



2019-2020

LEADING CAUSES OF DEATH

Fresno County Department of Public Health | Epidemiology Division



Bee Vang, MPH
Epidemiologist

APRIL 1, 2022
COUNTY OF FRESNO

LEADING CAUSES OF DEATH

2019-2020

This Leading Causes of Death Report is published by the Epidemiology Division at the Department of Public Health, County of Fresno. All death data analyzed came from the State of California’s Integrated Vital Records System (Cal-IVRS). Unless noted, data are provisional and are subject to change.

Suggested Citation:

Fresno County Department of Public Health, Epidemiology Division. (2022). 2019 and 2020 Leading Causes of Death.

Fresno County Department of Public Health
Stephanie Koch-Kumar, PhD, MPH, Senior Epidemiologist, Epidemiology Program
Bee Vang, MPH, Epidemiologist, Epidemiology Program

Contact Information

County of Fresno
Department of Public Health
Epidemiology Division
1221 Fulton Street
Fresno, California 93721

https://redcap.link/FCDPH_epi_request

LEADING CAUSES OF DEATH

2019-2020

Table of Contents

Technical Notes.....	3
Acronyms	3
Definitions.....	3
Leading Causes of Death.....	6
Deaths among Fresno County Residents	6
Table 1. Deaths by Year, County of Fresno, 2016-2020.....	6
Table 2. Deaths by Year by Race/Ethnicity, County of Fresno, 2019-2020.....	7
Figure 1. A Comparison of the Leading Causes of Death, County of Fresno	8
Table 3. Leading Causes of Death among Residents, County of Fresno	9
Table 4. Leading Causes of Death among Residents by Sex, County of Fresno, 2019.....	10
Table 5. Leading Causes of Death among Residents by Sex, County of Fresno, 2020.....	11
Table 6. Leading Causes of Death by Race/Ethnicity, County of Fresno, 2019.....	12
Table 7. Leading Causes of Death by Race/Ethnicity, County of Fresno, 2020.....	13
Leading Causes of Death among Sex by Race/Ethnicity	13
Table 8. Leading Causes of Death among Men by Race/Ethnicity, County of Fresno, 2019	14
Table 9. Leading Causes of Death among Women by Race/Ethnicity, County of Fresno, 2019.....	15
Table 10. Leading Causes of Death among Men by Race/Ethnicity, County of Fresno, 2020	16
Table 11. Leading Causes of Death among Women by Race/Ethnicity, County of Fresno, 2020.....	17
Table 12. Number of Deaths and Premature Deaths among Residents by Year, County of Fresno.....	18
Table 13. Leading Causes of Premature Death and Years of Potential Life Lost among Residents, County of Fresno	19
Figure 2. A Comparison of Premature Death and Annual Death among Residents, County of Fresno, 2019	20
Figure 3. A Comparison of Premature Death and Annual Death among Residents, County of Fresno, 2020	20
Excess Deaths.....	21
Table 14. Expected and Observed Deaths, County of Fresno.....	21
Table 15. Expected and Observed Deaths by Race/Ethnicity, County of Fresno.....	22

Acknowledgements:..... 23
References 24

Technical Notes

Acronyms

AIAN = American Indian/Alaska Native

Cal-IVRS = California Integrated Vital Records System

CCDF = California Comprehensive Death File

HwPI = Hawaiian/Pacific Islander

ICD-10 = International Classification of Diseases, Tenth Revision

Definitions

1. Leading Causes of Death:

LEADING CAUSES OF DEATH are defined as the underlying cause of death as categorized by ICD-10 groupings, such as Heart Diseases, Malignant Neoplasms, Accidents, etc., that usually account for large numbers of deaths within a specified population group and time period.

2. Calculation:

Counts of cause of death sorted in rank order from high to low.

3. Cause of Death Ranking:

The leading causes of death are grouped into standard categories based on the underlying cause of death code assigned to each death. Currently, there are seven standard lists of cause of death that are used for ranking under the *International Classification of Diseases, Tenth Revision*. These seven lists are used for ranking deaths in specific situations, as follows:

- I. **List of 358 Selected Causes of Death** – Causes that comply with WHO Tabulation Regulations
- II. **List of 113 Selected Causes of Death** - Data tabulation and analysis of general mortality and ranking leading causes of death
- III. **List of 130 Selected Causes of Infant Death** - Data tabulation and analysis of infant mortality and ranking leading causes of infant death

- IV. List of 39 Selected Causes of Death** - Tabulations by smaller geographic areas
- V. List of 124 Selected Causes of Fetal Death** - Data tabulation and analysis of fetal mortality
- VI. List of Motor Vehicle Accident Deaths** - Tabulations comparable with ICD-10 categories
- VII. List of Injury, Poisoning and Certain Other Consequences of External Causes** - Cross-tabulations of external causes and nature of injury

These lists organize ICD-10 cause of death codes into specific groupings. The lists identify groupings that are “rankable” as a leading cause of death. Categories that include signs and symptoms or that are a residual category, as in the category “Other unspecified infectious and parasitic diseases” are not considered rankable. Also, deaths due to a more detailed cause of death would not be considered during ranking when included within a broader ranked cause of death category. For example, hypertensive heart disease would not be considered as a possible leading cause of death because it is included within the ranked category “Heart Disease”.

For details on these classifications see: http://www.cdc.gov/nchs/data/dvs/im9_2002.pdf.pdf

4. Death Certificates

Death certificates made it possible for the reporting of medical conditions that medical certifiers attribute as cause or contributing factors to death. A death record is designed to allow the certifying physician to record multiple causes of death for a decedent and to arrange them so that the causal or etiological relationship of the medical conditions that led to the death are recorded.

To evaluate the reported mortality information, conditions listed by the medical certifier are coded using standard cause of death classifications developed by the World Health Organization. The cause of death coding system currently used in the United States is described in the *International Classification of Diseases, Tenth Revision* (ICD-10).

From the information provided on the death certificate by the medical certifier, an underlying cause of death is selected using accepted international rules for determining the underlying cause of death. The underlying cause of death codes are arranged into groupings in order to develop meaningful, uniform and relevant information on mortality.

Ranking mortality data based purely on the underlying cause of death code assigned would be very difficult to interpret. The need for standardized cause of death categories when determining leading causes of death branches from details to which deaths are classified. With over 8,000 underlying cause of death codes under the current classification system, some agreement on the appropriate grouping of these cause codes is essential to compare leading cause of death between regions and over time.

While useful as an indicator of health status, leading causes of death should be considered a supplement to more traditional death statistics. There are other measures that can be used to

gauge the relative importance of specific causes of death. These include age-adjusted death rates, cause-eliminated life tables and cause-associated years of productive life lost. Measures such as these are generally more useful in monitoring health status over time, across geographic area or between population subgroups.

5. Years of Potential Life Lost and Premature Deaths

Years of potential life lost involves the years lost to all persons who died prior to age 75. Therefore, persons who died younger than age 75 were considered to have died prematurely. For instance, a person who died at age 50 would be said to have lost 25 years of expected life while someone who died at age 80 would have lost no additional years of expected life. In this report, years of potential life lost is calculated for all who died before age 75 during the specified year. All years of potential life lost from each cause were added together to attain the total years lost for the specified category. Premature deaths are also defined as those who died prior to reaching age 75.

