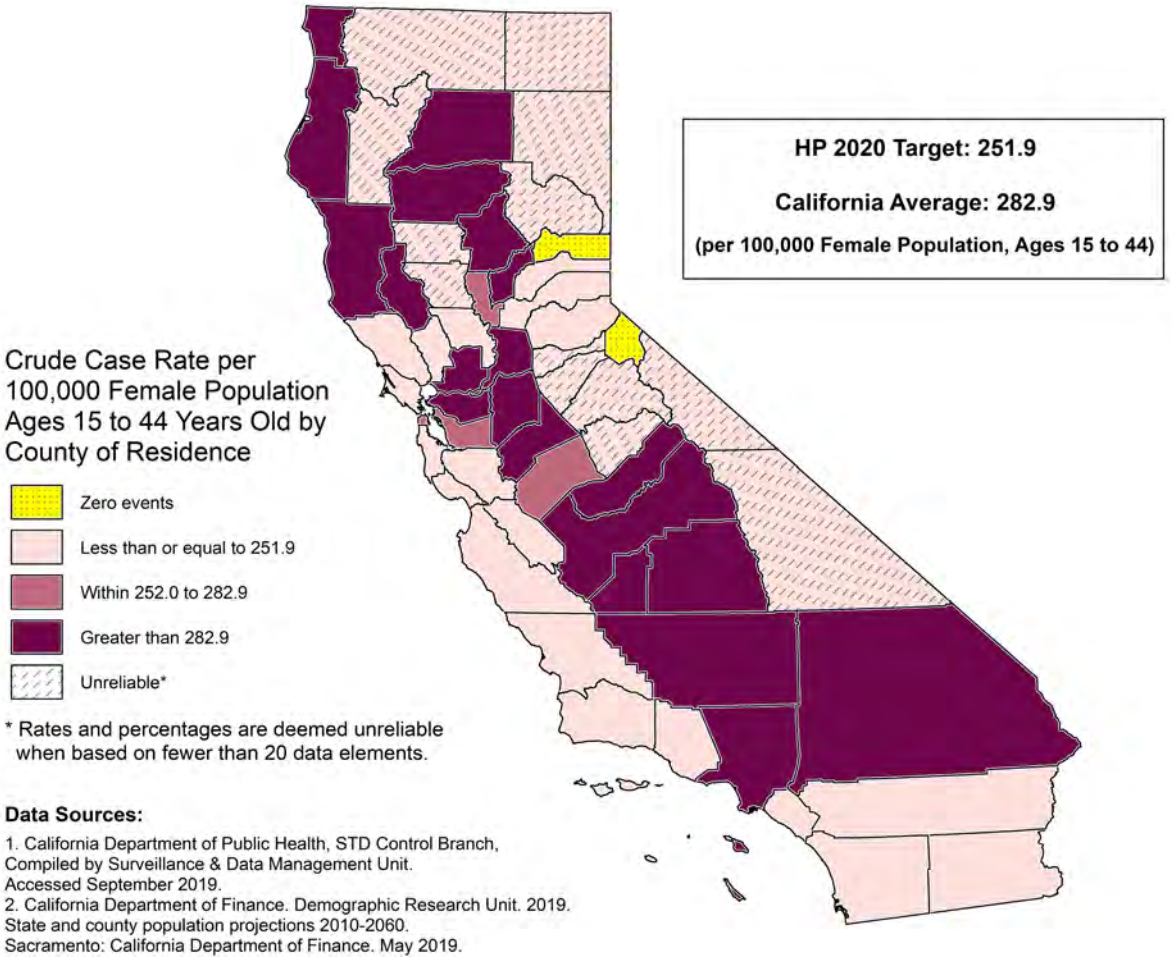
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	IMPERIAL	187,943	970.7	516.5	484.0	549.0
41	MADERA	156,915	834.7	531.9	495.8	568.0
42	SAN JOAQUIN	749,810	4,044.3	539.4	522.8	556.0
	SIERRA	3,149	<11.0	NA *	63.7	400.1
	CALIFORNIA	**39,610,556**	**216,315.0**	**546.1**	**543.8**	**548.4**
43	ALAMEDA	1,651,319	9,023.7	546.5	535.2	557.7
44	TULARE	472,416	2,600.0	550.4	529.2	571.5
45	SANTA BARBARA	450,138	2,482.7	551.5	529.8	573.2
46	HUMBOLDT	135,865	751.0	552.8	513.2	592.3
47	BUTTE	226,661	1,272.7	561.5	530.6	592.3
48	SAN BERNARDINO	2,163,561	12,682.0	586.2	576.0	596.4
49	SOLANO	437,434	2,705.0	618.4	595.1	641.7
50	SAN DIEGO	3,320,387	20,608.0	620.7	612.2	629.1
51	LOS ANGELES	10,261,736	63,827.3	622.0	617.2	626.8
52	KINGS	150,992	942.0	623.9	584.0	663.7
53	SACRAMENTO	1,520,685	9,970.0	655.6	642.8	668.5
54	FRESNO	1,000,143	6,917.3	691.6	675.3	707.9
55	KERN	897,949	6,712.7	747.6	729.7	765.4
56	SAN FRANCISCO	880,955	8,943.0	1,015.1	994.1	1,036.2
	ALPINE	1,146	<11.0	NA *	320.4	1,414.1

* 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.
Note: HPO refers to the Healthy People National Objective.
Not Applicable (N/A) refers to the Healthy People 2020 National Objectives only.
Counties were rank ordered by increasing case rate (calculated to 15 decimal places), second by decreasing size of the population. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources:

1. California Department of Public Health, STD Control Branch. Data Requested, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

REPORTED INCIDENCE OF GONORRHEA AMONG FEMALES 15 TO 44 YEARS OLD, 2016-2018



The crude case rate of reported incidence of gonorrhea among females (FG-Cases), ages 15 to 44 years old for California averaged 282.9 cases per 100,000 female population in the corresponding age group. The crude case rate for California resulted from averaging the number of reported new cases of FG-Cases for 2016 to 2018 and dividing by the 2017 population count. The total number of gonorrhea cases for the three years averaged 22,369.7 with the corresponding female population count of 7,905,915 as of July 1, 2017.

Among counties with reliable rates, the crude case rate ranged from a high of 872.5 in Lake County to a low of 105.7 in San Mateo County, a factor of 8.3 to 1.

Nineteen counties with reliable crude case rates 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 thirteen counties with unreliable rates and two counties with zero recorded incidences of FG-Cases met the objective. California's crude case rate for the FG-Cases did not meet the national objective.

Eleven counties contain suppressed data for the three-year average case count and crude case rate per the Data De-Identification Guidelines (DDG). See technical notes for more information regarding DDG.

The California crude case rate of reported incidence of FG-Cases for the 2013-2015 period averaged 191.4 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 FEMALE POPULATION 15 TO 44 YRS OLD	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	SIERRA	386	0.0	-	-	-
2	ALPINE	174	0.0	-	-	-
3	SAN MATEO	139,331	147.3	105.7	88.7	122.8
4	EL DORADO	30,745	42.0	136.6	98.5	184.7
5	MARIN	37,887	52.0	137.3	102.5	180.0
6	PLACER	69,490	106.0	152.5	123.5	181.6
7	SANTA CLARA	376,976	583.7	154.8	142.3	167.4
8	SAN LUIS OBISPO	49,465	78.7	159.0	125.8	198.3
9	VENTURA	161,550	259.0	160.3	140.8	179.8
10	NAPA	25,746	41.3	160.5	115.4	217.5
11	YOLO	53,459	88.7	165.9	133.1	204.2
12	MONTEREY	85,302	143.7	168.4	140.9	196.0
13	NEVADA	14,840	25.0	168.5	109.0	248.7
14	ORANGE	623,294	1,061.3	170.3	160.0	180.5
15	SANTA BARBARA	93,398	160.0	171.3	144.8	197.9
16	SAN BENITO	12,380	21.7	175.0	109.2	265.8
17	SISKIYOU	6,708	12.3	183.9 *	96.0	318.8
18	SONOMA	89,657	165.0	184.0	156.0	212.1
19	SANTA CRUZ	54,024	100.0	185.1	148.8	221.4
20	TUOLUMNE	7,188	15.7	218.0 *	123.7	355.7
21	RIVERSIDE	477,697	1,144.0	239.5	225.6	253.4
22	SAN DIEGO	651,666	1,593.0	244.5	232.4	256.5
23	IMPERIAL	35,745	90.0	251.8	202.5	309.5
	AMADOR	4,626	<11.0	M *	70.0	331.1
	CALAVERAS	6,122	<11.0	M *	82.1	307.5
	COLUSA	4,286	<11.0	M *	42.3	283.1
	GLENN	5,545	<11.0	M *	66.2	292.3
	INYO	2,653	<11.0	M *	54.3	422.1
	LASSEN	3,322	<11.0	M *	43.3	337.1
	MARIPOSA	2,506	<11.0	M *	36.9	389.3
	MODOC	1,449	<11.0	M *	33.2	570.2
	MONO	2,444	<11.0	M *	3.0	251.2
	PLUMAS	2,772	<11.0	M *	22.3	316.3
	TRINITY	1,885	<11.0	M *	66.9	568.8
	HPO 2020: STD-6.1			**251.9**		
24	SAN FRANCISCO	197,876	523.3	264.5	241.8	287.1
25	ALAMEDA	348,258	924.3	265.4	248.3	282.5
26	SUTTER	19,363	51.7	266.8	199.1	350.2
27	MERCED	58,699	161.0	274.3	231.9	316.6
	CALIFORNIA	**7,905,915**	**22,369.7**	**282.9**	**279.2**	**286.7**

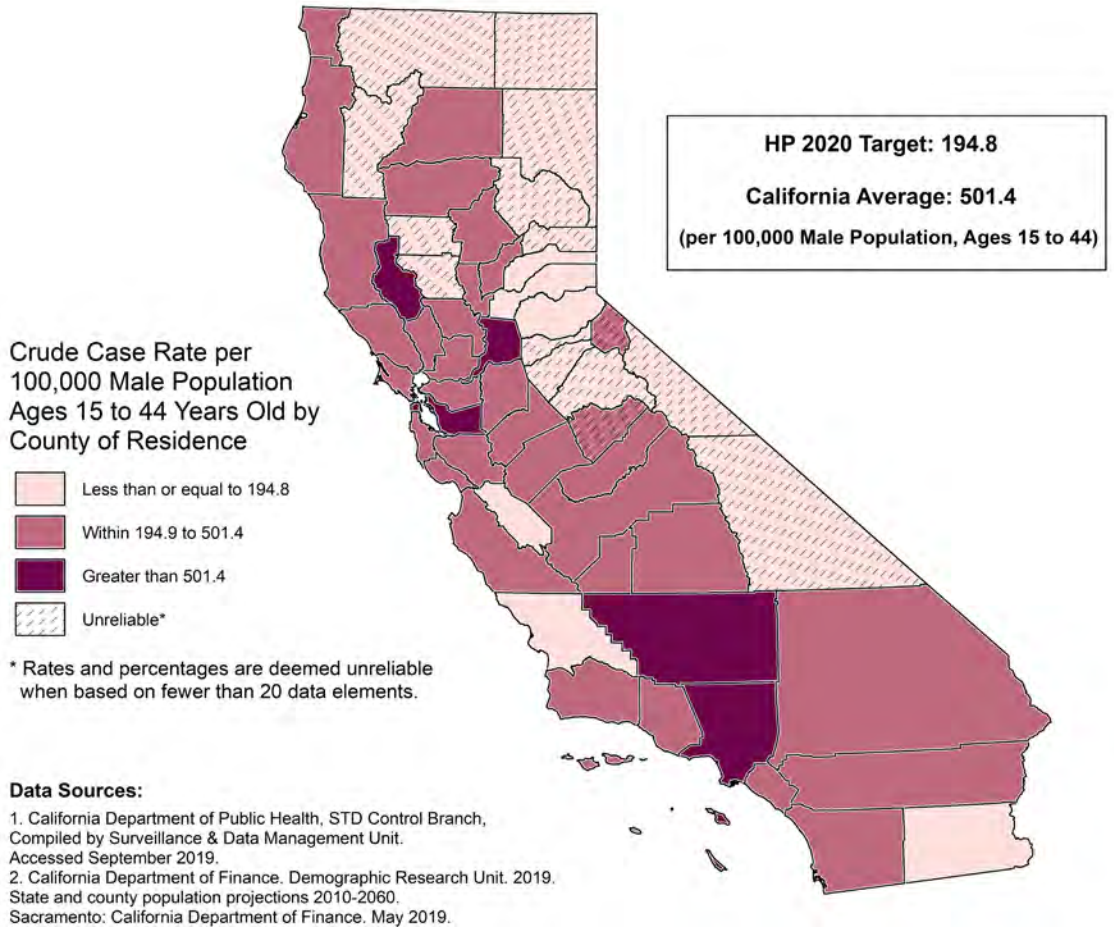
RANK ORDER	COUNTY OF RESIDENCE	2017 FEMALE POPULATION 15 TO 44 YRS OLD	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
28	STANISLAUS	112,971	323.7	286.5	255.3	317.7
29	CONTRA COSTA	212,999	662.0	310.8	287.1	334.5
30	LOS ANGELES	2,114,167	6,794.7	321.4	313.7	329.0
31	TULARE	96,648	315.3	326.3	290.3	362.3
32	BUTTE	46,162	151.0	327.1	274.9	379.3
33	HUMBOLDT	26,674	92.0	344.9	278.0	423.0
34	MADERA	33,928	122.0	359.6	295.8	423.4
35	SAN BERNARDINO	451,251	1,647.3	365.1	347.4	382.7
36	SAN JOAQUIN	150,952	553.7	366.8	336.2	397.3
37	YUBA	15,258	57.0	373.6	282.9	484.0
38	KINGS	28,880	108.7	376.3	305.5	447.0
39	TEHAMA	11,291	43.0	380.8	275.6	513.0
40	SHASTA	31,356	123.3	393.3	323.9	462.8
41	SACRAMENTO	311,625	1,296.0	415.9	393.2	438.5
42	SOLANO	83,081	349.7	420.9	376.8	465.0
43	MENDOCINO	14,926	65.0	435.5	336.1	555.1
44	KERN	181,893	859.7	472.6	441.0	504.2
45	FRESNO	208,630	1,041.0	499.0	468.7	529.3
46	DEL NORTE	4,108	29.0	705.9	472.8	1,013.8
47	LAKE	10,201	89.0	872.5	700.7	1,073.6

- Rates, percentages, and confidence limits are not calculated for zero events.
* 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) refers to the Healthy People 2020 National Objectives only.
Note: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing case rate (calculated to 15 decimal places), second by decreasing size of the population. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources:

1. California Department of Public Health, STD Control Branch. Data Requested, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

REPORTED INCIDENCE OF GONORRHEA AMONG MALES 15 TO 44 YEARS OLD, 2016-2018



The crude case rate of reported incidence of gonorrhea among males (MG-Cases), ages 15 to 44 years old for California averaged 501.4 cases per 100,000 male population in the corresponding age group. The crude case rate for California resulted from averaging the number of reported new cases of MG-Cases for 2016 to 2018 and dividing by the 2017 population count. The total number of MG-Cases for the three years averaged 41,733.3 with the corresponding male population count of 8,322,901 as of July 1, 2017.

Among counties with reliable rates, the crude case rate ranged from a high of 1,960.2 in San Francisco County to a low of 135.2 in El Dorado County, a factor of 14.5 to 1.

Six 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 thirteen counties with unreliable rates met the objective. California's crude case rate for the reported incidences of MG-Cases did not meet the national objective.

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

The California crude case rate of reported incidence of MG-Cases for the 2013-2015 period averaged 306.2 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 MALE POPULATION 15 TO 44 YRS OLD	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	EL DORADO	33,295	45.0	135.2	98.6	180.8
2	TUOLUMNE	9,733	15.3	157.5 *	88.8	258.5
3	SISKIYOU	7,321	11.7	159.4 *	81.4	280.5
4	CALAVERAS	6,693	11.3	169.3 *	85.6	300.5
5	NEVADA	16,312	28.0	171.7	114.1	248.1
6	IMPERIAL	42,111	74.3	176.5	138.7	221.5
7	PLACER	72,658	129.0	177.5	146.9	208.2
8	SAN LUIS OBISPO	59,498	106.7	179.3	145.3	213.3
9	SAN BENITO	12,842	24.7	192.1	123.9	284.3
	AMADOR	7,014	<11.0	M *	40.1	205.6
	COLUSA	4,705	<11.0	M *	73.4	335.0
	GLENN	5,953	<11.0	M *	40.4	227.1
	INYO	2,963	<11.0	M *	42.6	361.9
	LASSEN	9,373	<11.0	M *	32.3	158.7
	MODOC	1,574	<11.0	M *	30.5	524.9
	MONO	2,903	<11.0	M *	8.3	248.9
	PLUMAS	2,963	<11.0	M *	61.2	409.6
	SIERRA	425	<11.0	M *	0.8	1171.9
	TRINITY	2,032	<11.0	M *	30.4	431.5
	HPO 2020: STD-6.2			**194.8**		
10	VENTURA	171,257	344.0	200.9	179.6	222.1
11	NAPA	27,871	57.3	205.7	155.9	266.3
12	SANTA BARBARA	103,161	213.7	207.1	179.3	234.9
13	MONTEREY	98,383	216.0	219.6	190.3	248.8
14	MARIN	42,088	103.3	245.5	198.2	292.9
15	SANTA CRUZ	57,199	148.7	259.9	218.1	301.7
16	MADERA	31,802	85.7	269.4	215.4	332.8
17	YOLO	52,170	144.3	276.7	231.5	321.8
18	SUTTER	20,168	58.0	287.6	218.4	371.8
19	SONOMA	95,991	282.3	294.1	259.8	328.4
20	TEHAMA	12,088	36.3	300.6	210.9	415.5
21	MERCED	62,821	200.3	318.9	274.7	363.1
22	SANTA CLARA	406,660	1,304.3	320.7	303.3	338.1
23	KINGS	39,264	126.7	322.6	266.4	378.8
24	STANISLAUS	116,910	378.0	323.3	290.7	355.9
25	ORANGE	650,558	2,105.3	323.6	309.8	337.4
26	BUTTE	50,762	166.3	327.7	277.9	377.5
27	SAN MATEO	145,297	477.0	328.3	298.8	357.8
28	TULARE	101,339	333.3	328.9	293.6	364.2
29	RIVERSIDE	493,559	1,658.0	335.9	319.8	352.1

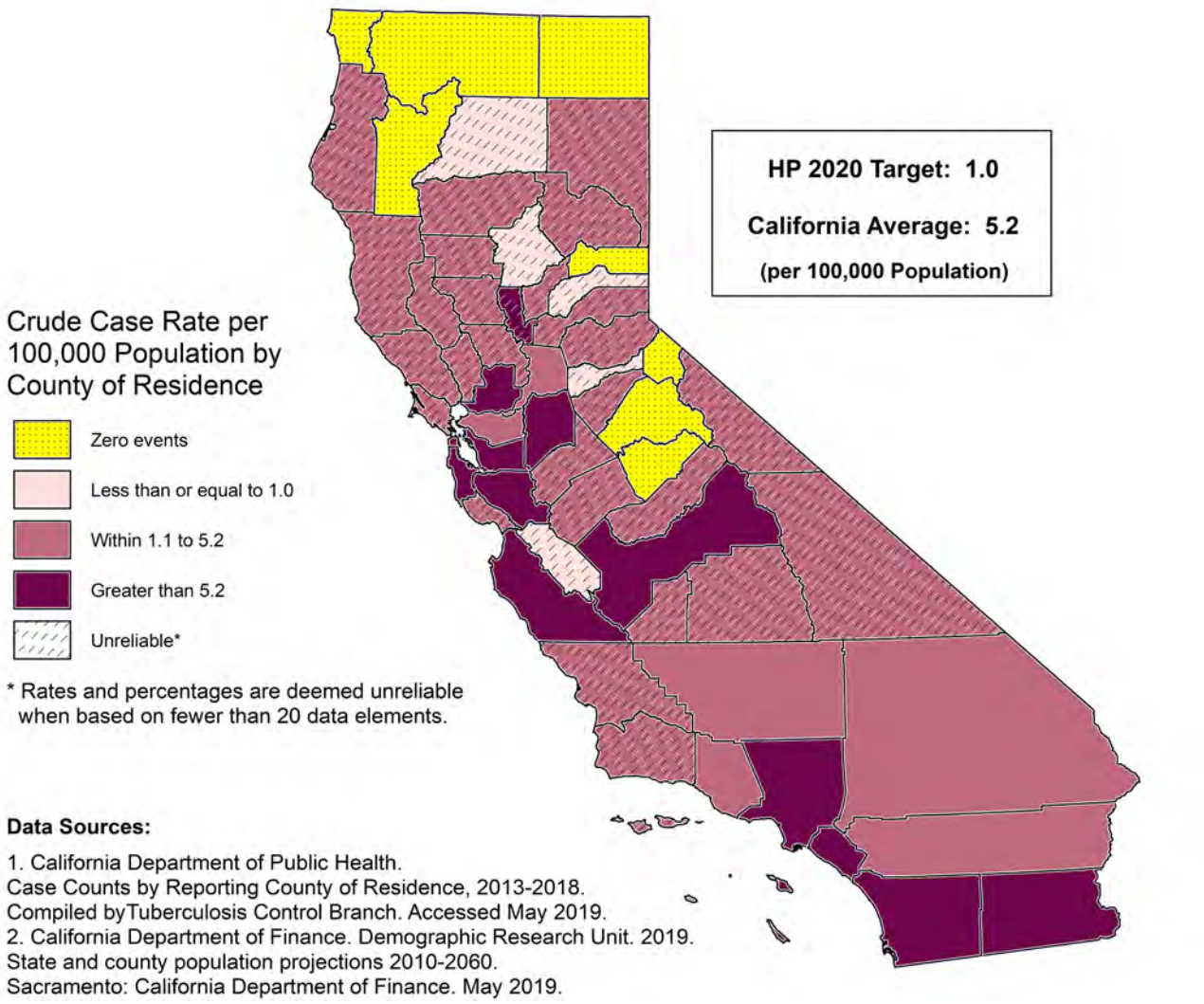
RANK ORDER	COUNTY OF RESIDENCE	2017 MALE POPULATION 15 TO 44 YRS OLD	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
30	DEL NORTE	6,137	21.7	353.0	220.4	536.2
31	SHASTA	32,937	116.7	354.2	289.9	418.5
32	MENDOCINO	16,400	63.0	384.1	295.2	491.5
33	SAN BERNARDINO	467,176	1,816.3	388.8	370.9	406.7
34	SAN JOAQUIN	158,732	617.3	388.9	358.2	419.6
35	YUBA	16,073	63.7	396.1	304.8	506.1
36	CONTRA COSTA	215,939	920.3	426.2	398.7	453.7
37	HUMBOLDT	28,884	124.3	430.5	354.8	506.1
38	FRESNO	219,494	946.7	431.3	403.8	458.8
39	SOLANO	88,825	404.3	455.2	410.8	499.6
40	SAN DIEGO	717,508	3,338.7	465.3	449.5	481.1
	CALIFORNIA	**8,322,901**	**41,733.3**	**501.4**	**496.6**	**506.2**
41	SACRAMENTO	318,849	1,630.3	511.3	486.5	536.1
42	KERN	208,864	1,110.3	531.6	500.3	562.9
43	ALAMEDA	348,140	2,088.3	599.9	574.1	625.6
44	LOS ANGELES	2,183,316	15,496.7	709.8	698.6	721.0
45	LAKE	11,225	80.3	715.7	567.8	890.3
46	SAN FRANCISCO	201,814	3,956.0	1960.2	1899.1	2021.3
	ALPINE	167	<11.0	NM *	<0.1	2609.7
	MARIPOSA	2,705	<11.0	NM *	88.8	499.7

* 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 NM (NM) refer to the Healthy People 2020 National Objectives only.
Note: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing case rate (calculated to 15 decimal places), second by decreasing size of the population. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources:

1. California Department of Public Health, STD Control Branch. Data Requested, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

REPORTED INCIDENCE OF TUBERCULOSIS, 2016-2018



The crude case rate of reported incidence of tuberculosis for California averaged 5.2 cases per 100,000 population. The crude case rate for California resulted from averaging the reported number of new cases of tuberculosis for 2016 to 2018 and dividing by the 2017 population count. The total number of new cases of tuberculosis for the three years averaged 2,069.3 with a population count of 39,610,556 as of July 1, 2017. Among counties with reliable rates, the crude case rate of reported incidence of tuberculosis ranged from a high of 24.8 in Imperial County to a low of 2.5 in both Riverside and Kern Counties, a factor of 10.1 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 populations. Five counties 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 2013 to 2015 averaged 5.5 per 100,000 population.

