



Deaths from Excessive Alcohol Use in California, 2020-2021

Background and Methods

Excessive alcohol use is a leading preventable cause of death in the United States, which can result in or contribute to various acute and chronic causes of death, including poisoning, motor vehicle crashes, violence, liver disease, cancer, and cardiovascular disease.¹ Some causes of death are fully attributable to alcohol use (e.g., alcoholic liver disease, alcohol dependence syndrome) and others are only partially attributable to alcohol use (e.g., hypertension, breast cancer). Using the methods from the Center for Disease Control and Prevention’s [Alcohol-Related Disease Impact Application](#), customized analyses were performed using death certificate data on 58 different causes of death attributed to alcohol (18 acute and 40 chronic causes) to examine the number of average annual alcohol-attributable deaths (AADs) from 2018-2021 in California.^{2,3,4} Acute causes of death are from the short-term effects of binge drinking or drinking to the point of intoxication. Annual averages of AADs are presented for a two-year period, 2020-2021, and compared to the previous two-year period, 2018-2019. Please note throughout the document (including tables and figures) numbers for individual categories may not sum to totals due to rounding. Data from 2021 is preliminary and may not include all alcohol-attributable deaths.

Deaths from Excessive Alcohol Use, 2020-2021

From 2020-2021, an average of **19,335 people died per year** due to excessive alcohol use in California (Figure 1). These deaths led to an average of **492,097 years of potential life lost per year**, shortening the lives of those who died by an average of more than 25 years. Seventy percent (69.5%; 13,445 deaths) of those AADs were among males. Sixty-two percent (62.1%) of the deaths were from chronic causes, such as cancer, heart disease, and diseases affecting the liver, gallbladder, and pancreas. Thirty-eight percent (37.9%) of the deaths were from acute causes, such as injuries, violence, and motor vehicle crashes.

Figure 2 shows that the highest number of AADs occurred among those 50 to 64 years old and those 65 years or older. The majority of AADs associated with chronic causes occurred among those 50 to 64 years old and those 65 years old or older (4,000 deaths and 5,893 deaths, respectively; see Appendix Tables 1a-1b). In contrast, AADs due to acute causes were highest among those 20 to 34, 35 to 49, and 50 to 64 years old (2,335 deaths, 1,939 deaths and 1,874 deaths, respectively; see Appendix Tables 1a-1b).