6. Excess Deaths

Excess deaths are defined as the difference between the observed numbers of deaths in the specified period and the expected numbers of deaths for that period. For this report, an average of deaths from the five years prior to the specified year was taken as the expected deaths for the specified period. A comparison is then made to determine whether the number of deaths in the specified period is higher than expected.

Leading Causes of Death

Determining and monitoring the leading causes of death is considered a primary and important indicator of a geographic area's (country, state, county) overall health status or quality of life. Cause-of-death ranking is a metric used for comparing the relative burden of cause-specific mortality across jurisdictions. For this purpose, rankings are based on the most frequently occurring causes of death eligible to be ranked nationwide and may not denote the causes of death of greatest public health importance within each locality. The data in this report were based on information from death certificates filed in the State of California and the causes of death were defined by the *International Classification of Diseases, Tenth Revision* (ICD-10). Rankings in this report were made in accordance with the number of deaths assigned to rankable causes, consistent with procedures used by the National Center for Health Statistics.

Deaths among Fresno County Residents

In 2019, there were 6,991 deaths in Fresno County (Table 1). The death rate was 699.7 deaths per 100,000 population, a decrease of 1.6% from the prior year. In 2020, there were 8,714 deaths, an increase of 1,867 deaths from 2019. The death rate was 863.9, an increase in rate of 23.5%.

Table 1. Deaths by Year, County of Fresno, 2016-2020

	2016	2017	2018	2019	2020
Deaths	6,636	7,015	7,068	6,991	8,714
Rate per 100,000	677.2	709.1	710.8	699.7	863.9
Men Death Rate	722.6	745.8	755.1	754.5	*
Women Death Rate	631.7	672.7	666.7	649.9	*
Mean Age Men	68.7	68.8	68.6	68.4	68.3
Mean Age Women	74.9	75.2	75.1	75.8	75.5

Data Source: State of California, California Department of Public Health, Cal-IVRS California Comprehensive Death File, 2010-2020, Accessed 21 September 2021
 Population obtained from www.data.census.gov, American Community Survey, ACS 1-Year Estimates Subject Tables, TableID: S0101, Accessed 22 February 2022
 * 2020 ACS 1-Year Estimates not available

There were 3,742 deaths among men and 3,249 deaths among women in 2019. In 2020, men accounted for 4,698 deaths compared with 4,016 for women. Overall, men appeared to die at a younger age than women. The mean (average) age at death was 68 years for men compared with more than 75 years for women. Similarly, the overall annual death rate was higher for men than for women (Table 1).

Among the predominant race/ethnicity groups, the lowest annual death rates were among Hispanic (393 per 100,000 population in 2019 and 553 per 100,000 population in 2020), followed by Asian (485 deaths per 100,000 population in 2019 and 607 per 100,000 population in 2020). The highest death rates among the major race/ethnicity groups were White (1,332 per 100,000 population, 2019 and 1,595 per 100,000 population, 2020) and Black (1,069 per 100,000 population, 2019 and 1,217 per 100,000 population, 2020) (Table 2). Rates among non-predominant races/ethnicities such as American

Indian/Alaska Native (AIAN), Hawaiian/Pacific Islander (HwPI), and Other may not be stable due to low counts, resulting in extremely high rates.

Table 2. Deaths by Year by Race/Ethnicity, County of Fresno, 2019-2020

	2016	2017	2018	2019	2019 Rate	2020	2020 Rate
White	3,774	3,935	3,903	3,800	1,332.1	4,338	1,595.5
Black	424	437	411	466	1,068.8	539	1,216.8
AIAN	45	43	62	47	751.9	87	1,432.3
Asian	469	478	534	491	485.4	666	607.3
HwPI	56	68	65	66	3,644.4	84	6,812.7
Other	7	7	6	9	37.8	12	34.5
Hispanic	1,861	2,047	2,087	2,112	393.2	2,988	552.6
Total	6,636	7,015	7,068	6,991	699.7	8,714	863.9

Data Source: State of California, California Department of Public Health, Cal-IVRS California Comprehensive Death File, 2010-2020, Accessed 21 February 2022
Population obtained from www.data.census.gov, American Community Survey, ACS 1-Year Estimates Subject Tables, TableID: S0101, Accessed 21 February 2022

In 2019, a total of 6,991 people died in the county, which translates to an average of more than 19 deaths per day, including 4 from heart disease, 3 from cancer, and 1 from stroke or cerebrovascular disease (Table 3). Comparatively, in 2020, there were 8,714 deaths in the county, which translates to an average of 24 deaths per day, including 5 from heart disease, 4 from cancer and more than 1 from Alzheimer. Although COVID-19 is not rankable by international standard when tabulating leading causes of death, COVID-19 was the third leading cause of death for Fresno County in 2020 (Table 4).

Twenty-four percent, nearly one out of every four deaths in 2019, were caused by heart disease, the leading cause of death; and the second leading cause of death – cancer – accounted for 19% of all deaths (Table 3). In 2020, heart disease was the leading cause of death (21%), followed by cancer (16%).

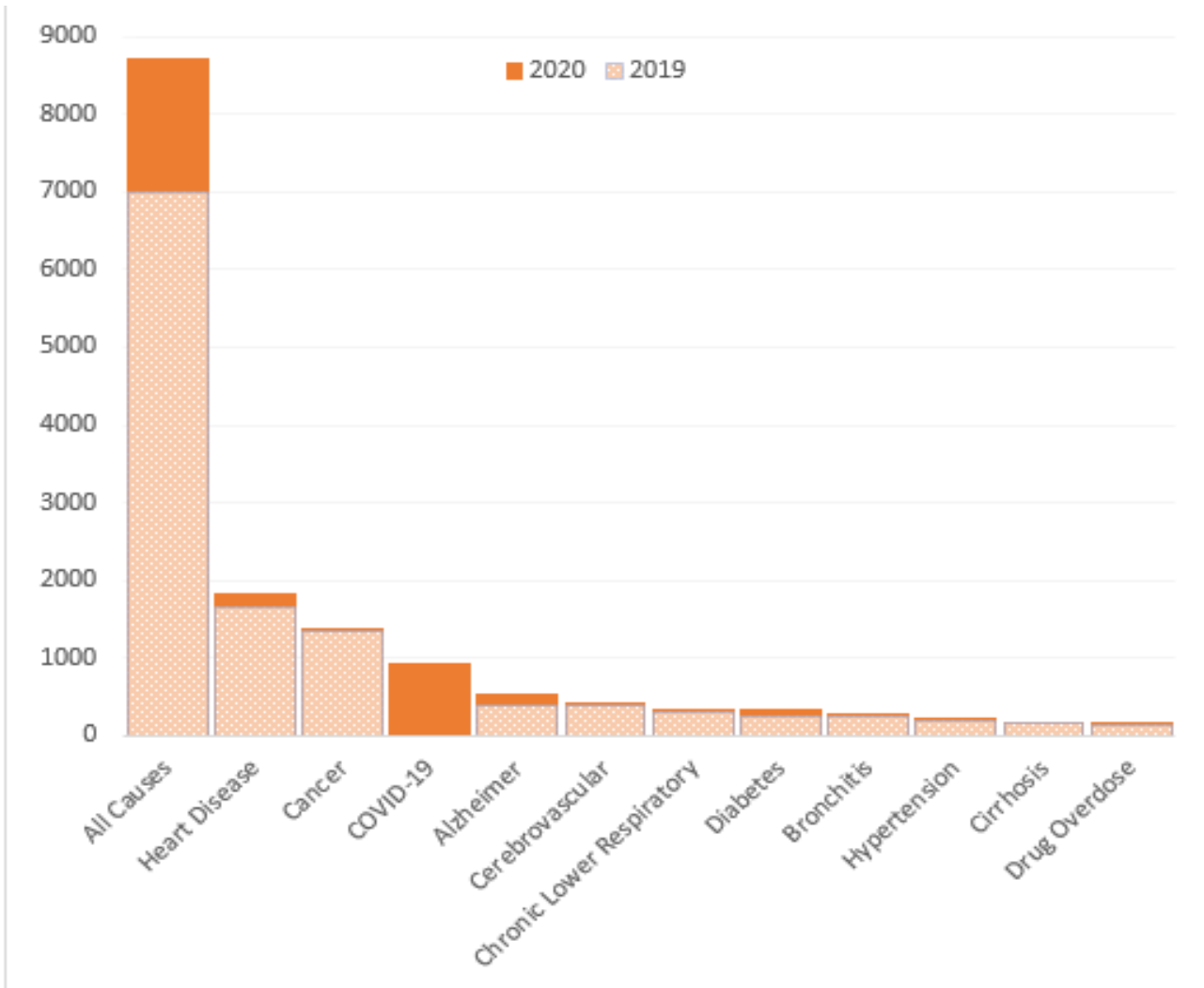
In 2020, the first year of the pandemic, COVID-19 caused 932 deaths among Fresno County residents, resulting in it being the third leading cause of death*. Alzheimer, which in prior years was the third leading cause of death moved to fourth place in 2020.