TABLE 23
REPORTED INCIDENCE OF TUBERCULOSIS
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	TUOLUMNE	52,862	0.0	-	-	-
2	SISKIYOU	44,240	0.0	-	-	-
3	DEL NORTE	26,811	0.0	-	-	-
4	MARIPOSA	17,992	0.0	-	-	-
5	TRINITY	13,453	0.0	-	-	-
6	MODOC	9,488	0.0	-	-	-
7	SIERRA	3,149	0.0	-	-	-
8	ALPINE	1,146	0.0	-	-	-
9	SAN BENITO	60,291	0.3	0.6 *	<0.1	7.2
10	SHASTA	178,240	1.0	0.6 *	<0.1	3.1
11	AMADOR	37,405	0.3	0.9 *	<0.1	11.7
12	NEVADA	98,554	1.0	1.0 *	<0.1	5.7
13	BUTTE	226,661	2.3	1.0 *	0.2	3.4
	HPO 2020: IID-29			**1.0**		
14	SAN LUIS OBISPO	278,680	3.0	1.1 *	0.2	3.1
15	GLENN	29,205	0.3	1.1 *	<0.1	14.9
16	EL DORADO	186,556	2.3	1.3 *	0.2	4.2
17	TEHAMA	64,407	1.0	1.6 *	<0.1	8.7
18	PLUMAS	19,550	0.3	1.7 *	<0.1	22.3
19	KINGS	150,992	2.7	1.8 *	0.3	5.5
20	INYO	18,566	0.3	1.8 *	<0.1	23.5
21	MENDOCINO	89,071	1.7	1.9 *	0.2	7.5
22	PLACER	382,977	7.3	1.9 *	0.8	3.9
23	HUMBOLDT	135,865	2.7	2.0 *	0.4	6.1
24	SONOMA	503,634	10.0	2.0 *	1.0	3.7
25	SANTA CRUZ	275,859	5.7	2.1 *	0.7	4.6
26	MARIN	262,092	5.7	2.2 *	0.8	4.8
27	STANISLAUS	550,505	12.7	2.3 *	1.2	4.0
28	MADERA	156,915	3.7	2.3 *	0.6	6.2
29	MONO	13,846	0.3	2.4 *	<0.1	31.5
30	KERN	897,949	22.0	2.5	1.5	3.7
31	RIVERSIDE	2,392,511	58.7	2.5	1.9	3.2
32	YUBA	76,767	2.0	2.6 *	0.3	9.4
33	SAN BERNARDINO	2,163,561	59.0	2.7	2.1	3.5
34	MERCED	276,611	7.7	2.8 *	1.2	5.5
35	NAPA	141,205	4.0	2.8 *	0.8	7.3
36	YOLO	219,758	6.3	2.9 *	1.1	6.2
37	COLUSA	22,632	0.7	2.9 *	<0.1	22.0
38	SANTA BARBARA	450,138	14.3	3.2 *	1.8	5.3
39	LASSEN	30,604	1.0	3.3 *	<0.1	18.2

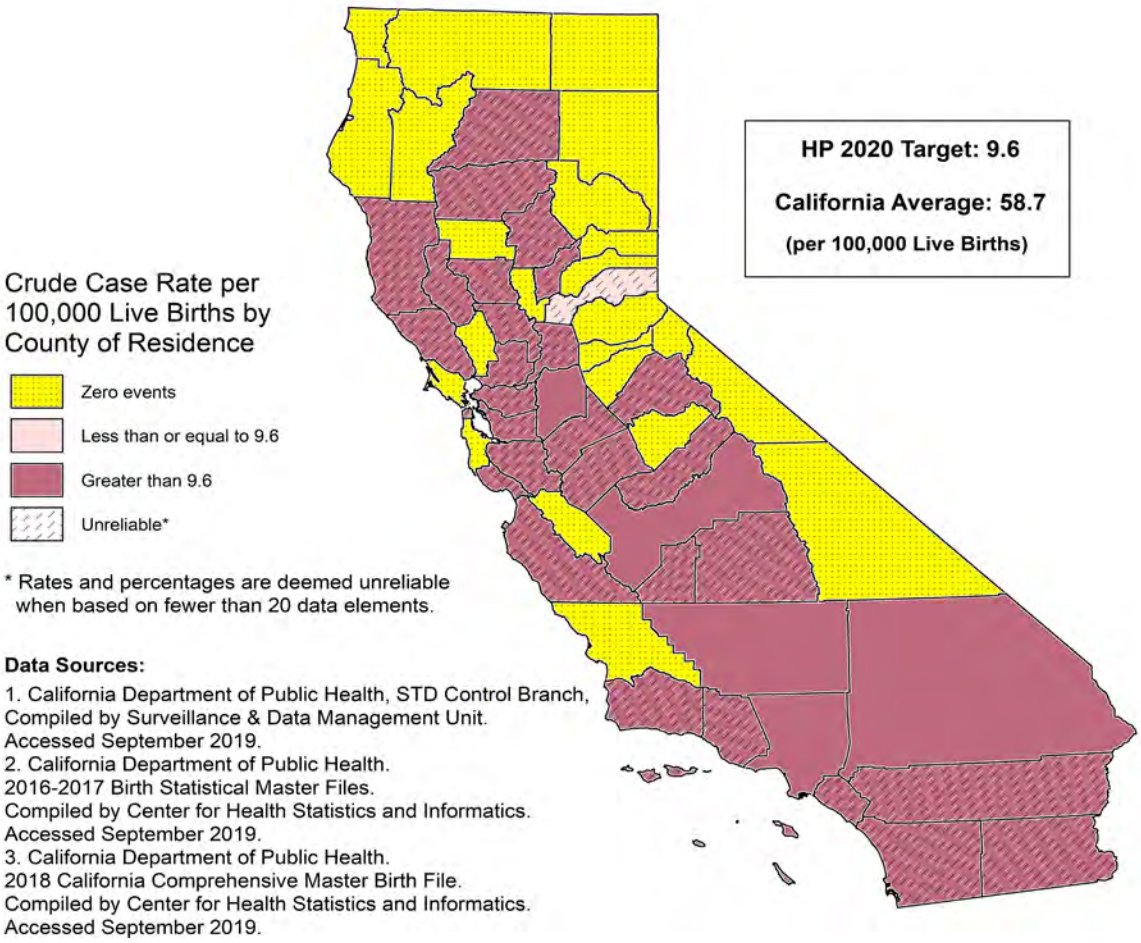
RANK ORDER	COUNTY OF RESIDENCE	2017 POPULATION	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
40	VENTURA	854,987	29.0	3.4	2.3	4.9
41	LAKE	64,930	2.3	3.6 *	0.5	11.9
42	TULARE	472,416	17.3	3.7 *	2.2	5.8
43	SACRAMENTO	1,520,685	62.7	4.1	3.2	5.3
44	CONTRA COSTA	1,138,201	53.7	4.7	3.5	6.2
45	CALAVERAS	44,656	2.3	5.2 *	0.8	17.4
	CALIFORNIA	**39,610,556**	**2,069.3**	**5.2**	**5.0**	**5.4**
46	SUTTER	98,342	5.3	5.4 *	1.8	12.3
47	LOS ANGELES	10,261,736	563.0	5.5	5.0	5.9
48	MONTEREY	442,196	24.3	5.5	3.5	8.2
49	ORANGE	3,205,855	177.7	5.5	4.7	6.4
50	FRESNO	1,000,143	56.0	5.6	4.2	7.3
51	SAN JOAQUIN	749,810	44.3	5.9	4.3	7.9
52	SOLANO	437,434	26.3	6.0	3.9	8.8
53	SAN MATEO	771,902	55.7	7.2	5.4	9.4
54	SAN DIEGO	3,320,387	240.3	7.2	6.3	8.2
55	ALAMEDA	1,651,319	142.3	8.6	7.2	10.0
56	SANTA CLARA	1,945,911	171.7	8.8	7.5	10.1
57	SAN FRANCISCO	880,955	108.0	12.3	9.9	14.6
58	IMPERIAL	187,943	46.7	24.8	18.2	33.1

- 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: HPO refers to the Healthy People National Objective.
Counties were rank ordered 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, May 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

REPORTED INCIDENCE OF CONGENITAL SYPHILIS, 2016-2018



The crude case rate of reported incidence of congenital syphilis for California averaged 58.7 cases per 100,000 live births. The crude case rate for California is derived from averaging the number of new congenital syphilis cases, 277.0, and dividing by the average number of live births, 471,657, for years 2016 to 2018.

Among counties with reliable rates, the crude case rate ranged from a high of 344.7 in Fresno County to a low of 42.3 in Los Angeles County, a factor of 8.2 to 1.

Zero counties with reliable crude case rates met the Healthy People 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 Healthy People 2020 National Objective. One county with an unreliable rate and twenty-three counties with zero reported incidences of congenital syphilis met the objective.

Twenty-eight counties contain suppressed data for the three-year average case count and crude case rate per the Data De-Identification Guidelines (DDG). See technical notes for more information regarding DDG.

The California crude case rate of congenital syphilis for the 2013-2015 period averaged 20.8 per 100,000 live births.

TABLE 23C
REPORTED INCIDENCE OF CONGENITAL SYPHILIS
RANKED BY THREE-YEAR AVERAGE CRUDE CASE RATE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2016-2018 LIVE BIRTHS (AVERAGE)	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	SAN MATEO	8,624.7	0.0	-	-	-
2	SAN LUIS OBISPO	2,522.0	0.0	-	-	-
3	MARIN	2,206.3	0.0	-	-	-
4	EL DORADO	1,614.7	0.0	-	-	-
5	HUMBOLDT	1,409.0	0.0	-	-	-
6	NAPA	1,300.0	0.0	-	-	-
7	SUTTER	1,299.3	0.0	-	-	-
8	NEVADA	783.7	0.0	-	-	-
9	SAN BENITO	762.0	0.0	-	-	-
10	SISKIYOU	448.0	0.0	-	-	-
11	CALAVERAS	390.3	0.0	-	-	-
12	GLENN	373.7	0.0	-	-	-
13	LASSEN	305.7	0.0	-	-	-
14	AMADOR	305.0	0.0	-	-	-
15	DEL NORTE	287.3	0.0	-	-	-
16	INYO	188.7	0.0	-	-	-
17	PLUMAS	168.7	0.0	-	-	-
18	MARIPOSA	148.3	0.0	-	-	-
19	MONO	136.7	0.0	-	-	-
20	TRINITY	115.7	0.0	-	-	-
21	MODOC	96.7	0.0	-	-	-
22	SIERRA	28.7	0.0	-	-	-
23	ALPINE	7.7	0.0	-	-	-
	PLACER	3,693.7	<11.0	M *	<0.1	118.0
	HPO 2020: STD-8			**9.6**		
24	SAN DIEGO	41,328.7	12.0	29.0 *	15.0	50.7
25	LOS ANGELES	116,655.3	49.3	42.3	31.3	55.9
	CALIFORNIA	**471,656.7**	**277.0**	**58.7**	**51.8**	**65.6**
26	SAN BERNARDINO	29,927.0	28.0	93.6	62.2	135.2
27	STANISLAUS	7,550.0	11.3	150.1 *	75.8	266.4
28	SAN JOAQUIN	10,004.0	20.0	199.9	122.1	308.8
29	KERN	13,314.7	38.7	290.4	206.2	397.5
30	FRESNO	14,697.7	50.7	344.7	256.4	453.7
	ALAMEDA	18,900.0	<11.0	NM *	4.9	51.6
	BUTTE	2,433.0	<11.0	NM *	19.7	339.6
	COLUSA	292.0	<11.0	NM *	<0.1	1492.6
	CONTRA COSTA	12,171.0	<11.0	NM *	2.9	63.7
	IMPERIAL	2,845.7	<11.0	NM *	2.6	215.7
	KINGS	2,293.3	<11.0	NM *	15.4	337.9
	LAKE	738.3	<11.0	NM *	<0.1	590.3

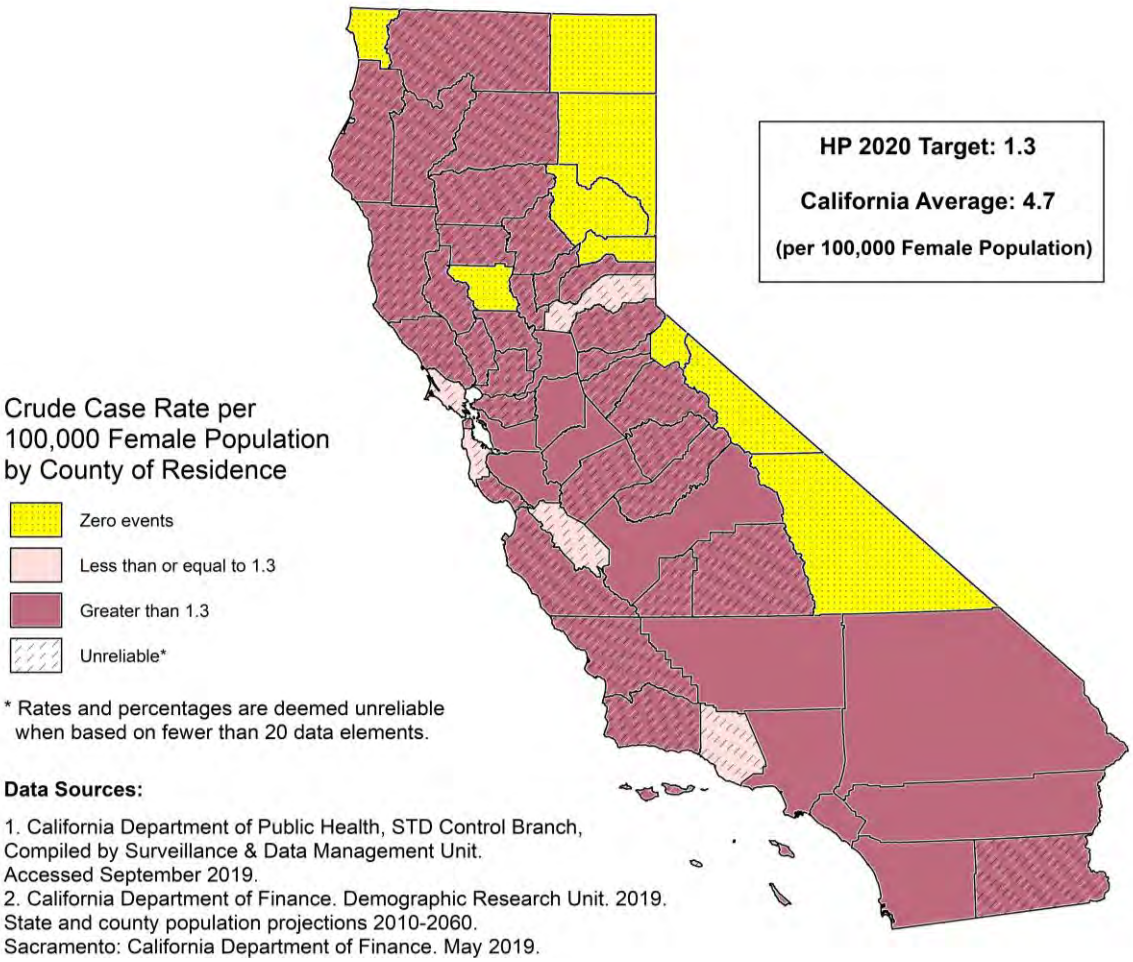
RANK ORDER	COUNTY OF RESIDENCE	2016-2018 LIVE BIRTHS (AVERAGE)	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	MADERA	2,183.3	<11.0	NM *	49.9	469.1
	MENDOCINO	971.3	<11.0	NM *	<0.1	448.7
	MERCED	4,063.3	<11.0	NM *	3.6	164.6
	MONTEREY	5,975.0	<11.0	NM *	<0.1	83.4
	ORANGE	37,054.3	<11.0	NM *	11.1	46.1
	RIVERSIDE	29,747.3	<11.0	NM *	12.3	54.5
	SACRAMENTO	19,286.3	<11.0	NM *	16.8	79.4
	SAN FRANCISCO	8,901.0	<11.0	NM *	0.3	62.6
	SANTA BARBARA	5,431.0	<11.0	NM *	1.4	113.0
	SANTA CLARA	22,150.3	<11.0	NM *	5.7	48.4
	SANTA CRUZ	2,636.7	<11.0	NM *	1.0	211.3
	SHASTA	2,005.0	<11.0	NM *	1.3	277.9
	SOLANO	5,141.3	<11.0	NM *	0.5	108.4
	SONOMA	4,710.0	<11.0	NM *	0.5	118.3
	TEHAMA	755.0	<11.0	NM *	3.4	738.0
	TULARE	7,058.0	<11.0	NM *	23.0	165.3
	TUOLUMNE	458.7	<11.0	NM *	<0.1	950.2
	VENTURA	9,313.7	<11.0	NM *	1.6	71.8
	YOLO	2,274.7	<11.0	NM *	0.1	219.0
	YUBA	1,173.3	<11.0	NM *	40.9	704.2

- 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: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing case rate (calculated to 15 decimal places), second by decreasing size of the population. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources:

1. California Department of Public Health, STD Control Branch. Data Requested, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

REPORTED INCIDENCE OF PRIMARY AND SECONDARY SYPHILIS AMONG FEMALES, 2016-2018



The crude case rate of reported incidence of primary and secondary syphilis among females (FS-Cases) for California averaged 4.7 cases per 100,000 female population. The crude case rate for California is derived from averaging the number of reported FS-Cases for 2016 to 2018 and dividing by the average female population count for the last three years. The total number of new FS-Cases averaged 943.7 with the corresponding female population count of 19,925,547 as of July 1, 2017.

Among counties with reliable rates, the crude case rate ranged from a high of 31.9 in San Joaquin County to a low of 1.4 in Orange County, a factor of 22.8 to 1.

Zero counties with reliable crude case rates met the Healthy People 2020 National Objective STD-7.1 of no more than 1.3 reported FS-Cases per 100,000 female population. California also did not meet the Healthy People 2020 National Objective. Five counties with unreliable rates and nine counties with zero events either met or exceeded the Healthy People 2020 National Objective.

Thirty-one counties contain suppressed data for the three-year average case count and crude case rate per the Data De-Identification Guidelines (DDG). See technical notes for more information regarding DDG.

The California crude case rate of FS-Cases for the 2013-2015 period averaged 1.7 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 FEMALE POPULATION	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	DEL NORTE	12,449	0.0	-	-	-
2	LASSEN	11,639	0.0	-	-	-
3	COLUSA	11,046	0.0	-	-	-
4	PLUMAS	9,797	0.0	-	-	-
5	INYO	9,150	0.0	-	-	-
6	MONO	6,543	0.0	-	-	-
7	MODOC	4,736	0.0	-	-	-
8	SIERRA	1,562	0.0	-	-	-
9	ALPINE	565	0.0	-	-	-
	MARIN	132,827	<11.0	M *	<0.1	4.6
	PLACER	195,369	<11.0	M *	<0.1	3.1
	SAN BENITO	30,170	<11.0	M *	<0.1	14.4
	SAN MATEO	392,035	<11.0	M *	0.2	2.2
	VENTURA	430,094	<11.0	M *	0.4	2.7
	HPO 2020: STD-7.1			**1.3**		
10	ORANGE	1,616,575	22.7	1.4	0.9	2.1
11	SAN DIEGO	1,653,392	27.0	1.6	1.1	2.4
12	CONTRA COSTA	581,872	13.3	2.3 *	1.2	3.9
13	RIVERSIDE	1,204,837	29.7	2.5	1.7	3.5
14	ALAMEDA	840,889	23.3	2.8	1.8	4.2
15	LOS ANGELES	5,201,009	169.7	3.3	2.8	3.8
16	SAN BERNARDINO	1,090,399	46.7	4.3	3.1	5.7
17	SAN FRANCISCO	435,568	19.3	4.4 *	2.7	6.9
18	SANTA CLARA	966,233	43.7	4.5	3.3	6.1
	CALIFORNIA	**19,925,547**	**943.7**	**4.7**	**4.4**	**5.0**
19	SONOMA	256,019	12.7	4.9 *	2.6	8.5
20	SACRAMENTO	774,927	59.3	7.7	5.8	9.9
21	MERCED	137,258	13.7	10.0 *	5.4	16.8
22	STANISLAUS	277,906	39.3	14.2	10.1	19.3
23	BUTTE	113,976	17.3	15.2 *	8.9	24.2
24	KERN	437,977	77.7	17.7	14.0	22.1
25	FRESNO	500,813	100.3	20.0	16.1	24.0
26	MADERA	81,156	17.0	20.9 *	12.2	33.5
27	SAN JOAQUIN	376,186	120.0	31.9	26.2	37.6
	AMADOR	17,401	<11.0	NM *	<0.1	28.6
	CALAVERAS	22,436	<11.0	NM *	0.3	27.4
	EL DORADO	92,757	<11.0	NM *	<0.1	6.6
	GLENN	14,424	<11.0	NM *	<0.1	30.2
	HUMBOLDT	67,818	<11.0	NM *	0.5	11.4
	IMPERIAL	92,735	<11.0	NM *	1.4	11.6

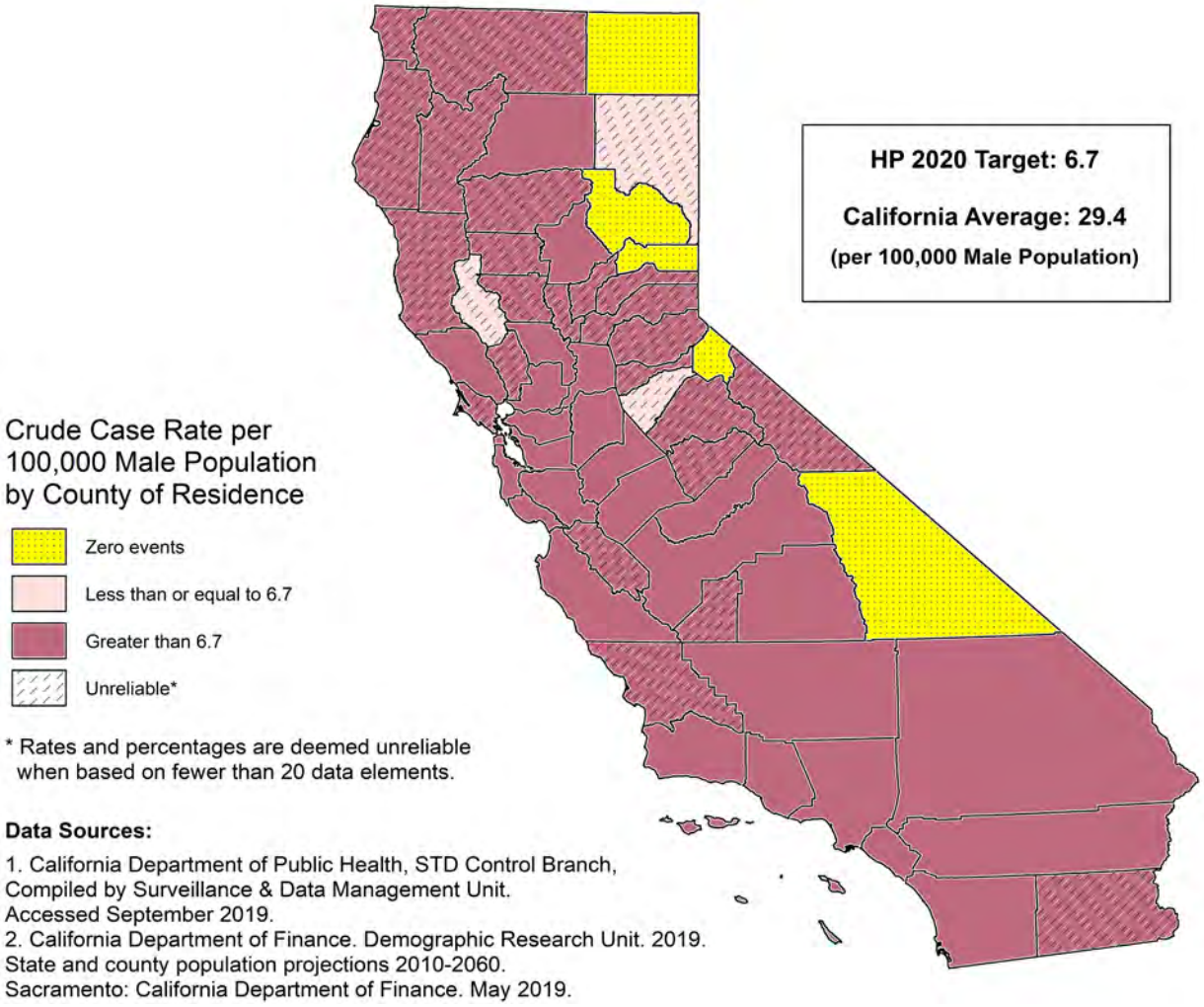
RANK ORDER	COUNTY OF RESIDENCE	2017 FEMALE POPULATION	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	KINGS	68,748	<11.0	NM *	5.7	24.2
	LAKE	32,492	<11.0	NM *	0.5	20.6
	MARIPOSA	8,906	<11.0	NM *	<0.1	55.9
	MENDOCINO	44,614	<11.0	NM *	0.2	13.8
	MONTEREY	215,546	<11.0	NM *	0.4	4.3
	NAPA	70,942	<11.0	NM *	0.3	10.2
	NEVADA	49,774	<11.0	NM *	0.1	12.3
	SAN LUIS OBISPO	136,312	<11.0	NM *	0.4	6.1
	SANTA BARBARA	223,491	<11.0	NM *	0.4	4.4
	SANTA CRUZ	137,846	<11.0	NM *	1.5	9.1
	SHASTA	90,894	<11.0	NM *	5.5	20.7
	SISKIYOU	22,344	<11.0	NM *	0.1	24.9
	SOLANO	219,825	<11.0	NM *	1.5	7.0
	SUTTER	49,446	<11.0	NM *	0.3	13.5
	TEHAMA	32,480	<11.0	NM *	<0.1	15.3
	TRINITY	6,633	<11.0	NM *	<0.1	65.7
	TULARE	236,240	<11.0	NM *	1.3	6.3
	TUOLUMNE	25,454	<11.0	NM *	3.6	38.3
	YOLO	112,815	<11.0	NM *	0.5	7.8
	YUBA	38,200	<11.0	NM *	1.6	23.0

- 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.
Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.
Note: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing case rate (calculated to 15 decimal places), second by decreasing size of the population. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources:

1. California Department of Public Health, STD Control Branch. Data Requested, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

REPORTED INCIDENCE OF PRIMARY AND SECONDARY SYPHILIS AMONG MALES, 2016-2018



The crude case rate of reported incidence of primary and secondary syphilis among males (MS-Cases), for California averaged 29.4 cases per 100,000 male population. The crude case rate for California is derived from averaging the number of reported MS-Cases for 2016 to 2018 and dividing by the average male population count for the last three years. The total number of new MS-Cases averaged 6,792.3 with the corresponding male population count of 19,686,009 as of July 1, 2017.

Among counties with reliable rates, the crude case rate ranged from a high of 116.3 in San Francisco County to a low of 11.7 in Tulare County, a factor of 9.8 to 1.

Zero counties with reliable crude case rates met the Healthy People 2020 National Objective STD-7.2 of no more than 6.7 reported MS-Cases per 100,000 male population. California also did not meet the Healthy People 2020 National Objective. Three counties with unreliable rates and five counties with zero incidences met the Healthy People 2020 National Objective.

Nineteen counties contain suppressed data for the three-year average case count and crude case rate per the Data De-Identification Guidelines (DDG). See technical notes for more information regarding DDG.

The California crude case rate of MS-Cases for the 2013-2016 period averaged 19.6 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 MALE POPULATION	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
1	PLUMAS	9,753	0.0	-	-	-
2	INYO	9,416	0.0	-	-	-
3	MODOC	4,752	0.0	-	-	-
4	SIERRA	1,587	0.0	-	-	-
5	ALPINE	581	0.0	-	-	-
	CALAVERAS	22,220	<11.0	M *	0.1	25.1
	LAKE	32,438	<11.0	M *	0.7	22.3
	LASSEN	18,965	<11.0	M *	<0.1	26.3
	HPO 2020: STD-7.2			**6.7**		
6	PLACER	187,608	17.7	9.4 *	5.6	14.9
7	SAN LUIS OBISPO	142,368	14.7	10.3 *	5.7	17.1
8	TULARE	236,176	27.7	11.7	7.8	17.0
9	VENTURA	424,893	50.7	11.9	8.9	15.7
10	IMPERIAL	95,208	12.0	12.6 *	6.5	22.0
11	MARIN	129,265	16.7	12.9 *	7.5	20.7
12	MONTEREY	226,650	32.3	14.3	9.8	20.1
13	SANTA BARBARA	226,647	35.7	15.7	11.0	21.8
14	SAN MATEO	379,867	63.7	16.8	12.9	21.4
15	SAN BERNARDINO	1,073,162	196.7	18.3	15.8	20.9
16	NAPA	70,263	13.0	18.5 *	9.9	31.6
17	HUMBOLDT	68,047	12.7	18.6 *	9.8	32.0
18	SANTA CLARA	979,678	198.7	20.3	17.5	23.1
19	SOLANO	217,609	44.7	20.5	15.0	27.5
20	CONTRA COSTA	556,329	114.7	20.6	16.8	24.4
21	KINGS	82,244	17.3	21.1 *	12.4	33.6
22	RIVERSIDE	1,187,674	251.7	21.2	18.6	23.8
23	YOLO	106,943	23.0	21.5	13.6	32.3
24	SANTA CRUZ	138,013	30.0	21.7	14.7	31.0
25	ORANGE	1,589,280	354.3	22.3	20.0	24.6
26	ALAMEDA	810,430	189.3	23.4	20.0	26.7
27	SONOMA	247,615	63.0	25.4	19.6	32.6
28	MERCED	139,353	38.0	27.3	19.3	37.4
29	SHASTA	87,346	25.0	28.6	18.5	42.3
	CALIFORNIA	**19,685,009**	**5,792.3**	**29.4**	**28.7**	**30.2**
30	STANISLAUS	272,599	85.3	31.3	25.0	38.7
31	SAN DIEGO	1,666,995	529.3	31.8	29.0	34.5
32	MADERA	75,759	24.3	32.1	20.6	47.7
33	BUTTE	112,685	37.0	32.8	23.1	45.3
34	SACRAMENTO	745,758	252.7	33.9	29.7	38.1
35	LOS ANGELES	5,060,727	1,890.7	37.4	35.7	39.0

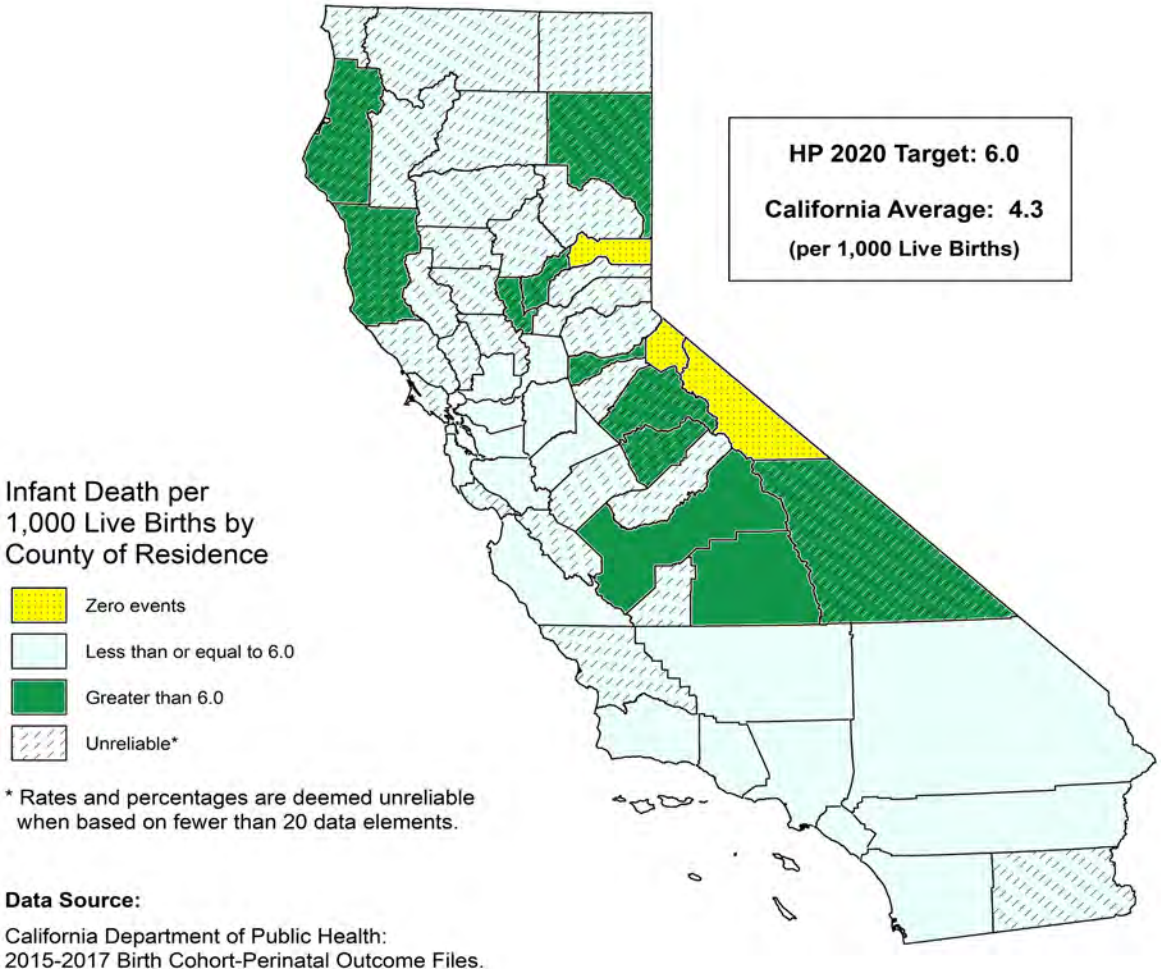
RANK ORDER	COUNTY OF RESIDENCE	2017 MALE POPULATION	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
36	FRESNO	499,330	187.7	37.6	32.2	43.0
37	KERN	459,972	184.0	40.0	34.2	45.8
38	SAN JOAQUIN	373,624	186.0	49.8	42.6	56.9
39	SAN FRANCISCO	445,387	513.3	115.3	105.3	125.2
	AMADOR	20,004	<11.0	NM *	2.4	41.3
	COLUSA	11,586	<11.0	NM *	2.1	62.4
	DEL NORTE	14,362	<11.0	NM *	1.0	46.6
	EL DORADO	93,799	<11.0	NM *	2.8	14.9
	GLENN	14,781	<11.0	NM *	1.6	48.9
	MARIPOSA	9,086	<11.0	NM *	<0.1	54.8
	MENDOCINO	44,457	<11.0	NM *	2.1	21.9
	MONO	7,303	<11.0	NM *	0.3	76.3
	NEVADA	48,780	<11.0	NM *	2.6	22.0
	SAN BENITO	30,121	<11.0	NM *	3.1	32.4
	SISKIYOU	21,896	<11.0	NM *	1.1	33.0
	SUTTER	48,896	<11.0	NM *	5.3	28.6
	TEHAMA	31,927	<11.0	NM *	2.4	29.0
	TRINITY	6,820	<11.0	NM *	0.4	81.7
	TUOLUMNE	27,408	<11.0	NM *	12.6	57.5
	YUBA	38,567	<11.0	NM *	5.7	33.9

- 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.
Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.
Note: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing case rate (calculated to 15 decimal places), second by decreasing size of the population. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources:

1. California Department of Public Health, STD Control Branch. Data Requested, September 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

INFANT MORTALITY, ALL RACE/ETHNIC GROUPS, 2015-2017



The California birth cohort infant mortality death rate (IMR) for all race/ethnic groups under 12 months of age, averaged 4.3 infant deaths per 1,000 live births. The IMR for all race/ethnic groups is derived from averaging the number of infant deaths, 2,096.7, and dividing by the average number of live births, 484,228.7, for years 2015 through 2017.