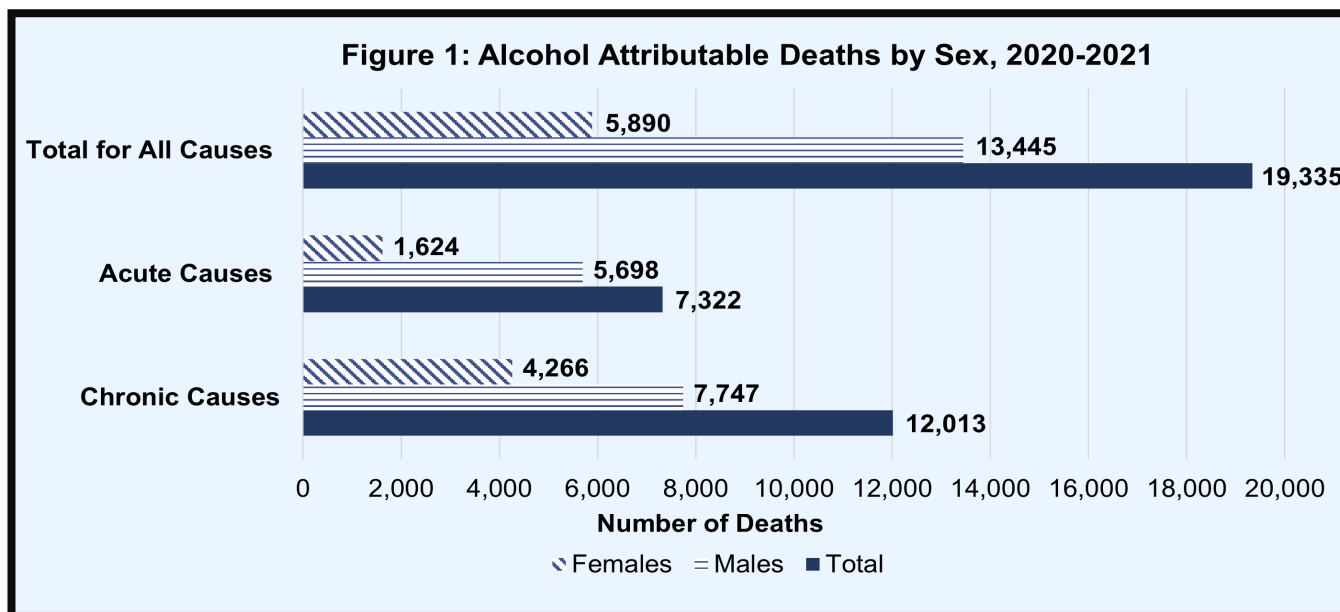
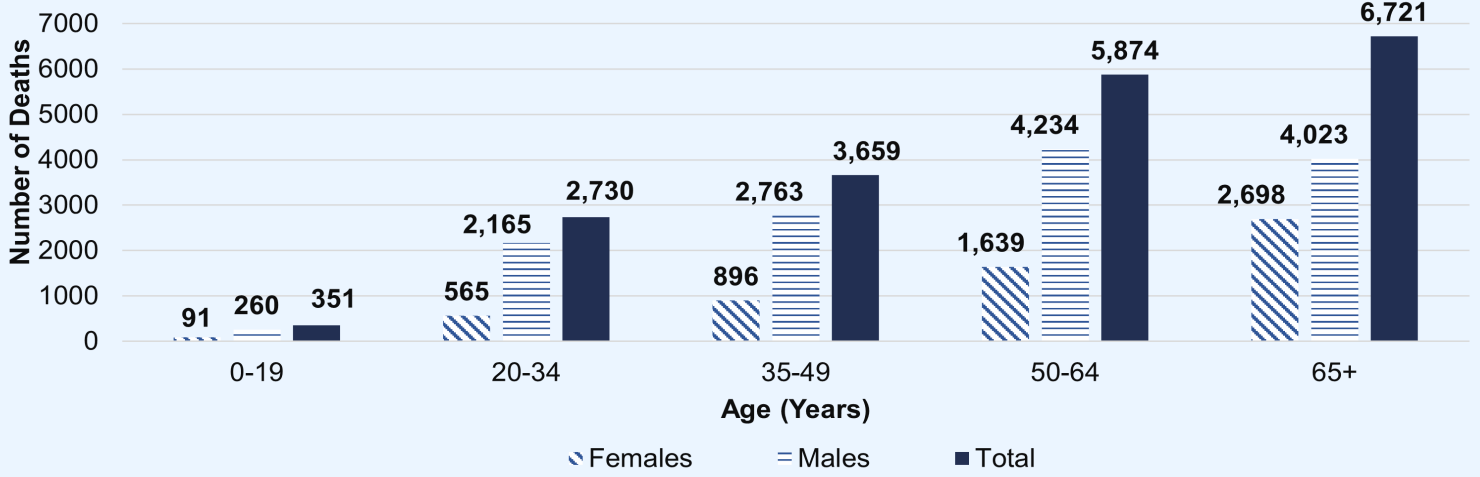