The top ten leading causes of death accounted for 73% of all deaths in 2019 and 74% of all deaths in 2020.

*Deaths in this report were analyzed using information found on death certificate data from Cal-IVRS. The death counts only included permanent residents of the county, regardless of where the death occurred, and excluded anyone who died anywhere in the county but was not a county resident. How COVID-19 associated deaths are currently counted on COVID-19 specific reports and dashboards may differ from how the deaths were originally classified on the death certificate. For examples, current counts may 1) not be based on permanent residence on death certificate, but on residence at time of infection and 2) death certificate cause of death classifications are

used in combination with additional clinical reviews by the local health department. This methodology does not allow for comparison among other causes but does allow for more exact counts of what is occurring within the community.

Figure 1. A Comparison of the Leading Causes of Death, County of Fresno



Data Source: State of California, California Department of Public Health, Cal-IVRS California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Figure 1 above displays the total deaths and the leading causes of death in years 2019 and 2020. It is apparent that deaths in 2020 in all the top causes surpassed deaths in 2019.

Table 3. Leading Causes of Death among Residents, County of Fresno

Cause	2019	¹ Rank
All Causes	6,991	--
Heart Disease	1,649	1
Cancer	1,332	2
Alzheimer	398	3
Cerebrovascular	383	4
Chronic Lower Respiratory	310	5
Diabetes	262	6
Bronchitis	246	7
Hypertension	199	8
Cirrhosis	163	9
Drug Overdose ²	133	10
Septicemia	118	11
Influenza	111	12
Accidents	97	13
Nephritis	93	14
Parkinson's	85	15
Pneumonitis Solid	74	16
Peptic Ulcer	74	16
Homicide	71	18
Opioid ^{**2}	45	19
Perinatal	44	20
Nutritional Deficiencies	37	21
Congenital Malformation	31	22

Cause	2020	¹ Rank
All Causes	8,714	--
Heart Disease	1,835	1
Cancer	1,367	2
COVID-19 ²	932	3
Alzheimer	534	4
Cerebrovascular	417	5
Chronic Lower Respiratory	332	6
Diabetes	320	7
Bronchitis	280	8
Hypertension	222	9
Cirrhosis	170	10
Drug Overdose ²	167	11
Accidents	135	12
Influenza	132	13
Septicemia	119	14
Nephritis	112	15
Suicide	105	16
Homicide	99	17
Opioid ^{**2}	74	18
Pneumonitis Solid	69	19
Peptic Ulcer	69	19
Parkinson's	65	21
Nutritional Deficiencies	47	22

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

^{**}Opioid is included in Drug Overdose, but is shown here due to public interest

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Table 4. Leading Causes of Death among Residents by Sex, County of Fresno, 2019

Men	2019	¹ Rank	Women	2019	¹ Rank
All Causes	3,742	--	All Causes	3,249	--
Heart Disease	914	1	Heart Disease	735	1
Cancer	680	2	Cancer	652	2
Cerebrovascular	175	3	Alzheimer	254	3
Bronchitis	160	4	Cerebrovascular	208	4
Chronic Lower Respiratory	158	5	Chronic Lower Respiratory	152	5
Diabetes	150	6	Hypertension	117	6
Alzheimer	144	7	Diabetes	112	7
Cirrhosis	111	8	Bronchitis	86	8
Drug Overdose ²	96	9	Septicemia	60	9
Suicide	90	10	Influenza	56	10
Hypertension	82	11	Cirrhosis	52	11
Accidents	73	12	Pneumonitis Solid	41	12
Homicide	61	13	Peptic Ulcer	41	12
Septicemia	58	14	Nephritis	40	14
Influenza	55	15	Parkinson's	38	15
Nephritis	53	16	Drug Overdose ²	37	16
Parkinson's	47	17	Accidents	24	17
Opioid ^{**2}	37	18	Nutritional Deficiencies	23	18
Pneumonitis Solid	33	19	Perinatal	17	19
Peptic Ulcer	33	19	Benign Neoplasms	14	20
Perinatal	27	21	Suicide	13	21
Congenital Malformation	22	22	Kidney Infections	11	22
Benign Neoplasm	14	23	Homicide	10	23
Nutritional Deficiencies	14	23	Congenital Malformation	<10	24
HIV	14	23	Opioid ^{**2}	<10	25

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

^{**}Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IVRS

California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

In 2019, the leading cause of death among both men and women was heart disease followed by cancer (Table 4). Alzheimer was the third leading cause of death among women while, among men, it was the seventh leading cause. Given that Alzheimer is more likely to affect older adults, this could mean that more men than women died before Alzheimer set in.

Bronchitis was the fourth leading killer in men while it is the eighth leading cause of death among women. Major causes of bronchitis include cigarette smoking, inhaled irritants, asthma, and congestive heart failure.

