2023

LEADING CAUSES OF DEATH

Fresno County Department of Public Health
Epidemiology, Surveillance, and Data Management

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COUNTY OF FRESNO

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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

YPLL = Years of Potential Life Lost

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 the World Health Organization (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. 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 useful in monitoring health status over time, across geographic area or between population subgroups.

5. Years of Potential Life Lost (YPLL) 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 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. Rate of death was calculated by dividing the number of deaths by the population multiplied by 100,000. 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 2023, Fresno County recorded a total of 7,773 deaths, marking a 9.0% decrease from the previous year when the COVID-19 pandemic was ongoing. The death rate for 2023 was 764.2 deaths per 100,000 population, down from 841.5 in 2022. The data suggest a declining trend in deaths within the county since 2020, although the current death rate still exceeds levels seen before the pandemic.

Table 1. Deaths by Year, County of Fresno, 2019-2023

	2019	2020	2021	2022	2023
Deaths	6,991	8,714	9,303	8,543	7,773
Rate per 100,000	699.7	863.9	917.8	841.5	764.2
Men	3,742	4,698	5,139	4,582	4,274
Women	3,249	4,016	4,164	3,961	3,498
Men Death Rate	749.6	936.9	1,011.3	896.9	837.4
Women Death Rate	649.9	791.8	823.9	785.4	690.3
Mean Age, Men	68.4	68.3	67.1	68.6	68.1
Mean Age, Women	75.8	75.5	74.3	75.2	75.9

Data Source: State of California, California Department of Public Health, Cal-IVRS California Comprehensive Death File, Accessed 3 October 2024 Population obtained from www.data.census.gov, American Community Survey, ACS 1-Year Estimates Subject Tables, TableID: S0101, Accessed 3 October 2024

There were 4,274 deaths among men and 3,498 deaths among women in 2023. The gender of one death was unknown.

In 2022, men accounted for 4,582 deaths compared with 3,961 for women. Overall, more men died each year and at a younger age than women. In 2023, the mean (average) age at death was 68 years for men compared with 76 years for women, a difference of 8 years. Similarly, the overall annual death rate was 837 per 100,000 men compared with 690 per 100,000 women (Table 1).

Among the predominant race/ethnicity groups in Fresno County (Table 2a), the lowest annual death rates were observed among Hispanics (456.4 per 100,000 population), followed by Asians (532.4 deaths per 100,000 population). The highest death rates were among Whites (1,554.1 per 100,000 population)

and Blacks (1,223.2 per 100,000 population). Death rates among the predominate race/ethnicity groups decreased from 2022 but remained above pre-pandemic levels. Rates among non-predominant race/ethnicity groups, 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, variable rates. The reduction in death rates among the predominant groups in 2023 from 2022 were likely due to the reduction in deaths from COVID-19 among the respective groups.

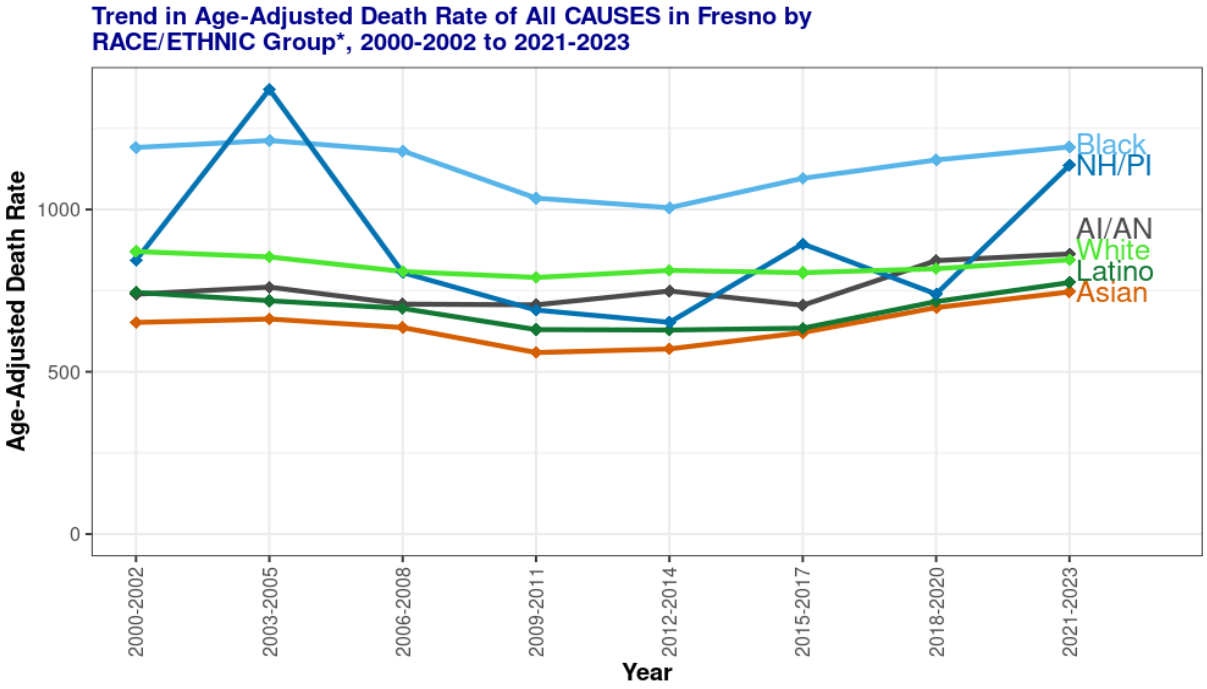
Table 2a. Deaths by Year by Race/Ethnicity, County of Fresno, 2019-2023

	2019	2019 Rate	2020	2020 Rate	2021	2021 Rate	2022	2022 Rate	2023	2023 Rate
AIAN	47	751.9	87	1,432.3	84	2,305.8	70	1,521.1	60	1,525.2
Asian	491	485.4	666	607.3	780	727.3	709	654.5	611	532.4
Black	466	1,068.8	539	1,216.8	595	1,433.1	543	1,262.0	461	1,223.2
Hispanic	2,112	393.2	2,988	552.6	3,415	615.7	2,759	494.3	2,550	456.4
HwPI	66	3,644.4	84	6,812.7	17	988.9	16	1,174.7	14	985.2
White	3,800	1,332.1	4,338	1,595.5	4,401	1,648.6	4,431	1,687.2	4,065	1,554.1
Other	9	37.8	12	34.5	11	29.1	15	40.5	12	30.7
Total	**6,991**	**699.7**	**8,714**	**863.9**	**9,303**	**917.8**	**8,543**	**841.5**	**7,773**	**764.2**

NOTE: Crude Rates are per 100,000 persons

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, Accessed 3 October 2024
Population obtained from www.data.census.gov, American Community Survey, ACS 1-Year I
Subject Tables, TableID: S0101, Accessed 3 October 2024

Table 2b. Age-Adjusted Death Rate by Year by Race/Ethnicity, County of Fresno, 2000-2023



Data and Figure Source: State of California, California Department of Public Health, California Community Burden of Disease Engine, Accessed at https://skylab.cdph.ca.gov/communityBurden/ on 5 December 2024

Whereas Table 2a shows the crude death rates among the various race/ethnicity groups, Table 2b illustrates the age-adjusted death rate of each group. After adjusting for age, the data indicates that the Black population experience higher death rates than other groups.