Figure 2: Alcohol Attributable Deaths by Age and Sex, 2020-2021

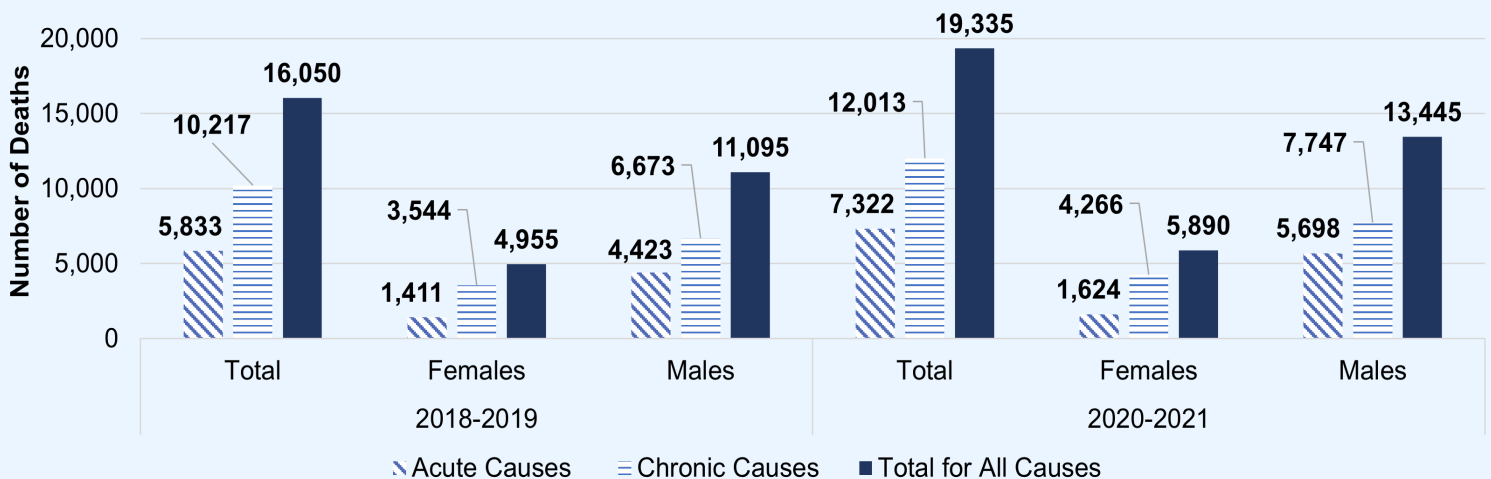


The top three causes of AADs for males were alcoholic liver disease, other poisonings, and motor vehicle crashes (3,333 deaths, 2,025 deaths, and 1,275 deaths, respectively; see Appendix Tables 2a-2d and 3a-3e). The top three causes of AADs among females were alcoholic liver disease, hypertension, and other poisonings (1,438 deaths, 1,112 deaths, and 640 deaths, respectively; see Appendix Tables 2a-2d and 3a-3e). Other poisonings indicate deaths involving another substance (e.g., drug overdoses) in addition to a high blood alcohol concentration (0.10 g/dL).

Changes in Alcohol Attributable Deaths since 2018-2019

There was an average annual 20% increase in AADs from 2018-2019 (16,050 deaths) to 2020-2021 (19,335 deaths; see Figure 3 below), including a 21% increase in AADs for males and 19% increase for females. AADs due to acute causes increased by 26% from 2018-2019 (5,833 deaths) to 2020-2021 (7,322 deaths), including a 29% increase among males and a 15% increase among females. AADs resulting from chronic causes increased 18% from 2018-2019 (10,217 deaths) to 2020-2021 (12,013 deaths), including a 16% increase for males and 20% increase for females. Overall, the distribution of AADs in 2020-2021 followed a similar pattern as 2018-2019, where the highest burden of AADs were a result of chronic causes among middle-aged and older adult males.

Figure 3: Alcohol Attributable Deaths by Sex, 2018-2019 and 2020-2021



Deaths due to Excessive Alcohol Use are Preventable

Public Health Recommendations

There are many actions that you can take to reduce the harms caused by excessive alcohol use:⁵

- If you choose to drink alcohol, the [2020-2025 Dietary Guidelines for Americans](#) recommends that adults of legal drinking age limit intake to two drinks or less in a day for men and one drink or less in a day for women, on days when alcohol is consumed.
- If you are concerned about your drinking, you can [check your drinking here](#).
- Talk with your healthcare provider about your drinking behavior and request counseling if you drink too much.
- Choose not to serve or provide alcohol to those who should not be drinking, including those under 21 years of age or those who are already intoxicated.
- To learn more about excessive alcohol use and access resources to help reduce the harms caused by excessive alcohol use, visit the [Alcohol Harms Prevention Initiative webpage](#).