Table 5. Leading Causes of Death among Residents by Sex, County of Fresno, 2020

Men	2020	¹ Rank	Women	2020	¹ Rank
All Causes	4,698	--	All Causes	4,016	--
Heart Disease	1,021	1	Heart Disease	814	1
Cancer	703	2	Cancer	664	2
COVID-19 ²	563	3	COVID-19 ²	369	3
Cerebrovascular	194	4	Alzheimer	363	4
Alzheimer	171	5	Cerebrovascular	223	5
Diabetes	165	6	Chronic Lower Respiratory	169	6
Chronic Lower Respiratory	163	7	Diabetes	155	7
Bronchitis	162	8	Hypertension	140	8
Drug Overdose ²	122	9	Bronchitis	118	9
Cirrhosis	105	10	Influenza	72	10
Accidents	97	11	Cirrhosis	65	11
Homicide	87	12	Septicemia	59	12
Hypertension	82	13	Nephritis	46	13
Suicide	82	13	Drug Overdose ²	45	14
Nephritis	66	15	Accidents	38	15
Influenza	60	16	Nutritional Deficiencies	27	16
Septicemia	60	16	Parkinson's	24	17
Opioid ^{**2}	55	18	Pneumonitis Solid	23	18
Pneumonitis Solid	46	19	Peptic Ulcer	23	18
Peptic Ulcer	46	19	Suicide	23	18
Parkinson's	41	21	Opioid ^{**2}	19	21
Perinatal	23	22	Congenital Malformation	17	22
Nutritional Deficiencies	20	23	Perinatal	15	23
Benign Neoplasm	18	24	Homicide	12	24
Congenital Malformation	15	25	Pelvic Inflammation	10	25
HIV	15	25	Neoplasm Benign	<10	26

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

^{**}Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IVRS

California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

In 2020, the top three leading causes of death among both men and women were heart disease, cancer, and COVID-19, respectively. More men died of each of these top causes than women. On the flip side, twice the number of women died of Alzheimer than men, the fourth leading cause of death among women and the fifth leading cause among men.

Table 6. Leading Causes of Death by Race/Ethnicity, County of Fresno, 2019

Cause	White	*Rank	Black	*Rank	AIAN	*Rank	Asian	*Rank	HwPI	*Rank	Other	*Rank	Hispanic	*Rank	Total
All Causes	3,800	--	466	--	47	--	491	--	66	--	<10	--	2,112	--	6,991
Other Causes	574	--	77	--	11	--	90	--	<10	--	<10	--	376	--	1,137
Heart Disease	1,020	1	119	1	<10	1	93	1	18	1	<10	1	389	2	1,649
Cancer	720	2	107	2	<10	2	85	2	13	2	<10	1	399	1	1,332
Alzheimer	274	3	11	9	<10	13	16	6	<10	7	<10	1	94	5	398
Cerebrovascular	188	5	16	7	<10	8	54	3	<10	4	<10	9	120	3	383
Chronic Lower Respiratory	233	4	22	4	<10	8	16	6	<10	8	<10	9	37	14	310
Diabetes	90	8	23	3	<10	13	33	4	<10	3	<10	9	109	4	262
Bronchitis	139	6	22	4	<10	6	17	5	<10	8	<10	1	64	7	246
Hypertension	122	7	10	10	<10	6	11	8	<10	8	<10	1	52	8	199
Cirrhosis	55	13	<10	11	<10	3	<10	19	<10	13	<10	9	90	6	163
Drug Overdose ²	57	12	14	8	<10	4	<10	12	<10	13	<10	9	52	8	133
Septicemia	58	11	<10	16	<10	8	<10	12	<10	8	<10	1	46	11	118
Influenza	64	9	<10	12	<10	13	<10	12	<10	4	<10	1	29	17	111
Suicide	48	14	<10	12	<10	4	<10	10	<10	13	<10	9	38	13	103
Accidents	35	18	<10	16	<10	13	<10	9	<10	13	<10	1	48	10	97
Nephritis	45	15	<10	16	<10	13	<10	10	<10	6	<10	9	33	15	93
Parkinson's	59	10	<10	20	<10	13	<10	12	<10	13	<10	9	18	20	85
Pneumonitis Solid	41	16	<10	14	<10	8	<10	12	<10	13	<10	9	20	18	74
Peptic Ulcer	41	16	<10	14	<10	8	<10	12	<10	13	<10	9	20	18	74
Homicide	<10	22	18	6	<10	13	<10	18	<10	13	<10	9	40	12	71
Opioid ^{**2}	20	20	<10	19	<10	13	<10	19	<10	13	<10	9	18	20	45
Perinatal	<10	23	<10	20	<10	13	<10	19	<10	13	<10	9	33	15	44
Nutritional Deficiencies	26	19	<10	20	<10	13	<10	22	<10	13	<10	9	<10	23	37
Congenital Malformation	13	21	<10	23	<10	13	<10	23	<10	8	<10	9	16	22	31

*Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

**Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IERS

California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

During 2019, among the predominant race/ethnicity groups, the top two leading causes of death were consistent – with heart disease being the number one cause and cancer being the number two cause -- except for Hispanic where the top two causes were reversed, with cancer being number one and heart disease being number two.

The number three cause of death among the different race/ethnic groups was varied, suggesting that factors causing death were different among the various groups. For White, the third leading cause of death was Alzheimer; for Black, diabetes; and for Asian and Hispanic, cerebrovascular disease (Table 6).

Table 7. Leading Causes of Death by Race/Ethnicity, County of Fresno, 2020

Cause	White	'Rank	Black	'Rank	AIAN	'Rank	Asian	'Rank	HwPI	'Rank	Other	'Rank	Hispanic	'Rank	Total
All Causes	4,338	--	539	--	87	--	666	--	84	--	12	--	2,988	--	8,714
Other Causes	652	--	89	--	16	--	93	--	<10	--	<10	--	461	--	1,319
Heart Disease	1,054	1	120	1	22	1	152	1	19	1	<10	1	465	2	1,835
Cancer	750	2	72	2	11	2	79	2	17	2	<10	3	436	3	1,367
COVID-19 ²	289	4	38	3	<10	3	63	3	13	3	<10	1	519	1	932
Alzheimer	341	3	27	4	<10	6	29	7	<10	8	<10	6	130	6	534
Cerebrovascular	205	6	25	6	<10	9	46	4	<10	4	<10	4	131	5	417
Chronic Lower Respiratory	224	5	23	8	<10	14	30	6	<10	8	<10	6	52	13	332
Diabetes	89	9	25	6	<10	14	42	5	<10	4	<10	6	156	4	320
Bronchitis	155	7	20	9	<10	4	22	9	<10	6	<10	6	72	8	280
Hypertension	119	8	14	10	<10	9	26	8	<10	7	<10	6	58	11	222
Cirrhosis	68	11	<10	14	<10	4	<10	14	<10	17	<10	4	80	7	170
Drug Overdose ²	82	10	<10	13	<10	8	<10	15	<10	17	<10	6	67	9	167
Accidents	42	18	<10	15	<10	9	18	10	<10	11	<10	6	65	10	135
Influenza	67	12	<10	17	<10	7	12	11	<10	8	<10	6	42	17	132
Septicemia	50	13	10	11	<10	19	10	13	<10	11	<10	6	48	14	119
Nephritis	43	17	10	11	<10	9	12	11	<10	11	<10	6	44	15	112
Suicide	49	14	<10	16	<10	14	<10	18	<10	11	<10	6	44	15	105
Homicide	10	23	27	4	<10	19	<10	21	<10	11	<10	6	58	11	99
Opioid ^{**2}	42	18	<10	18	<10	9	<10	24	<10	17	<10	6	25	19	74
Pneumonitis Solid	44	15	<10	21	<10	19	<10	15	<10	17	<10	6	17	20	69
PepticUlcer	44	15	<10	21	<10	19	<10	15	<10	17	<10	6	17	20	69
Parkinson's	41	20	<10	20	<10	14	<10	18	<10	11	<10	6	15	22	65
Nutritional Deficiencies	32	21	<10	21	<10	19	<10	21	<10	17	<10	6	10	24	47
Perinatal	<10	24	<10	18	<10	19	<10	23	<10	17	<10	6	29	18	38
Congenital Malformation	11	22	<10	21	<10	14	<10	18	<10	17	<10	6	14	23	32

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

**Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

In year 2020, among White, Black, and Asian groups, the top two leading causes of death were heart disease, followed by cancer. However, for Hispanic, COVID-19 ranked as the number one cause of death, totaling 17% of all Hispanic deaths for the year. COVID-19 ranked as the third leading cause of death among Black and Asian groups and fourth among White. Heart disease and cancer ranked as the second and third causes of death among Hispanic while Alzheimer ranked as the third leading cause for White during year 2020.