Among counties with reliable rates, the birth cohort IMR for all race/ethnic groups ranged from a high of 6.6 in Fresno County to a low of 2.8 in San Francisco County, a factor of 2.4 to 1.

California as a whole, along with 47 counties, met the Healthy People 2020 National Objective (HP 2020) MICH-1.3 of no more than 6.0 infant deaths for all race/ethnic groups per 1,000 live births. The counties include 18 with reliable rates and 26 with unreliable rates. Three counties had zero deaths. Eleven counties did not meet HP 2020, and nine of these counties had unreliable rates.

Twenty-nine counties contain suppressed data per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions were applied: average infant death counts and IMR. Three-year average live birth counts were suppressed where applicable. See technical notes for more information regarding DDG.

The California birth cohort IMR for all race/ethnic groups for the 2012-2014 period averaged 4.6 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, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
1	MONO	143.3	0.0	-	-	-
2	SIERRA	31.7	0.0	-	-	-
3	ALPINE	<11.0	0.0	-	-	-
4	SAN FRANCISCO	8,994.7	25.3	2.8	1.8	4.1
5	ORANGE	37,714.7	114.7	3.0	2.5	3.6
6	PLACER	3,724.3	11.3	3.0 *	1.5	5.4
7	SAN MATEO	8,863.7	28.0	3.2	2.1	4.6
8	CONTRA COSTA	12,377.0	39.7	3.2	2.3	4.4
9	SONOMA	4,875.7	16.0	3.3 *	1.9	5.3
10	SANTA CLARA	22,860.0	76.3	3.3	2.6	4.2
11	SAN DIEGO	42,657.0	162.3	3.8	3.2	4.4
12	ALAMEDA	19,306.3	73.7	3.8	3.0	4.8
13	LOS ANGELES	121,427.3	511.3	4.2	3.8	4.6
14	VENTURA	9,659.7	41.0	4.2	3.0	5.8
15	IMPERIAL	3,043.7	13.0	4.3 *	2.3	7.3
	CALIFORNIA	**484,228.7**	**2,096.7**	**4.3**	**4.1**	**4.5**
16	SAN LUIS OBISPO	2,600.3	11.7	4.5 *	2.3	7.9
17	MERCED	4,141.3	18.7	4.5 *	2.7	7.1
18	RIVERSIDE	30,361.3	137.0	4.5	3.8	5.3
19	SANTA BARBARA	5,569.3	27.0	4.8	3.2	7.1
20	STANISLAUS	7,671.3	37.3	4.9	3.4	6.7
21	MONTEREY	6,154.0	30.0	4.9	3.3	7.0
22	SACRAMENTO	19,412.0	94.7	4.9	3.9	6.0
23	KINGS	2,299.3	11.3	4.9 *	2.5	8.7
24	SAN JOAQUIN	10,062.3	52.3	5.2	3.9	6.8
25	SOLANO	5,176.0	27.7	5.3	3.5	7.7
26	MADERA	2,234.3	12.0	5.4 *	2.8	9.4
27	SAN BERNARDINO	30,484.0	179.3	5.9	5.0	6.7
28	KERN	13,611.7	82.0	6.0	4.8	7.5
	BUTTE	2,440.7	<11.0	M *	2.0	7.5
	CALAVERAS	392.0	<11.0	M *	<0.1	11.1
	COLUSA	302.3	<11.0	M *	0.2	20.3
	DEL NORTE	293.3	<11.0	M *	<0.1	17.0
	EL DORADO	1,590.3	<11.0	M *	0.9	7.0
	GLENN	378.0	<11.0	M *	0.6	19.1
	LAKE	741.3	<11.0	M *	0.8	11.8
	MARIN	2,260.3	<11.0	M *	0.3	3.9
	MODOC	88.3	<11.0	M *	<0.1	49.3

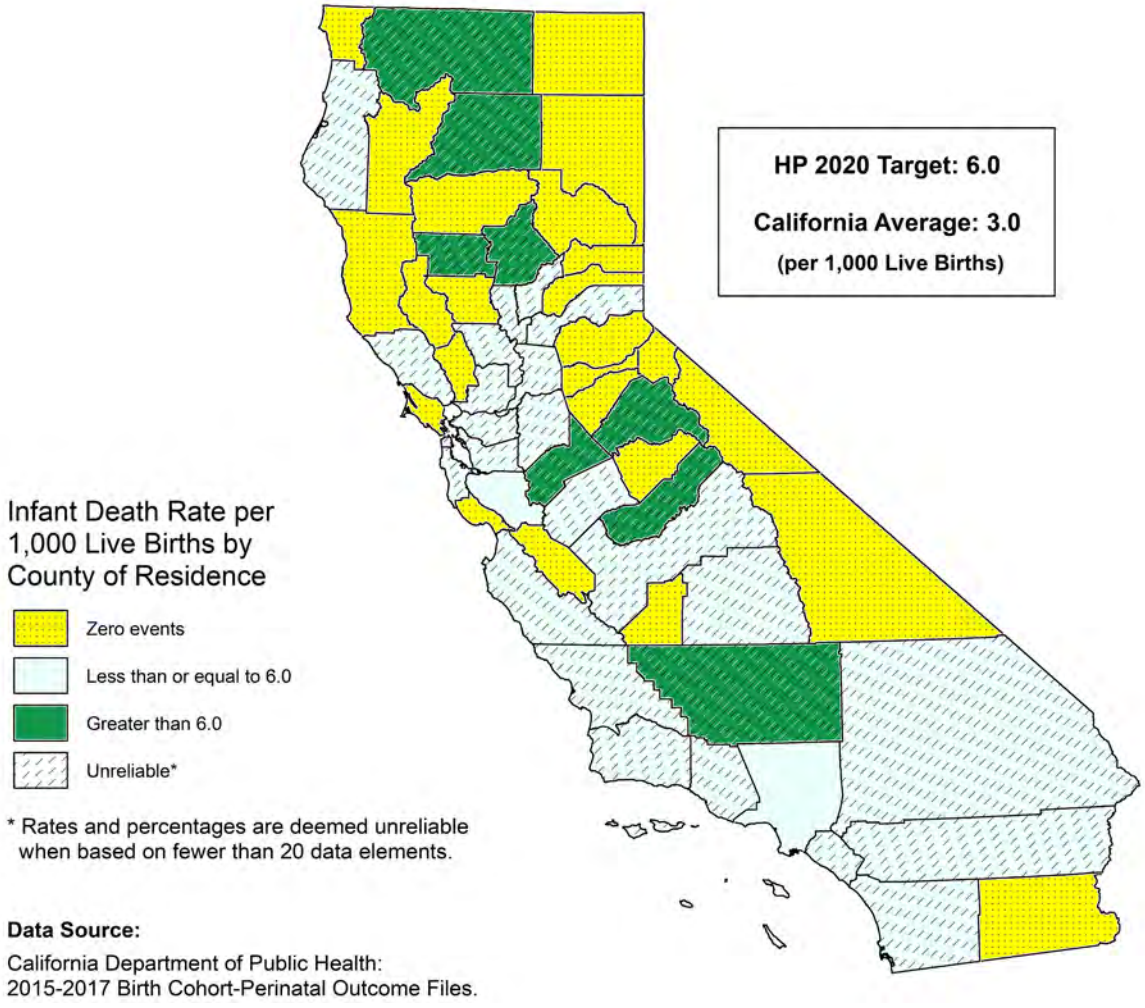
RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
	NAPA	1,385.0	<11.0	M *	1.3	8.8
	NEVADA	818.7	<11.0	M *	0.8	10.7
	PLUMAS	168.3	<11.0	M *	<0.1	29.6
	SAN BENITO	744.3	<11.0	M *	0.3	9.7
	SANTA CRUZ	2,768.7	<11.0	M *	1.8	6.8
	SHASTA	2,043.7	<11.0	M *	2.5	9.2
	SISKIYOU	458.3	<11.0	M *	0.2	13.4
	TEHAMA	786.7	<11.0	M *	1.2	12.4
	TRINITY	112.3	<11.0	M *	<0.1	44.3
	YOLO	2,365.7	<11.0	M *	2.1	8.0
	HPO 2020: MICH-1.3			**6.0**		
29	TULARE	7,230.0	46.0	6.4	4.7	8.5
30	FRESNO	15,014.3	99.7	6.6	5.4	8.1
	AMADOR	305.3	<11.0	NM *	0.8	23.7
	HUMBOLDT	1,436.3	<11.0	NM *	3.2	12.5
	INYO	199.0	<11.0	NM *	1.2	36.3
	LASSEN	300.3	<11.0	NM *	0.8	24.1
	MARIPOSA	151.7	<11.0	NM *	0.2	36.7
	MENDOCINO	1,023.7	<11.0	NM *	2.5	13.6
	SUTTER	1,311.0	<11.0	NM *	2.8	12.4
	TUOLUMNE	464.0	<11.0	NM *	1.3	18.9
	YUBA	1,192.7	<11.0	NM *	3.8	15.1

- 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: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.

Sources:

1. California Department of Public Health: 2015-2017 Birth Cohort-Perinatal Outcome Files.

ASIAN/PACIFIC ISLANDER INFANT MORTALITY, 2015-2017



The California birth cohort infant mortality death rate (IMR) for Asian/Pacific Islanders was 3.0 deaths per 1,000 live births. The IMR for Asian/Pacific Islanders is derived from averaging the number of infant deaths, 224.0, and dividing by the average number of live births, 73,870.3, for years 2015 through 2017.

Among counties with reliable rates, the birth cohort IMR for Asian/Pacific Islanders ranged from a high of 3.1 in Los Angeles County to a low of 2.9 in Santa Clara County, a factor of 1.1 to 1.

California as a whole, along with 50 counties, met the Healthy People 2020 National Objective (HP 2020) MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births among Asian/Pacific Islander infants. The counties include two with reliable rates, 24 with unreliable rates, and 22 with zero deaths. Eight counties did not meet HP 2020 and had unreliable rates; two counties had zero births.

Thirty-eight counties data is suppressed per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions were applied: average infant death counts and IMR. Three-year average live birth counts were suppressed where applicable. See technical notes for more information regarding DDG.

The California birth cohort IMR for Asian/Pacific Islander infants under 12 months of age for the 2012-2014 period averaged 3.3 infant deaths per 1,000 live births.

TABLE 24B
ASIAN/PACIFIC ISLANDER INFANT MORTALITY
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
1	MARIN	193.0	0.0	-	-	-
2	NAPA	86.0	0.0	-	-	-
3	KINGS	80.0	0.0	-	-	-
4	SANTA CRUZ	79.3	0.0	-	-	-
5	EL DORADO	77.7	0.0	-	-	-
6	IMPERIAL	30.0	0.0	-	-	-
7	MENDOCINO	18.0	0.0	-	-	-
8	DEL NORTE	17.7	0.0	-	-	-
9	NEVADA	14.7	0.0	-	-	-
10	SAN BENITO	13.7	0.0	-	-	-
11	TEHAMA	13.7	0.0	-	-	-
12	LASSEN	13.0	0.0	-	-	-
13	AMADOR	<11.0	0.0	-	-	-
14	CALAVERAS	<11.0	0.0	-	-	-
15	COLUSA	<11.0	0.0	-	-	-
16	INYO	<11.0	0.0	-	-	-
17	LAKE	<11.0	0.0	-	-	-
18	MARIPOSA	<11.0	0.0	-	-	-
19	MODOC	<11.0	0.0	-	-	-
20	MONO	<11.0	0.0	-	-	-
21	PLUMAS	<11.0	0.0	-	-	-
22	TRINITY	<11.0	0.0	-	-	-
23	ORANGE	9,426.7	17.3	1.8 *	1.1	2.9
24	ALAMEDA	6,192.7	14.7	2.4 *	1.3	3.9
25	SANTA CLARA	8,727.7	25.0	2.9	1.9	4.2
26	SAN DIEGO	4,701.7	13.7	2.9 *	1.6	4.9
	CALIFORNIA	**73,870.3**	**224.0**	**3.0**	**2.6**	**3.4**
27	LOS ANGELES	19,354.0	60.7	3.1	2.4	4.0
28	SACRAMENTO	3,589.7	13.3	3.7 *	2.0	6.3
	CONTRA COSTA	2,063.0	<11.0	M *	0.9	5.9
	FRESNO	1,776.3	<11.0	M *	2.8	10.6
	HUMBOLDT	65.3	<11.0	M *	<0.1	66.7
	MERCED	312.3	<11.0	M *	0.2	19.7
	MONTEREY	230.7	<11.0	M *	0.1	24.2
	PLACER	331.0	<11.0	M *	<0.1	16.8
	RIVERSIDE	2,184.0	<11.0	M *	0.9	5.8
	SAN BERNARDINO	2,881.3	<11.0	M *	1.3	5.6
	SAN FRANCISCO	2,909.7	<11.0	M *	1.5	6.0

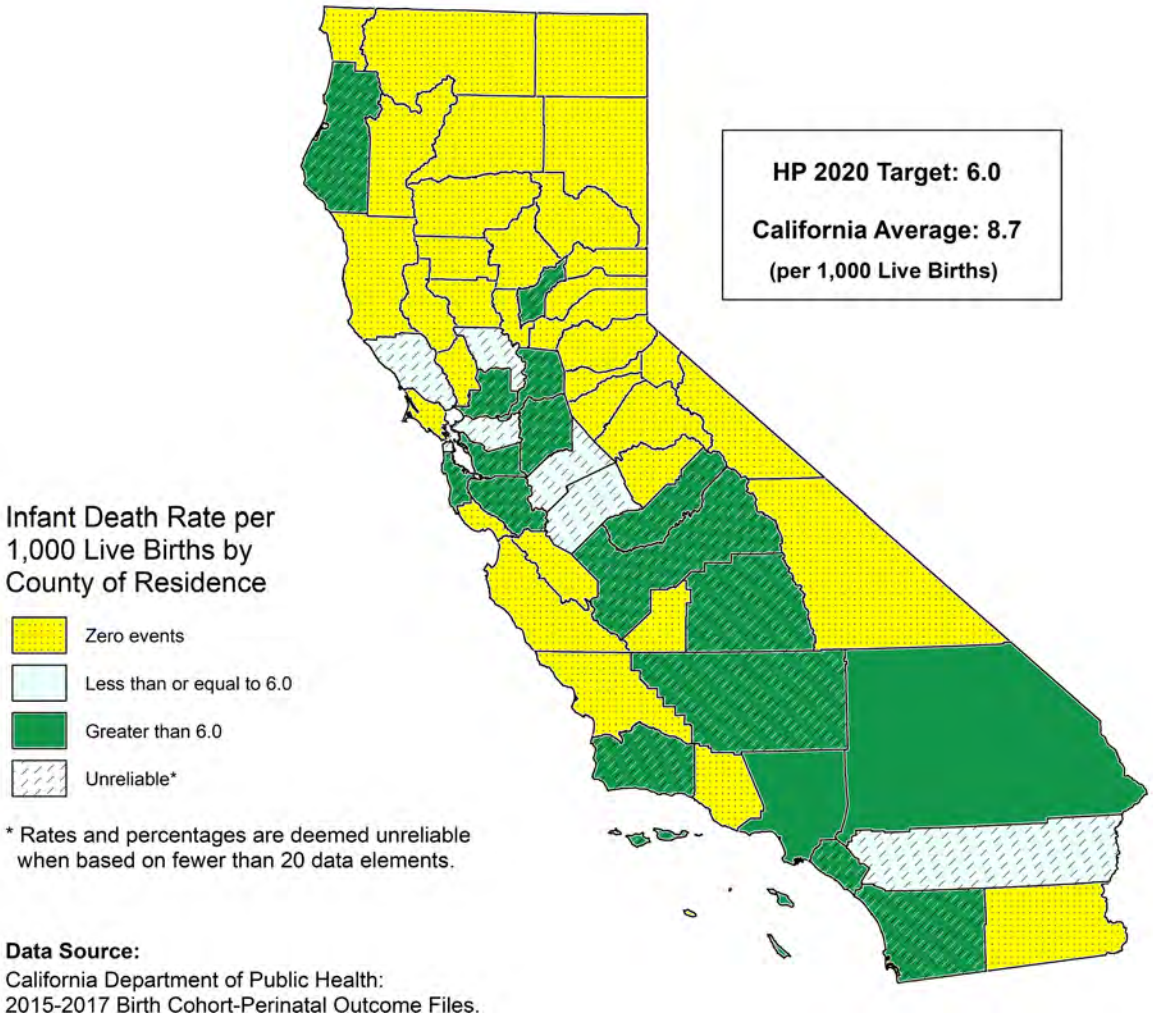
RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
	SAN JOAQUIN	1,568.0	<11.0	M *	0.9	7.1
	SAN LUIS OBISPO	81.7	<11.0	M *	<0.1	53.4
	SAN MATEO	2,856.3	<11.0	M *	1.7	6.4
	SANTA BARBARA	214.3	<11.0	M *	0.1	26.0
	SOLANO	728.3	<11.0	M *	1.1	12.7
	SONOMA	218.0	<11.0	M *	<0.1	22.8
	SUTTER	213.0	<11.0	M *	<0.1	23.4
	TULARE	213.0	<11.0	M *	0.1	26.2
	VENTURA	652.3	<11.0	M *	0.9	13.4
	YOLO	298.3	<11.0	M *	<0.1	18.7
	YUBA	96.3	<11.0	M *	<0.1	45.2
	HPO 2020: MICH-1.3			**6.0**		
	BUTTE	171.7	<11.0	NM *	0.4	35.8
	GLENN	<11.0	<11.0	NM *	<0.1	484.3
	KERN	536.7	<11.0	NM *	2.0	19.1
	MADERA	45.7	<11.0	NM *	<0.1	109.1
	SHASTA	86.7	<11.0	NM *	<0.1	57.5
	SISKIYOU	<11.0	<11.0	NM *	<0.1	523.0
	STANISLAUS	445.0	<11.0	NM *	1.4	19.7
	TUOLUMNE	<11.0	<11.0	NM *	<0.1	502.9
	ALPINE	0.0	0.0	-	-	-
	SIERRA	0.0	0.0	-	-	-

- 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.
Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.
Note: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.
Counties with zero live births are placed at the bottom of the list.

Sources:

1. California Department of Public Health: 2015-2017 Birth Cohort-Perinatal Outcome Files.

BLACK INFANT MORTALITY, 2015-2017



The California birth cohort infant mortality death rate (IMR) for Blacks averaged 8.7 deaths per 1,000 live births. The IMR for Blacks is derived from averaging the number of infant deaths, 207.0, and dividing by the average number of live births, 23,672.0, for years 2015 through 2017.

Among counties with reliable rates, the birth cohort infant death rate for Blacks ranged from a high of 11.6 in San Bernardino County to a low of 9.3 in Los Angeles County, a factor of 1.2 to 1.

Thirty-six counties met the Healthy People 2020 National Objective (HP 2020) MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births among the Black population. Of the 36 counties, seven had unreliable rates and 29 had zero deaths. Five counties had zero births. California as a whole, along with 17 counties, did not meet HP 2020.

Thirty-four counties contain suppressed data per the Data De-Identification Guidelines (DDG). For these counties, the following suppressions were applied: average infant death counts and IMR. Three-year average live birth counts were suppressed where applicable. See technical notes for more information regarding DDG.

The California birth cohort IMR for Black infants under 12 months of age for the 2012-2014 period averaged 10.2 infant deaths per 1,000 live births.

TABLE 24C
BLACK INFANT MORTALITY
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
1	VENTURA	102.7	0.0	-	-	-
2	KINGS	82.0	0.0	-	-	-
3	MONTEREY	65.7	0.0	-	-	-
4	PLACER	40.0	0.0	-	-	-
5	MARIN	34.0	0.0	-	-	-
6	BUTTE	33.3	0.0	-	-	-
7	SUTTER	23.0	0.0	-	-	-
8	SHASTA	20.7	0.0	-	-	-
9	SAN LUIS OBISPO	20.3	0.0	-	-	-
10	IMPERIAL	18.0	0.0	-	-	-
11	NAPA	12.3	0.0	-	-	-
12	SANTA CRUZ	11.7	0.0	-	-	-
13	EL DORADO	11.3	0.0	-	-	-
14	AMADOR	<11.0	0.0	-	-	-
15	CALAVERAS	<11.0	0.0	-	-	-
16	COLUSA	<11.0	0.0	-	-	-
17	DEL NORTE	<11.0	0.0	-	-	-
18	GLENN	<11.0	0.0	-	-	-
19	INYO	<11.0	0.0	-	-	-
20	LAKE	<11.0	0.0	-	-	-
21	LASSEN	<11.0	0.0	-	-	-
22	MENDOCINO	<11.0	0.0	-	-	-
23	MONO	<11.0	0.0	-	-	-
24	NEVADA	<11.0	0.0	-	-	-
25	PLUMAS	<11.0	0.0	-	-	-
26	SAN BENITO	<11.0	0.0	-	-	-
27	SISKIYOU	<11.0	0.0	-	-	-
28	TEHAMA	<11.0	0.0	-	-	-
29	TUOLUMNE	<11.0	0.0	-	-	-
	CONTRA COSTA	1,001.3	<11.0	M *	2.2	13.0
	MERCED	103.0	<11.0	M *	<0.1	42.3
	RIVERSIDE	1,569.3	<11.0	M *	2.8	11.2
	SAN FRANCISCO	359.0	<11.0	M *	0.2	17.1
	SONOMA	56.7	<11.0	M *	<0.1	76.9
	STANISLAUS	159.7	<11.0	M *	<0.1	31.2
	YOLO	61.3	<11.0	M *	<0.1	71.1
	HPO 2020: MICH-1.3			**6.0**		
30	SAN DIEGO	1,808.3	13.0	7.2 *	3.8	12.3

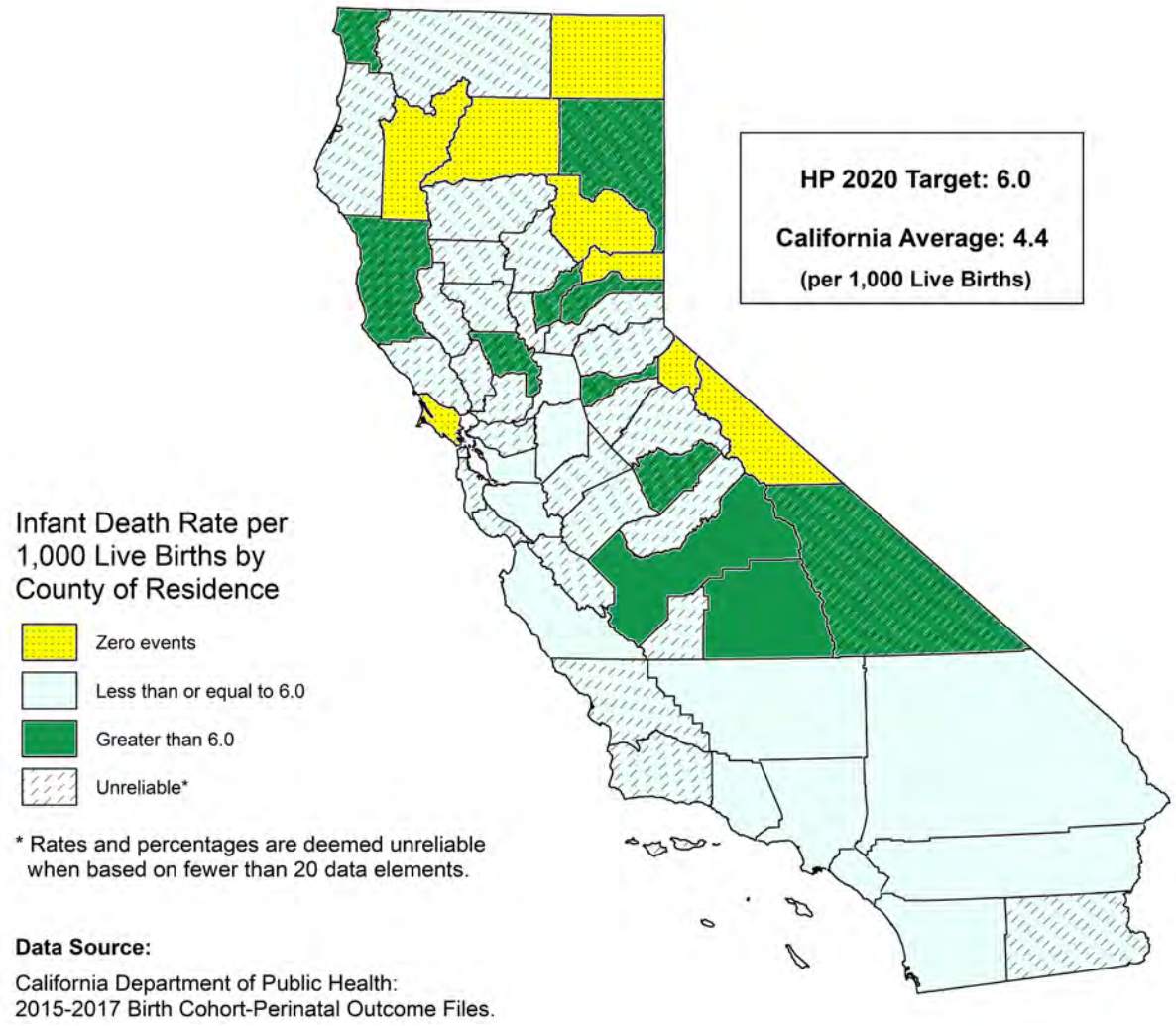
RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
31	ALAMEDA	1,602.7	12.7	7.9 *	4.2	13.6
32	SACRAMENTO	1,892.0	15.3	8.1 *	4.6	13.3
	CALIFORNIA	**23,672.0**	**207.0**	**8.7**	**7.6**	**9.9**
33	LOS ANGELES	8,309.3	77.7	9.3	7.4	11.7
34	SAN BERNARDINO	2,448.3	28.3	11.6	7.7	16.7
35	FRESNO	699.7	12.0	17.2 *	8.9	30.0
	HUMBOLDT	17.0	<11.0	NM *	0.2	293.0
	KERN	707.7	<11.0	NM *	2.3	16.5
	MADERA	26.7	<11.0	NM *	<0.1	163.4
	ORANGE	411.7	<11.0	NM *	2.6	24.9
	SAN JOAQUIN	690.3	<11.0	NM *	6.0	24.7
	SAN MATEO	104.0	<11.0	NM *	2.3	69.5
	SANTA BARBARA	44.0	<11.0	NM *	<0.1	113.2
	SANTA CLARA	387.7	<11.0	NM *	1.2	21.3
	SOLANO	584.7	<11.0	NM *	2.2	18.3
	TULARE	75.3	<11.0	NM *	<0.1	66.1
	YUBA	34.0	<11.0	NM *	<0.1	128.2
	ALPINE	0.0	0.0	-	-	-
	MARIPOSA	0.0	0.0	-	-	-
	MODOC	0.0	0.0	-	-	-
	SIERRA	0.0	0.0	-	-	-
	TRINITY	0.0	0.0	-	-	-

- 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.
Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.
Note: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.
Counties with zero live births are placed at the bottom of the list.