In 2023, a total of 7,773 people died in the county, which translates to an *average of more than 21 deaths per day, with heart disease as the top cause at more than 4 per day, more than 3 daily deaths from cancer, more than 1 from Alzheimer, and the rest being other causes (Table 3). Comparatively, in 2022, there were 8,543 deaths in the county, translating to an average of 23 deaths per day, including nearly 5 from heart disease, nearly 4 from cancer and nearly 2 from Alzheimer. COVID-19, which was the fifth leading cause of death in 2022 and the second leading cause of death for Fresno County in 2021 was no longer among the top ten leading causes in 2023.

* These numbers represent a simple average and were calculated by dividing the total number of deaths from within each category by the number of days in the corresponding year. During 2023, there were 365 days. In actuality, the total number of deaths from each of these top conditions varied each day and is not literally represented by the average daily value.

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

Cause	2023	[1]Rank
All Causes	7,773	--
Heart Disease	1,623	1
Cancer	1,414	2
Alzheimer	540	3
Cerebrovascular	389	4
Chronic Lower Respiratory	335	5
Diabetes	288	6
Drug Overdose[2]	230	7
Bronchitis	229	8
Cirrhosis	223	9
Hypertension	205	10
Influenza	146	11
Nephritis	128	12
Unintentional Accidents	125	13
Opioid**[2]	119	14
Septicemia	117	15
COVID-19[2]	111	16
Fentanyl**[2]	108	17
Parkinson	107	18
Suicide[2]	100	19
Pneumonitis Solid	89	20
Homicide	66	21

Cause	2022	[1]Rank
All Causes	8,543	--
Heart Disease	1,821	1
Cancer	1,354	2
Alzheimer	630	3
Cerebrovascular	463	4
COVID-19[2]	452	5
Diabetes	330	6
Chronic Lower Respiratory	324	7
Bronchitis	279	8
Drug Overdose[2]	216	9
Hypertension	197	10
Cirrhosis	196	11
Unintentional Accidents	148	12
Nephritis	146	13
Influenza	125	14
Septicemia	123	15
Opioid**[2]	121	16
Parkinson	114	17
Suicide[2]	104	18
Fentanyl**[2]	101	19
Homicide	92	20
Pneumonitis Solid	86	21

[1]Rank based on number of total deaths.

[2]Not rankable by international standard but shown here due to public interest. 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 in the county but was not a county resident. Prior to June/July 2022, COVID-19 associated deaths reported on COVID-19 specific reports and dashboards may differ from how the deaths were originally classified on the death certificate. Historical FCDPH dashboard counts 1) may not be based on permanent residence on death certificate, but on residence at time of infection and 2) may be classified by death certificate data in combination with additional clinical reviews by the local health department. This methodology does not allow for comparison among other causes and thus cannot be used in this report.

**Opioid and Fentanyl deaths are not mutually exclusive of Drug Overdose, but they are shown here due to public interest

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

California Comprehensive Death File, Accessed 3 October 2024

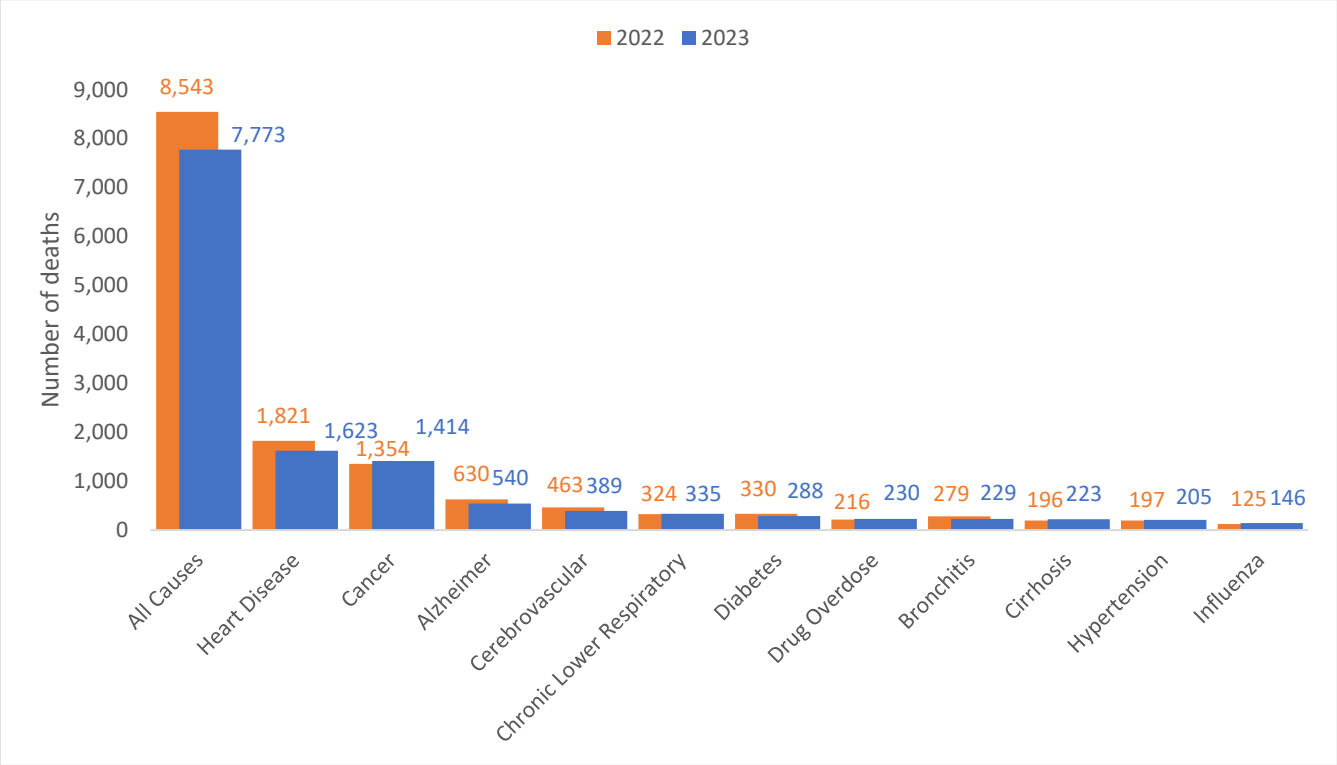
Twenty-one percent, more than one out of every five deaths in 2023, were caused by heart disease, the leading cause of death; and the second leading cause of death – cancer – accounted for about 18% of all

deaths (Table 3). By comparison, in 2022, more than 21% of all deaths were due to heart disease, followed by cancer at 16%.

Alzheimer retook its usual third spot among the leading causes of death.

The top ten leading causes of death accounted for more than 70% of all deaths in 2023.

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, Accessed 3 October 2024

Figure 1 above depicts the overall mortality rates and the leading causes of death for the year 2023 in comparison to 2022. While the total number of deaths and those from the top three leading causes decreased in 2023, certain specific leading causes saw an increase in mortality. This shift is likely attributed to COVID-19, which significantly impacted deaths in 2022 but fell out of the top ten causes in 2023. With effective management strategies such as vaccines and other pharmaceutical interventions, it is anticipated that mortality rates from the usual leading causes will return to their typical patterns.