Leading Causes of Death among Sex by Race/Ethnicity

In year 2019, among men by race/ethnicity (Table 8), heart disease ranked as the top cause of death, followed by cancer as the number two cause -- except for Asian where the top two causes were reversed with cancer being number one and heart disease being number two.

The third leading cause appeared to be different among the different race/ethnicity. For White men, the third leading cause was chronic lower respiratory disease; for Black, diabetes and bronchitis tied; for Asian, cerebrovascular disease; and for Hispanic, it was cirrhosis.

During year 2019, among women (Table 9), heart disease ranked as the top cause for White, Black, and Asian and cancer ranked as the second leading cause (cancer tied with heart disease as the leading cause for Black). For Hispanic, cancer was the top leading cause followed by heart disease.

During 2019, Alzheimer was the third leading cause of death among White women while cerebrovascular disease ranked as the third leading cause among Black, Asian, and Hispanic women.

In year 2020 (Table 10), the leading causes among men were: heart disease for White, Black, and Asian; and COVID-19 for Hispanic. COVID-19 was the second leading cause for Asian Men, the third leading cause for White, and the fourth leading cause for Black. Homicide was the third leading cause of death among Black men in 2020.

Among women, in 2020 (Table 11), the leading cause of death was heart disease followed by cancer, except for Hispanic which the leading cause of death was cancer followed by heart disease. COVID-19 was the third leading cause of death among Black, Asian, and Hispanic women; it was the fourth leading cause for White women.

Table 8. Leading Causes of Death among Men by Race/Ethnicity, County of Fresno, 2019

Cause	White	¹ Rank	Black	¹ Rank	AIAN	¹ Rank	Asian	¹ Rank	HwPI	¹ Rank	Other	¹ Rank	Hispanic	¹ Rank	Total
All Causes	1,913	--	258	--	18	--	283	--	25	--	<10	--	1,239	--	3,742
Other Causes	280	--	40	--	<10	--	53	--	<10	--	<10	--	232	--	612
Heart Disease	549	1	69	1	<10	1	50	2	<10	1	<10	1	232	1	914
Cancer	358	2	57	2	<10	2	52	1	<10	2	<10	6	205	2	680
Cerebrovascular	77	6	<10	11	<10	6	28	3	<10	4	<10	6	62	5	175
Bronchitis	89	5	14	3	<10	3	11	6	<10	8	<10	1	43	6	160
Chronic Lower Respiratory	114	3	13	5	<10	8	13	5	<10	8	<10	6	18	16	158
Diabetes	49	7	14	3	<10	8	19	4	<10	2	<10	6	64	4	150
Alzheimer	98	4	<10	11	<10	8	<10	19	<10	8	<10	1	39	8	144
Cirrhosis	36	10	<10	9	<10	6	<10	18	<10	8	<10	6	66	3	111
Drug Overdose ²	36	10	10	7	<10	3	<10	8	<10	8	<10	6	41	7	96
Suicide	42	9	<10	9	<10	3	<10	7	<10	8	<10	6	33	11	90
Hypertension	46	8	<10	8	<10	8	<10	13	<10	8	<10	6	26	12	82
Accidents	26	15	<10	11	<10	8	<10	8	<10	8	<10	1	35	10	73
Homicide	<10	21	12	6	<10	8	<10	13	<10	8	<10	6	38	9	61
Septicemia	26	15	<10	15	<10	8	<10	10	<10	8	<10	6	23	13	58
Influenza	28	13	<10	11	<10	8	<10	10	<10	5	<10	1	15	17	55
Nephritis	27	14	<10	17	<10	8	<10	12	<10	5	<10	6	19	15	53
Parkinson	35	12	<10	21	<10	8	<10	19	<10	8	<10	6	10	19	47
Opioid ^{**}	16	19	<10	15	<10	8	<10	13	<10	8	<10	6	14	18	37
Pneumonitis Solid	19	17	<10	17	<10	8	<10	13	<10	8	<10	6	<10	20	33
Peptic Ulcer	19	17	<10	17	<10	8	<10	13	<10	8	<10	6	<10	20	33
Perinatal	<10	22	<10	17	<10	8	<10	21	<10	8	<10	6	20	14	27
Congenital Malformation	11	20	<10	21	<10	8	<10	21	<10	5	<10	6	<10	20	22

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

**Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IERS
California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Table 9. Leading Causes of Death among Women by Race/Ethnicity, County of Fresno, 2019

Cause	White	'Rank	Black	'Rank	AIAN	'Rank	Asian	'Rank	HwPI	'Rank	Other	'Rank	Hispanic	'Rank	Total
All Causes	1,887	--	208	--	29	--	208	--	41	--	<10	--	873	--	3,249
Other Causes	294	--	37	--	<10	--	37	--	<10	--	<10	--	144	--	525
Heart Disease	471	1	50	1	<10	2	43	1	11	1	<10	4	157	2	735
Cancer	362	2	50	1	<10	2	33	2	<10	2	<10	1	194	1	652
Alzheimer	176	3	<10	7	<10	11	14	4	<10	5	<10	4	55	4	254
Cerebrovascular	111	5	12	3	<10	11	26	3	<10	7	<10	4	58	3	208
Chronic Lower Respiratory	119	4	<10	4	<10	5	<10	9	<10	7	<10	4	19	10	152
Hypertension	76	6	<10	9	<10	4	<10	6	<10	7	<10	1	26	6	117
Diabetes	41	8	<10	4	<10	11	14	4	<10	3	<10	4	45	5	112
Bronchitis	50	7	<10	6	<10	11	<10	7	<10	7	<10	4	21	9	86
Septicemia	32	10	<10	16	<10	5	<10	15	<10	7	<10	1	23	8	60
Influenza	36	9	<10	15	<10	11	<10	15	<10	3	<10	4	14	11	56
Cirrhosis	19	15	<10	9	<10	1	<10	15	<10	13	<10	4	24	7	52
Pneumonitis Solid	22	12	<10	9	<10	5	<10	9	<10	13	<10	4	11	15	41
Peptic Ulcer	22	12	<10	9	<10	5	<10	9	<10	13	<10	4	11	15	41
Nephritis	18	16	<10	14	<10	11	<10	9	<10	5	<10	4	14	11	40
Parkinson	24	11	<10	16	<10	11	<10	8	<10	13	<10	4	<10	18	38
Drug Overdose ²	21	14	<10	9	<10	5	<10	20	<10	13	<10	4	11	15	37
Accidents	<10	18	<10	21	<10	11	<10	14	<10	13	<10	4	13	13	24
Nutritional Deficiencies	17	17	<10	16	<10	11	<10	15	<10	13	<10	4	<10	21	23
Perinatal	<10	23	<10	21	<10	11	<10	9	<10	13	<10	4	13	13	17
Benign Neoplasm	<10	19	<10	16	<10	11	<10	20	<10	7	<10	4	<10	21	14
Suicide	<10	21	<10	16	<10	5	<10	20	<10	13	<10	4	<10	20	13
Kidney Infections	<10	19	<10	21	<10	11	<10	20	<10	13	<10	4	<10	23	11
Homicide	<10	23	<10	8	<10	11	<10	15	<10	13	<10	4	<10	24	10
Congenital Malformation	<10	22	<10	21	<10	11	<10	20	<10	13	<10	4	<10	19	<10