Effective Prevention Measures

Local government and communities can implement effective prevention measures, such as those recommended in the [Community Guide](#).⁶ The Community Guide provides evidence-based findings and recommendations for reducing harms and deaths due to excessive alcohol use:

- Increase taxes on alcoholic beverages
- Integrate electronic screening and brief interventions into health clinics, emergency department services, and community settings
- Regulate alcohol outlet density
- Enhance enforcement of laws prohibiting sales to minors
- Reduce or avoid privatization of retail alcohol sales
- Have dram shop (commercial host) liability laws
- Maintain limits on days and hours of alcohol sales

References

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Suggested Citation

Jiménez JA, Demeter NE, Pinsker EA. Deaths from Excessive Alcohol Use in California, 2020-2021. Sacramento, CA: California Department of Public Health, January 2023.

Funding Source

This data brief was supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$166,667 with 100 percent funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government.

Acknowledgements

Thanks to the CDC Alcohol Program Lead, Dr. Marissa Esser, for her support with the analysis and interpretation of these findings, and our CDPH colleague, Dr. Shahnaj Safi, for providing additional analytical support.

Appendix: Tables 1a-b, 2a-d, and 3a-e

Table 1a: Alcohol Attributable Deaths due to Excessive Alcohol Use by Age for Females, California, 2020-2021

	0-19 years	20-34 years	35-49 years	50-64 years	65+ years
Acute Causes	89	452	406	456	221
Chronic Causes	2	113	490	1,184	2,477
Total for All Causes	91	565	896	1,639	2,698

Table 1b: Alcohol Attributable Deaths due to Excessive Alcohol Use by Age for Males, California, 2020-2021

	0-19 years	20-34 years	35-49 years	50-64 years	65+ years
Acute Causes	257	1,883	1,534	1,418	606
Chronic Causes	3	282	1,230	2,816	3,416
Total for All Causes	260	2,165	2,763	4,234	4,023

Table 2a: Acute Causes of Alcohol Attributable Deaths, Alcohol-Related Poisonings by Sex, California, 2020-2021

	Total	Females	Males
Alcohol poisoning	343	73	270
Other Poisoning (not alcohol)	2,665	640	2,025
Alcohol-Related Poisonings Total	3,008	713	2,295

Table 2b: Acute Causes of Alcohol Attributable Deaths, Motor Vehicle Traffic Crashes by Sex, California, 2020-2021

	Total	Females	Males
Motor-vehicle traffic crashes¶	1,660	385	1,275
Motor Vehicle Traffic Crashes Total	1,660	385	1,275

Table 2c: Acute Causes of Alcohol Attributable Deaths, Suicide by Sex, California, 2020-2021

	Total	Females	Males
Suicide	969	206	763
Suicide by and exposure to alcohol	-	-	-
Suicide Total	-	-	-

Table 2d: Acute Causes of Alcohol Attributable Deaths, Other Acute Causes by Sex, California, 2020-2021

	Total	Females	Males
Air-space transport	-	-	-
Aspiration	32	11	21
Child maltreatment§	-	-	-
Drowning	132	31	101
Fall injuries	208	54	154
Fire injuries	86	30	55
Firearm injuries	10	-	-
Homicide	1,115	167	948
Hypothermia	17	-	-
Motor-vehicle nontraffic crashes	18	-	-
Occupational and machine injuries	-	-	-
Other road vehicle crashes	35	-	-
Water transport	-	-	-
Other Acute Causes Total	1,681	320	1,361

Table 3a: Chronic Causes of Alcohol Attributable Deaths, 100% Alcohol-Attributable Deaths by Sex, California, 2020-2021