Table 4. Leading Causes of Death among Residents by Sex, County of Fresno, 2023

Men	2023	[1]Rank
All Causes	4,274	--
Heart Disease	929	1
Cancer	757	2
Alzheimer	188	3
Cerebrovascular	180	4
Diabetes	175	5
Drug Overdose[2]	173	6
Chronic Lower Respiratory	166	7
Bronchitis	140	8
Cirrhosis	130	9
Hypertension	98	10
Unintentional Accidents	94	11
Opioid**[2]	89	12
Fentanyl**[2]	88	13
Suicide[2]	86	14
Influenza	82	15
Nephritis	72	16
COVID-19[2]	65	17
Septicemia	64	18
Parkinson	62	19
Homicide	55	20
Pneumonitis Solid	46	21
Perinatal	27	22
Congenital Malformation	23	23

Women	2023	[1]Rank
All Causes	3,498	--
Heart Disease	694	1
Cancer	657	2
Alzheimer	352	3
Cerebrovascular	209	4
Chronic Lower Respiratory	169	5
Diabetes	113	6
Hypertension	107	7
Cirrhosis	93	8
Bronchitis	89	9
Influenza	64	10
Drug Overdose[2]	57	11
Nephritis	56	12
Septicemia	53	13
COVID-19[2]	46	14
Parkinson	45	15
Pneumonitis Solid	43	16
Unintentional Accidents	31	17
Opioid**[2]	30	18
Nutritional Deficiencies	29	19
Fentanyl**[2]	20	20
Pelvic Inflamation	15	21
Peptic Ulcer	14	22
Congenital Malformation	14	22

[1]Rank based on number of total deaths.

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

** Opioid and fentanyl deaths are not mutually exclusive of Drug Overdose, but are shown here due to public interest

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

California Comprehensive Death File, Accessed 3 October 2024

In 2023, the top four leading causes of death among both men and women were the same, namely heart disease, cancer, Alzheimer, and cerebrovascular disease (Table 4). Among men, diabetes was the fifth leading cause of death while chronic lower respiratory disease was the fifth cause among women.

Although Alzheimer's disease was the third leading cause of death for both men and women, the mortality rates differed significantly: less than 5% of men died from the disease, while 10% of women succumbed to it. This higher mortality rate among women may help explain the lower average age at death for men, as Alzheimer's typically affects older individuals (Table 1). This suggests that men

may experience mortality from other causes at a younger age, resulting in fewer men reaching the age where Alzheimer's can lead to death.

Cerebrovascular disease was the fourth leading cause of death among both men and women. Comparatively, a higher percentage of women (6%) died from the cause than men (4%). The reverse is true among those who died from heart disease, the leading cause of death, with 21.7% of male deaths and 19.8% of female deaths resulted from heart disease.

In 2023, drug overdoses resulted in 116 more deaths among men than women. Despite this disparity in mortality, the top ten causes of death followed similar pattern between the two sexes.

Table 5. Leading Causes of Death by Race/Ethnicity, County of Fresno, 2023

Cause	AIAN	[1]Rank	Asian	[1]Rank	Black	[1]Rank	Hispanic	[1]Rank	HwPI	[1]Rank	White	[1]Rank	Other	[1]Rank	Total
All Causes	60	--	611	--	461	--	2,550	--	14	--	4,065	--	12	--	7,773
Other	<10	--	97	--	51	--	421	--	<10	--	454	--	<10	--	1,037
Heart Disease	13	2	133	1	91	1	449	1	<10	1	932	1	<10	2	1,623
Cancer	16	1	101	2	82	2	443	2	<10	2	769	2	<10	2	1,414
Alzheimer	<10	5	29	5	17	5	133	4	<10	9	359	3	<10	8	540
Cerebrovascular	<10	5	44	3	17	5	121	5	<10	3	202	5	<10	1	389
Chronic Lower Respiratory	<10	3	12	11	17	5	57	10	<10	3	244	4	<10	2	335
Diabetes	<10	9	26	6	22	4	136	3	<10	3	101	8	<10	2	288
Drug Overdose[2]	<10	3	<10	19	26	3	99	7	<10	3	96	9	<10	2	230
Bronchitis	<10	5	30	4	13	12	65	9	<10	3	118	6	<10	8	229
Cirrhosis	<10	5	18	8	<10	16	117	6	<10	9	78	10	<10	8	223
Hypertension	<10	9	24	7	14	11	51	11	<10	3	113	7	<10	2	205
Influenza	<10	9	18	8	<10	16	44	14	<10	9	75	11	<10	8	146
Nephritis	<10	18	12	11	15	10	40	15	<10	9	61	15	<10	8	128
Accidents Unintentional	<10	9	<10	14	12	13	73	8	<10	9	31	20	<10	8	125
Opioid**[2]	<10	9	<10	21	17	5	48	12	<10	9	53	16	<10	8	119
Septicemia	<10	9	10	13	10	15	34	18	<10	9	62	14	<10	8	117
COVID-19[2]	<10	18	<10	14	<10	19	32	19	<10	9	67	13	<10	8	111
Fentanyl**[2]	<10	9	<10	21	17	5	46	13	<10	9	44	19	<10	8	108
Parkinson	<10	18	<10	17	<10	21	30	20	<10	9	71	12	<10	8	107
Suicide[2]	<10	9	17	10	<10	22	35	17	<10	9	47	18	<10	8	100
Pneumonitis Solid	<10	9	<10	14	<10	18	26	21	<10	9	49	17	<10	8	89
Homicide	<10	18	<10	17	12	13	40	15	<10	9	<10	22	<10	8	66
Nutritional Deficiencies	<10	18	<10	20	<10	20	10	22	<10	9	30	21	<10	8	44

[1]Rank based on number of total deaths.

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

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

<10 data suppressed to preserve privacy

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

California Comprehensive Death File, Accessed 3 October 2024

During 2023, heart disease and cancer, respectively, were the top two leading cause of death among the predominant race/ethnicity groups. Heart disease caused 22.9% of deaths among Whites; 19.7% among Blacks; 21.8% among Asians; and 17.6% among Hispanics. Cancer, the second leading cause, resulted in 18.9% of White deaths; 17.8% Black; 16.5% Asian; and 17.4% Hispanic.

After the second leading cause of death, the third leading cause onward among the different race/ethnicity groups appeared varied, indicating that factors causing death were different among the various groups. For Whites, the third leading cause of death was Alzheimer; for Blacks, cerebrovascular

disease; for Hispanics, chronic lower respiratory disease; and for Asians, cerebrovascular disease (Table 5).

Cancer and Alzheimer normally affect older people and the data seem to agree that Whites, whose percentages of deaths were higher for those causes, died on average at an older age (76), compared with Blacks (age 64), Asians (age 71), and Hispanics (age 66).