Sources:

1. California Department of Public Health: 2015-2017 Birth Cohort-Perinatal Outcome Files.

HISPANIC INFANT MORTALITY, 2015-2017



The California birth cohort infant mortality rate (IMR) for Hispanics averaged 4.4 deaths per 1,000 live births. The IMR for Hispanics is derived from averaging the number of infant deaths, 1,009.7, and dividing by the average number of live births, 227,555.7, for years 2015 through 2017.

Among counties with reliable rates, the birth cohort IMR for Hispanics ranged from a high of 6.1 in Fresno County to a low of 3.4 in San Diego County, a factor of 1.8 to 1.

California as a whole, along with 47 counties, met the Healthy People 2020 National Objective (HP 2020) MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births among the Hispanic population. The counties include 12 with reliable rates, 27 with unreliable rates, and eight with zero deaths. Eleven counties, two with reliable rates and nine with unreliable rates, did not meet HP 2020.

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

The California birth cohort IMR for Hispanic infants under 12 months of age for the 2012-2014 period averaged 4.5 infant deaths per 1,000 live births.

TABLE 24D
HISPANIC INFANT MORTALITY
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
1	MARIN	679.7	0.0	-	-	-
2	SHASTA	208.0	0.0	-	-	-
3	MONO	62.3	0.0	-	-	-
4	PLUMAS	21.3	0.0	-	-	-
5	MODOC	11.7	0.0	-	-	-
6	ALPINE	<11.0	0.0	-	-	-
7	SIERRA	<11.0	0.0	-	-	-
8	TRINITY	<11.0	0.0	-	-	-
9	CONTRA COSTA	4,088.7	13.7	3.3 *	1.8	5.6
10	SAN DIEGO	17,175.0	58.7	3.4	2.6	4.4
11	SANTA CLARA	6,628.3	22.7	3.4	2.2	5.1
12	ORANGE	15,465.7	59.0	3.8	2.9	4.9
13	ALAMEDA	5,129.0	21.0	4.1	2.5	6.3
14	STANISLAUS	4,187.3	17.3	4.1 *	2.4	6.6
15	LOS ANGELES	67,166.3	282.7	4.2	3.7	4.7
16	RIVERSIDE	17,636.3	76.3	4.3	3.4	5.4
	CALIFORNIA	**227,555.7**	**1,009.7**	**4.4**	**4.2**	**4.7**
17	VENTURA	5,381.0	25.0	4.6	3.0	6.9
18	SAN JOAQUIN	4,887.7	23.3	4.8	3.0	7.1
19	MERCED	2,847.0	13.7	4.8 *	2.6	8.1
20	MONTEREY	4,622.3	23.0	5.0	3.2	7.5
21	SANTA BARBARA	3,608.3	18.0	5.0 *	3.0	7.9
22	SACRAMENTO	5,175.7	27.7	5.3	3.5	7.7
23	SAN BERNARDINO	17,459.7	97.3	5.6	4.5	6.8
24	KERN	8,410.3	48.7	5.8	4.3	7.7
	BUTTE	466.0	<11.0	M *	0.8	16.6
	CALAVERAS	57.0	<11.0	M *	<0.1	76.5
	COLUSA	215.7	<11.0	M *	<0.1	20.2
	EL DORADO	288.3	<11.0	M *	<0.1	15.1
	GLENN	189.3	<11.0	M *	<0.1	26.3
	HUMBOLDT	221.0	<11.0	M *	0.3	27.8
	IMPERIAL	2,772.0	<11.0	M *	1.8	6.8
	KINGS	1,426.7	<11.0	M *	2.1	10.4
	LAKE	224.7	<11.0	M *	<0.1	22.2
	MADERA	1,642.0	<11.0	M *	2.1	9.6
	NAPA	676.0	<11.0	M *	<0.1	8.2
	PLACER	677.0	<11.0	M *	0.9	13.0
	SAN BENITO	482.0	<11.0	M *	0.2	12.7

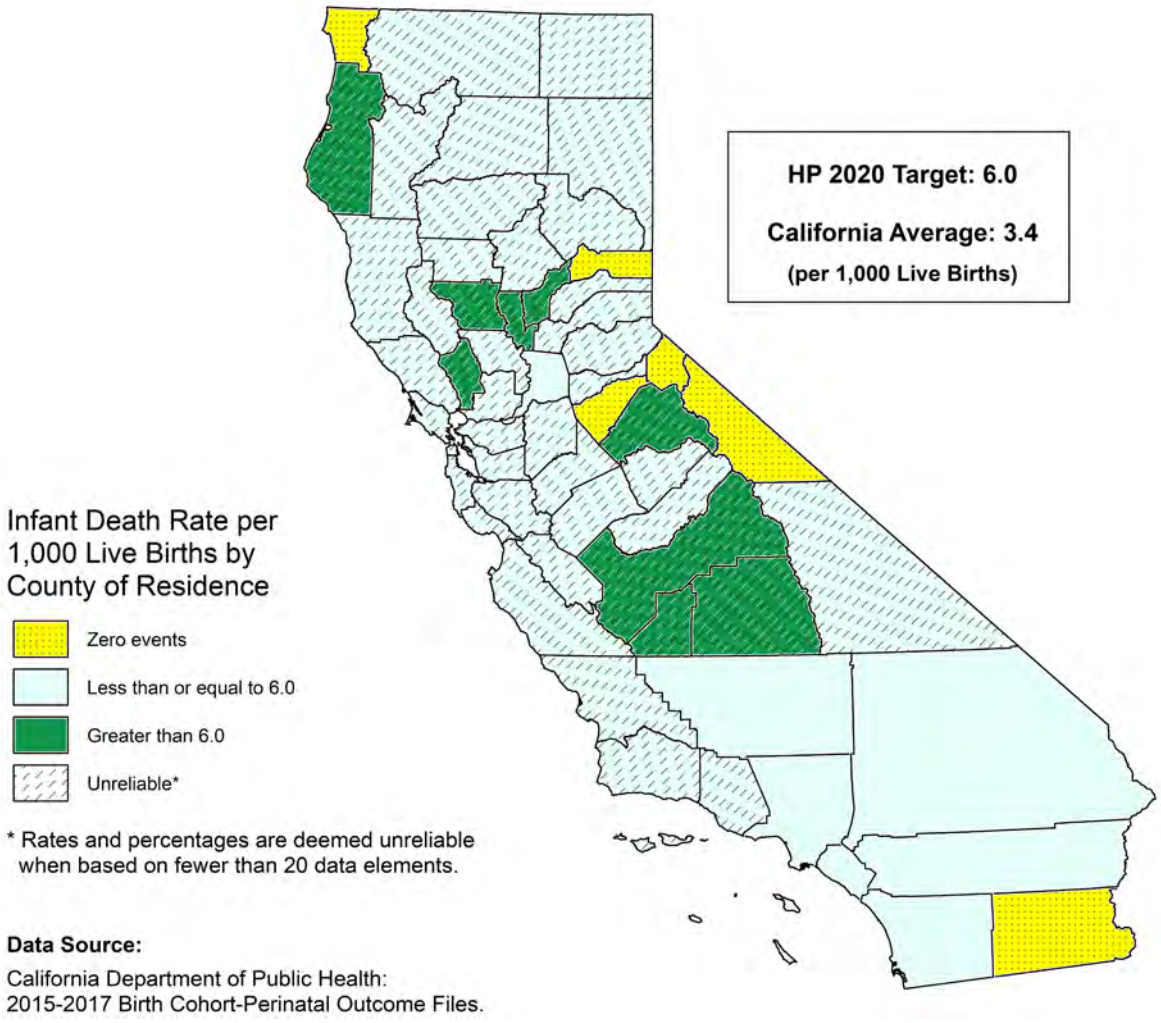
RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE LIVE BIRTHS	THREE-YEAR AVERAGE INFANT DEATHS	BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	SAN FRANCISCO	1,626.0	<11.0	M *	1.9	9.1
	SAN LUIS OBISPO	850.3	<11.0	M *	1.7	13.2
	SAN MATEO	2,501.7	<11.0	M *	0.9	5.2
	SANTA CRUZ	1,491.7	<11.0	M *	1.5	8.8
	SISKIYOU	83.7	<11.0	M *	<0.1	52.1
	SOLANO	1,740.3	<11.0	M *	2.2	9.6
	SONOMA	1,794.0	<11.0	M *	1.0	6.8
	SUTTER	493.3	<11.0	M *	0.5	14.6
	TEHAMA	288.7	<11.0	M *	<0.1	15.1
	TUOLUMNE	76.7	<11.0	M *	<0.1	56.8
	HPO 2020: MICH-1.3			**6.0**		
25	TULARE	5,268.7	32.0	6.1	4.2	8.6
26	FRESNO	9,110.0	56.0	6.1	4.6	8.0
	AMADOR	46.0	<11.0	NM *	<0.1	94.7
	DEL NORTE	51.3	<11.0	NM *	<0.1	84.9
	INYO	55.0	<11.0	NM *	1.3	111.6
	LASSEN	52.0	<11.0	NM *	<0.1	83.8
	MARIPOSA	23.3	<11.0	NM *	<0.1	186.8
	MENDOCINO	370.7	<11.0	NM *	1.7	23.7
	NEVADA	127.7	<11.0	NM *	0.2	43.6
	YOLO	929.3	<11.0	NM *	2.2	13.6
	YUBA	376.3	<11.0	NM *	2.0	24.6

- 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: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.

Sources:

1. California Department of Public Health: 2015-2017 Birth Cohort-Perinatal Outcome Files.

WHITE INFANT MORTALITY, 2015-2017



The California birth cohort infant mortality rate (IMR) for Whites averaged 3.4 deaths per 1,000 live births. The IMR is derived from averaging the number of infant deaths, 442.3, and dividing by the average number of live births, 131,862.3, among the White population for years 2015 through 2017.

Among counties with reliable rates, the birth cohort IMR for Whites ranged from a high of 5.8 in Kern County to a low of 2.4 in Orange County, a factor of 2.4 to 1.

California as a whole, along with 49 counties, met the Healthy People 2020 National Objective (HP 2020) MICH-1.3 of no more than 6.0 infant deaths per 1,000 live births among the White population. The counties include seven with reliable rates, 36 with unreliable rates, and six with zero deaths. Nine counties did not meet HP 2020, and eight of these counties had unreliable rates.

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

The California birth cohort IMR for White infants under 12 months of age for the 2012-2014 period averaged 3.8 infant deaths per 1,000 live births.

TABLE 24E
WHITE INFANT MORTALITY
RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE
CALIFORNIA COUNTIES, 2015-2017

RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
1	CALAVERAS	299.7	0.0	-	-	-
2	IMPERIAL	174.7	0.0	-	-	-
3	DEL NORTE	169.3	0.0	-	-	-
4	MONO	73.0	0.0	-	-	-
5	SIERRA	24.7	0.0	-	-	-
6	ALPINE	<11.0	0.0	-	-	-
7	ORANGE	10,869.3	26.0	2.4	1.6	3.5
8	SAN DIEGO	14,417.7	37.7	2.6	1.8	3.6
9	LOS ANGELES	22,807.3	61.7	2.7	2.1	3.5
	CALIFORNIA	**131,862.3**	**442.3**	**3.4**	**3.0**	**3.7**
10	ALAMEDA	4,520.0	15.7	3.5 *	2.0	5.7
11	SACRAMENTO	7,258.7	29.3	4.0	2.7	5.8
12	RIVERSIDE	7,517.3	31.7	4.2	2.9	6.0
13	SAN BERNARDINO	6,572.3	31.0	4.7	3.2	6.7
14	STANISLAUS	2,528.3	13.3	5.3 *	2.8	9.0
15	KERN	3,520.3	20.3	5.8	3.5	8.9
	AMADOR	227.7	<11.0	M *	0.3	27.0
	BUTTE	1,598.3	<11.0	M *	1.4	8.2
	CONTRA COSTA	4,135.7	<11.0	M *	1.0	4.1
	EL DORADO	1,126.7	<11.0	M *	0.8	8.7
	GLENN	167.3	<11.0	M *	0.2	33.3
	INYO	95.0	<11.0	M *	<0.1	45.9
	LAKE	417.7	<11.0	M *	0.4	16.0
	LASSEN	206.7	<11.0	M *	0.1	27.0
	MADERA	454.3	<11.0	M *	1.1	18.2
	MARIN	1,168.0	<11.0	M *	0.3	6.6
	MARIPOSA	116.7	<11.0	M *	<0.1	42.7
	MENDOCINO	513.7	<11.0	M *	1.2	17.1
	MERCED	807.3	<11.0	M *	0.4	9.6
	MODOC	66.3	<11.0	M *	<0.1	65.7
	MONTEREY	1,064.3	<11.0	M *	0.7	8.7
	NEVADA	619.7	<11.0	M *	0.2	10.8
	PLACER	2,467.0	<11.0	M *	0.8	5.1
	PLUMAS	129.0	<11.0	M *	<0.1	38.6
	SAN BENITO	189.7	<11.0	M *	<0.1	26.3
	SAN FRANCISCO	3,571.0	<11.0	M *	0.4	3.1
	SAN JOAQUIN	2,308.7	<11.0	M *	2.2	8.2
	SAN LUIS OBISPO	1,472.3	<11.0	M *	1.0	7.6

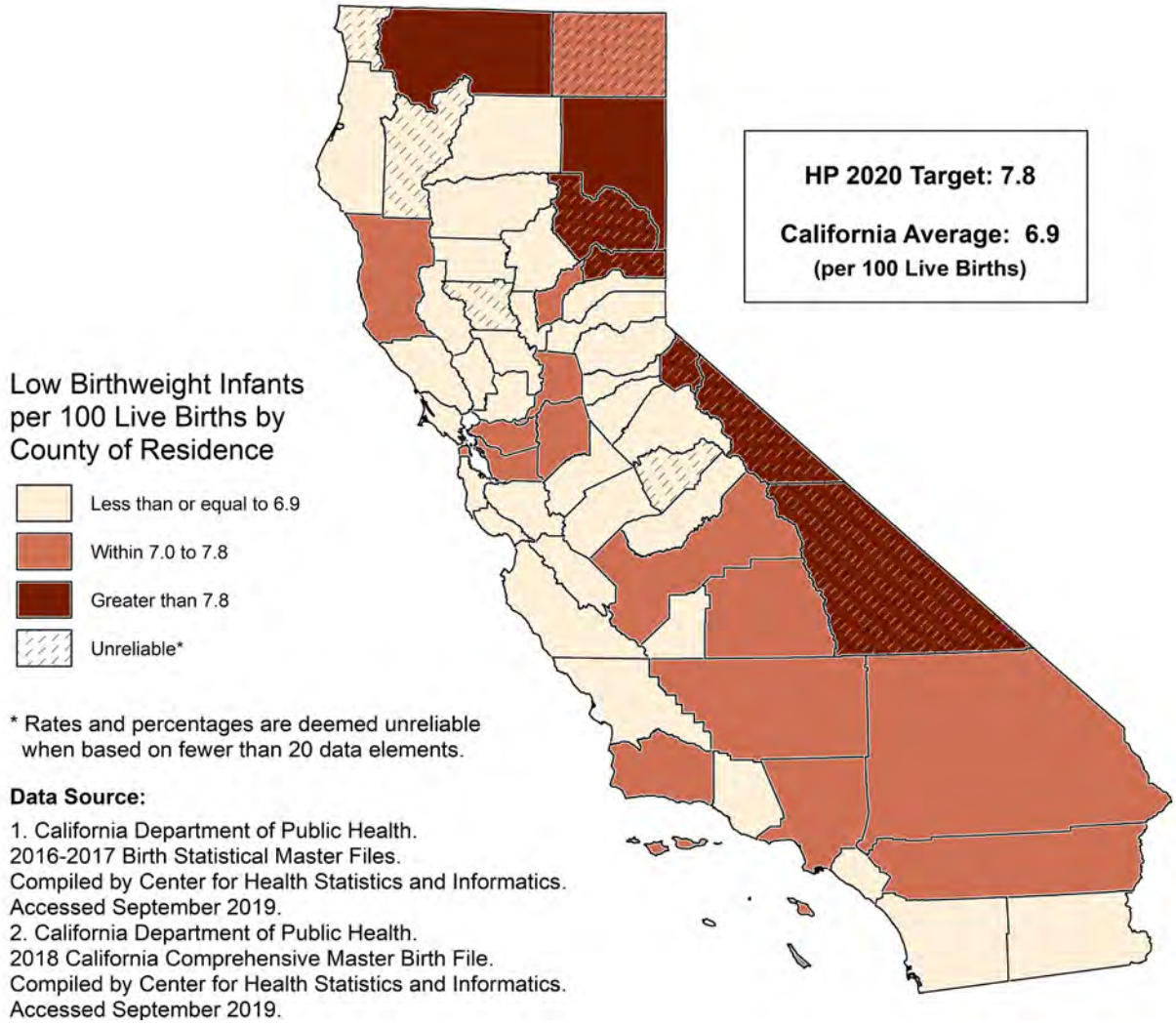
RANK ORDER	COUNTY OF RESIDENCE	THREE-YEAR AVERAGE		BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	INFANT DEATHS			
	SAN MATEO	2,660.3	<11.0	M *	0.5	4.0
	SANTA BARBARA	1,526.3	<11.0	M *	0.7	6.7
	SANTA CLARA	4,848.7	<11.0	M *	1.0	3.9
	SANTA CRUZ	1,086.3	<11.0	M *	0.3	7.1
	SHASTA	1,566.7	<11.0	M *	1.7	8.9
	SISKIYOU	303.3	<11.0	M *	<0.1	16.4
	SOLANO	1,600.7	<11.0	M *	1.9	9.3
	SONOMA	2,099.0	<11.0	M *	1.0	6.2
	TEHAMA	445.3	<11.0	M *	0.5	16.2
	TRINITY	93.0	<11.0	M *	<0.1	46.9
	VENTURA	3,073.0	<11.0	M *	1.4	5.7
	YOLO	927.3	<11.0	M *	0.4	8.4
	HPO 2020: MICH-1.3			**6.0**		
16	FRESNO	2,882.0	18.0	6.2 *	3.7	9.9
	COLUSA	73.3	<11.0	NM *	0.3	76.0
	HUMBOLDT	928.0	<11.0	NM *	2.2	13.6
	KINGS	606.0	<11.0	NM *	1.5	16.1
	NAPA	538.7	<11.0	NM *	1.7	18.1
	SUTTER	524.3	<11.0	NM *	2.7	21.4
	TULARE	1,458.3	<11.0	NM *	3.1	12.3
	TUOLUMNE	344.0	<11.0	NM *	1.0	22.5
	YUBA	600.0	<11.0	NM *	2.1	17.9

- 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.
Met (M) and Not Met (NM) refer to the Healthy People 2020 National Objectives only.
Note: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing birth cohort death rate (calculated to 15 decimal places), second by decreasing total number of live births.

Sources:

1. California Department of Public Health: 2015-2017 Birth Cohort-Perinatal Outcome Files.

LOW BIRTHWEIGHT INFANTS, 2016-2018



The relative average number of low birthweight infants for California is 6.9 per 100 live births, or 6.9 percent. The percentage for California is derived from averaging the number of low birthweight infants, 32,597.0, and dividing by the average number of live births, 471,618.3, for years 2016 to 2018.

Among counties with reliable percentages, the percentage of low birthweight infants ranged from a high of 8.2 in Lassen County to a low of 5.3 percent in Nevada 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 (HP 2020) MICH-8.1 of reducing the incidence of low birthweight infants to no more than 7.8 percent of live births. Five counties with an unreliable percentage also met HP 2020.

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

The California percentage of low birthweight infants for the 2013-2015 period averaged 6.8 per 100 live births.

TABLE 25
LOW BIRTHWEIGHT INFANTS
RANKED BY THREE-YEAR AVERAGE LOW BIRTHWEIGHT PERCENTAGE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2016-2018 LIVE BIRTHS (AVERAGE)			95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		LIVE BIRTHS	LOW BIRTHWEIGHT NUMBER	LOW BIRTHWEIGHT PERCENT		
1	NEVADA	783.3	41.7	5.3	3.8	7.2
2	MARIN	2,206.3	121.0	5.5	4.5	6.5
3	IMPERIAL	2,845.0	159.3	5.6	4.7	6.5
4	PLACER	3,693.3	211.7	5.7	5.0	6.5
5	VENTURA	9,313.7	537.7	5.8	5.3	6.3
6	YOLO	2,274.3	131.3	5.8	4.8	6.8
7	GLENN	373.3	21.7	5.8	3.6	8.8
8	DEL NORTE	287.0	16.7	5.8 *	3.4	9.3
9	SANTA CRUZ	2,636.7	153.3	5.8	4.9	6.7
10	SAN LUIS OBISPO	2,520.3	146.7	5.8	4.9	6.8
11	BUTTE	2,432.0	142.0	5.8	4.9	6.8
12	COLUSA	292.0	17.3	5.9 *	3.5	9.5
13	SONOMA	4,709.0	280.0	5.9	5.2	6.6
14	TUOLUMNE	458.7	28.0	6.1	4.1	8.8
15	ORANGE	37,053.3	2,270.0	6.1	5.9	6.4
16	TEHAMA	755.0	46.3	6.1	4.5	8.2
17	MONTEREY	5,975.0	369.0	6.2	5.5	6.8
18	MERCED	4,063.3	256.3	6.3	5.5	7.1
19	CALAVERAS	390.3	24.7	6.3	4.1	9.4
20	HUMBOLDT	1,409.0	89.3	6.3	5.1	7.8
21	NAPA	1,299.3	83.0	6.4	5.1	7.9
22	SAN BENITO	761.3	49.3	6.5	4.8	8.6
23	SAN MATEO	8,623.7	563.3	6.5	6.0	7.1
24	AMADOR	305.0	20.0	6.6	4.0	10.1
25	STANISLAUS	7,547.3	497.3	6.6	6.0	7.2
26	KINGS	2,293.3	151.3	6.6	5.5	7.7
27	LAKE	738.3	49.3	6.7	4.9	8.8
28	MADERA	2,183.0	146.3	6.7	5.6	7.8
29	SAN DIEGO	41,326.3	2,789.7	6.8	6.5	7.0
30	SHASTA	2,004.7	135.7	6.8	5.6	7.9
31	SOLANO	5,141.3	351.7	6.8	6.1	7.6
32	SUTTER	1,299.0	89.7	6.9	5.5	8.5
33	SANTA CLARA	22,148.7	1,529.0	6.9	6.6	7.2
34	EL DORADO	1,613.3	112.0	6.9	5.7	8.2
	CALIFORNIA	**471,618.3**	**32,597.0**	**6.9**	**6.8**	**7.0**
35	CONTRA COSTA	12,171.0	846.3	7.0	6.5	7.4
36	MENDOCINO	971.0	67.7	7.0	5.4	8.8
37	SACRAMENTO	19,284.3	1,346.0	7.0	6.6	7.4
38	SAN FRANCISCO	8,900.7	623.3	7.0	6.5	7.6

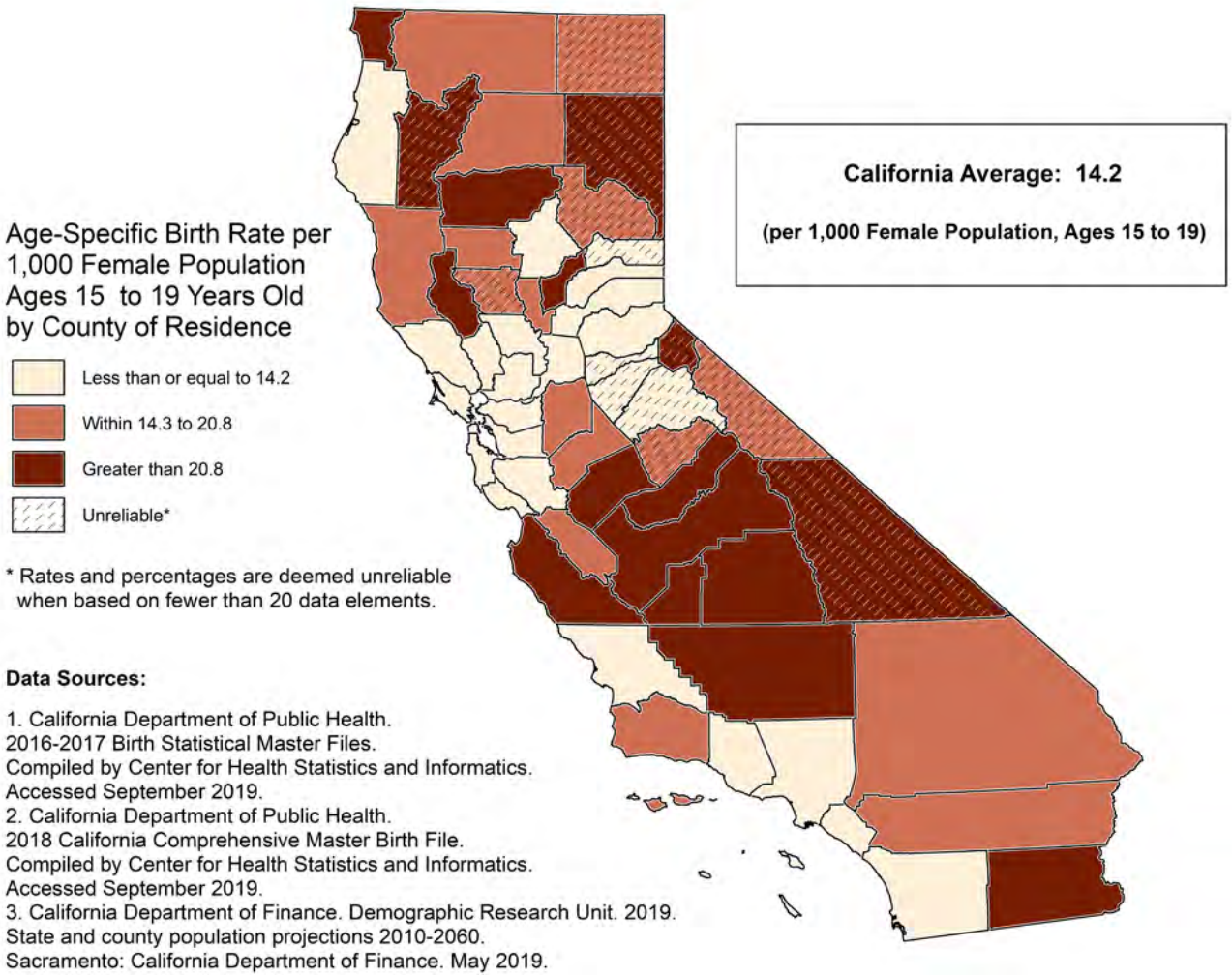
RANK ORDER	COUNTY OF RESIDENCE	2016-2018 LIVE BIRTHS (AVERAGE) LIVE BIRTHS	LOW BIRTHWEIGHT NUMBER	LOW BIRTHWEIGHT PERCENT	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
39	RIVERSIDE	29,746.0	2,085.7	7.0	6.7	7.3
40	SANTA BARBARA	5,430.3	382.0	7.0	6.3	7.7
41	TULARE	7,058.0	498.0	7.1	6.4	7.7
42	FRESNO	14,696.7	1,057.3	7.2	6.8	7.6
43	ALAMEDA	18,900.0	1,372.0	7.3	6.9	7.6
44	LOS ANGELES	116,651.3	8,478.3	7.3	7.1	7.4
45	YUBA	1,173.0	86.7	7.4	5.9	9.1
46	SAN JOAQUIN	10,004.0	747.3	7.5	6.9	8.0
47	KERN	13,308.0	998.3	7.5	7.0	8.0
48	SAN BERNARDINO	29,923.7	2,245.0	7.5	7.2	7.8
	HPO 2020: MICH-8.1			**7.8**		
	MARIPOSA	148.3	<11.0	M *	3.2	12.4
	MODOC	96.7	<11.0	M *	2.9	14.9
	TRINITY	115.7	<11.0	M *	1.6	10.5
49	SISKIYOU	448.0	35.3	7.9	5.5	11.0
50	MONO	136.7	11.0	8.0 *	4.0	14.4
51	LASSEN	305.7	25.0	8.2	5.3	12.1
52	INYO	188.7	16.7	8.8 *	5.1	14.2
53	PLUMAS	168.7	17.3	10.3 *	6.0	16.4
	ALPINE	<11.0	<11.0	NM *	0.3	72.7
	SIERRA	28.7	<11.0	NM *	1.7	28.8

* 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: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing percentage. DDG suppressions are listed alphabetically. See technical notes for more information.