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

**Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Table 10. Leading Causes of Death among Men by Race/Ethnicity, County of Fresno, 2020

Cause	White	'Rank	Black	'Rank	AIAN	'Rank	Asian	'Rank	HwPI	'Rank	Other	'Rank	Hispanic	'Rank	Total
AllCause	2,224	--	288	--	48	--	342	--	42	--	<10	--	1,747	--	4,698
Other Causes	344	--	51	--	13	--	48	--	<10	--	<10	--	261	--	721
Heart Disease	559	1	74	1	13	1	93	1	12	1	<10	4	270	2	1,021
Cancer	392	2	31	2	<10	2	34	3	<10	2	<10	2	231	3	703
COVID-19 ¹	161	3	18	4	<10	4	37	2	<10	2	<10	1	334	1	563
Cerebrovascular	86	7	12	5	<10	8	22	4	<10	5	<10	3	69	5	194
Alzheimer	111	5	<10	8	<10	5	<10	10	<10	14	<10	4	42	10	171
Diabetes	48	9	10	7	<10	8	20	5	<10	6	<10	4	84	4	165
Chronic Lower Respiratory	112	4	<10	13	<10	8	14	6	<10	6	<10	4	29	13	163
Bronchitis	92	6	11	6	<10	3	13	7	<10	4	<10	4	38	11	162
Drug Overdose ²	56	8	<10	14	<10	5	<10	12	<10	14	<10	4	55	7	122
Cirrhosis	39	11	<10	18	<10	8	<10	12	<10	14	<10	4	58	6	105
Accidents	30	14	<10	10	<10	8	<10	9	<10	8	<10	4	49	9	97
Homicide	<10	23	24	3	<10	16	<10	18	<10	8	<10	4	50	8	87
Hypertension	43	10	<10	8	<10	8	12	8	<10	8	<10	4	17	18	82
Suicide	37	12	<10	14	<10	16	<10	15	<10	8	<10	4	36	12	82
Nephritis	23	20	<10	10	<10	16	<10	11	<10	14	<10	4	29	13	66
Influenza	33	13	<10	18	<10	5	<10	12	<10	8	<10	4	17	18	60
Septicemia	25	19	<10	12	<10	16	<10	19	<10	8	<10	4	26	15	60
Opioid ^{**}	30	14	<10	16	<10	8	<10	22	<10	14	<10	4	20	16	55
Pneumonitis Solid	26	17	<10	18	<10	16	<10	15	<10	14	<10	4	14	20	46
Peptic Ulcer	26	17	<10	18	<10	16	<10	15	<10	14	<10	4	14	20	46
Parkinson	29	16	<10	18	<10	16	<10	19	<10	14	<10	4	<10	22	41
Perinatal	<10	25	<10	16	<10	16	<10	24	<10	14	<10	4	19	17	23
Nutritional Deficiencies	14	22	<10	23	<10	16	<10	24	<10	14	<10	4	<10	24	20
Benign Neoplasm	16	21	<10	24	<10	16	<10	22	<10	14	<10	4	<10	25	18
Congenital Malformation	<10	24	<10	24	<10	8	<10	19	<10	14	<10	4	<10	22	15

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

**Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IVRS

California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Table 11. Leading Causes of Death among Women by Race/Ethnicity, County of Fresno, 2020

Cause	White	'Rank	Black	'Rank	AIAN	'Rank	Asian	'Rank	HwPI	'Rank	Other	'Rank	Hispanic	'Rank	Total
All Causes	2,114	--	251	--	39	--	324	--	42	--	<10	--	1,241	--	4,016
Other Cause	308	--	38	--	<10	--	45	--	<10	--	<10	--	200	--	598
Heart Disease	495	1	46	1	<10	1	59	1	<10	2	<10	1	195	2	814
Cancer	358	2	41	2	<10	2	45	2	10	1	<10	3	205	1	664
COVID-19 ²	128	4	20	3	<10	4	26	3	<10	3	<10	3	185	3	369
Alzheimer	230	3	19	4	<10	5	21	6	<10	6	<10	3	88	4	363
Cerebrovascular	119	5	13	7	<10	9	24	4	<10	5	<10	3	62	6	223
Chronic Lower Respiratory	112	6	18	5	<10	16	16	7	<10	12	<10	3	23	10	169
Diabetes	41	9	15	6	<10	16	22	5	<10	4	<10	3	72	5	155
Hypertension	76	7	<10	9	<10	9	14	8	<10	6	<10	3	41	7	140
Bronchitis	63	8	<10	8	<10	6	<10	9	<10	8	<10	3	34	8	118
Influenza	34	10	<10	13	<10	6	<10	12	<10	8	<10	3	25	9	72
Cirrhosis	29	11	<10	9	<10	2	<10	15	<10	12	<10	2	22	11	65
Septicemia	25	13	<10	12	<10	16	<10	11	<10	12	<10	3	22	11	59
Nephritis	20	14	<10	13	<10	6	<10	13	<10	8	<10	3	15	14	46
Drug Overdose ³	26	12	<10	11	<10	9	<10	21	<10	12	<10	3	12	15	45
Accidents	12	18	<10	22	<10	9	<10	9	<10	12	<10	3	16	13	38
Nutritional Deficiencies	18	15	<10	18	<10	16	<10	14	<10	12	<10	3	<10	21	27
Parkinson	12	18	<10	18	<10	9	<10	15	<10	8	<10	3	<10	19	24
Pneumonitis Solid	18	15	<10	22	<10	16	<10	15	<10	12	<10	3	<10	23	23
Peptic Ulcer	18	15	<10	22	<10	16	<10	15	<10	12	<10	3	<10	23	23
Suicide	12	18	<10	16	<10	9	<10	22	<10	12	<10	3	<10	17	23
Opioid ^{**}	12	18	<10	18	<10	9	<10	22	<10	12	<10	3	<10	21	19
Congenital Malformation	<10	22	<10	16	<10	16	<10	15	<10	12	<10	3	<10	20	17
Perinatal	<10	23	<10	18	<10	16	<10	15	<10	12	<10	3	10	16	15
Homicide	<10	24	<10	13	<10	16	<10	22	<10	12	<10	3	<10	17	12

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

^{**}Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IVRS

California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Premature deaths

Any death occurring prior to age 75 results in years lost because such individuals are considered to have died prematurely. Table 12 compares the number of deaths with the number of premature deaths from 2010 through 2020. Each year, the number of deaths as well as the number of premature deaths increased. Since the population of Fresno County increased with time, a slight increase in the number of deaths should not be alarming. However, the percent of premature deaths would be expected to remain stable and/or even drop given the advancement in medical technology and care. From 2010 to 2020, the rate of premature death increased 6 percent. However, 2020 was an abnormal year due to COVID-19 first becoming a pandemic and there was a dearth of medical technology and knowledge on how to deal with the disease. Within the last decade, though, the rate of premature death within Fresno County did not significantly drop.