Table 6. Leading Causes of Death among Men by Race/Ethnicity, County of Fresno, 2023

Cause	AIAN	[1]Rank	Asian	[1]Rank	Black	[1]Rank	Hispanic	[1]Rank	HwPI	[1]Rank	White	[1]Rank	Other	[1]Rank	Total
All Causes	27	--	348	--	281	--	1,525	--	<10	--	2,076	--	10	--	**4,274**
Other Causes	<10	--	58	--	35	--	231	--	<10	--	199	--	<10	--	**535**
Heart Disease	<10	1	78	1	56	1	276	1	<10	1	510	1	<10	2	**929**
Cancer	<10	1	57	2	47	2	237	2	<10	5	410	2	<10	6	**757**
Alzheimer	<10	10	11	8	<10	15	58	7	<10	5	114	3	<10	6	**188**
Cerebrovascular	<10	10	21	3	10	8	65	6	<10	5	82	5	<10	1	**180**
Diabetes	<10	10	15	5	15	4	77	4	<10	2	67	6	<10	6	**175**
Drug Overdose[2]	<10	5	<10	16	18	3	82	3	<10	2	66	7	<10	2	**173**
Chronic Lower Respiratory	<10	3	10	9	<10	11	31	14	<10	2	114	3	<10	2	**166**
Bronchitis	<10	3	18	4	<10	11	50	9	<10	5	63	8	<10	6	**140**
Cirrhosis	<10	5	12	7	<10	16	72	5	<10	5	41	13	<10	6	**130**
Hypertension	<10	5	14	6	<10	10	25	16	<10	5	48	9	<10	2	**98**
Unintentional Accidents	<10	5	<10	13	<10	11	58	7	<10	5	22	20	<10	6	**94**
Opioid**[2]	<10	10	<10	20	11	7	39	10	<10	5	39	14	<10	6	**89**
Fentanyl**[2]	<10	10	<10	20	12	5	39	10	<10	5	37	16	<10	6	**88**
Suicide[2]	<10	5	10	9	<10	21	33	12	<10	5	42	12	<10	6	**86**
Influenza	<10	10	<10	14	<10	16	27	15	<10	5	46	10	<10	6	**82**
Nephritis	<10	10	<10	11	10	8	24	17	<10	5	30	18	<10	6	**72**
COVID-19[2]	<10	10	<10	14	<10	18	19	19	<10	5	39	14	<10	6	**65**
Septicemia	<10	10	<10	18	<10	11	20	18	<10	5	34	17	<10	6	**64**
Parkinson	<10	10	<10	19	<10	20	17	20	<10	5	43	11	<10	6	**62**
Homicide	<10	10	<10	16	12	5	33	12	<10	5	<10	21	<10	6	**55**
Pneumonitis Solid	<10	10	<10	11	<10	18	12	21	<10	5	24	19	<10	6	**46**

[1]Rank based on number of total deaths.

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

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

<10 data suppressed to preserve privacy

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

California Comprehensive Death File, Accessed 3 October 2024

In year 2023, among men by race/ethnicity (Table 6), heart disease ranked as the top cause of death, followed by cancer as the number two cause.

While Alzheimer was the third leading cause of death among men as whole, it ranked differently among the different race/ethnicity groups. For White men, Alzheimer remained the leading cause of death; for Black, the fifth; for Asian, the fifth; and for Hispanic, it was the fourth (Table 6).

Table 7. Leading Causes of Death among Women by Race/Ethnicity, County of Fresno, 2023

Cause	AIAN	[1]Rank	Asian	[1]Rank	Black	[1]Rank	Hispanic	[1]Rank	HwPI	[1]Rank	White	[1]Rank	Other	[1]Rank	Total
All Causes	33	--	262	--	180	--	1,025	--	<10	--	1,989	--	<10	--	**3,498**
Other Causes	<10	--	40	--	13	--	189	--	<10	--	254	--	<10	--	**498**
Heart Disease	<10	2	55	1	35	1	173	2	<10	1	422	1	<10	3	**694**
Cancer	10	1	44	2	35	1	206	1	<10	1	359	2	<10	1	**657**
Alzheimer	<10	3	18	4	12	3	75	3	<10	6	245	3	<10	3	**352**
Cerebrovascular	<10	3	23	3	<10	6	56	5	<10	3	120	5	<10	3	**209**
Chronic Lower Respiratory	<10	6	<10	16	10	4	26	7	<10	6	130	4	<10	3	**169**
Diabetes	<10	6	11	7	<10	6	59	4	<10	6	34	9	<10	1	**113**
Hypertension	<10	14	10	8	<10	10	26	7	<10	3	65	6	<10	3	**107**
Cirrhosis	<10	6	<10	10	<10	14	45	6	<10	6	37	8	<10	3	**93**
Bronchitis	<10	14	12	6	<10	8	15	12	<10	3	55	7	<10	3	**89**
Influenza	<10	6	13	5	<10	14	17	9	<10	6	29	12	<10	3	**64**
Drug Overdose[2]	<10	3	<10	19	<10	5	17	9	<10	6	30	11	<10	3	**57**
Nephritis	<10	14	<10	11	<10	10	16	11	<10	6	31	10	<10	3	**56**
Septicemia	<10	6	<10	9	<10	16	14	14	<10	6	28	13	<10	3	**53**
COVID-19[2]	<10	14	<10	13	<10	18	13	16	<10	6	28	13	<10	3	**46**
Parkinson	<10	14	<10	11	<10	23	13	16	<10	6	28	13	<10	3	**45**
Pneumonitis Solid	<10	6	<10	19	<10	16	14	14	<10	6	25	16	<10	3	**43**
Unintentional Accidents	<10	14	<10	16	<10	10	15	12	<10	6	<10	19	<10	3	**31**
Opioid**[2]	<10	6	<10	19	<10	8	<10	18	<10	6	14	18	<10	3	**30**
Nutritional Deficiencies	<10	14	<10	16	<10	18	<10	21	<10	6	19	17	<10	3	**29**
Fentanyl**[2]	<10	6	<10	19	<10	10	<10	20	<10	6	<10	21	<10	3	**20**
Pelvic Inflamation	<10	14	<10	13	<10	20	<10	23	<10	6	<10	19	<10	3	**15**
Peptic Ulcer	<10	14	<10	13	<10	20	<10	22	<10	6	<10	22	<10	3	**14**
Congenital Malformation	<10	14	<10	19	<10	20	<10	19	<10	6	<10	23	<10	3	**14**

[1]Rank based on number of total deaths.

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

**Opioid and fentanyl are included in Drug Overdose, but are shown here due to public interest

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

California Comprehensive Death File, Accessed 3 October 2024

Among women (Table 7), heart disease and cancer were the leading causes of death for the White, Black, and Asian groups, ranked respectively. In contrast, among Hispanic women, the order of the top two causes was reversed, with cancer emerging as the leading cause and heart disease following in second place.

Alzheimer, the third leading cause of death among women in 2023, was the third leading cause of death among White, Black, and Hispanic women. Among Asian women, Alzheimer was fourth, overtaken by cerebrovascular as the third leading cause (Table 7).

Premature Deaths

Any death occurring prior to age 75 results in years lost because such individuals are considered to have died prematurely. Table 8 compares the number of deaths with the number of premature deaths from 2018 through 2023. Each year, the number of deaths as well as the number of premature deaths increased (except for years 2020 to 2022 due to the dynamics of the COVID-19 pandemic). 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. Compared 2018 to 2023, the rate of premature death remained nearly the same. Again, years 2020 to 2022 are anomalies due to the pandemic. Within the last decade, the rate of premature death within Fresno County did not significantly drop, suggesting that there is a need for better health access within Fresno County.