Sources:

1. California Department of Public Health: 2016-2017 Birth Statistical Master Files.
2. California Department of Public Health: 2018 California Comprehensive Master Birth File.

BIRTHS TO ADOLESCENT MOTHERS, 15 TO 19 YEARS OLD, 2016-2018



The age-specific birth rate to adolescent mothers, ages 15 to 19 years old, in California averaged 14.2 births per 1,000 female population. The age-specific birth rate for California is derived from averaging the number of births to adolescent mothers for 2016 to 2018 and dividing by the female population as of July 1, 2017. The total number of births for the three years averaged 19,088.0 and the 2017 female population count was 1,348,748.

Among counties with reliable rates, the age-specific birth rate of births to adolescent mothers ranged from a high of 29.8 in Tulare County to a low of 5.9 in Marin County, a factor of 5 to 1.

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

Nine counties contain suppressed data for the three-year average live births and age specific birth rate per the Data De-Identification Guidelines (DDG). See technical notes for more information regarding DDG.

The California age-specific birth rate to adolescent mothers for the 2013-2015 period averaged 19.7 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2017 FEMALE POPULATION	2016-2018 LIVE BIRTHS (AVERAGE)	AGE-SPECIFIC BIRTH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020: N/A					
1	MARIN	7,086	42.0	5.9	4.3	8.0
2	SAN FRANCISCO	17,807	106.0	6.0	4.8	7.1
3	PLACER	12,002	78.0	6.5	5.1	8.1
4	YOLO	11,344	74.3	6.6	5.1	8.2
5	EL DORADO	6,357	46.3	7.3	5.3	9.7
6	SANTA CLARA	58,731	437.7	7.5	6.8	8.2
7	ALAMEDA	51,446	384.3	7.5	6.7	8.2
8	NEVADA	2,651	21.7	8.2	5.1	12.4
9	SAN MATEO	19,309	158.0	8.2	6.9	9.5
10	SONOMA	15,930	140.7	8.8	7.4	10.3
11	SAN LUIS OBISPO	10,549	93.3	8.8	7.1	10.8
12	SANTA CRUZ	11,767	104.3	8.9	7.2	10.6
13	CONTRA COSTA	35,196	318.7	9.1	8.1	10.0
14	NAPA	4,648	45.0	9.7	7.1	13.0
15	ORANGE	110,735	1,072.7	9.7	9.1	10.3
16	HUMBOLDT	4,929	53.0	10.8	8.1	14.1
17	TUOLUMNE	1,276	14.0	11.0 *	6.0	18.4
18	SAN DIEGO	109,276	1,285.3	11.8	11.1	12.4
19	BUTTE	8,770	107.0	12.2	9.9	14.5
20	SOLANO	15,173	185.7	12.2	10.5	14.0
21	SACRAMENTO	53,032	702.7	13.2	12.3	14.2
22	VENTURA	28,418	381.3	13.4	12.1	14.8
23	LOS ANGELES	342,249	4,656.7	13.6	13.2	14.0
24	CALAVERAS	1,219	16.7	13.7 *	7.9	22.0
	AMADOR	908	<11.0	NA *	5.0	19.8
	SIERRA	70	<11.0	NA *	<0.1	71.2
	CALIFORNIA	**1,348,748**	**19,088.0**	**14.2**	**14.0**	**14.4**
25	SAN BENITO	2,282	33.0	14.5	10.0	20.3
26	SUTTER	3,568	56.0	15.7	11.9	20.4
27	RIVERSIDE	90,369	1,426.0	15.8	15.0	16.6
28	SANTA BARBARA	18,998	324.0	17.1	15.2	18.9
29	SAN JOAQUIN	28,606	509.7	17.8	16.3	19.4
30	SHASTA	5,410	99.7	18.4	15.0	22.4
31	GLENN	1,109	20.7	18.6	11.5	28.6
32	SISKIYOU	1,313	24.7	18.8	12.1	27.8
33	MENDOCINO	2,610	50.0	19.2	14.2	25.3
34	SAN BERNARDINO	81,749	1,620.3	19.8	18.9	20.8
35	COLUSA	824	16.3	19.8 *	11.4	32.0
36	STANISLAUS	21,245	421.3	19.8	17.9	21.7

RANK ORDER	COUNTY OF RESIDENCE	2017 FEMALE POPULATION	2016-2018 LIVE BIRTHS (AVERAGE)	AGE-SPECIFIC BIRTH RATE	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
37	LASSEN	731	16.0	21.9 *	12.5	35.5
38	MERCED	12,103	286.3	23.7	20.9	26.4
39	YUBA	2,529	60.7	24.0	18.3	30.8
40	TEHAMA	2,075	50.0	24.1	17.9	31.8
41	FRESNO	40,020	975.3	24.4	22.8	25.9
42	MONTEREY	15,692	385.0	24.5	22.1	27.0
43	LAKE	1,783	45.0	25.2	18.4	33.8
44	KINGS	5,893	155.3	26.4	22.2	30.5
45	MADERA	5,728	151.0	26.4	22.2	30.6
46	IMPERIAL	6,834	195.3	28.6	24.6	32.6
47	DEL NORTE	844	24.3	28.8	18.5	42.8
48	KERN	34,500	1,003.3	29.1	27.3	30.9
49	TULARE	18,609	554.0	29.8	27.3	32.2
	ALPINE	46	<11.0	NA *	0.6	121.1
	INYO	469	<11.0	NA *	11.2	41.1
	MARIPOSA	425	<11.0	NA *	8.1	37.1
	MODOC	280	<11.0	NA *	6.5	43.3
	MONO	368	<11.0	NA *	5.4	34.2
	PLUMAS	509	<11.0	NA *	8.1	33.6
	TRINITY	349	<11.0	NA *	12.4	50.2

* 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.
<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: HPO refers to the Healthy People National Objective.
Counties were rank ordered by increasing age-specific birth rate rate. DDG suppressions are listed alphabetically.
See technical notes for more information.

Sources:

1. California Department of Public Health: 2016-2017 Birth Statistical Master Files.
2. California Department of Public Health: 2018 California Comprehensive Master Birth File.
3. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

PRENATAL CARE BEGUN
DURING THE FIRST TRIMESTER OF PREGNANCY, 2016-2018

The number of births to California mothers who began prenatal care during the first trimester of pregnancy averaged 83.9 per 100 live births or 83.9 percent. The California percentage is derived from averaging the number of live births to mothers who began prenatal care during the first trimester of pregnancy for 2016 to 2018, 390,720.0, and dividing by the average number of live births, 465,650.3, which excluded births with an unknown number of prenatal care visits, during the same period.

Among counties with reliable percentages, the percentage of births to mothers who began prenatal care during the first trimester of pregnancy ranged from a high of 91.7 in San Mateo County to a low of 49.8 in Imperial County, a factor of 1.8 to 1.

Sixteen counties with reliable percentages met the Healthy People 2020 National Objective MICH-10.1 with at least 84.8 percent of live births born to mothers who began prenatal care during the first trimester. One county with an unreliable percentage did not meet the objective.

One county contains suppressed data for the prenatal care count and percentage per the Data De-Identification Guidelines (DDG). See technical notes for more information regarding DDG.

The California number of live births to mothers who began prenatal care during the first trimester of pregnancy for the 2013-2015 period averaged 83.3 per 100 live births, or 83.3 percent.

TABLE 27A
PRENATAL CARE BEGUN DURING THE FIRST TRIMESTER OF PREGNANCY
RANKED BY PERCENTAGE OF THREE-YEAR AVERAGE FIRST TRIMESTER PRENATAL CARE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2016-2018 LIVE BIRTHS (AVERAGE)			95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		TOTAL NUMBER	FIRST TRIMESTER PRENATAL CARE			
			NUMBER	PERCENT		
1	SAN MATEO	8,592.0	7,875.7	91.7	89.6	93.7
2	ALAMEDA	18,673.7	16,749.7	89.7	88.3	91.1
3	NAPA	1,292.7	1,147.7	88.8	83.6	93.9
4	CONTRA COSTA	12,132.3	10,712.7	88.3	86.6	90.0
5	SONOMA	4,691.0	4,121.3	87.9	85.2	90.5
6	ORANGE	36,700.3	32,052.0	87.3	86.4	88.3
7	SAN FRANCISCO	8,807.0	7,686.3	87.3	85.3	89.2
8	FRESNO	14,553.3	12,680.7	87.1	85.6	88.6
9	SANTA CLARA	22,066.0	19,212.0	87.1	85.8	88.3
10	SAN BENITO	746.3	645.7	86.5	79.8	93.2
11	AMADOR	301.7	260.0	86.2	75.7	96.7
12	MARIN	2,191.7	1,875.7	85.6	81.7	89.5
13	SAN DIEGO	41,243.7	35,119.3	85.2	84.3	86.0
14	SACRAMENTO	18,931.3	16,113.0	85.1	83.8	86.4
15	LOS ANGELES	114,675.0	97,429.0	85.0	84.4	85.5
16	VENTURA	9,296.7	7,896.0	84.9	83.1	86.8
	HPO 2020: MICH-10.1			**84.8**		
17	PLACER	3,678.7	3,100.0	84.3	81.3	87.2
18	SANTA CRUZ	2,589.0	2,175.0	84.0	80.5	87.5
	CALIFORNIA	**465,650.3**	**390,720.0**	**83.9**	**83.6**	**84.2**
19	RIVERSIDE	29,582.0	24,635.7	83.3	82.2	84.3
20	SAN BERNARDINO	29,654.0	24,634.7	83.1	82.0	84.1
21	YOLO	2,225.3	1,839.3	82.7	78.9	86.4
22	STANISLAUS	6,919.0	5,706.0	82.5	80.3	84.6
23	SOLANO	5,107.7	4,149.0	81.2	78.8	83.7
24	SAN JOAQUIN	9,828.0	7,887.7	80.3	78.5	82.0
25	INYO	187.0	148.3	79.3	66.6	92.1
26	SAN LUIS OBISPO	2,509.3	1,986.0	79.1	75.7	82.6
27	HUMBOLDT	1,400.0	1,105.0	78.9	74.3	83.6
28	SANTA BARBARA	5,418.3	4,242.0	78.3	75.9	80.6
29	MONTEREY	5,957.3	4,646.0	78.0	75.7	80.2
30	KERN	12,584.7	9,790.7	77.8	76.3	79.3
31	DEL NORTE	281.3	215.3	76.5	66.3	86.8
32	EL DORADO	1,601.7	1,225.3	76.5	72.2	80.8
33	CALAVERAS	383.7	291.3	75.9	67.2	84.7
34	SISKIYOU	440.7	333.0	75.6	67.5	83.7
35	NEVADA	773.7	583.7	75.4	69.3	81.6
36	MADERA	2,175.0	1,629.7	74.9	71.3	78.6

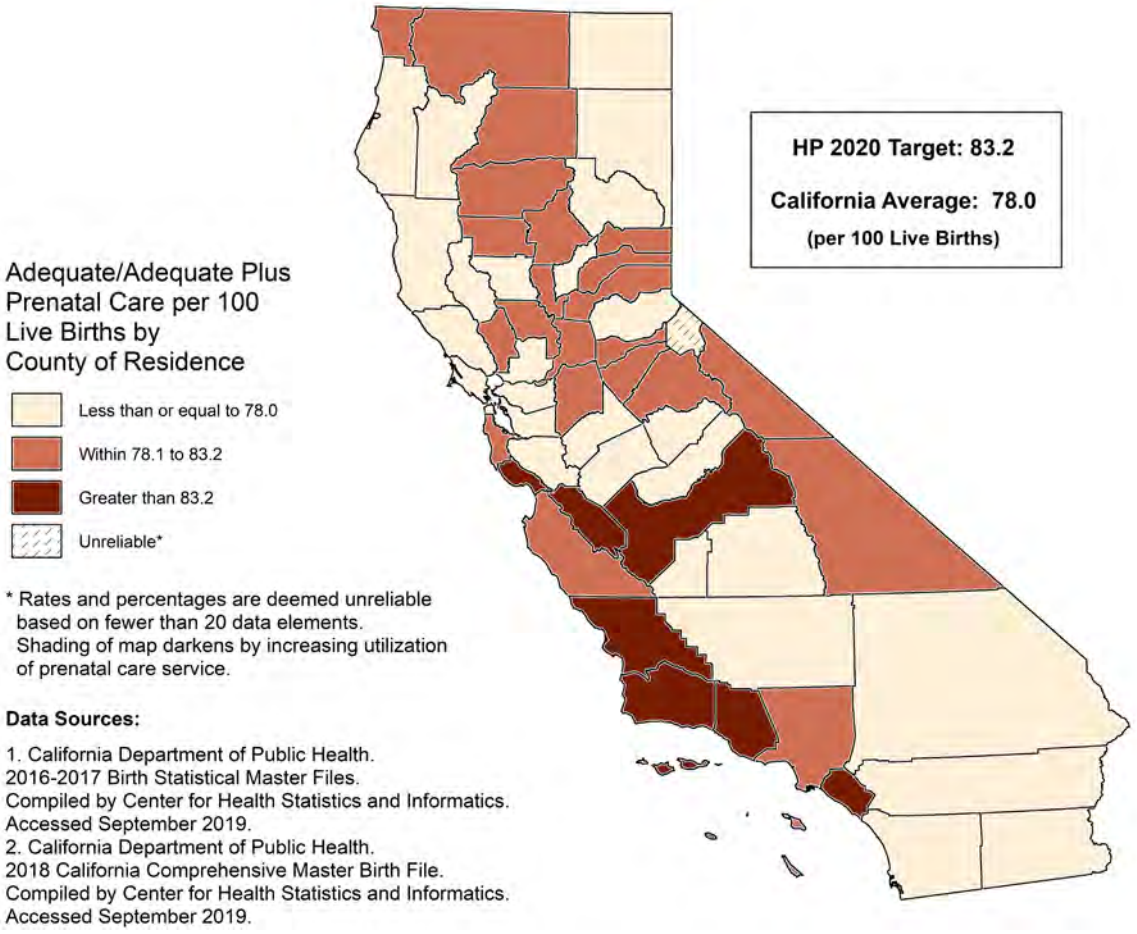
RANK ORDER	COUNTY OF RESIDENCE	2016-2018 LIVE BIRTHS (AVERAGE)			95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		TOTAL NUMBER	FIRST TRIMESTER PRENATAL CARE			
			NUMBER	PERCENT		
37	TULARE	6,997.0	5,116.3	73.1	71.1	75.1
38	LASSEN	295.7	215.7	72.9	63.2	82.7
39	KINGS	2,289.0	1,663.7	72.7	69.2	76.2
40	BUTTE	2,419.3	1,752.0	72.4	69.0	75.8
41	MONO	135.3	97.3	71.9	58.3	87.7
42	SHASTA	1,987.3	1,420.0	71.5	67.7	75.2
43	GLENN	372.7	264.0	70.8	62.3	79.4
44	SIERRA	28.3	20.0	70.6	43.1	100.0
45	LAKE	725.3	510.3	70.4	64.3	76.5
46	PLUMAS	161.7	113.7	70.3	57.4	83.2
47	SUTTER	1,294.0	894.0	69.1	64.6	73.6
48	YUBA	1,168.7	805.0	68.9	64.1	73.6
49	TUOLUMNE	453.7	311.7	68.7	61.1	76.3
50	MENDOCINO	950.7	650.7	68.4	63.2	73.7
51	TEHAMA	752.3	511.3	68.0	62.1	73.9
52	MERCED	4,001.7	2,695.7	67.4	64.8	69.9
53	COLUSA	287.3	183.0	63.7	54.5	72.9
54	MARIPOSA	145.0	90.7	62.5	50.3	76.8
55	TRINITY	114.7	71.0	61.9	48.4	78.1
56	MODOC	93.3	49.3	52.9	39.1	69.8
57	IMPERIAL	2,779.0	1,382.7	49.8	47.1	52.4
	ALPINE	<11.0	<11.0	NM *	2.0	91.2

* Percentages 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: HPO refers to the Healthy People National Objective.
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.

Sources:

1. California Department of Public Health: 2016-2017 Birth Statistical Master Files.
2. California Department of Public Health: 2018 California Comprehensive Master Birth File.

ADEQUATE/ADEQUATE PLUS PRENATAL CARE (ADEQUACY OF PRENATAL CARE UTILIZATION INDEX), 2016-2018



About 78 per 100 babies in California, or 78.0 percent, were born to mothers who received Adequate/Adequate Plus prenatal care. The percentage is derived from averaging the number of births to mothers who received Adequate/Adequate Plus prenatal care, 361,258.0, and dividing by the average number of live births with the exclusion of unknown adequacy of prenatal care, 463,336.3, for years 2016 through 2018.

Among counties with reliable percentages for births to mothers who received Adequate/Adequate Plus prenatal care, the percentage ranged from a high of 87.3 in Fresno County to a low of 51.9 in Imperial County, a factor of 1.7 to 1.

Seven counties with reliable percentages 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 83.2 percent of total births according to the Adequacy of Prenatal Care Utilization Index. One county with an unreliable percentage did not meet the objective. See Technical Notes, Natality Section, for the determination of Adequate/Adequate Plus and additional clarification.

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

The California percentage of births to mothers who received Adequate/Adequate Plus prenatal care for 2013-2015 averaged 78.3 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, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2016-2018 LIVE BIRTHS (AVERAGE)			95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
		TOTAL NUMBER	ADEQUATE / ADEQUATE PLUS PRENATAL CARE			
			NUMBER	PERCENT		
1	FRESNO	14,515.7	12,678.0	87.3	85.8	88.9
2	VENTURA	9,292.3	7,969.0	85.8	83.9	87.6
3	SAN LUIS OBISPO	2,505.7	2,147.0	85.7	82.1	89.3
4	SANTA BARBARA	5,416.0	4,577.0	84.5	82.1	87.0
5	SAN BENITO	744.0	628.0	84.4	77.8	91.0
6	ORANGE	36,545.7	30,666.0	83.9	83.0	84.9
7	SANTA CRUZ	2,554.0	2,134.3	83.6	80.0	87.1
	HPO 2020: MICH-10.2			**83.2**		
8	MONO	135.3	112.3	83.0	67.7	98.4
9	AMADOR	300.3	248.3	82.7	72.4	93.0
10	LOS ANGELES	113,987.3	92,661.7	81.3	80.8	81.8
11	MONTEREY	5,951.3	4,828.3	81.1	78.8	83.4
12	PLACER	3,672.7	2,973.7	81.0	78.1	83.9
13	YOLO	2,222.3	1,791.7	80.6	76.9	84.4
14	CALAVERAS	382.7	308.3	80.6	71.6	89.6
15	SHASTA	1,984.3	1,596.0	80.4	76.5	84.4
16	TUOLUMNE	451.0	362.3	80.3	72.1	88.6
17	NAPA	1,290.0	1,035.7	80.3	75.4	85.2
18	INYO	186.3	149.0	80.0	67.1	92.8
19	TEHAMA	751.7	600.7	79.9	73.5	86.3
20	SACRAMENTO	18,878.7	15,082.3	79.9	78.6	81.2
21	SAN MATEO	8,589.7	6,860.7	79.9	78.0	81.8
22	BUTTE	2,415.3	1,924.0	79.7	76.1	83.2
23	GLENN	372.7	296.0	79.4	70.4	88.5
24	SAN JOAQUIN	9,734.7	7,717.7	79.3	77.5	81.0
25	NEVADA	736.3	583.3	79.2	72.8	85.7
26	SISKIYOU	439.3	347.0	79.0	70.7	87.3
27	DEL NORTE	281.3	221.7	78.8	68.4	89.2
28	SUTTER	1,294.0	1,017.7	78.6	73.8	83.5
29	SIERRA	27.7	21.7	78.3	48.9	100.0
	CALIFORNIA	**463,336.3**	**361,258.0**	**78.0**	**77.7**	**78.2**
30	MENDOCINO	945.3	736.3	77.9	72.3	83.5
31	SANTA CLARA	22,046.3	16,992.7	77.1	75.9	78.2
32	TULARE	6,981.3	5,378.7	77.0	75.0	79.1
33	SONOMA	4,685.0	3,578.7	76.4	73.9	78.9
34	EL DORADO	1,598.7	1,217.7	76.2	71.9	80.4
35	YUBA	1,167.3	886.3	75.9	70.9	80.9

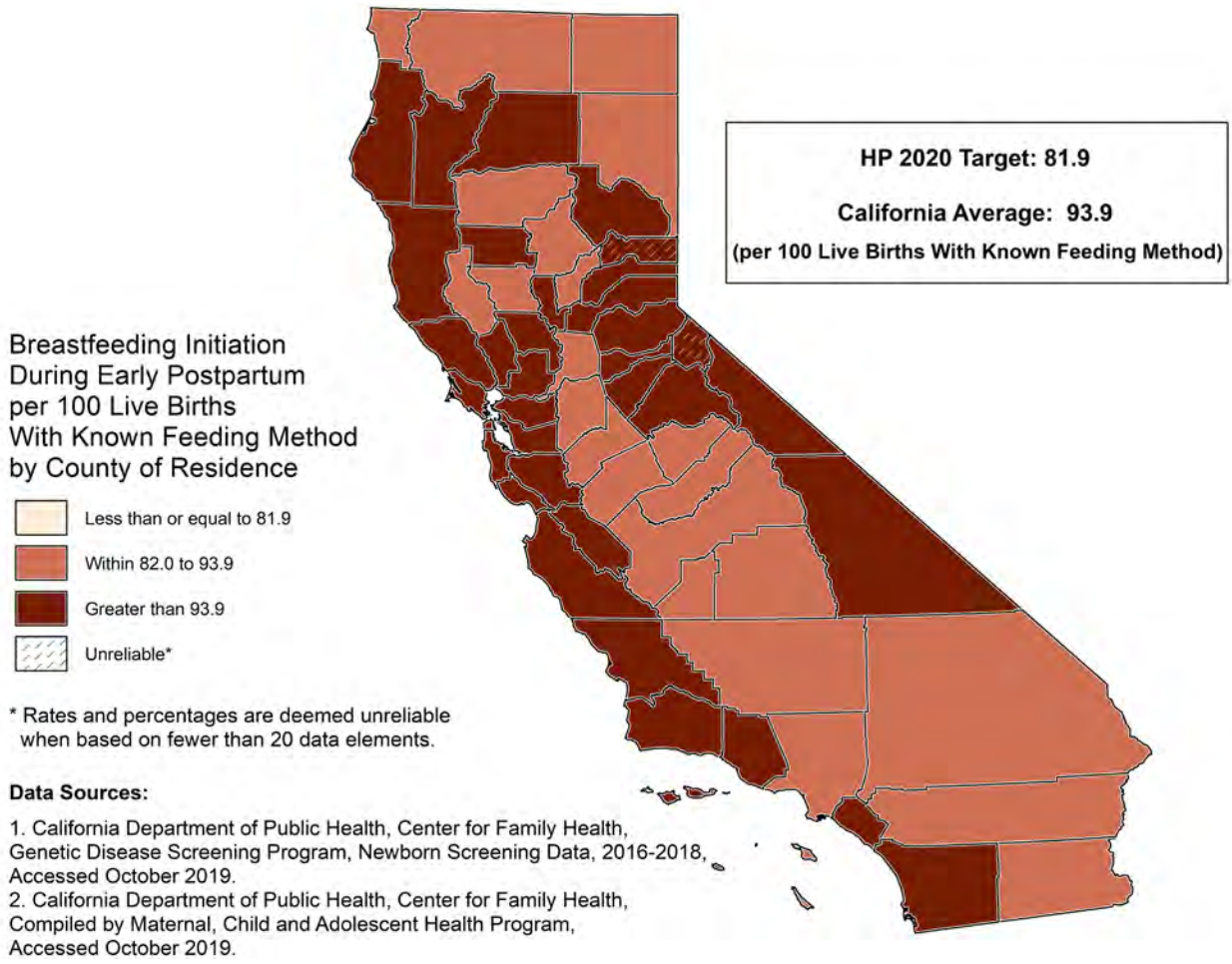
RANK ORDER	COUNTY OF RESIDENCE	2016-2018 LIVE BIRTHS (AVERAGE) TOTAL NUMBER	ADEQUATE / ADEQUATE PLUS PRENATAL CARE NUMBER	ADEQUATE / ADEQUATE PLUS PRENATAL CARE PERCENT	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
36	SAN DIEGO	41,148.3	31,148.7	75.7	74.9	76.5
37	SAN FRANCISCO	8,793.0	6,603.7	75.1	73.3	76.9
38	STANISLAUS	6,442.0	4,825.3	74.9	72.8	77.0
39	CONTRA COSTA	12,124.7	9,060.0	74.7	73.2	76.3
40	HUMBOLDT	1,397.7	1,032.3	73.9	69.4	78.4
41	KERN	12,529.7	9,236.7	73.7	72.2	75.2
42	RIVERSIDE	29,520.7	21,751.3	73.7	72.7	74.7
43	COLUSA	287.0	210.3	73.3	63.4	83.2
44	SAN BERNARDINO	29,405.3	21,122.3	71.8	70.9	72.8
45	MADERA	2,169.0	1,546.7	71.3	67.8	74.9
46	TRINITY	114.7	81.3	70.9	56.4	88.1
47	KINGS	2,289.0	1,620.3	70.8	67.3	74.2
48	LAKE	721.3	505.3	70.1	63.9	76.2
49	ALAMEDA	18,605.3	12,794.0	68.8	67.6	70.0
50	SOLANO	5,104.7	3,474.0	68.1	65.8	70.3
51	MARIN	2,191.3	1,470.0	67.1	63.7	70.5
52	MERCED	3,934.7	2,578.3	65.5	63.0	68.1
53	MARIPOSA	142.7	92.7	65.0	52.4	79.6
54	LASSEN	293.3	185.3	63.2	54.1	72.3
55	PLUMAS	160.7	93.7	58.3	47.1	71.4
56	MODOC	92.7	50.0	54.0	40.0	71.1
57	IMPERIAL	2,779.0	1,442.0	51.9	49.2	54.6
	ALPINE	<11.0	<11.0	NM *	14.9	100.0

* Percentages 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: HPO refers to the Healthy People National Objective.
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.

Sources:

1. California Department of Public Health: 2016-2017 Birth Statistical Master Files.
2. California Department of Public Health: 2018 California Comprehensive Master Birth File.

BREASTFEEDING INITIATION DURING EARLY POSTPARTUM, 2016-2018



The California percentage of breastfed infants was 93.9. The percentage is derived from averaging the number of breastfed infants for 2016 through 2018 and dividing by the average number of live births with a known feeding method. The number of breastfed infants for the three years averaged 386,701.0 and the average number of live births with a known feeding method during the same period was 411,623.0.

Among counties with reliable percentages for breastfed infants, the percentage ranged from a high of 98.6 in Santa Cruz County to a low of 87.9 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 after the birth, to at least 81.9 percent of total live births with a known feeding method. Two counties with unreliable percentages met the objective.

One county contains suppressed data for the three-year average live births count, three-year average breastfeeding count, and percentage per the Data De-Identification Guidelines (DDG). See technical notes for more information regarding DDG.