Table 12. Number of Deaths and Premature Deaths among Residents by Year, County of Fresno

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
All Deaths	5,933	6,129	6,234	6,487	6,345	6,527	6,636	7,015	7,068	6,991	8,714
Premature	2,750	2,813	2,840	2,993	3,007	3,125	3,236	3,347	3,438	3,369	4,288
%Premature Death	46.4	45.9	45.6	46.1	47.4	47.9	48.8	47.7	48.6	48.2	49.2

Data Source: State of California, California Department of Public Health, Cal-IVRS California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Years of Potential Life Lost

In 2019, there were 3,369 people who died prematurely, resulting in 62,531 years of potential life lost (YPLL) in the County. In 2020, the YPLL was 78,020 among 4,288 individuals (Table 13). The increase in YPLL in 2020 over the previous year was due partly to people dying of COVID-19 where there were 472 persons whose cause of premature death was due to the disease, resulting in YPLL of 6,568.

Among those who died prematurely, cancer was the leading cause of death resulting in a YPLL of 10,027 for 2019 and 10,337 for 2020. Heart disease, which was the second leading cause, killed 630 people (19%) prematurely in 2019, resulting in a YPLL of 4,147. Heart disease killed 715 people (17%) prematurely in 2020, resulting in a YPLL of 4,664.

While the third leading cause of premature death in 2019 was cirrhosis (YPLL of 2,488), COVID-19 became the third leading cause of premature death in 2020. The fact that COVID-19 killed a lower number of people than heart disease but had a higher YPLL suggests that those who died from COVID-19 were likely younger than those who died from heart disease.

Table 13. Leading Causes of Premature Death and Years of Potential Life Lost among Residents, County of Fresno

Cause	2019	¹ Rank	YPLL <75 (N=3,369)	Cause	2020	¹ Rank	YPLL <75 (N=4,288)
All Causes	3,369	--	62,531	All Causes	4,288	--	78,020
Cancer	765	1	10,027	Cancer	796	1	10,337
Heart Disease	630	2	4,147	Heart Disease	715	2	4,664
Cirrhosis	143	3	2,488	COVID-19 ²	472	3	6,568
Diabetes	140	4	1,852	Diabetes	186	4	2,658
Cerebrovascular	131	5	1,890	Drug Overdose ²	164	5	962
Drug Overdose ²	130	6	932	Cerebrovascular	149	6	1,916
Chronic Lower Respiratory	112	7	1,097	Cirrhosis	133	7	2,334
Bronchitis	102	8	1,168	Chronic Lower Respiratory	124	8	1,339
Suicide	92	9	1,086	Bronchitis	121	9	1,425
Accidents	87	10	2,873	Accidents	120	10	1,705
Homicide	68	11	1,382	Suicide	100	11	1,180
Septicemia	57	12	912	Homicide	98	12	2,072
Influenza	53	13	724	Septicemia	81	13	1,172
Hypertension	52	14	530	Opioid ²	74	14	640
Opioid ²	45	15	502	Hypertension	70	15	772
Perinatal	44	16	3,280	Influenza	55	16	844
Nephritis	43	17	309	Nephritis	46	17	406
Pneumonitis Solid	37	18	366	Alzheimer	43	18	222
Peptic Ulcer	37	18	366	Perinatal	38	19	2,850
Alzheimer	30	20	197	Pneumonitis Solid	30	20	544
Congenital Malformation	29	21	1,548	Peptic Ulcer	30	20	544
HIV	19	22	525	Congenital Malformation	27	22	1,760
				HIV	13	23	243

¹Rank based on number of total deaths.

²Not rankable by international standard, but shown here due to public interest.

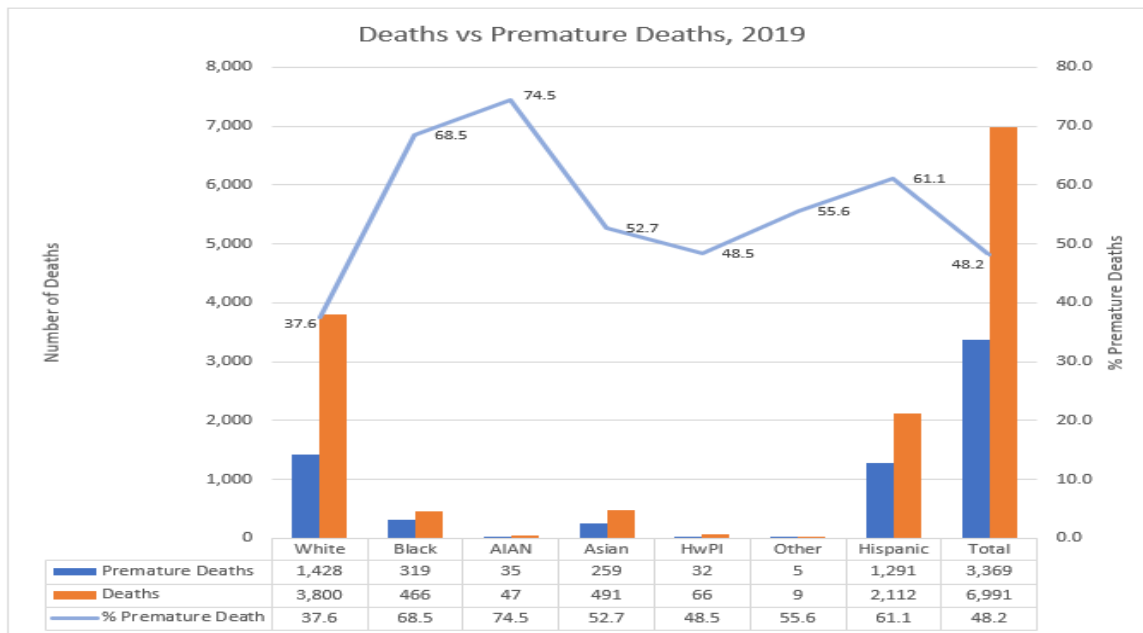
**Opioid is included in Drug Overdose, but is shown here due to public interest

<10 data were suppressed to preserve privacy

Data Source: State of California, California Department of Public Health, Cal-IVRIS