Table 8. Number of Deaths and Premature Deaths among Residents by Year, County of Fresno

	2018	2019	2020	2021	2022	2023
All Deaths	7,068	6,991	8,714	9,303	8,543	7,773
Premature	3,438	3,369	4,288	4,848	4,191	3,769
% Premature Death	**48.6**	**48.2**	**49.2**	**52.1**	**49.1**	**48.5**

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, Accessed 3 October 2024
Population obtained from www.data.census.gov, American Community Survey

Years of Potential Life Lost

Table 9. Number of Premature Deaths and Years of Potential Life Lost (YPLL) among Residents by Race/Ethnicity, County of Fresno

	2018	2019	2020	2021	2022	2023	2023 YPLL <75
White	1,596	1,428	1,675	1,748	1,700	1,571	21,786
Black	275	319	355	408	387	308	6,348
AIAN	43	35	56	55	49	34	593
Asian	267	259	328	407	339	298	5,847
HwPI	30	32	40	12	12	9	225
Other	5	5	6	7	13	7	135
Hispanic	1,222	1,291	1,828	2,211	1,691	1,542	33,823
Total	**3,438**	**3,369**	**4,288**	**4,848**	**4,191**	**3,769**	**68,757**

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, Accessed 3 October 2024
Population obtained from www.data.census.gov, American Community Survey

In 2023, there were 3,769 people who died prematurely, resulting in 68,757 years of potential life lost (YPLL) in the County (Table 9). In 2022, the YPLL was 76,466 among 4,191 individuals. The increased YPLL in 2022 was due partly to people dying of COVID-19 where there were 229 persons whose cause of premature death was due to the disease, resulting in YPLL of 3,256. In 2023, the YPLL attributed to COVID-19 was 436 from 39 deaths.

Table 10. Number of Premature Deaths and Years of Potential Life Lost among Residents by Sex, County of Fresno

	Number of Premature Deaths						2023 YPLL
	2018	2019	2020	2021	2022	2023	<75
Women	1,352	1,251	1,599	1,779	1,616	1,350	21,983
Men	2,086	2,118	2,689	3,069	2,575	2,418	46,737
Unknown	0	0	0	0	0	1	37
Total	**3,438**	**3,369**	**4,288**	**4,848**	**4,191**	**3,769**	**68,757**

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, Accessed 3 October 2024
Population obtained from www.data.census.gov, American Community Survey

Among those who died prematurely in 2023, more than 64% were men (2,418) and 36% were women (1,350), with YPLL among men at 46,737 compared to women with YPLL at 21,983. The sex of one individual was not known (Table 10).

Table 11. Years of Potential Life Lost among Residents by Sex, County of Fresno, 2023

	YPLL Men	YPLL Women	YPLL Total
White	14,359	7,427	**21,786**
Black	4,386	1,962	**6,348**
AIAN	312	281	**593**
Asian	4,213	1,597	**5,810**
HwPI	156	69	**225**
Other	111	24	**135**
Hispanic	23,200	10,623	**33,823**
Total	**46,737**	**21,983**	**68,720**

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, Accessed 3 October 2024
Population obtained from www.data.census.gov, American Community Survey

Table 11 above compares the YPLL among men and women as well as among the race/ethnicity groups. It is important to note that the higher YPLL in each category do not indicate that persons within the

category lost more potential life. This is because the aggregate YPLL may come from a higher count of deaths within the category.

Table 12. Average Years of Potential Life Lost among Residents by Sex by Race/Ethnicity, County of Fresno, 2023

	Average YPLL Men	Average YPLL Women	Average YPLL Total	Median Age
White	15.0	12.1	13.9	65
Black	21.5	18.9	20.6	59
AIAN	18.4	16.5	17.4	63
Asian	20.7	17.2	19.6	62
HwPI	31.2	17.3	25.0	57
Other	22.2	12.0	19.3	62
Hispanic	22.6	20.5	21.9	58
Total	**19.3**	**16.3**	**18.2**	**62**

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, Accessed 3 October 2024
Population obtained from www.data.census.gov, American Community Survey

Table 12 displays the average YPLL within the group and within each gender. This is an attempt to show how many years an average person within each category lost from dying prematurely. The median age is also indicated to mark the age at which half of those within each race/ethnicity died. The data within the table illustrates that, on average, women had the least YPLL compared to men and that Whites had the least YPLL among the predominant racial/ethnic groups, indicating that Whites died at an older age than other groups, with Hispanic dying earliest among county residents.

Table 13. Leading Causes of Premature Death and Years of Potential Life Lost among Residents, County of Fresno, 2023

Cause	Number of Premature Deaths	[1]Rank	YPLL <75 (N=3,769)	Median Age
All Causes	3,769	--	68,757	62
Cancer	766	1	9,678	65
Heart Disease	669	2	7,274	65
Drug Overdose[2]	227	3	6,382	47
Cirrhosis	184	4	3,377	59
Diabetes	171	5	2,405	64
Cerebrovascular	142	6	2,154	63
Opioid**[2]	118	7	3,424	44
Unintentional Accidents	116	8	3,889	41
Chronic Lower Respiratory	115	9	1,115	67
Fentanyl**[2]	107	10	3,465	41
Bronchitis	106	11	1,207	66
Suicide[2]	91	12	3,126	37
Hypertension	73	13	987	64
Influenza	65	14	883	66
Homicide	65	14	2,455	37
Septicemia	63	16	1,103	61
Nephritis	57	17	494	66
Perinatal	39	18	2,925	0
COVID-19[2]	39	18	436	69
Alzheimer	37	20	207	71
Congenital Malformation	34	21	2,007	0

[1]Rank based on number of total deaths.

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

**Opioid and fentanyl are included in Drug Overdose, but are shown here due to public interest

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

California Comprehensive Death File, Accessed 3 October 2024

Among those who died prematurely in 2023, cancer was the leading cause of death resulting in 766 premature deaths (20.3%) and a YPLL of 9,678. A high YPLL indicates that many people died prior to the age of 75 (Table 13).

Heart disease, the second leading cause of premature death, killed 669 people (17.8%) prematurely, with a YPLL of 7,274. Drug Overdose, the third leading cause of premature deaths, killed 227 people (6.0%), resulting in a YPLL of 6,382.

The median age column tracks the age when a half of the people died from the attributed cause. From looking at that column, those who died from homicide (median age 37), suicide (median age 37) and fentanyl (median age 41) were fairly young. Also young were people who died of opioid (age 44), unintentional accidents (age 41), and drug overdose (age 47).