The number of breastfed infants in California for the 2013-2015 period averaged 93.5 per 100 live births, or 93.5 percent, where the feeding method was known.

TABLE 28
BREASTFEEDING INITIATION DURING EARLY POSTPARTUM
RANKED BY THREE YEAR AVERAGE BREASTFEEDING INITIATION PERCENTAGE
CALIFORNIA COUNTIES, 2016-2018

RANK ORDER	COUNTY OF RESIDENCE	2016-2018 BIRTHS (AVERAGE)/WITH KNOWN FEEDING METHOD			95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
			BREASTFED			
		TOTAL NUMBER	NUMBER	PERCENT		
1	SANTA CRUZ	2,340.3	2,308.7	98.6	94.6	100.0
2	MARIN	1,920.7	1,892.0	98.5	94.1	100.0
3	INYO	159.0	156.3	98.3	82.9	100.0
4	SIERRA	15.7	15.3	97.9 *	55.2	100.0
5	NEVADA	639.0	625.0	97.8	90.1	100.0
6	MONO	102.0	99.7	97.7	79.5	100.0
7	SAN MATEO	7,718.0	7,518.0	97.4	95.2	99.6
8	SAN LUIS OBISPO	2,157.3	2,101.0	97.4	93.2	100.0
9	NAPA	1,128.0	1,098.3	97.4	91.6	100.0
10	SANTA CLARA	19,783.0	19,226.7	97.2	95.8	98.6
11	SONOMA	4,135.3	4,018.3	97.2	94.2	100.0
12	SAN FRANCISCO	7,770.7	7,548.3	97.1	94.9	99.3
13	ALAMEDA	16,526.3	16,047.3	97.1	95.6	98.6
14	EL DORADO	1,364.3	1,322.7	96.9	91.7	100.0
15	YOLO	2,028.7	1,961.7	96.7	92.4	100.0
16	CONTRA COSTA	10,687.0	10,330.0	96.7	94.8	98.5
17	PLUMAS	118.7	114.7	96.6	78.9	100.0
18	TRINITY	98.7	95.3	96.6	78.2	100.0
19	AMADOR	267.7	258.3	96.5	84.7	100.0
20	VENTURA	8,256.3	7,960.7	96.4	94.3	98.5
21	MENDOCINO	831.0	801.0	96.4	89.7	100.0
22	SHASTA	1,754.3	1,690.0	96.3	91.7	100.0
23	MONTEREY	5,108.0	4,917.3	96.3	93.6	99.0
24	SANTA BARBARA	4,848.3	4,665.0	96.2	93.5	99.0
25	PLACER	3,233.0	3,109.7	96.2	92.8	99.6
26	SAN DIEGO	34,257.7	32,907.3	96.1	95.0	97.1
27	TUOLUMNE	385.0	369.3	95.9	86.1	100.0
28	GLENN	319.7	305.3	95.5	84.8	100.0
29	CALAVERAS	337.7	322.0	95.4	84.9	100.0
30	SOLANO	4,173.3	3,968.0	95.1	92.1	98.0
31	SAN BENITO	644.0	611.3	94.9	87.4	100.0
32	SUTTER	1,118.7	1,059.7	94.7	89.0	100.0
33	ORANGE	33,742.3	31,940.3	94.7	93.6	95.7
34	HUMBOLDT	1,205.0	1,134.3	94.1	88.7	99.6
35	LOS ANGELES	103,022.7	96,714.3	93.9	93.3	94.5
	CALIFORNIA	**411,623.0**	**386,701.0**	**93.9**	**93.6**	**94.2**
36	COLUSA	264.7	248.3	93.8	82.2	100.0

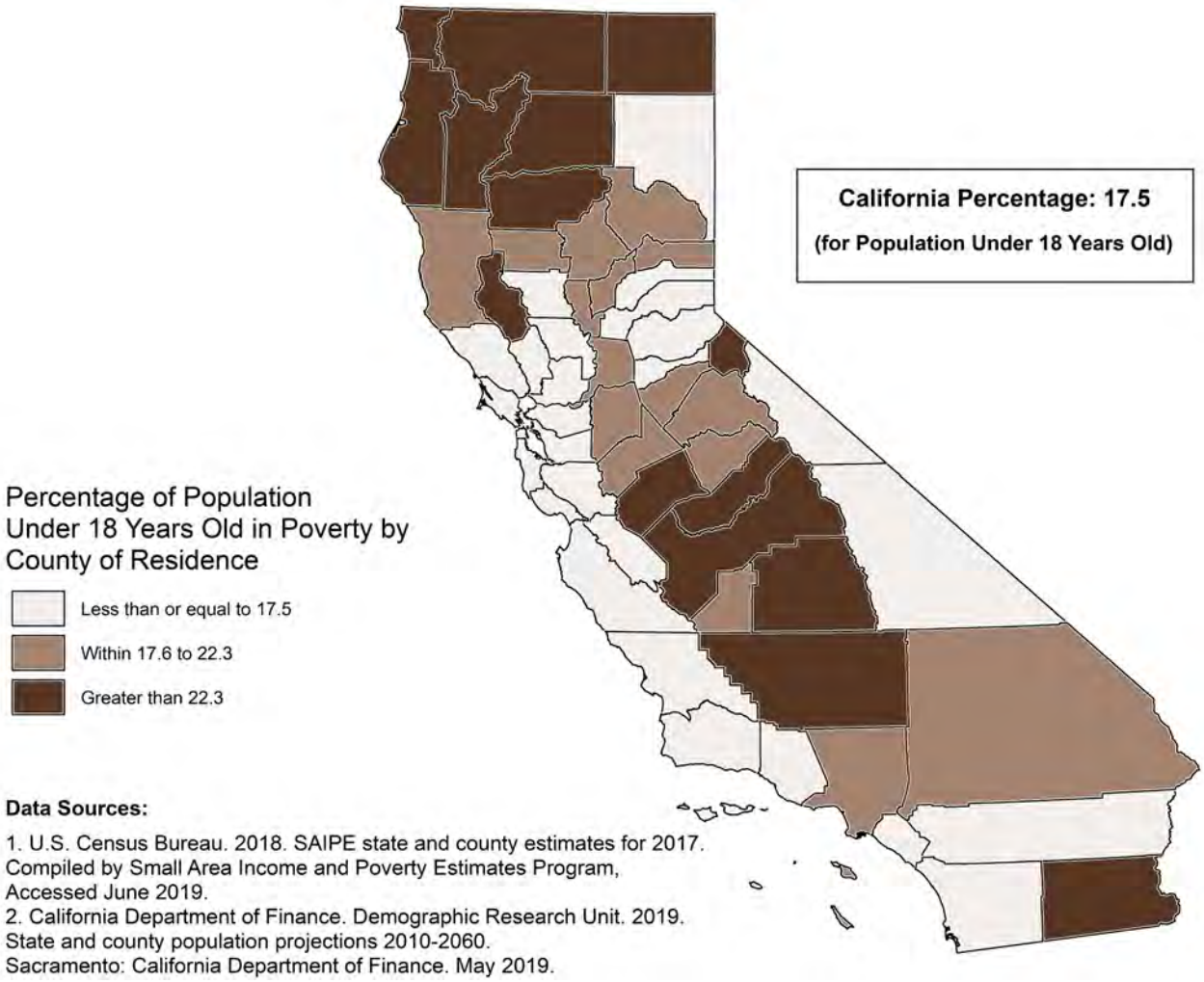
RANK ORDER	COUNTY OF RESIDENCE	2016-2018 BIRTHS (AVERAGE)/WITH KNOWN FEEDING METHOD			95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
			BREASTFED			
		TOTAL NUMBER	NUMBER	PERCENT		
37	TEHAMA	631.3	592.3	93.8	86.3	100.0
38	MODOC	32.0	30.0	93.8	63.3	100.0
39	SISKIYOU	309.0	289.7	93.7	82.9	100.0
40	LASSEN	219.7	205.7	93.6	80.8	100.0
41	MARIPOSA	134.0	125.3	93.5	77.2	100.0
42	LAKE	602.7	560.0	92.9	85.2	100.0
43	SACRAMENTO	16,729.7	15,541.3	92.9	91.4	94.4
44	IMPERIAL	2,388.3	2,214.3	92.7	88.9	96.6
45	RIVERSIDE	25,652.7	23,698.0	92.4	91.2	93.6
46	MERCED	3,541.0	3,262.3	92.1	89.0	95.3
47	BUTTE	2,123.0	1,949.0	91.8	87.7	95.9
48	YUBA	998.0	910.0	91.2	85.3	97.1
49	DEL NORTE	239.0	217.7	91.1	79.0	100.0
50	MADERA	1,877.3	1,696.3	90.4	86.1	94.7
51	TULARE	6,019.0	5,433.7	90.3	87.9	92.7
52	KINGS	1,996.3	1,799.7	90.1	86.0	94.3
53	SAN BERNARDINO	25,914.3	23,330.7	90.0	88.9	91.2
54	KERN	11,562.3	10,380.0	89.8	88.0	91.5
55	SAN JOAQUIN	8,499.3	7,629.0	89.8	87.7	91.8
56	STANISLAUS	6,676.0	5,934.0	88.9	86.6	91.1
57	FRESNO	13,010.3	11,435.0	87.9	86.3	89.5
	ALPINE	<11.0	<11.0	M *	32.0	100.0
	HPO 2020: MICH-21.1			**81.9**		

* 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) refers to the Healthy People 2020 National Objectives only.
Note: HPO refers to the Healthy People National Objective.
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, 2016-2018. Data Requested, October 2019.
2. California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Program. Data Requested, October 2019.

PERSONS UNDER 18 YEARS OLD IN POVERTY, 2017



In California, 17.5 percent of individuals under 18 years old were living in poverty. The percentage resulted from the estimated population of persons under 18 years of age living in poverty in California, 1,615,913, as published in the 2017 American Community Survey conducted by the U.S. Census Bureau, and the corresponding population count of 9,238,545 as of July 1, 2017.

All fifty-eight counties demonstrated reliable percentages for persons under 18 years of age living in poverty. The percentages ranged from a high of 33.6 in Del Norte County to a low of 6.8 in San Mateo County, a factor of 5.0 to 1.

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

In 2016, 19.3 percent of people under 18 years old lived in poverty.

TABLE 29
PERSONS UNDER 18 YEARS OLD IN POVERTY
RANKED BY PERCENTAGE OF CENSUS POPULATION UNDER 18 YEARS OLD IN POVERTY
CALIFORNIA COUNTIES, 2017

RANK ORDER	COUNTY OF RESIDENCE	UNDER 18 YEARS OLD				
			IN POVERTY			
		2017 POPULATION	NUMBER	PERCENT	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
	HPO 2020: N/A					
1	SAN MATEO	164,012	11,102	6.8	6.6	6.9
2	SANTA CLARA	445,012	34,255	7.7	7.6	7.8
3	PLACER	77,470	6,132	7.9	7.7	8.1
4	MARIN	52,041	4,262	8.2	7.9	8.4
5	NAPA	29,380	2,521	8.6	8.2	8.9
6	EL DORADO	37,087	3,602	9.7	9.4	10.0
7	ALAMEDA	351,136	35,658	10.2	10.0	10.3
8	SONOMA	98,763	10,726	10.9	10.7	11.1
9	SAN FRANCISCO	129,581	14,234	11.0	10.8	11.2
10	MONO	2,851	329	11.5	10.3	12.8
11	CONTRA COSTA	250,632	29,067	11.6	11.5	11.7
12	SAN LUIS OBISPO	51,569	6,083	11.8	11.5	12.1
13	SANTA CRUZ	59,298	7,223	12.2	11.9	12.5
14	SAN BENITO	14,432	1,824	12.6	12.1	13.2
15	YOLO	50,311	6,447	12.8	12.5	13.1
16	VENTURA	197,111	25,607	13.0	12.8	13.2
17	SOLANO	100,024	13,687	13.7	13.5	13.9
18	SAN DIEGO	795,172	112,637	14.2	14.1	14.2
19	COLUSA	6,188	912	14.7	13.8	15.7
20	ORANGE	728,573	108,596	14.9	14.8	15.0
21	NEVADA	16,150	2,451	15.2	14.6	15.8
22	MONTEREY	115,929	18,275	15.8	15.5	16.0
23	AMADOR	5,648	908	16.1	15.0	17.1
24	RIVERSIDE	601,820	98,029	16.3	16.2	16.4
25	SANTA BARBARA	102,607	16,917	16.5	16.2	16.7
26	INYO	3,831	648	16.9	15.6	18.2
27	LASSEN	5,373	940	17.5	16.4	18.6
	CALIFORNIA	**9,238,545**	**1,615,913**	**17.5**	**17.5**	**17.5**
28	SACRAMENTO	362,555	65,306	18.0	17.9	18.2
29	TUOLUMNE	8,636	1,558	18.0	17.1	18.9
30	SUTTER	24,951	4,521	18.1	17.6	18.6
31	STANISLAUS	145,670	27,296	18.7	18.5	19.0
32	LOS ANGELES	2,298,382	457,665	19.9	19.9	20.0
33	GLENN	7,528	1,528	20.3	19.3	21.3
34	SIERRA	457	93	20.4	16.4	24.9
35	PLUMAS	3,223	680	21.1	19.5	22.7
36	MARIPOSA	2,818	600	21.3	19.6	23.0

RANK ORDER	COUNTY OF RESIDENCE	UNDER 18 YEARS OLD				
			IN POVERTY			
		2017 POPULATION	NUMBER	PERCENT	95% CONFIDENCE LIMIT (LOWER)	95% CONFIDENCE LIMIT (UPPER)
37	YUBA	21,315	4,556	21.4	20.8	22.0
38	SAN JOAQUIN	200,642	43,313	21.6	21.4	21.8
39	CALAVERAS	7,361	1,590	21.6	20.5	22.7
40	KINGS	45,943	9,951	21.7	21.2	22.1
41	BUTTE	46,578	10,208	21.9	21.5	22.3
42	MENDOCINO	19,209	4,230	22.0	21.4	22.7
43	SAN BERNARDINO	580,001	129,269	22.3	22.2	22.4
44	SHASTA	38,299	8,635	22.5	22.1	23.0
45	HUMBOLDT	27,980	6,347	22.7	22.1	23.2
46	SISKIYOU	8,654	2,238	25.9	24.8	26.9
47	MODOC	1,826	475	26.0	23.7	28.4
48	IMPERIAL	53,462	14,566	27.2	26.8	27.7
49	FRESNO	281,754	78,675	27.9	27.7	28.1
50	MADERA	42,099	12,075	28.7	28.2	29.2
51	TEHAMA	15,193	4,363	28.7	27.9	29.6
52	LAKE	13,588	3,905	28.7	27.8	29.6
53	KERN	255,373	74,276	29.1	28.9	29.3
54	TRINITY	2,245	671	29.9	27.6	32.2
55	TULARE	144,178	45,371	31.5	31.2	31.8
56	ALPINE	208	67	32.2	25.0	40.9
57	MERCED	80,624	26,862	33.3	32.9	33.7

Note: HPO refers to the Healthy People National Objective.
Counties were rank ordered first by increasing percentage of persons under 18 years old 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 old 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 (SAIPE) Program. https://www.census.gov/data/datasets/2017/demo/saipe/2017-state-and-county.html. Accessed June 2019.
2. California Department of Finance. Demographic Research Unit. 2019. State and county population projections 2010-2060. Sacramento: California Department of Finance. May 2019.

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	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	143.6	134.4	13.2	12.2	30.5	25.8
ALAMEDA	137.4	126.9	12.2	11.9	30.0	24.8
ALPINE	74.3 *	174.1 *	-	-	12.3 *	19.9 *
AMADOR	145.2	149.9	16.4 *	15.5 *	38.2	40.3
BUTTE	165.4	169.5	14.8	13.5	41.5	38.5
CALAVERAS	155.2	145.6	13.7 *	13.8 *	38.5	36.8
COLUSA	126.0	139.8	12.9 *	15.8 *	29.6 *	28.6 *
CONTRA COSTA	143.2	130.3	13.3	12.3	31.6	25.4
DEL NORTE	158.1	163.3	14.1 *	10.9 *	39.8 *	37.6 *
EL DORADO	145.0	135.5	12.1	12.0	34.3	26.9
FRESNO	147.4	139.5	12.9	12.5	32.8	28.3
GLENN	179.2	158.2	11.2 *	10.4 *	58.9 *	37.0 *
HUMBOLDT	165.9	161.2	13.3	13.5	34.9	37.0
IMPERIAL	116.2	120.3	9.8 *	10.9	20.8	20.1
INYO	138.0	151.7	11.5 *	18.3 *	32.0 *	28.1 *
KERN	155.5	149.2	12.9	12.2	35.8	31.0
KINGS	159.3	151.4	15.6 *	12.6 *	36.9	36.3
LAKE	191.6	186.9	14.6 *	16.4 *	49.6	46.1
LASSEN	117.4	126.8	14.7 *	9.6 *	32.2 *	28.9 *
LOS ANGELES	137.5	129.9	13.6	12.6	26.7	23.3
MADERA	142.5	144.4	13.5	11.8 *	32.6	27.0
MARIN	119.8	112.0	9.3	9.1	22.2	19.8
MARIPOSA	134.3	144.0	16.6 *	15.5 *	32.8 *	28.0 *
MENDOCINO	169.5	146.8	15.2 *	14.6 *	39.9	30.5
MERCED	157.1	157.9	14.7	14.5	37.3	33.7
MODOC	166.6	105.4 *	12.0 *	11.3 *	29.9 *	17.2 *
MONO	169.6 *	81.8 *	16.2 *	11.1 *	31.8 *	9.0 *
MONTEREY	130.0	122.2	10.2	10.5	25.1	23.0
NAPA	161.0	148.1	11.2	13.5	37.0	28.3
NEVADA	138.1	136.0	12.8	9.3 *	29.6	26.4
ORANGE	134.5	127.2	11.7	10.7	28.2	24.1
PLACER	147.8	132.2	11.3	11.5	30.4	24.5
PLUMAS	144.3	156.9	11.3 *	18.0 *	36.7 *	37.7 *
RIVERSIDE	148.2	137.4	14.2	13.1	33.6	27.8
SACRAMENTO	163.9	154.7	14.8	13.0	38.4	32.0
SAN BENITO	125.5	120.9	10.1 *	10.4 *	24.3 *	30.4 *
SAN BERNARDINO	161.9	151.2	16.3	14.7	34.9	28.5
SAN DIEGO	146.6	137.3	13.0	12.1	30.8	25.6
SAN FRANCISCO	132.1	122.0	12.2	11.6	30.0	24.3
SAN JOAQUIN	168.5	155.4	15.7	14.1	39.4	29.7
SAN LUIS OBISPO	138.9	132.4	13.1	11.3	30.8	26.5

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	ALL CANCERS		COLORECTAL CANCER		LUNG CANCER	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
SAN MATEO	125.1	111.7	10.7	9.5	24.9	20.0
SANTA BARBARA	141.9	131.5	10.9	10.1	26.4	23.9
SANTA CLARA	124.3	110.3	10.8	9.3	26.2	20.2
SANTA CRUZ	135.7	125.5	11.1	11.6	25.9	22.6
SHASTA	195.3	179.7	17.0	16.5	50.4	40.5
SIERRA	129.1 *	74.1 *	5.9 *	20.2 *	25.0 *	-
SISKIYOU	170.5	152.3	11.2 *	14.6 *	37.9	38.1
SOLANO	167.0	160.1	15.2	13.6	36.4	31.7
SONOMA	146.1	138.2	14.4	12.5	31.2	27.5
STANISLAUS	175.1	162.2	16.5	15.9	39.8	34.7
SUTTER	153.1	157.9	7.3 *	11.4 *	44.4	34.6
TEHAMA	167.4	154.8	15.3 *	11.6 *	44.5	35.4
TRINITY	159.7	94.9	14.9 *	9.9 *	35.4 *	28.6 *
TULARE	144.1	132.4	13.2	13.0	33.3	26.2
TUOLUMNE	161.5	157.6	10.6 *	10.5 *	35.2	35.1
VENTURA	145.3	136.2	13.7	13.1	27.5	24.4
YOLO	150.7	141.4	12.3	11.0	33.4	26.4
YUBA	187.3	198.3	17.5 *	13.6 *	53.7	53.3

- 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	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	19.8	18.6	19.5	19.7	20.6	21.2
ALAMEDA	18.4	17.2	18.5	17.9	20.6	18.5
ALPINE	48.3 *	-	-	48.9 *	-	-
AMADOR	20.3 *	17.2 *	14.1 *	20.9 *	7.6 *	11.3 *
BUTTE	18.5	21.4	21.7	22.1	17.1	23.2
CALAVERAS	15.4 *	15.6 *	16.2 *	23.7 *	14.3 *	15.8 *
COLUSA	15.5 *	5.8 *	12.5 *	18.8 *	15.8 *	13.3 *
CONTRA COSTA	20.1	18.5	18.8	19.8	17.5	17.0
DEL NORTE	16.2 *	17.6 *	26.5 *	19.1 *	14.2 *	27.8 *
EL DORADO	19.1	17.7	21.3	19.3	9.3	12.7
FRESNO	20.7	17.0	16.9	18.5	27.7	27.4
GLENN	19.1 *	14.3 *	20.4 *	29.9 *	28.5 *	26.5 *
HUMBOLDT	22.3 *	20.0 *	26.4 *	25.4 *	21.5	29.3
IMPERIAL	11.8 *	14.0 *	19.9 *	17.9 *	29.9	34.9
INYO	15.2 *	9.4 *	11.5 *	18.6 *	16.5 *	21.2 *
KERN	23.2	20.5	22.2	21.4	34.6	38.4
KINGS	19.3 *	16.3 *	25.2 *	17.0 *	29.5	18.1
LAKE	28.6 *	23.6 *	23.4 *	23.8 *	14.6 *	20.3 *
LASSEN	7.3 *	22.2 *	18.3 *	14.9 *	23.8 *	20.0 *
LOS ANGELES	19.8	18.6	18.8	19.6	22.1	23.2
MADERA	18.5 *	21.0 *	19.4 *	19.9 *	19.9	21.7
MARIN	18.2	15.3	16.8	16.5	7.5	8.6
MARIPOSA	17.8 *	22.8 *	21.4 *	10.6 *	14.1 *	16.4 *
MENDOCINO	24.1 *	15.9 *	28.5 *	25.8 *	16.7	18.9
MERCED	17.9	21.8	24.4	22.6	28.7	30.2
MODOC	28.8 *	7.0 *	18.9 *	15.3 *	27.0 *	30.4 *
MONO	23.8 *	76.4 *	49.6 *	14.1 *	35.5 *	4.3 *
MONTEREY	17.5	13.3	17.5	17.7	21.4	16.6
NAPA	17.7 *	16.1 *	28.2	28.5 *	14.1	18.3
NEVADA	26.8	18.1 *	15.9 *	20.1 *	8.6 *	13.7
ORANGE	18.9	17.8	18.3	17.8	13.9	14.1
PLACER	18.2	18.4	22.0	20.1	15.1	15.5
PLUMAS	25.5 *	7.6 *	20.0 *	4.3 *	12.9 *	23.4 *
RIVERSIDE	21.5	19.6	19.1	20.8	18.8	18.2
SACRAMENTO	20.6	21.0	21.2	20.6	24.7	28.5
SAN BENITO	13.6 *	16.6 *	16.8 *	16.2 *	20.5 *	25.5 *
SAN BERNARDINO	22.9	22.3	26.3	25.1	32.8	35.1
SAN DIEGO	19.5	20.3	21.7	21.4	18.8	20.8
SAN FRANCISCO	16.3	14.8	13.0	15.7	12.9	11.9
SAN JOAQUIN	24.6	19.1	24.5	27.1	27.6	26.5
SAN LUIS OBISPO	22.5	18.8	17.6	18.8	12.4	13.0

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	FEMALE BREAST CANCER		PROSTATE CANCER		DIABETES	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
SAN MATEO	18.2	13.9	15.6	17.3	13.0	11.1
SANTA BARBARA	21.4	22.1	18.4	18.0	16.3	15.8
SANTA CLARA	15.9	15.6	15.6	13.6	21.9	20.2
SANTA CRUZ	20.7	16.8	19.2	22.5	15.7	14.6
SHASTA	22.1	22.7	25.8	20.4	20.1	21.6
SIERRA	29.1 *	-	37.0 *	-	20.8 *	11.7 *
SISKIYOU	27.4 *	18.7 *	32.8 *	25.3 *	21.8 *	25.6 *
SOLANO	22.8	17.1	23.3	28.0	27.6	31.7
SONOMA	18.8	20.0	20.9	18.2	17.7	17.4
STANISLAUS	21.2	22.3	22.3	27.1	25.0	28.5
SUTTER	16.6 *	22.6 *	11.3 *	20.7 *	19.8	21.1
TEHAMA	19.5 *	18.5 *	19.1 *	21.1 *	20.2 *	21.8 *
TRINITY	24.0 *	2.0 *	2.0 *	23.4 *	9.6 *	11.5 *
TULARE	20.0	17.3	19.8	17.4	29.7	22.6
TUOLUMNE	22.9 *	23.0 *	18.4 *	14.9 *	17.8 *	11.6 *
VENTURA	18.7	18.1	18.6	19.5	18.0	19.3
YOLO	18.4 *	18.6 *	23.5 *	21.4 *	22.8	25.1
YUBA	19.4 *	26.1 *	29.7 *	28.0 *	20.2 *	22.4 *

- 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)					
	ALZHEIMER'S DISEASE		CORONARY HEART DISEASE		CEREBROVASCULAR DISEASE (STROKE)	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	32.6	36.9	93.8	85.1	35.0	36.9
ALAMEDA	30.4	35.5	68.0	58.2	36.3	40.8
ALPINE	-	19.9 *	88.5 *	195.3 *	24.8 *	80.7 *
AMADOR	48.4	39.2	99.7	85.9	42.1	33.9
BUTTE	43.8	60.0	91.5	88.0	39.0	44.8
CALAVERAS	25.2 *	25.7 *	104.3	82.2	30.1	29.1
COLUSA	13.5 *	44.4 *	91.9	80.6	29.9 *	29.0 *
CONTRA COSTA	35.8	40.5	65.7	57.0	43.0	43.3
DEL NORTE	10.1 *	12.5 *	100.8	94.8	39.3 *	37.1 *
EL DORADO	28.3	29.3	82.8	83.5	24.6	29.9
FRESNO	37.2	39.0	111.4	107.0	46.0	45.2
GLENN	30.3 *	40.8 *	77.1	77.2	42.0 *	56.9 *
HUMBOLDT	26.2	23.7	101.1	108.6	67.1	77.1
IMPERIAL	7.6 *	14.0	96.1	73.6	29.4	29.6
INYO	3.3 *	12.9 *	80.1	74.7	40.6 *	37.2 *
KERN	47.3	53.2	135.3	125.7	36.1	36.8
KINGS	39.9	31.2	90.8	112.3	32.4	38.5
LAKE	29.0	19.7 *	128.3	96.7	41.5	43.8
LASSEN	12.4 *	13.0 *	91.1	99.2	24.4 *	27.4 *
LOS ANGELES	29.8	36.2	110.2	98.9	33.2	33.4
MADERA	44.3	39.7	109.9	79.7	40.9	36.8
MARIN	39.2	40.4	54.9	46.5	26.6	22.3
MARIPOSA	20.1 *	20.2 *	111.8	103.6	21.0 *	28.6 *
MENDOCINO	15.4 *	13.5 *	101.2	81.1	41.2	36.8
MERCED	27.5	29.0	120.4	106.4	42.6	41.7
MODOC	6.8 *	15.0 *	88.7 *	68.2 *	28.1 *	31.7 *
MONO	-	26.4 *	109.0 *	81.4 *	41.6 *	29.3 *
MONTEREY	22.8	26.2	65.2	53.0	34.2	31.7
NAPA	31.9	36.6	81.6	86.6	35.3	34.1
NEVADA	37.6	21.0	83.5	80.1	32.5	32.3
ORANGE	36.6	39.0	87.6	75.5	34.2	38.0
PLACER	37.1	40.5	80.5	71.9	31.1	35.8
PLUMAS	16.1 *	22.7 *	84.4	69.8	33.9 *	26.9 *
RIVERSIDE	34.3	37.3	108.8	105.7	33.7	34.5
SACRAMENTO	33.5	48.7	107.2	96.1	41.2	44.6
SAN BENITO	9.8 *	13.9 *	63.9	67.8	31.9 *	40.6
SAN BERNARDINO	36.3	45.4	109.6	107.4	38.7	42.4
SAN DIEGO	38.1	38.8	86.0	75.5	33.1	38.0
SAN FRANCISCO	27.9	25.6	56.3	53.1	29.0	32.3
SAN JOAQUIN	59.2	45.6	102.4	91.2	46.7	53.6