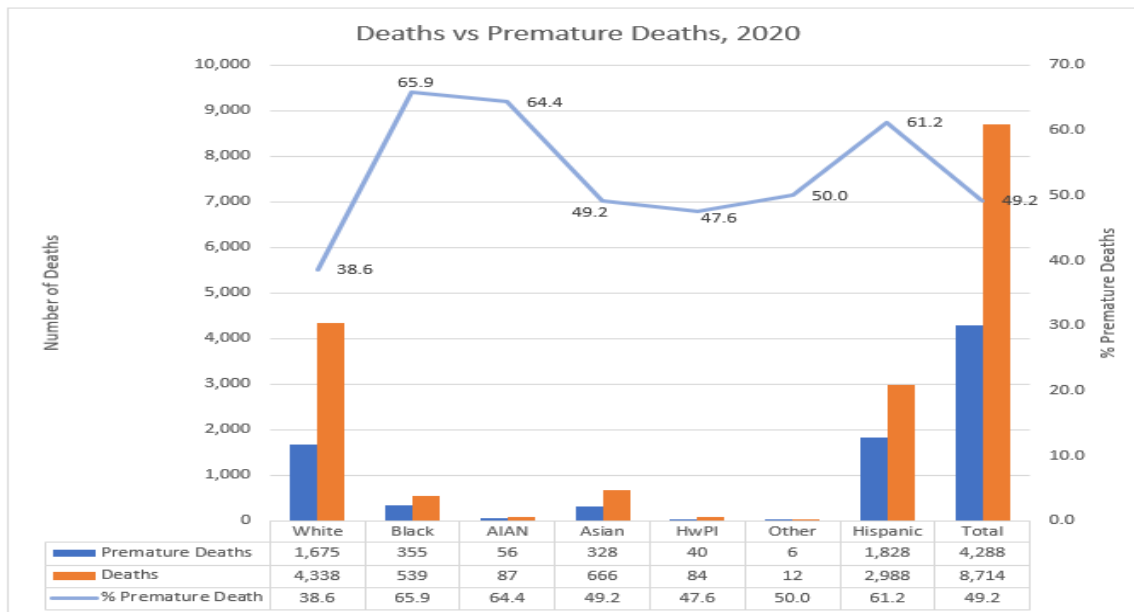
California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Figure 2. A Comparison of Premature Death and Annual Death among Residents, County of Fresno, 2019



Data Source: State of California, California Department of Public Health, Cal-IVRS California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Figure 3. A Comparison of Premature Death and Annual Death among Residents, County of Fresno, 2020



Data Source: State of California, California Department of Public Health, Cal-IVRS California Comprehensive Death File, 2010-2020, Accessed 21 February 2022

Figures 2 and 3 show the percentage of premature deaths by race/ethnicity. In 2019, there appears to be a lower percentage of premature deaths among White (37.6%) when compared to the other race/ethnicity groups. Among the larger race/ethnicity groups, Black has the highest proportion of individuals dying prematurely (68.5%), followed by Hispanic (61.1%) and Asian (52.7%). The proportions among all the other race/ethnicity groups were also higher than the county total (48.2%). This highlights the issue of premature death among minority groups.

Also, minorities account for a higher proportion of the premature deaths in 2020 when compared to White. Among Black, 65.9% died prematurely; among Hispanic, 61.2%; and among Asian, 49.2%; while among White, the proportion was 38.6%. Countywide, the premature death proportion was 49.2%.

Excess Deaths

For this report, excess death is the difference between the observed number of deaths and the expected numbers of deaths. The observed numbers of deaths were the deaths occurring in years 2019 and 2020. The expected numbers of deaths were the average of deaths from the preceding five years.

Table 14 displays the numbers of expected deaths and observed numbers of deaths for years 2019 and 2020.

In 2019, the excess deaths were 273, an increase of 4.1% from the deaths expected. When accounting for the population difference, the rate of death (per 100,000 population) increased was 2.2%.

In 2020, the excess deaths were 1,867 persons, an increase of 27.3% from the expected numbers of deaths, resulting in a death rate increase of 24.6%.

Table 14. Expected and Observed Deaths, County of Fresno

	Expected Observed				Expected Observed			
	2014-2018	2019	Excess	% Increase	2015-2019	2020	Excess	% Increase
Deaths	6,718	6,991	273	4.1	6,847	8,714	1,867	27.3
Rate	684.9	699.7	14.8	2.2	693.4	863.9	170.5	24.6

Data Source: State of California, California Department of Public Health, Cal-IVRS
 California Comprehensive Death File, 2010-2020, Accessed 21 February 2022
 Population obtained from www.data.census.gov, American Community Survey,
 ACS 1-Year Estimates Subject Tables, TableID: S0101, Accessed 21 February 2022
 * 2020 ACS 1-Year Estimates not available

Table 15. Expected and Observed Deaths by Race/Ethnicity, County of Fresno

Rates of Expected and Observed Deaths								
	Expected		Observed		Expected		Observed	
	2014-2018	2019	Excess	% Increase	2015-2019	2020	Excess	% Increase
White	1309.9	1332.1	22	1.7	1319.4	1595.5	276	20.9
Black	918.3	1068.8	150	16.4	969.9	1216.8	247	25.5
AIAN	1112.2	751.9	-360	-32.4	1014.0	1432.3	418	41.3
Asian	472.1	485.4	13	2.8	485.9	607.3	121	25.0
HwPI	4591.5	3644.4	-947	-20.6	4718.3	6812.7	2,094	44.4
Other	38.5	37.8	-1	-1.9	34.8	34.5	0	-0.8
Hispanic	367.6	393.2	26	7.0	378.8	552.6	174	45.9
Total	684.9	699.7	15	2.2	693.4	863.9	171	24.6

Data Source: State of California, California Department of Public Health, Cal-IVRS
 California Comprehensive Death File, 2010-2020, Accessed 21 February 2022
 Population obtained from www.data.census.gov, American Community Survey,
 ACS 1-Year Estimates Subject Tables, TableID: S0101, Accessed 21 February 2022
 * 2020 ACS 1-Year Estimates not available

By race/ethnicity, in 2019, the rate of excess death increased by 1.7% among White while in 2020, the increase was 20.9% (Table 15). Among Black, the percent of excess death increased from 16.5% in 2019 to 25.5% in 2020. Asian had an excess death rate percent increase of 2.8% in 2019, but 25.0% in 2020. The excess death rate among Hispanic experienced the highest increase – from 7.0% in 2019 to 45.9% in 2020. Likely, the dramatic increase in deaths from 2019 to 2020 were related to the COVID-19 pandemic, if not directly linked to the disease.

Acknowledgements:

The Epidemiology Program acknowledges and thanks all the hard work done by the Fresno County Department of Public Health's Vital Statistics Program, Program Technicians, Public Health Nurses, and support staff. In addition, we appreciate the consultations and work done by the California Department of Public Health's California Integrated Vital Records System (Cal-IVRS), Center for Health Statistics.

References

1. State of California. California Department of Public Health. California Integrated Vital Records System. California Comprehensive Death File. Accessed February 21, 2022.
2. CDC. National Vital Statistics Reports. Deaths: Leading Causes for 2002. March 7, 2005. 53:17.
3. CDC. Instruction Manual. Part 9. ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics (Updated October 2002 to include ICD codes for Terrorism Deaths for data year 2001 and WHO updates to ICD-10 for data year 2003). ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics (cdc.gov). Accessed September 15, 2020.
4. US Census Bureau. American Community Survey. ACS 1-Year Estimates Subject Tables. TableID: S0101.
<https://data.census.gov/cedsci/table?q=S0101&t=Age%20and%20Sex%3APopulations%20and%20People&g=0500000US06019&tid=ACSST1Y2018.S0101&hidePreview=true>. Accessed 21 February 2022.
5. CDC. Excess Deaths Associated with COVID-19.
https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm. Accessed 9 March 2022.