Table 14. Leading Causes of Premature Death and Years of Potential Life Lost among Residents by Sex, County of Fresno, 2023

Men	2023	[1]Rank	YPLL <75 (N=2,418)
All Causes	2,418	--	46,737
Heart Disease	465	1	5,303
Cancer	418	2	5,191
Drug Overdose[2]	171	3	4,748
Cirrhosis	117	4	2,130
Diabetes	103	5	1,517
Opioid**[2]	88	6	2,926
Unintentional Accidents	87	7	2,936
Fentanyl**[2]	87	7	2,778
Cerebrovascular	83	9	1,349
Suicide[2]	79	10	2,710
Bronchitis	71	11	807
Chronic Lower Respiratory	67	12	727
Homicide	54	13	2,029
Hypertension	46	14	755
Nephritis	36	15	375
Influenza	36	15	577
Septicemia	31	17	563
Perinatal	27	18	2,025
COVID-19[2]	24	19	296
Congenital Malformation	23	20	1,312
Pneumonitis Solid	19	21	264
HIV	17	22	421

Women	2023	[1]Rank	YPLL <75 (N=1,350)
All Causes	1,350	--	21,983
Cancer	348	1	4,487
Heart Disease	204	2	1,971
Diabetes	68	3	888
Cirrhosis	67	4	1,247
Cerebrovascular	59	5	805
Drug Overdose[2]	56	6	1,634
Chronic Lower Respiratory	48	7	388
Bronchitis	35	8	400
Septicemia	32	9	540
Opioid**[2]	30	10	498
Unintentional Accidents	29	11	953
Influenza	29	11	326
Hypertension	27	13	232
Nephritis	21	14	119
Alzheimer	21	14	110
Fentanyl**[2]	20	16	687
COVID-19[2]	15	17	140
Pneumonitis Solid	14	18	207
Suicide[2]	12	19	416
Perinatal	12	19	900
Congenital Malformation	11	21	695
Homicide	11	21	426

[1]Rank based on number of total deaths.

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

**Opioid and fentanyl are included in Drug Overdose, but are shown here due to public interest

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, Accessed 3 October 2024

Table 14 shows that heart disease was the leading premature killer of men (YPLL of 5,303) while cancer was the leading premature killer for women (YPLL of 4,487). Cancer and drug overdose, respectively,

were the second and third causes that killed men prematurely. Comparatively, the second and third leading causes of premature death for women were heart disease and diabetes, respectively. The top causes killed men at a higher rate than women. For instance, drug overdose killed 115 more men than women.

The following tables show various aspects of leading causes that resulted in premature deaths among race/ethnicity and sex.

Table 15. Leading Causes of Premature Death among Residents by Race/Ethnicity, County of Fresno, 2023

Cause	AIAN	[1]Rank	Asian	[1]Rank	Black	[1]Rank	Hispanic	[1]Rank	HwPI	[1]Rank	White	[1]Rank	Other	[1]Rank	Total
All Causes	34	--	298	--	308	--	1,542	--	<10	--	1,571	--	<10	--	3,769
Other Causes	<10	--	53	--	30	--	239	--	<10	--	154	--	<10	--	485
Cancer	<10	1	54	2	57	1	272	1	<10	1	373	1	<10	2	766
Heart Disease	<10	2	55	1	49	2	230	2	<10	2	331	2	<10	5	669
Drug Overdose[2]	<10	2	<10	14	26	3	98	4	<10	2	95	3	<10	5	227
Cirrhosis	<10	4	14	6	<10	12	99	3	<10	8	62	5	<10	5	184
Diabetes	<10	6	15	4	18	4	86	5	<10	2	49	8	<10	2	171
Cerebrovascular	<10	4	20	3	<10	14	58	7	<10	2	53	6	<10	1	142
Opioid**[2]	<10	6	<10	19	17	5	48	8	<10	8	52	7	<10	5	118
Unintentional Accidents	<10	6	<10	10	12	8	69	6	<10	8	28	12	<10	5	116
Chronic Lower Respiratory	<10	17	<10	12	<10	11	24	15	<10	8	77	4	<10	2	115
Fentanyl**[2]	<10	6	<10	19	17	5	46	9	<10	8	43	10	<10	5	107
Bronchitis	<10	6	14	6	<10	14	37	11	<10	8	48	9	<10	5	106
Suicide[2]	<10	6	15	4	<10	20	34	12	<10	8	41	11	<10	5	91
Hypertension	<10	6	<10	9	13	7	24	15	<10	2	26	14	<10	5	73
Influenza	<10	6	<10	8	<10	16	25	14	<10	8	25	15	<10	5	65
Homicide	<10	17	<10	12	12	8	40	10	<10	8	<10	20	<10	5	65
Septicemia	<10	6	<10	14	<10	12	24	15	<10	8	27	13	<10	5	63
Nephritis	<10	17	<10	10	11	10	18	18	<10	8	22	17	<10	5	57
Perinatal	<10	17	<10	14	<10	17	28	13	<10	2	<10	21	<10	5	39
COVID-19[2]	<10	17	<10	18	<10	18	14	20	<10	8	20	18	<10	5	39
Alzheimer	<10	6	<10	19	<10	20	11	21	<10	8	25	15	<10	5	37
Congenital Malformation	<10	6	<10	14	<10	19	18	18	<10	8	10	19	<10	5	34

[1]Rank based on number of total deaths.

[2]Not rankable by international standard but shown here due to public interest.
<10 counts are suppressed to preserve privacy
**Opioid and fentanyl are included in Drug Overdose, but are shown here due to public interest

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

California Comprehensive Death File, Accessed 3 October 2024

Table 16. Leading Causes of Premature Death among Men by Race/Ethnicity, County of Fresno, 2023

Cause	AIAN	[1]Rank	Asian	[1]Rank	Black	[1]Rank	Hispanic	[1]Rank	HwPI	[1]Rank	White	[1]Rank	Other	[1]Rank	Total
All Causes	17	--	204	--	204	--	1,025	--	<10	--	958	--	<10	--	2,418
Other Causes	<10	--	36	--	25	--	135	--	<10	--	82	--	<10	--	286
Heart Disease	<10	1	37	1	34	1	169	1	<10	1	221	1	<10	3	465
Cancer	<10	2	36	2	32	2	151	2	<10	5	197	2	<10	3	418
Drug Overdose[2]	<10	3	<10	10	18	3	82	3	<10	1	65	3	<10	3	171
Cirrhosis	<10	3	11	4	<10	14	68	4	<10	5	34	8	<10	3	117
Diabetes	<10	10	<10	5	13	4	46	6	<10	1	34	8	<10	3	103
Opioid**[2]	<10	10	<10	20	11	7	39	7	<10	5	38	5	<10	3	88
Accidents Unintentional	<10	3	<10	9	<10	9	54	5	<10	5	20	12	<10	3	87
Fentanyl**[2]	<10	10	<10	20	12	5	39	7	<10	5	36	7	<10	3	87
Cerebrovascular	<10	10	13	3	<10	14	37	9	<10	5	28	11	<10	1	83
Suicide[2]	<10	3	<10	5	<10	19	32	11	<10	5	37	6	<10	3	79
Bronchitis	<10	3	<10	5	<10	16	30	12	<10	5	29	10	<10	3	71
Chronic Lower Respiratory	<10	10	<10	10	<10	11	11	17	<10	5	46	4	<10	2	67
Homicide	<10	10	<10	10	12	5	33	10	<10	5	<10	20	<10	3	54
Hypertension	<10	3	<10	8	<10	8	13	15	<10	5	15	13	<10	3	46
Nephritis	<10	10	<10	10	<10	9	10	19	<10	5	15	13	<10	3	36
Influenza	<10	10	<10	16	<10	16	17	14	<10	5	14	15	<10	3	36
Septicemia	<10	10	<10	18	<10	12	13	15	<10	5	13	16	<10	3	31
Perinatal	<10	10	<10	17	<10	12	19	13	<10	1	<10	21	<10	3	27
COVID-19[2]	<10	10	<10	18	<10	18	<10	20	<10	5	13	16	<10	3	24
Congenital Malformation	<10	3	<10	10	<10	19	11	17	<10	5	<10	19	<10	3	23
Pneumonitis Solid	<10	10	<10	10	<10	19	<10	21	<10	5	<10	18	<10	3	19

[1]Rank based on number of total deaths.