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	ALZHEIMER'S DISEASE		CORONARY HEART DISEASE		CEREBROVASCULAR DISEASE (STROKE)	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
SAN LUIS OBISPO	26.5	38.8	65.6	65.3	50.8	51.5
SAN MATEO	30.7	28.8	60.3	52.4	26.1	28.9
SANTA BARBARA	33.0	40.5	79.5	71.6	32.9	32.8
SANTA CLARA	8.3	11.6	61.9	53.5	26.0	28.3
SANTA CRUZ	33.3	32.7	74.5	58.3	30.3	30.9
SHASTA	46.5	60.9	129.5	123.5	42.9	42.2
SIERRA	12.8 *	16.2 *	65.3 *	89.1 *	16.4 *	44.5 *
SISKIYOU	32.2	31.6	92.9	88.5	36.3	37.7
SOLANO	42.4	44.3	69.1	65.0	40.4	47.2
SONOMA	42.3	39.8	75.7	71.7	33.9	33.9
STANISLAUS	42.1	59.7	143.0	127.4	44.0	42.2
SUTTER	14.0 *	46.4	125.1	114.7	43.5	50.9
TEHAMA	24.9	41.4	105.4	110.0	44.0	31.1
TRINITY	28.8 *	20.5 *	101.2	66.0 *	35.2 *	29.8 *
TULARE	23.5	39.8	120.4	117.6	42.4	44.2
TUOLUMNE	11.8 *	13.8 *	107.1	106.1	37.5	36.1
VENTURA	38.1	43.1	82.3	82.3	34.2	39.0
YOLO	41.4	46.4	79.0	69.7	35.6	37.7
YUBA	18.1 *	47.5	139.1	137.4	55.0	51.0

- 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	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	15.4	14.6	33.3	31.4	12.1	11.9
ALAMEDA	13.6	12.9	27.4	23.7	9.2	8.8
ALPINE	-	26.0 *	-	32.9 *	65.5 *	66.8 *
AMADOR	25.7 *	16.2 *	41.0	34.3	11.3 *	21.4 *
BUTTE	17.0	16.4	48.0	46.1	17.1	18.8
CALAVERAS	17.1 *	13.8 *	37.0	41.5	10.3 *	14.7 *
COLUSA	6.3 *	15.0 *	43.1 *	26.7 *	13.2 *	18.6 *
CONTRA COSTA	10.4	12.2	31.3	26.8	8.7	7.8
DEL NORTE	24.0 *	20.6 *	59.4 *	61.1	13.9 *	25.1 *
EL DORADO	13.7	11.7	37.1	38.8	13.6	14.9
FRESNO	20.8	17.4	34.7	36.1	16.0	16.4
GLENN	21.6 *	15.8 *	50.3 *	52.2 *	16.0 *	13.2 *
HUMBOLDT	8.1 *	12.4	49.4	46.1	24.7	20.3
IMPERIAL	22.2	21.9	21.6	22.1	15.1	13.4
INYO	9.1 *	25.0 *	42.7 *	62.2 *	9.5 *	22.3 *
KERN	15.5	13.4	56.0	53.9	14.8	15.8
KINGS	20.2	14.2 *	38.3	39.8	17.6	17.8
LAKE	17.2 *	20.2	65.8	57.8	26.4	27.7
LASSEN	20.2 *	21.1 *	36.6 *	49.5 *	7.4 *	12.4 *
LOS ANGELES	21.0	18.5	28.9	27.8	13.0	12.6
MADERA	15.2	14.1	39.9	39.9	19.7	20.7
MARIN	10.7	11.1	19.3	20.4	5.4	5.8
MARIPOSA	6.5 *	9.1 *	40.8 *	33.8 *	14.7 *	11.1 *
MENDOCINO	14.9 *	15.9 *	42.2	44.2	14.4 *	12.3 *
MERCED	16.8	19.6	43.0	47.1	16.9	14.5
MODOC	18.4 *	17.0 *	57.2 *	74.6 *	11.1 *	28.0 *
MONO	18.7 *	5.6 *	44.9 *	21.9 *	9.0 *	8.6 *
MONTEREY	12.6	11.1	26.3	25.1	10.6	11.1
NAPA	14.0	14.2	28.1	26.6	9.4 *	10.5 *
NEVADA	13.7	12.7	42.7	31.9	10.4 *	16.7
ORANGE	15.9	15.2	28.2	26.4	10.3	10.4
PLACER	9.5	13.2	33.8	30.8	12.2	11.0
PLUMAS	13.7 *	7.4 *	51.0 *	36.3 *	23.3 *	18.7 *
RIVERSIDE	11.6	11.8	42.5	39.9	13.2	12.7
SACRAMENTO	15.5	15.6	41.6	38.8	11.7	12.3
SAN BENITO	22.2 *	14.4 *	34.4 *	32.6 *	5.8 *	11.3 *
SAN BERNARDINO	14.2	14.9	53.2	50.8	15.2	15.5
SAN DIEGO	9.4	10.9	30.5	28.0	9.9	10.0
SAN FRANCISCO	11.5	10.7	18.6	17.9	8.4	8.4
SAN JOAQUIN	18.8	19.4	47.5	44.5	16.6	18.6

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	INFLUENZA/PNEUMONIA		CHRONIC LOWER RESPIRATORY DISEASE		CHRONIC LIVER DISEASE AND CIRRHOSIS	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
SAN LUIS OBISPO	9.8	11.1	32.1	37.5	14.5	12.8
SAN MATEO	13.1	10.1	21.4	19.8	8.5	7.5
SANTA BARBARA	10.9	10.2	28.2	30.4	12.3	11.7
SANTA CLARA	11.2	9.5	20.9	17.2	8.5	6.8
SANTA CRUZ	12.9	13.6	25.7	23.6	13.4	12.1
SHASTA	14.7	20.0	77.3	69.2	19.1	20.9
SIERRA	-	3.9 *	41.0 *	66.2 *	14.7 *	18.3 *
SISKIYOU	16.5 *	14.3 *	59.6	61.4	21.4 *	20.2 *
SOLANO	18.2	19.2	38.7	32.8	10.0	12.3
SONOMA	9.6	10.4	32.2	27.6	11.1	9.2
STANISLAUS	18.2	16.2	48.6	46.2	15.1	17.1
SUTTER	17.1 *	22.4	49.5	38.2	16.9 *	12.7 *
TEHAMA	14.7 *	12.0 *	59.1	57.3	17.1 *	16.8 *
TRINITY	10.5 *	14.3 *	55.2 *	33.3 *	30.1 *	31.3 *
TULARE	21.9	21.3	41.8	42.7	17.3	21.7
TUOLUMNE	16.0 *	13.7 *	49.1	54.0	16.3 *	21.6 *
VENTURA	10.0	9.0	30.4	31.6	10.1	10.8
YOLO	13.2	15.1	44.9	37.1	15.6	14.1
YUBA	19.1 *	25.6 *	80.4	73.5	18.2 *	17.3 *

- 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)					
	ACCIDENTS (UNINTENTIONAL INJURIES)		MOTOR VEHICLE TRAFFIC CRASHES		SUICIDE	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	29.5	33.0	8.3	9.8	10.3	10.6
ALAMEDA	25.7	24.1	5.5	5.7	9.2	8.9
ALPINE	73.3 *	38.3 *	-	13.0 *	-	55.3 *
AMADOR	45.5 *	56.2	14.0 *	20.7 *	28.6 *	27.3 *
BUTTE	60.1	68.5	10.9	16.3	17.3	20.7
CALAVERAS	48.8	51.8	27.2 *	27.8 *	27.0 *	19.4 *
COLUSA	49.5 *	46.3 *	20.3 *	29.2 *	29.3 *	9.0 *
CONTRA COSTA	24.8	29.4	6.2	8.2	9.3	10.3
DEL NORTE	65.5	70.4	23.7 *	19.6 *	21.8 *	15.1 *
EL DORADO	47.6	46.4	13.1	13.3	14.1	16.8
FRESNO	40.6	45.8	14.0	16.2	11.3	11.4
GLENN	65.6 *	57.6 *	14.2 *	23.6 *	18.1 *	22.1 *
HUMBOLDT	69.2	71.5	19.5	20.8	25.8	23.2
IMPERIAL	41.9	46.4	11.4	13.3	8.0 *	7.3 *
INYO	46.1 *	59.9 *	7.9 *	13.1 *	12.1 *	22.6 *
KERN	49.6	57.5	14.1	18.7	14.1	13.4
KINGS	40.1	40.4	12.1 *	16.7	10.5 *	13.6 *
LAKE	93.8	84.0	23.0 *	21.5 *	27.4 *	30.2 *
LASSEN	63.9	52.9 *	13.3 *	14.6 *	25.4 *	30.6 *
LOS ANGELES	21.7	24.3	6.8	8.2	7.7	8.3
MADERA	43.8	45.7	16.3	17.5	12.0 *	12.5 *
MARIN	26.3	31.0	4.5 *	4.7 *	12.4	13.9
MARIPOSA	53.8 *	76.6 *	23.4 *	34.6 *	34.3 *	29.3 *
MENDOCINO	57.4	74.1	14.4 *	21.3 *	23.8	19.9 *
MERCED	48.3	54.3	17.3	21.0	10.3	9.5
MODOC	52.8 *	70.0 *	13.4 *	14.5 *	24.3 *	21.5 *
MONO	78.8 *	39.2 *	31.3 *	2.7 *	9.9 *	10.7 *
MONTEREY	31.2	35.6	8.7	11.4	10.2	8.3
NAPA	30.3	36.5	7.5 *	7.5 *	11.2 *	8.9 *
NEVADA	48.3	49.3	12.1 *	13.9 *	20.3	17.6 *
ORANGE	23.7	27.2	6.3	7.2	9.7	10.0
PLACER	28.5	32.9	6.8	9.2	11.3	12.6
PLUMAS	83.3 *	76.0 *	16.0 *	25.2 *	26.4 *	17.5 *
RIVERSIDE	33.9	39.4	10.6	12.6	10.4	11.8
SACRAMENTO	36.3	40.3	8.9	11.4	13.8	13.1
SAN BENITO	46.1	42.7	19.4 *	18.0 *	5.5 *	10.1 *
SAN BERNARDINO	27.3	34.8	12.1	14.2	10.3	11.1
SAN DIEGO	31.0	34.5	6.5	7.6	12.5	12.7
SAN FRANCISCO	30.9	33.7	3.9	3.7	8.6	9.7
SAN JOAQUIN	39.4	46.9	11.8	16.8	10.9	10.3

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	ACCIDENTS (UNINTENTIONAL INJURIES)		MOTOR VEHICLE TRAFFIC CRASHES		SUICIDE	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
SAN LUIS OBISPO	35.7	36.1	9.7	9.2	15.9	18.2
SAN MATEO	20.7	22.4	5.1	5.2	6.9	7.9
SANTA BARBARA	29.8	37.9	6.5	8.3	12.4	11.4
SANTA CLARA	23.5	24.8	6.4	6.2	7.9	7.4
SANTA CRUZ	38.9	44.1	8.4	9.7	15.1	15.5
SHASTA	57.5	63.2	16.2	16.6	22.4	25.1
SIERRA	45.9 *	80.3 *	9.8 *	31.0 *	35.1 *	37.1 *
SISKIYOU	63.7	80.7	12.5 *	30.4 *	24.4 *	21.0 *
SOLANO	36.4	37.0	11.9	9.6	12.7	12.3
SONOMA	31.5	35.0	6.6	9.0	12.3	13.1
STANISLAUS	40.4	44.6	12.6	16.6	10.6	11.0
SUTTER	34.9	43.5	15.5 *	16.0 *	15.7 *	13.1 *
TEHAMA	47.6	60.8	15.4 *	23.7 *	18.1 *	22.5 *
TRINITY	96.1 *	84.9 *	33.3 *	43.8 *	22.5 *	41.4 *
TULARE	37.6	42.2	15.8	17.1	11.1	10.4
TUOLUMNE	59.2	57.8	9.9 *	14.6 *	17.3 *	19.6 *
VENTURA	30.6	35.6	7.2	8.7	12.0	10.5
YOLO	38.1	35.1	10.3	12.0	9.7 *	11.1
YUBA	58.3	62.4	14.6 *	23.5 *	18.3 *	19.6 *

- 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)					
	HOMICIDE		FIREARM RELATED DEATHS		DRUG INDUCED DEATHS	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	4.9	5.1	7.6	7.8	12.1	13.1
ALAMEDA	6.6	5.7	8.2	7.2	10.8	9.6
ALPINE	-	47.6 *	-	102.9 *	-	-
AMADOR	6.8 *	7.9 *	13.0 *	17.7 *	22.8 *	15.6 *
BUTTE	3.2 *	3.9 *	10.2	15.0	28.8	27.5
CALAVERAS	5.6 *	8.8 *	19.1 *	19.0 *	20.6 *	17.9 *
COLUSA	-	5.0 *	16.9 *	5.7 *	8.2 *	13.8 *
CONTRA COSTA	6.4	5.8	8.9	8.7	11.3	12.2
DEL NORTE	6.6 *	13.3 *	20.1 *	14.9 *	19.3 *	23.9 *
EL DORADO	2.2 *	3.0 *	10.2	9.6 *	20.5	20.0
FRESNO	6.6	7.4	9.9	9.5	14.3	15.0
GLENN	5.9 *	7.5 *	12.3 *	18.3 *	20.6 *	10.3 *
HUMBOLDT	8.0 *	8.7 *	16.7	17.4	34.7	37.2
IMPERIAL	1.5 *	4.7 *	3.7 *	5.3 *	19.1	21.4
INYO	-	3.5 *	4.8 *	11.4 *	22.6 *	34.5 *
KERN	8.3	11.3	12.2	13.6	24.2	26.6
KINGS	4.3 *	7.0 *	5.8 *	10.1 *	15.5	12.7 *
LAKE	13.8 *	14.6 *	23.7 *	25.0 *	50.1	41.3
LASSEN	6.5 *	6.0 *	19.8 *	15.5 *	28.7 *	21.1 *
LOS ANGELES	5.7	6.0	7.0	7.4	7.7	9.0
MADERA	5.5 *	6.8 *	9.2 *	10.7 *	17.0	11.2 *
MARIN	1.9 *	2.3 *	5.1 *	5.3 *	9.3	13.6
MARIPOSA	5.9 *	-	23.8 *	18.5 *	19.3 *	19.4 *
MENDOCINO	4.6 *	6.4 *	15.5 *	14.1 *	23.5	30.7
MERCED	10.7	5.3 *	11.1	8.0	15.0	15.5
MODOC	18.3 *	13.4 *	25.8 *	11.1 *	21.9 *	20.4 *
MONO	-	8.4 *	1.9 *	18.3 *	9.3 *	9.5 *
MONTEREY	10.9	9.9	14.2	11.0	12.5	11.3
NAPA	1.8 *	2.3 *	5.1 *	5.8 *	11.3 *	9.5 *
NEVADA	1.3 *	2.8 *	12.3 *	12.5 *	23.2	17.8 *
ORANGE	1.9	2.3	4.5	4.6	11.5	12.4
PLACER	1.7 *	2.4 *	6.1	5.7	10.4	12.0
PLUMAS	3.3 *	-	15.9 *	15.4 *	47.2 *	17.3 *
RIVERSIDE	4.2	4.6	7.5	7.8	15.0	17.5
SACRAMENTO	6.5	6.1	10.0	9.6	17.4	17.2
SAN BENITO	3.2 *	4.0 *	4.5 *	8.8 *	10.0 *	10.3 *
SAN BERNARDINO	5.9	6.8	9.0	10.6	11.3	12.8
SAN DIEGO	2.7	2.8	6.1	6.5	13.1	14.5
SAN FRANCISCO	3.7	4.8	3.9	5.1	17.2	20.3
SAN JOAQUIN	9.4	9.6	11.5	12.0	16.8	17.9

COUNTY OF RESIDENCE	AGE-ADJUSTED DEATH RATES (THREE-YEAR AVERAGE)					
	HOMICIDE		FIREARM RELATED DEATHS		DRUG INDUCED DEATHS	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
SAN LUIS OBISPO	1.5 *	2.3 *	8.2	9.0	15.7	16.6
SAN MATEO	2.1 *	2.1 *	3.9	4.8	7.8	8.2
SANTA BARBARA	3.1 *	2.9 *	6.0	6.5	14.2	15.8
SANTA CLARA	2.6	2.4	4.3	3.9	7.4	8.0
SANTA CRUZ	3.4 *	2.5 *	7.4	7.6	18.7	16.3
SHASTA	6.4 *	6.3 *	15.1	16.3	23.8	23.5
SIERRA	-	-	25.2 *	32.3 *	18.6 *	16.5 *
SISKIYOU	3.6 *	11.1 *	14.8 *	16.8 *	22.3 *	26.6 *
SOLANO	8.7	7.6	13.5	11.1	14.2	14.9
SONOMA	1.9 *	2.4 *	5.8	4.9	12.1	14.8
STANISLAUS	6.0	4.5	9.3	7.1	17.2	17.2
SUTTER	2.7 *	7.0 *	11.7 *	12.6 *	12.7 *	14.6 *
TEHAMA	6.1 *	6.3 *	13.4 *	15.3 *	10.4 *	10.5 *
TRINITY	10.8 *	18.0 *	32.7 *	41.1 *	20.5 *	20.8 *
TULARE	9.7	7.6	12.6	10.9	10.0	11.1
TUOLUMNE	3.4 *	1.9 *	11.4 *	11.9 *	29.0 *	26.0 *
VENTURA	3.4	4.0	7.5	7.3	14.1	15.6
YOLO	2.6 *	3.2 *	6.2 *	4.8 *	14.2	13.9
YUBA	6.1 *	8.3 *	14.1 *	16.5 *	12.8 *	23.9 *

- 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	MORBIDITY RATES (THREE-YEAR AVERAGE)					
	REPORTED PREVALENCE OF HIV OR AIDS AGES 13 YEARS AND OLDER		REPORTED INCIDENCE OF CHLAMYDIA		REPORTED INCIDENCE OF FEMALE GONORRHEA 15 TO 44 YEARS OLD	
	2012-2014	2015-2017	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	389.5	404.6	457.4	546.1	191.4	282.9
ALAMEDA	440.6	456.2	448.3	546.5	227.9	265.4
ALPINE	-	LNE *	LNE *	LNE *	-	-
AMADOR	164.1	497.5	177.6	199.6	LNE *	LNE *
BUTTE	118.1	133.1	467.2	561.5	253.3	327.1
CALAVERAS	77.7	107.2	148.8	209.0	LNE *	LNE *
COLUSA	LNE *	LNE *	180.4	257.7	LNE *	LNE *
CONTRA COSTA	243.8	266.1	392.1	500.2	217.0	310.8
DEL NORTE	81.3 *	109.7	209.2	313.3	LNE *	705.9
EL DORADO	103.0	115.3	191.0	239.8	68.6	136.6
FRESNO	215.8	238.6	607.8	691.6	424.3	499.0
GLENN	51.6 *	76.0 *	274.9	386.9	LNE *	LNE *
HUMBOLDT	159.2	196.9	358.3	552.8	307.7	344.9
IMPERIAL	173.1	202.0	371.6	516.5	90.7	251.8
INYO	94.5 *	128.4	341.4	335.7	LNE *	LNE *
KERN	225.9	231.1	716.1	747.6	359.9	472.6
KINGS	138.9	148.6	373.9	623.9	236.1	376.3
LAKE	174.9	263.8	299.1	449.7	435.0	872.5
LASSEN	77.4	94.7	244.7	312.6	LNE *	LNE *
LOS ANGELES	588.6	599.1	534.6	622.0	196.5	321.4
MADERA	135.8	147.9	472.4	531.9	250.5	359.6
MARIN	373.9	371.0	221.2	315.3	90.0	137.3
MARIPOSA	119.7 *	118.1 *	167.3	177.9	LNE *	LNE *
MENDOCINO	235.1	241.3	364.7	421.8	178.5	435.5
MERCED	86.7	118.1	399.7	469.0	170.7	274.3
MODOC	LNE *	LNE *	LNE *	193.2 *	LNE *	LNE *
MONO	LNE *	LNE *	186.0	195.0	LNE *	LNE *
MONTEREY	189.3	197.5	391.4	466.5	155.3	168.4
NAPA	157.9	215.9	265.9	371.6	82.5	160.5
NEVADA	89.9	125.7	210.3	230.0	81.5 *	168.5
ORANGE	267.4	270.3	310.2	428.6	91.0	170.3
PLACER	74.9	96.2	238.9	270.4	92.4	152.5
PLUMAS	LNE *	92.2 *	292.4	320.5	LNE *	LNE *
RIVERSIDE	310.3	412.1	396.4	435.0	144.5	239.5
SACRAMENTO	311.1	339.8	543.3	655.6	364.5	415.9
SAN BENITO	84.1	87.7	291.7	359.9	130.9 *	175.0
SAN BERNARDINO	195.1	233.8	517.9	586.2	261.5	365.1
SAN DIEGO	473.9	496.5	504.3	620.7	133.0	244.5

COUNTY OF RESIDENCE	MORBIDITY RATES (THREE-YEAR AVERAGE)					
	REPORTED PREVALENCE OF HIV OR AIDS AGES 13 YEARS AND OLDER		REPORTED INCIDENCE OF CHLAMYDIA		REPORTED INCIDENCE OF FEMALE GONORRHEA 15 TO 44 YEARS OLD	
	2012-2014	2015-2017	2013-2015	2016-2018	2013-2015	2016-2018
SAN FRANCISCO	1895.6	1740.4	731.1	1015.1	149.1	264.5
SAN JOAQUIN	213.8	224.5	485.3	539.4	326.8	366.8
SAN LUIS OBISPO	262.3	182.9	373.9	431.2	86.1	159.0
SAN MATEO	234.3	244.7	281.8	369.3	63.0	105.7
SANTA BARBARA	158.1	156.9	468.1	551.5	97.6	171.3
SANTA CLARA	223.6	214.7	327.4	393.6	125.7	154.8
SANTA CRUZ	195.5	219.1	354.4	404.7	107.7	185.1
SHASTA	136.2	138.9	354.5	351.2	493.1	393.3
SIERRA	LNE *	LNE *	LNE *	LNE *	LNE *	-
SISKIYOU	97.9	146.5	204.3	254.7	LNE *	183.9 *
SOLANO	330.2	360.1	523.3	618.4	310.8	420.9
SONOMA	297.2	334.3	332.1	410.8	109.8	184.0
STANISLAUS	134.0	162.0	408.4	474.7	248.6	286.5
SUTTER	98.7	105.8	321.1	352.2	209.5	266.8
TEHAMA	77.0	86.7	302.4	343.1	288.6	380.8
TRINITY	116.3 *	157.0 *	134.5 *	156.1	LNE *	LNE *
TULARE	88.8	113.6	494.6	550.4	210.5	326.3
TUOLUMNE	77.6	91.8	179.0	275.6	LNE *	218.0 *
VENTURA	138.5	150.7	302.3	330.0	104.1	160.3
YOLO	132.8	150.4	350.5	471.9	132.5	165.9
YUBA	104.9	137.5	331.6	397.7	244.9	373.6

- Rates and percentages are not calculated for zero events.
* Rates and percentages 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 15 TO 44 YEARS OLD		REPORTED INCIDENCE OF TUBERCULOSIS		REPORTED INCIDENCE OF CONGENITAL SYPHILIS	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	306.2	501.4	5.5	5.2	20.8	58.7
ALAMEDA	365.7	599.9	7.9	8.6	LNE *	LNE *
ALPINE	-	LNE *	-	-	-	-
AMADOR	LNE *	LNE *	-	0.9 *	-	-
BUTTE	225.0	327.7	1.9 *	1.0 *	-	LNE *
CALAVERAS	LNE *	169.3 *	0.7 *	5.2 *	-	-
COLUSA	LNE *	LNE *	-	2.9 *	-	LNE *
CONTRA COSTA	231.8	426.2	4.5	4.7	-	LNE *
DEL NORTE	LNE *	353.0	-	-	-	-
EL DORADO	89.4	135.2	1.6 *	1.3 *	-	-
FRESNO	327.7	431.3	4.5	5.6	159.9	344.7
GLENN	LNE *	LNE *	2.3 *	1.1 *	-	-
HUMBOLDT	303.1	430.5	1.0 *	2.0 *	-	-
IMPERIAL	74.0	176.5	19.3	24.8	LNE *	LNE *
INYO	LNE *	LNE *	-	1.8 *	-	-
KERN	393.8	531.6	3.6	2.5	121.1 *	290.4
KINGS	155.4	322.6	3.1 *	1.8 *	LNE *	LNE *
LAKE	287.2	715.7	1.0 *	3.6 *	LNE *	LNE *
LASSEN	LNE *	LNE *	-	3.3 *	-	-
LOS ANGELES	421.5	709.8	6.5	5.5	16.4	42.3
MADERA	202.9	269.4	3.9 *	2.3 *	-	LNE *
MARIN	130.2	245.5	3.6 *	2.2 *	-	-
MARIPOSA	LNE *	LNE *	-	-	-	-
MENDOCINO	119.7 *	384.1	0.8 *	1.9 *	-	LNE *
MERCED	178.1	318.9	4.6 *	2.8 *	-	LNE *
MODOC	LNE *	LNE *	-	-	-	-
MONO	LNE *	LNE *	-	2.4 *	-	-
MONTEREY	170.3	219.6	4.0 *	5.5	LNE *	LNE *
NAPA	102.7	205.7	2.1 *	2.8 *	-	-
NEVADA	76.5 *	171.7	0.3 *	1.0 *	-	-
ORANGE	166.2	323.6	5.7	5.5	LNE *	LNE *
PLACER	97.9	177.5	1.3 *	1.9 *	-	LNE *
PLUMAS	LNE *	LNE *	-	1.7 *	-	-
RIVERSIDE	179.2	335.9	2.5	2.5	LNE *	LNE *
SACRAMENTO	348.5	511.3	5.1	4.1	LNE *	LNE *
SAN BENITO	159.1 *	192.1	1.7 *	0.6 *	-	-
SAN BERNARDINO	245.0	388.8	2.8	2.7	LNE *	93.6
SAN DIEGO	268.8	465.3	6.8	7.2	LNE *	29.0 *
SAN FRANCISCO	1180.3	1960.2	12.3	12.3	LNE *	LNE *

COUNTY OF RESIDENCE	MORBIDITY RATES (THREE-YEAR AVERAGE)					
	REPORTED INCIDENCE OF MALE GONORRHEA 15 TO 44 YEARS OLD		REPORTED INCIDENCE OF TUBERCULOSIS		REPORTED INCIDENCE OF CONGENITAL SYPHILIS	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
SAN JOAQUIN	315.2	388.9	7.2	5.9	LNE *	199.9
SAN LUIS OBISPO	122.4	179.3	1.1 *	1.1 *	LNE *	-
SAN MATEO	167.8	328.3	8.3	7.2	LNE *	-
SANTA BARBARA	110.5	207.1	5.6	3.2 *	LNE *	LNE *
SANTA CLARA	193.6	320.7	9.5	8.8	LNE *	LNE *
SANTA CRUZ	148.1	259.9	1.5 *	2.1 *	LNE *	LNE *
SHASTA	451.8	354.2	1.9 *	0.6 *	-	LNE *
SIERRA	LNE *	LNE *	-	-	-	-
SISKIYOU	LNE *	159.4 *	0.7 *	-	-	-
SOLANO	294.9	455.2	4.6 *	6.0	LNE *	LNE *
SONOMA	150.4	294.1	1.9 *	2.0 *	LNE *	LNE *
STANISLAUS	308.0	323.3	2.6 *	2.3 *	LNE *	150.1 *
SUTTER	170.5	287.6	2.8 *	5.4 *	-	-
TEHAMA	255.0	300.6	-	1.6 *	-	LNE *
TRINITY	LNE *	LNE *	2.4 *	-	-	-
TULARE	221.3	328.9	3.5 *	3.7 *	LNE *	LNE *
TUOLUMNE	122.6 *	157.5 *	-	-	-	LNE *
VENTURA	130.6	200.9	3.8	3.4	-	LNE *
YOLO	182.7	276.7	4.0 *	2.9 *	-	LNE *
YUBA	202.1	396.1	3.2 *	2.6 *	-	LNE *