	Total	Females	Males
Alcohol abuse	592	134	458
Alcohol cardiomyopathy	74	11	63
Alcohol dependence syndrome	637	148	489
Alcohol polyneuropathy	-	-	-
Alcoholic gastritis	-	-	-
Alcoholic liver disease	4,771	1,438	3,333
Alcoholic myopathy	-	-	-
Alcoholic psychosis	174	42	132
Alcohol-induced acute pancreatitis	74	17	57
Alcohol-induced chronic pancreatitis	-	-	-
Degeneration of nervous system due to alcohol	24	-	-
Fetal alcohol syndrome	-	-	-
Fetus and newborn affected by maternal use of alcohol	-	-	-
100% Alcohol-Attributable Total	6,356	1,799	4,557

Table 3b: Chronic Causes of Alcohol Attributable Deaths, Cancer by Sex, California, 2020-2021

	Total	Females	Males
Cancer, breast (females only)	206	206	x
Cancer, colorectal	217	30	187
Cancer, esophageal*	87	20	66
Cancer, laryngeal	33	-	-
Cancer, liver	453	39	414
Cancer, oral cavity and pharyngeal	205	29	176
Cancer, pancreatic†	60	18	42
Cancer, prostate (males only)	51	x	51
Cancer, stomach‡	20	-	-
Cancer Total	1,332	348	983

Table 3c: Chronic Causes of Alcohol Attributable Deaths, Heart Disease and Stroke by Sex, California, 2020-2021

	Total	Females	Males
Atrial fibrillation	118	41	77
Coronary heart disease	854	205	649
Hypertension	1,763	1,112	652
Stroke, hemorrhagic	265	132	133
Stroke, ischemic	241	107	134
Heart Disease and Stroke Total	3,242	1,597	1,645

Table 3d: Chronic Causes of Alcohol Attributable Deaths, Liver, Gallbladder, and Pancreas Deaths by Sex, California, 2020-2021

	Total	Females	Males
Esophageal varices	-	-	-
Gallbladder disease	-	-	-
Gastroesophageal hemorrhage	-	-	-
Liver cirrhosis, unspecified	982	494	488
Pancreatitis, acute	11	-	-
Pancreatitis, chronic	-	-	-
Portal hypertension	-	-	-
Liver, Gallbladder, and Pancreas Total	1,011	504	507

Table 3e: Chronic Causes of Alcohol Attributable Deaths, Other Chronic Causes by Sex, California, 2020-2021

	Total	Females	Males
Chronic hepatitis	-	-	-
Infant death, low birth weight**	-	-	-
Infant death, preterm birth**	-	-	-
Infant death, small for gestational age**	-	-	-
Pneumonia‡	28	-	-
Unprovoked seizures, epilepsy, or seizure disorder	40	10	30
Other Chronic Causes Total	74	18	55

Appendix Notes: Tables 2a-d, and 3a-e

¶ Motor vehicle traffic crashes: Deaths among people of all ages. A blood alcohol concentration level of 0.08 g/dL or greater is used for defining alcohol attribution for this condition.

- To protect confidentiality, data are suppressed in cells with an estimate of fewer than 10 deaths or in which presenting data would provide information to derive the estimate for another cell that has fewer than 10 deaths.

§ Child maltreatment: Deaths among children aged 0 to 14 years.

|| Fall injuries: Deaths among people aged 15 to 69 years.

x Cancer, breast, and prostate: Sex-specific condition. Data only pertain to one sex.

* Cancer, esophageal: Deaths calculated for the proportion of esophageal cancer deaths due to squamous cell carcinoma only, based on the Surveillance, Epidemiology, and End Results data in 18 states (SEER18).

† Cancer, pancreatic and stomach: Deaths among people consuming high levels of alcohol only.

** Infant deaths (low birth weight, pre-term birth and small for gestational age): Alcohol consumption prevalence estimates calculated among women aged 18 to 44 years only.

‡ Pneumonia: Deaths among adults aged 20 to 64 years.