[2]Not rankable by international standard but shown here due to public interest.
<10 counts are suppressed to preserve privacy
**Opioid and fentanyl are included in Drug Overdose, but are shown here due to public interest

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

California Comprehensive Death File, Accessed 3 October 2024

Table 17. Leading Causes of Premature Death among women by Race/Ethnicity, County of Fresno, 2023

Cause	AIAN	[1]Rank	Asian	[1]Rank	Black	[1]Rank	Hispanic	[1]Rank	HwPI	[1]Rank	White	[1]Rank	Other	[1]Rank	Total
All Causes	17	--	93	--	104	--	517	--	<10	--	613	--	<10	--	1,350
Other Causes	<10	--	13	--	<10	--	104	--	<10	--	70	--	<10	--	194
Cancer	<10	1	18	1	25	1	121	1	<10	1	176	1	<10	1	348
Heart Disease	<10	11	18	1	15	2	61	2	<10	4	110	2	<10	3	204
Diabetes	<10	4	<10	4	<10	5	40	3	<10	4	15	8	<10	1	68
Cirrhosis	<10	4	<10	8	<10	8	31	4	<10	4	28	5	<10	3	67
Cerebrovascular	<10	2	<10	3	<10	12	21	5	<10	2	25	6	<10	3	59
Drug Overdose[2]	<10	2	<10	15	<10	3	16	6	<10	4	30	4	<10	3	56
Chronic Lower Respiratory	<10	11	<10	13	<10	12	13	8	<10	4	31	3	<10	3	48
Bronchitis	<10	11	<10	7	<10	8	<10	15	<10	4	19	7	<10	3	35
Septicemia	<10	4	<10	8	<10	12	11	9	<10	4	14	10	<10	3	32
Opioid**[2]	<10	4	<10	15	<10	4	<10	11	<10	4	14	10	<10	3	30
Accidents Unintentional	<10	11	<10	13	<10	5	15	7	<10	4	<10	14	<10	3	29
Influenza	<10	4	<10	4	<10	12	<10	13	<10	4	11	12	<10	3	29
Hypertension	<10	11	<10	15	<10	8	11	9	<10	2	11	12	<10	3	27
Nephritis	<10	11	<10	10	<10	8	<10	13	<10	4	<10	15	<10	3	21
Alzheimer	<10	4	<10	15	<10	17	<10	19	<10	4	15	8	<10	3	21
Fentanyl**[2]	<10	4	<10	15	<10	5	<10	15	<10	4	<10	15	<10	3	20
COVID-19[2]	<10	11	<10	10	<10	17	<10	19	<10	4	<10	15	<10	3	15
Pneumonitis Solid	<10	11	<10	15	<10	17	<10	18	<10	4	<10	15	<10	3	14
Suicide[2]	<10	11	<10	4	<10	17	<10	21	<10	4	<10	19	<10	3	12
Perinatal	<10	11	<10	10	<10	17	<10	11	<10	4	<10	21	<10	3	12
Congenital Malformation	<10	11	<10	15	<10	16	<10	15	<10	4	<10	20	<10	3	11

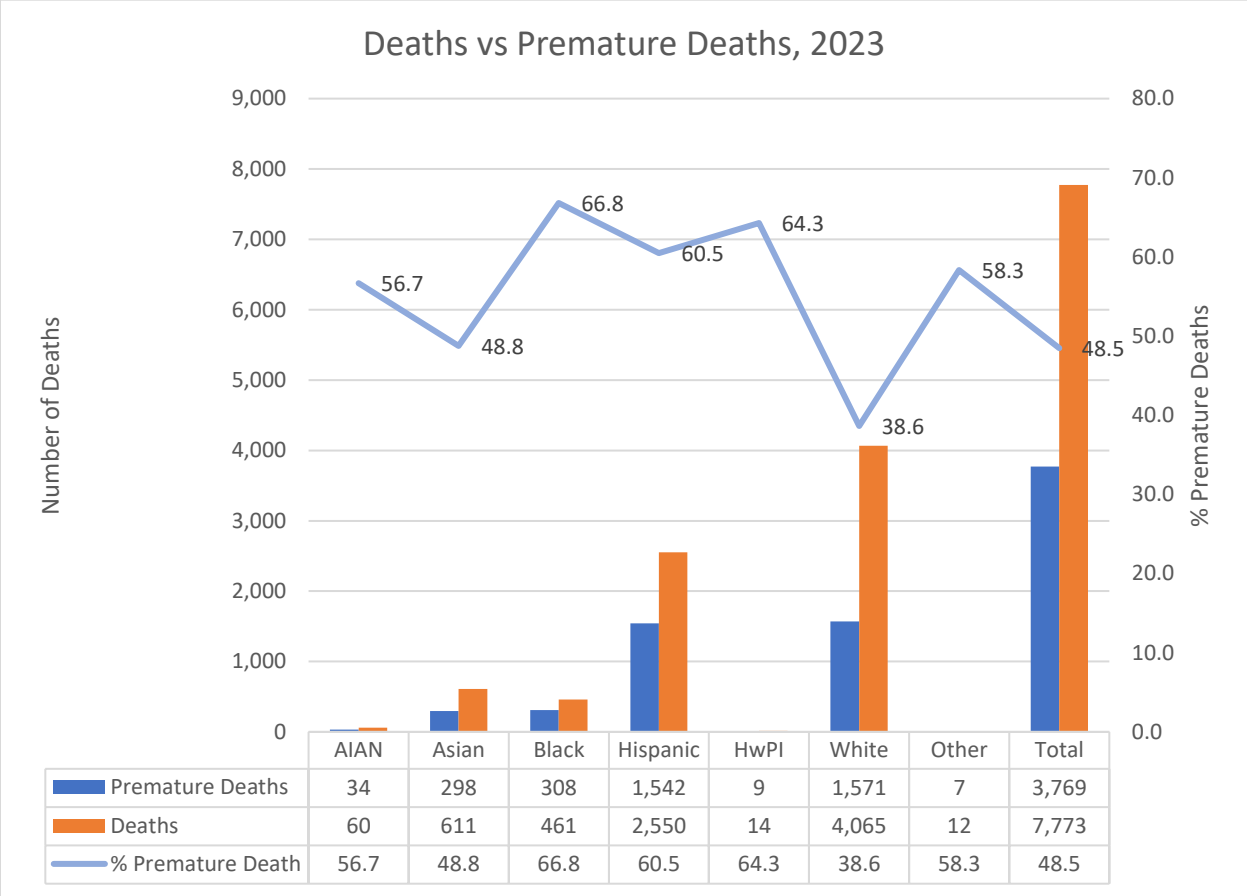
[1]Rank based on number of total deaths.