- Rates and percentages are not calculated for zero events.
* Rates and percentages 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)				MORTALITY RATES (THREE-YEAR AVERAGE)	
	INCIDENCE OF FEMALE PRIMARY/SECONDARY SYPHILIS		INCIDENCE OF MALE PRIMARY/SECONDARY SYPHILIS		INFANT MORTALITY ALL RACE/ETHNIC GROUPS	
	2013-2015	2016-2018	2013-2015	2016-2018	2012-2014	2015-2017
CALIFORNIA	1.7	4.7	19.6	29.4	4.6	4.3
ALAMEDA	1.9 *	2.8	17.8	23.4	4.2	3.8
ALPINE	-	-	-	-	-	-
AMADOR	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
BUTTE	LNE *	15.2 *	LNE *	32.8	5.6 *	LNE *
CALAVERAS	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
COLUSA	-	-	LNE *	LNE *	LNE *	LNE *
CONTRA COSTA	LNE *	2.3 *	13.2	20.6	4.2	3.2
DEL NORTE	-	-	LNE *	LNE *	LNE *	LNE *
EL DORADO	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
FRESNO	12.2	20.0	22.0	37.6	7.4	6.6
GLENN	-	LNE *	-	LNE *	LNE *	LNE *
HUMBOLDT	-	LNE *	LNE *	18.6 *	LNE *	LNE *
IMPERIAL	LNE *	LNE *	LNE *	12.6 *	LNE *	4.3 *
INYO	-	-	-	-	LNE *	LNE *
KERN	8.4	17.7	23.5	40.0	6.4	6.0
KINGS	LNE *	LNE *	16.6 *	21.1 *	5.1 *	4.9 *
LAKE	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
LASSEN	-	-	LNE *	LNE *	LNE *	LNE *
LOS ANGELES	1.2	3.3	24.7	37.4	4.4	4.2
MADERA	LNE *	20.9 *	LNE *	32.1	4.8 *	5.4 *
MARIN	LNE *	LNE *	12.7 *	12.9 *	LNE *	LNE *
MARIPOSA	-	LNE *	LNE *	LNE *	LNE *	LNE *
MENDOCINO	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
MERCED	LNE *	10.0 *	9.9 *	27.3	4.0 *	4.5 *
MODOC	-	-	-	-	LNE *	LNE *
MONO	LNE *	-	-	LNE *	LNE *	-
MONTEREY	LNE *	LNE *	13.3	14.3	5.0	4.9
NAPA	-	LNE *	LNE *	18.5 *	LNE *	LNE *
NEVADA	-	LNE *	LNE *	LNE *	LNE *	LNE *
ORANGE	LNE *	1.4	13.4	22.3	3.3	3.0
PLACER	LNE *	LNE *	6.8 *	9.4 *	4.6 *	3.0 *
PLUMAS	-	-	-	-	LNE *	LNE *
RIVERSIDE	LNE *	2.5	14.8	21.2	4.9	4.5
SACRAMENTO	1.7 *	7.7	20.6	33.9	5.4	4.9
SAN BENITO	-	LNE *	LNE *	LNE *	LNE *	LNE *
SAN BERNARDINO	LNE *	4.3	9.0	18.3	6.5	5.9
SAN DIEGO	0.9 *	1.6	24.2	31.8	4.1	3.8

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	
	2013-2015	2016-2018	2013-2015	2016-2018	2012-2014	2015-2017
SAN FRANCISCO	2.8 *	4.4 *	105.6	115.3	3.3	2.8
SAN JOAQUIN	5.8	31.9	21.0	49.8	6.1	5.2
SAN LUIS OBISPO	LNE *	LNE *	LNE *	10.3 *	6.3 *	4.5 *
SAN MATEO	LNE *	LNE *	14.2	16.8	2.3	3.2
SANTA BARBARA	LNE *	LNE *	11.9	15.7	3.5	4.8
SANTA CLARA	LNE *	4.5	12.9	20.3	3.4	3.3
SANTA CRUZ	LNE *	LNE *	18.6	21.7	4.9 *	LNE *
SHASTA	LNE *	LNE *	LNE *	28.6	LNE *	LNE *
SIERRA	-	-	-	-	-	-
SISKIYOU	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
SOLANO	LNE *	LNE *	14.3	20.5	5.8	5.3
SONOMA	LNE *	4.9 *	12.8	25.4	2.9 *	3.3 *
STANISLAUS	5.8 *	14.2	19.6	31.3	6.3	4.9
SUTTER	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
TEHAMA	-	LNE *	LNE *	LNE *	LNE *	LNE *
TRINITY	-	LNE *	LNE *	LNE *	LNE *	LNE *
TULARE	LNE *	LNE *	8.1 *	11.7	5.5	6.4
TUOLUMNE	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
VENTURA	LNE *	LNE *	7.6	11.9	5.1	4.2
YOLO	LNE *	LNE *	13.7 *	21.5	LNE *	LNE *
YUBA	-	LNE *	LNE *	LNE *	LNE *	LNE *

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* Rates and percentages 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) LOW BIRTHWEIGHT INFANTS		AGE-SPECIFIC BIRTH RATE (THREE-YEAR AVERAGE) BIRTHS TO ADOLESCENT MOTHERS, 15 TO 19 YEARS OLD		PERCENT (THREE-YEAR AVERAGE) FIRST TRIMESTER PRENATAL CARE	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	6.8	6.9	19.7	14.2	83.3	83.9
ALAMEDA	7.2	7.3	11.3	7.5	90.3	89.7
ALPINE	LNE *	LNE *	LNE *	LNE *	LNE *	LNE *
AMADOR	6.9 *	6.6	18.4 *	LNE *	86.3	86.2
BUTTE	6.3	5.8	17.1	12.2	72.3	72.4
CALAVERAS	5.4 *	6.3	10.2 *	13.7 *	78.7	75.9
COLUSA	6.7	5.9 *	31.7	19.8 *	72.0	63.7
CONTRA COSTA	6.8	7.0	12.3	9.1	86.4	88.3
DEL NORTE	5.9 *	5.8 *	44.1	28.8	71.1	76.5
EL DORADO	6.6	6.9	9.3	7.3	80.5	76.5
FRESNO	7.9	7.2	32.5	24.4	88.0	87.1
GLENN	7.1	5.8	29.3	18.6	67.5	70.8
HUMBOLDT	5.6	6.3	16.8	10.8	76.5	78.9
IMPERIAL	5.4	5.6	42.4	28.6	39.2	49.8
INYO	7.1 *	8.8 *	31.2 *	LNE *	76.7	79.3
KERN	7.2	7.5	39.0	29.1	76.2	77.8
KINGS	6.3	6.6	34.6	26.4	69.4	72.7
LAKE	6.8	6.7	33.9	25.2	69.5	70.4
LASSEN	7.8	8.2	24.6 *	21.9 *	73.6	72.9
LOS ANGELES	7.1	7.3	19.2	13.6	84.8	85.0
MADERA	5.9	6.7	38.9	26.4	74.0	74.9
MARIN	6.2	5.5	6.8	5.9	91.0	85.6
MARIPOSA	LNE *	LNE *	LNE *	LNE *	68.1	62.5
MENDOCINO	6.1	7.0	27.2	19.2	68.6	68.4
MERCED	6.1	6.3	30.8	23.7	66.1	67.4
MODOC	LNE *	LNE *	LNE *	LNE *	62.3	52.9
MONO	8.9 *	8.0 *	LNE *	LNE *	74.5	71.9
MONTEREY	6.1	6.2	31.1	24.5	74.0	78.0
NAPA	5.8	6.4	14.4	9.7	88.3	88.8
NEVADA	6.3	5.3	11.3	8.2	73.5	75.4
ORANGE	6.3	6.1	13.8	9.7	88.1	87.3
PLACER	5.5	5.7	8.2	6.5	82.6	84.3
PLUMAS	10.4 *	10.3 *	LNE *	LNE *	72.7	70.3
RIVERSIDE	6.6	7.0	21.6	15.8	83.4	83.3
SACRAMENTO	6.9	7.0	18.6	13.2	82.5	85.1
SAN BENITO	6.7	6.5	20.6	14.5	83.1	86.5
SAN BERNARDINO	7.3	7.5	26.7	19.8	83.5	83.1
SAN DIEGO	6.5	6.8	17.9	11.8	84.2	85.2

COUNTY OF RESIDENCE	PERCENT (THREE-YEAR AVERAGE) LOW BIRTHWEIGHT INFANTS		AGE-SPECIFIC BIRTH RATE (THREE-YEAR AVERAGE) BIRTHS TO ADOLESCENT MOTHERS, 15 TO 19 YEARS OLD		PERCENT (THREE-YEAR AVERAGE) FIRST TRIMESTER PRENATAL CARE	
	2013-2015	2016-2018	2013-2015	2016-2018	2013-2015	2016-2018
SAN FRANCISCO	6.9	7.0	7.9	6.0	88.3	87.3
SAN JOAQUIN	7.2	7.5	24.1	17.8	76.5	80.3
SAN LUIS OBISPO	6.1	5.8	12.5	8.8	80.2	79.1
SAN MATEO	7.0	6.5	11.4	8.2	89.8	91.7
SANTA BARBARA	6.2	7.0	21.1	17.1	77.1	78.3
SANTA CLARA	7.0	6.9	11.7	7.5	84.6	87.1
SANTA CRUZ	5.7	5.8	13.7	8.9	82.5	84.0
SHASTA	6.0	6.8	24.2	18.4	70.7	71.5
SIERRA	LNE *	LNE *	LNE *	LNE *	64.1	70.6
SISKIYOU	8.5	7.9	25.2	18.8	77.6	75.6
SOLANO	6.7	6.8	17.4	12.2	79.4	81.2
SONOMA	5.6	5.9	11.4	8.8	85.9	87.9
STANISLAUS	6.2	6.6	26.0	19.8	78.6	82.5
SUTTER	6.4	6.9	20.6	15.7	68.5	69.1
TEHAMA	6.2	6.1	33.2	24.1	69.4	68.0
TRINITY	LNE *	LNE *	LNE *	LNE *	60.3	61.9
TULARE	6.8	7.1	39.9	29.8	78.9	73.1
TUOLUMNE	6.6	6.1	19.8	11.0 *	74.9	68.7
VENTURA	6.3	5.8	18.9	13.4	82.7	84.9
YOLO	5.7	5.8	9.7	6.6	82.8	82.7
YUBA	6.4	7.4	33.4	24.0	68.7	68.9

- Rates and percentages are not calculated for zero events.
* Rates and percentages 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

	PERCENT (THREE-YEAR AVERAGE)		PERCENT (THREE-YEAR AVERAGE)	
	ADEQUATE/ADEQUATE PLUS PRENATAL CARE		BIRTHS WITH KNOWN FEEDING METHOD BREASTFED	
COUNTY OF RESIDENCE	2013-2015	2016-2018	2013-2015	2016-2018
CALIFORNIA	78.3	78.0	93.5	93.9
ALAMEDA	77.1	68.8	97.1	97.1
ALPINE	LNE *	LNE *	LNE *	LNE *
AMADOR	87.1	82.7	95.5	96.5
BUTTE	77.4	79.7	92.7	91.8
CALAVERAS	79.9	80.6	95.3	95.4
COLUSA	77.6	73.3	92.2	93.8
CONTRA COSTA	77.9	74.7	96.4	96.7
DEL NORTE	75.8	78.8	90.2	91.1
EL DORADO	79.1	76.2	96.6	96.9
FRESNO	89.3	87.3	86.8	87.9
GLENN	78.2	79.4	93.8	95.5
HUMBOLDT	75.4	73.9	93.0	94.1
IMPERIAL	44.5	51.9	91.9	92.7
INYO	77.7	80.0	97.8	98.3
KERN	71.7	73.7	88.6	89.8
KINGS	65.8	70.8	85.2	90.1
LAKE	65.0	70.1	92.4	92.9
LASSEN	59.4	63.2	94.5	93.6
LOS ANGELES	80.1	81.3	93.5	93.9
MADERA	68.6	71.3	91.5	90.4
MARIN	86.3	67.1	98.7	98.5
MARIPOSA	62.6	65.0	97.0	93.5
MENDOCINO	76.0	77.9	96.0	96.4
MERCED	62.1	65.5	91.6	92.1
MODOC	60.6	54.0	92.3	93.8
MONO	79.3	83.0	96.8	97.7
MONTEREY	77.0	81.1	96.7	96.3
NAPA	77.5	80.3	97.4	97.4
NEVADA	74.8	79.2	97.7	97.8
ORANGE	86.1	83.9	94.7	94.7
PLACER	83.2	81.0	96.0	96.2
PLUMAS	56.0	58.3	96.2	96.6
RIVERSIDE	77.1	73.7	92.2	92.4
SACRAMENTO	79.3	79.9	92.0	92.9
SAN BENITO	81.5	84.4	94.0	94.9
SAN BERNARDINO	72.4	71.8	88.8	90.0
SAN DIEGO	74.2	75.7	96.0	96.1
SAN FRANCISCO	79.9	75.1	96.9	97.1

COUNTY OF RESIDENCE	PERCENT (THREE-YEAR AVERAGE) ADEQUATE/ADEQUATE PLUS PRENATAL CARE		PERCENT (THREE-YEAR AVERAGE) BIRTHS WITH KNOWN FEEDING METHOD BREASTFED	
	2013-2015	2016-2018	2013-2015	2016-2018
SAN JOAQUIN	72.3	79.3	89.0	89.8
SAN LUIS OBISPO	86.8	85.7	97.3	97.4
SAN MATEO	83.0	79.9	97.2	97.4
SANTA BARBARA	84.0	84.5	95.6	96.2
SANTA CLARA	76.2	77.1	96.9	97.2
SANTA CRUZ	84.8	83.6	98.5	98.6
SHASTA	79.4	80.4	95.1	96.3
SIERRA	62.5 *	78.3	92.3 *	97.9 *
SISKIYOU	77.1	79.0	94.6	93.7
SOLANO	69.3	68.1	94.6	95.1
SONOMA	80.0	76.4	97.5	97.2
STANISLAUS	68.4	74.9	88.7	88.9
SUTTER	79.5	78.6	91.0	94.7
TEHAMA	75.7	79.9	94.3	93.8
TRINITY	65.0	70.9	95.3	96.6
TULARE	81.2	77.0	88.7	90.3
TUOLUMNE	78.8	80.3	95.9	95.9
VENTURA	84.6	85.8	95.7	96.4
YOLO	81.8	80.6	96.6	96.7
YUBA	77.5	75.9	89.9	91.2

- Rates and percentages 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

Profiles presents birth and death data using records from the California Department of Public Health (CDPH) Center for Health Statistics and Informatics (CHSI) birth and death registration systems as sources. Birth statistics were tabulated from the Birth Statistical Master Files for years 2012 through 2017 and the California Comprehensive Master Birth File for 2018. Death statistics were tabulated from the Death Statistical Master Files for years 2012 to 2013, and the California Comprehensive Master Death Files for years 2014 through 2018.

The linked birth-death records in the Birth Cohort-Perinatal Outcome Files for years 2012 through 2017 are based on the Birth and Death Master Files. For additional information, please visit the Vital Statistics Data webpage.

The following CDPH programs provided data: Sexually Transmitted Diseases Control Branch and the Tuberculosis Control Branch of the Division of Communicable Disease Control were the sources for the reported case incidence of chlamydia, gonorrhea, congenital syphilis, primary/secondary syphilis, and tuberculosis, respectively. 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, 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 (2016 to 2018) and previous (2013 to 2015) periods with the exceptions of HIV/AIDS and Birth Cohort Infant Mortality. The current measurement period for HIV/AIDS and Birth Cohort Infant Mortality is 2015 to 2017 and the previous measurement period is 2012 to 2014.

Estimates of persons under age 18 years old 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

Statistics include only individuals with a known California county of residence.

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 2020 National Objectives (HP 2020), 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 webpage.

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 CDPH 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 living with HIV or AIDS. Since *Profiles'* inception in 1993, 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 2015-2017.

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 is used in early reports and materials generated for World TB Day. 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 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 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 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 2012 through 2017 and the California Comprehensive Master Birth File for year 2018. 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.

Two high-risk natality factors along with the following records with unknown attributes are analyzed within this report. 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.

In addition to Prenatal Care Beginning 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.

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 webpage.

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 benefits to infants, mothers, and families from breastfeeding and the use of human milk for infant feeding. Breastfeeding provides advantages to infants.

CDPH compiles data from a variety of sources to monitor progress towards achieving HP 2020 for

breastfeeding initiation, duration and exclusivity, and hospital, and worksite support for breastfeeding mothers and infants. For additional breastfeeding indicators, information on CDPH programs and initiatives that promote breastfeeding, and resources that can help pregnant or breastfeeding women, visit the CDPH Breastfeeding Data webpage.

Persons Living in Poverty (Table 29): People under 18 years old and living in households with incomes at or below the poverty level define the category of the population under 18 in poverty. The percent of people under 18 years old in this category is an indicator of global risk factors that have implications for access to health services. For additional information, visit the Small Area Income and Poverty Estimates (SAIPE) Program website. SAIPE uses the Official Poverty Level, which estimates poverty rate by examining an individual's income. It does not account for other factors such as geographical differences in the cost of housing, and thus may not accurately reflect the actual level of poverty in California.

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. Records with unknown county of residents were excluded from the analysis. Three-year averages tend to reduce the year to year fluctuations and increase the reliability of estimates.

The crude rate (or non-standardized) 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). Subpopulations, 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 that are expressed as age-adjusted rates in HP 2020.

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 the National Center for Health Statistics (NCHS) for the United States Department of Health and Human Services. 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.

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 recommendations, visit the CDC webpage. 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., 2016-2018), divided by the population in the middle year (e.g., 2017).

The 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 out of 100 sets of data. 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.
Suppression is in accordance with the CHHS DDG and counties have been arranged alphabetically above or below each applicable table's HP 2020 line. For counties where the rate/percentage met or exceeded the established HP 2020, the suppressed rates/percentages and counts have been replaced with "Met." Additionally, these counties have been listed alphabetically above the HP 2020 line. Conversely, counties with rates/percentages that did not meet the established HP 2020 were listed alphabetically below that table's HP 2020 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 exists, these position ranks are presumed for counties with average counts less than 20. Data events reported with unknown or missing resident geography are excluded from the total counts.

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 using only one data point. The HP 2020 provide basic formulas to measure progress toward achieving a target for the selected health outcome. 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

Esri® ArcMap™ version 10.5 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 with black spots.

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, 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 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, or with HP 2020 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 for each year from 2013 to 2015 due to a change in the cause of death reporting practice among some certifiers of death in that county. Consequently, previously published data in *Profiles* (2019) for Santa Clara County may not reflect a true decline in the number of Alzheimer's deaths. Additionally, Santa Clara County has observed a reversal of this trend since 2016. There has been a year by year increase in deaths from Alzheimer's disease and a corresponding decrease in deaths from neurodegenerative disease from 2016 to 2018. As a result of this downward trend followed by a reversal, the reporting of deaths due to Alzheimer's disease in *Profiles* (2020) for the current reporting period (2016 to 2018) displays a 115 percent increase compared to *Profiles* (2019). If this trend reversal in Santa Clara County continues, the statewide average for the number of deaths due to Alzheimer's disease will steadily change in following years.

HIV/AIDS PREVALENCE RATE – AMADOR COUNTY

Amador County observed an increase of about 70 percent in the rate of individuals living with HIV/AIDS as reported between *Profiles* (2020) and *Profiles* (2019). The increased in prevalence rate is largely attributed to Amador County receiving a large number of transferred inmates in 2016 and 2017, which affected the three-year average for the current reporting period (2015 to 2017).

FORMULAS USED IN THIS REPORT

$$CDR = (n^D / Npop) \times B$$

$$ADR = \sum W_a (n^D a / Npop_a) \times B$$

$$ASDR = (nD_a / Npop_a) \times B$$

$$SE_x = (CDR / \sqrt{n^D})$$

$$SE_y = \sqrt{\sum ((W_a \times ASDR)^2 / n^D a)}$$

$$RSE_x = (SE_x / CDR)$$

$$RSEy = (SE_y / ADR) \times 100$$

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

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

Where:

CDR = Crude Death Rate
ADR = Age-Adjusted Death Rate
ASDR = Age-Specific Death Rate
$_nD$ = Number of Deaths
Npop = Population Size
N^Da = 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 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 of Rate) / Numerator of Rate

Upper 95% CL = Rate x GamInv (0.975, Numerator of 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. 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, 2016-2018 for Alameda County.

ALAMEDA COUNTY					
Age Groups	**2016–2018 Deaths (Average) (A)**	**2017 Population (B)**	**Age-Specific Rate/100,000 (C)**	**2000 U.S Standard Population Proportions (D)**	**Weighted Rate Factors (E)**
Total	9,956.33	1,651,319			
Unknown	1.67				
<1	66.67	19,537	341.25	0.013818	4.7
1-4	9.00	78,317	11.49	0.055317	0.6
5-14	16.67	193,483	8.62	0.145565	1.3
15-24	107.33	226,596	47.37	0.138646	6.6
25-34	182.67	235,253	77.65	0.135573	10.5
35-44	262.67	234,549	111.99	0.162613	18.2
45-54	583.67	226,321	257.89	0.134834	34.8
55-64	1248.67	205,823	606.67	0.087247	52.9
65-74	1751.33	139,305	1,257.19	0.066037	83.0
75-84	2226.33	64,304	3,462.20	0.044842	155.3
>84	3499.67	27,831	12,574.72	0.015508	195.0
AGE-ADJUSTED RATE					**562.9**

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 2020

MORTALITY

HP 2020 OBJECTIVE	HEALTH STATUS INDICATOR	2016-2018 DEATHS (AVERAGE)	CRUDE DEATH RATE	AGE-ADJUSTED DEATH RATE	95% CONFIDENCE LIMITS (LOWER)	95% CONFIDENCE LIMITS (UPPER)	NATIONAL OBJECTIVE	AGE-ADJUSTED DEATH RATE PREVIOUS
	ALL CAUSES	266,020.0	671.6	608.3	606.0	610.7	a	619.1
C-1	ALL CANCERS	59,573.0	150.4	134.4	133.3	135.5	161.4	143.6
C-5	COLORECTAL CANCER	5,415.3	13.7	12.2	11.9	12.6	14.5	13.2
C-2	LUNG CANCER	11,437.7	28.9	25.8	25.3	26.3	45.5	30.5
C-3	FEMALE BREAST CANCER	4,483.0	22.5	18.6	18.1	19.2	20.7	19.8
C-7	PROSTATE CANCER	3,593.0	18.3	19.7	19.1	20.4	21.8	19.5
	DIABETES	9,399.3	23.7	21.2	20.8	21.7	b	20.6
	ALZHEIMER'S DISEASE	16,126.7	40.7	36.9	36.3	37.4	a	32.6
HDS-2	CORONARY HEART DISEASE	37,799.3	95.4	85.1	84.2	86.0	103.4	93.8
HDS-3	CEREBROVASCULAR DISEASE (STROKE)	16,140.0	40.7	36.9	36.3	37.5	34.8	35.0
	INFLUENZA/PNEUMONIA	6,405.3	16.2	14.6	14.3	15.0	a	15.4
	CHRONIC LOWER RESPIRATORY DISEASE	13,727.0	34.7	31.4	30.9	31.9	a	33.3
SA-11	CHRONIC LIVER DISEASE AND CIRRHOSIS	5,325.0	13.4	11.9	11.6	12.3	8.2	12.1
IVP-11	ACCIDENTS (UNINTENTIONAL INJURIES)	13,747.7	34.7	33.0	32.5	33.6	36.4	29.5
IVP-13.1	MOTOR VEHICLE TRAFFIC CRASHES	4,023.3	10.2	9.8	9.5	10.2	12.4	8.3
MHMD-1	SUICIDE	4,361.3	11.0	10.6	10.3	10.9	10.2	10.3
IVP-29	HOMICIDE	2,000.0	5.0	5.1	4.9	5.3	5.5	4.9
IVP-30	FIREARM-RELATED DEATHS	3,131.0	7.9	7.8	7.5	8.1	9.3	7.6
SA-12	DRUG-INDUCED DEATHS	5,408.7	13.7	13.1	12.7	13.4	11.3	12.1

MORBIDITY

HP 2020 OBJECTIVE	HEALTH STATUS INDICATOR	2016-2018 CASES (AVERAGE)	CRUDE CASE RATE	95% CONFIDENCE LIMITS (LOWER)	95% CONFIDENCE LIMITS (UPPER)	NATIONAL OBJECTIVE	CRUDE CASE RATE PREVIOUS
	HIV/AIDS PREVALENCE (AGE 13 AND OVER)†	132,287.0	404.6	402.4	406.8	a	389.5
	CHLAMYDIA INCIDENCE	216,315.0	546.1	543.8	548.4	c	457.4
STD-6.1	GONORRHEA INCIDENCE FEMALE AGE 15-44	22,369.7	282.9	279.2	286.7	251.9	191.4
STD-6.2	GONORRHEA INCIDENCE MALE AGE 15-44	41,733.3	501.4	496.6	506.2	194.8	306.2
IID-29	TUBERCULOSIS INCIDENCE	2,069.3	5.2	5.0	5.4	1.0	5.5
STD-8	CONGENITAL SYPHILIS	277.0	58.7	51.8	65.6	9.6	20.8
STD-7.1	PRIMARY SECONDARY SYPHILIS FEMALE	943.7	4.7	4.4	5.0	1.3	1.7
STD-7.2	PRIMARY SECONDARY SYPHILIS MALE	5,792.3	29.4	28.7	30.2	6.7	19.6

APPENDIX A
CALIFORNIA'S HEALTH STATUS PROFILE FOR 2020

INFANT MORTALITY

HP 2020 OBJECTIVE	HEALTH STATUS INDICATOR	2015-2017 DEATHS (AVERAGE)	BIRTH COHORT INFANT DEATH RATE	95% CONFIDENCE LIMITS (LOWER)	95% CONFIDENCE LIMITS (UPPER)	NATIONAL OBJECTIVE	BC INFANT DEATH RATE PREVIOUS
MICH-1.3	INFANT MORTALITY: ALL RACES	2,096.7	4.3	4.1	4.5	6.0	4.6
MICH-1.3	INFANT MORTALITY: ASIAN/PI	224.0	3.0	2.6	3.4	6.0	3.3
MICH-1.3	INFANT MORTALITY: BLACK	207.0	8.7	7.6	9.9	6.0	10.2
MICH-1.3	INFANT MORTALITY: HISPANIC	1,009.7	4.4	4.2	4.7	6.0	4.5
	INFANT MORTALITY: WHITE	442.3	3.4	3.0	3.7	6.0	3.8

NATALITY

HP 2020 OBJECTIVE	HEALTH STATUS INDICATOR	2016-2018 BIRTHS (AVERAGE)	PERCENT	95% CONFIDENCE LIMITS (LOWER)	95% CONFIDENCE LIMITS (UPPER)	NATIONAL OBJECTIVE	PERCENT PREVIOUS
MICH-8.1	LOW BIRTHWEIGHT INFANTS	32,597.0	6.9	6.8	7.0	7.8	6.8
MICH-10.1	FIRST TRIMESTER PRENATAL CARE	390,720.0	83.9	83.6	84.2	84.8	83.3
MICH-10.2	ADEQUATE/ADEQUATE PLUS PRENATAL CARE	361,258.0	78.0	77.7	78.2	83.2	78.3

HP 2020 OBJECTIVE	HEALTH STATUS INDICATOR	2016-2018 BIRTHS (AVERAGE)	AGE-SPECIFIC BIRTH RATE	95% CONFIDENCE LIMITS (LOWER)	95% CONFIDENCE LIMITS (UPPER)	NATIONAL OBJECTIVE	AGE-SPECIFIC BIRTH RATE PREVIOUS
	BIRTHS TO MOTHERS AGED 15-19	19,088.0	14.2	14.0	14.4	a	19.7

BREASTFEEDING

HP 2020 OBJECTIVE	HEALTH STATUS INDICATOR	2016-2018 BREASTFED (AVERAGE)	PERCENT	95% CONFIDENCE LIMITS (LOWER)	95% CONFIDENCE LIMITS (UPPER)	NATIONAL OBJECTIVE	PERCENT PREVIOUS
MICH-21.1	BREASTFEEDING INITIATION	386,701.0	93.9	93.6	94.2	81.9	93.5

CENSUS

HP 2020 OBJECTIVE	HEALTH STATUS INDICATOR	2017 NUMBER	PERCENT	95% CONFIDENCE LIMITS	95% CONFIDENCE LIMITS (UPPER)	NATIONAL OBJECTIVE	PERCENT PREVIOUS
	PERSONS UNDER 18 IN POVERTY	1,615,913.0	17.5	17.5	17.5	a	19.3

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

b 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 Healthy People 2020 National Objective STD-1, as the Healthy People 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.

Note 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 or percentages. These periods vary by type of health indicators: Mortality, Natality, and Morbidity (2013-2015),
HIV/AIDS Morbidity and Infant Mortality (2012-2014), and Poverty (2016).

† California Department of Public Health, Office of AIDS, HIV/AIDS Surveillance Section reporting periods are: Current Period 2015-2017, Previous Period 2012-204.

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