[2]Not rankable by international standard but shown here due to public interest.
<10 counts are suppressed to preserve privacy
**Opioid and fentanyl are included in Drug Overdose, but are shown here due to public interest

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

California Comprehensive Death File, Accessed 3 October 2024

Figure 2. A Comparison of Premature Deaths and Annual Deaths among Residents, County of Fresno, 2023



	AIAN	Asian	Black	Hispanic	HwPI	White	Other	Total
Premature Deaths	34	298	308	1,542	9	1,571	7	3,769
Deaths	60	611	461	2,550	14	4,065	12	7,773
% Premature Death	56.7	48.8	66.8	60.5	64.3	38.6	58.3	48.5

Data Source: State of California, California Department of Public Health, Cal-IVRS California Comprehensive Death File, Accessed 3 October 2024

Figure 2 illustrates the distribution of premature deaths by race/ethnicity. In 2023, a lower percentage of premature deaths is evident among the White population (38.6%) in comparison to other racial/ethnic groups. Among the major race/ethnicity categories, the Black population has the highest proportion of premature deaths (66.8%), followed by Hispanics (60.5%) and Asians(48.8%). When contrasted with the county as a whole (48.5%), both White and Asian populations had lower proportions of premature deaths than Black and Hispanic populations. This underscores the significant issue of premature mortality within minority groups.

Figure 3. Years of Potential Life Lost among Residents, County of Fresno, 2023

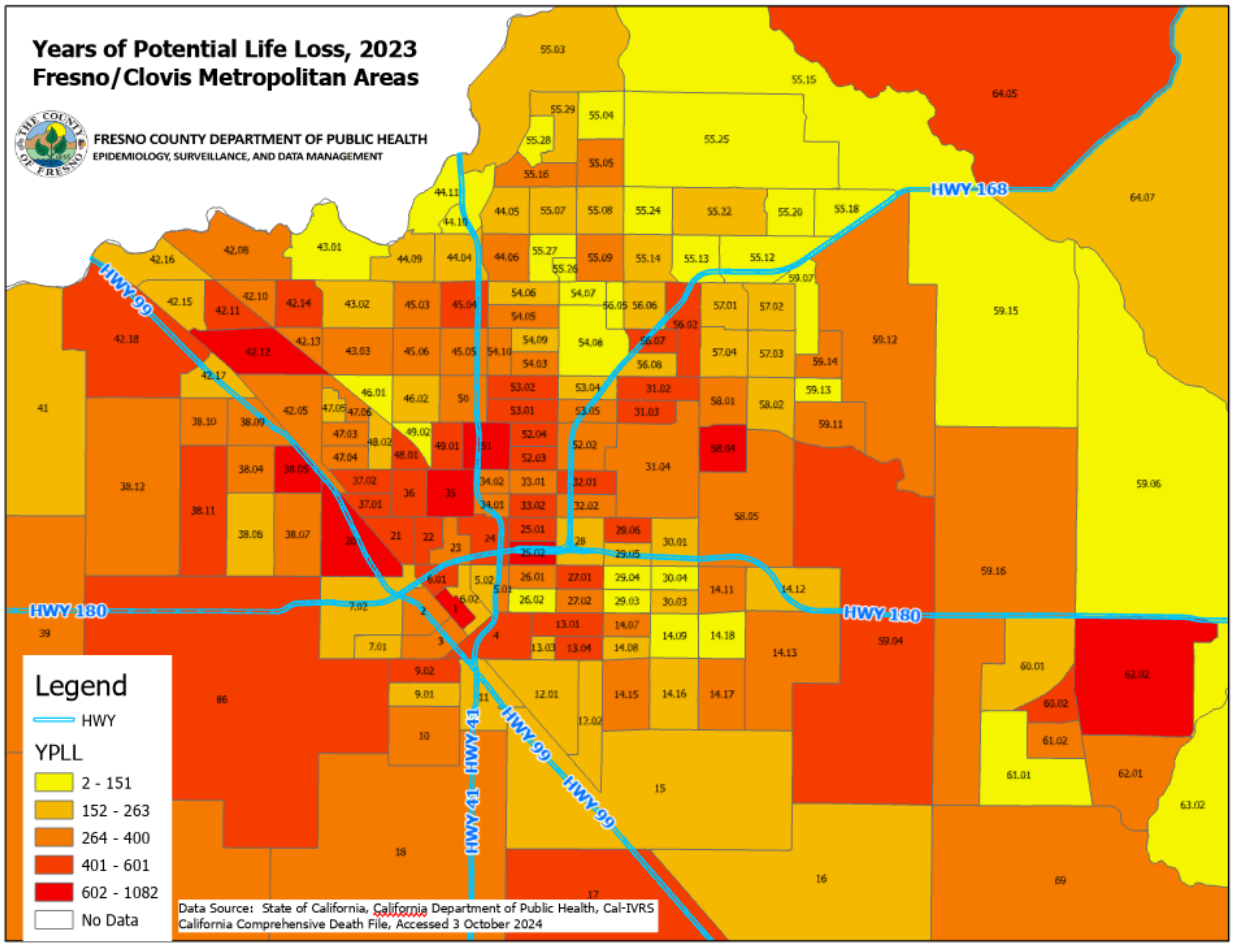


Figure 3 highlights the years of potential life lost by residents by location within the metropolitan areas of Fresno and Clovis.

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 year 2023. The expected numbers of deaths were the average of deaths from the preceding five years.

Table 18 displays the numbers of expected deaths and observed numbers of deaths for year 2023.

In 2023, the excess deaths were -351 an decrease of 4.3% from the deaths expected. When accounting for the population difference, the rate of death (per 100,000 population) decrease was 5.4%.

Table 18. Expected and Observed Deaths, County of Fresno

	Expected 2018-2022 Average	Observed 2023	Excess	% Increase
Deaths	8,124	7,773	-351	-4.3
Rate per 100,000	807.4	764.2	-43.2	-5.4

Table 19. Rate per 100,000 population of Expected and Observed Deaths by Race/Ethnicity, County of Fresno

	Expected 2018-2022 Average	Observed 2023	Excess	% Increase
White	1518.9	1554.1	35.2	2.3
Black	1190.4	1223.2	32.8	2.8
AIAN	1335.2	1525.2	189.9	14.2
Asian	603.0	532.4	-70.6	-11.7
HwPI	3394.0	985.2	-2,408.8	-71.0
Other	33.4	30.7	-2.6	-7.9
Hispanic	490.8	456.4	-34.4	-7.0
Total	807.4	764.2	**-43.2**	**-5.4**

Data Source: State of California, California Department of Public Health, Cal-IVRS
California Comprehensive Death File, 2017-2022, Accessed 3 October 2024
Population obtained from www.data.census.gov, American Community Survey,
ACS 1-Year Estimates Subject Tables, TableID: S0101, Accessed 3 October 2024

Table 19 illustrates the rates of death by race/ethnicity in 2023. The rate of excess death among Whites was 2.3%; among Blacks, 2.8%; Asians, -11.7%; and Hispanics, -7.0%. Because the high numbers of deaths in 2020 to 2022 from the pandemic was factored into the expected average, the % increases observed may be skewed.

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