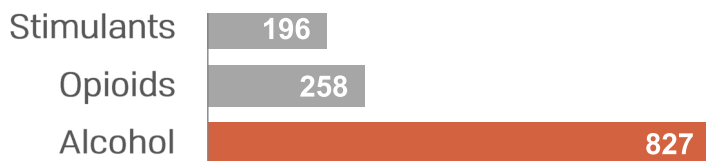


Alcohol-Involved Deaths in Iowa

The harmful use of alcohol results in three million worldwide deaths every year¹. In the United States, the Centers for Disease Control and Prevention (CDC) estimates that the harmful use of alcohol results in more than 140,000 deaths each year². Mortality data from the Iowa Department of Health and Human Services (HHS), Bureau of Vital Statistics indicate the number of alcohol-involved deaths in Iowa was almost two times higher than the total number of opioid and stimulants deaths combined in 2021* (see Figure 1).

Figure 1: The **number of alcohol-involved deaths** was higher than stimulant and opioid-involved deaths combined in Iowa in 2021.



Source: Vital Statistics, HHS

1 in 5 deaths among Iowa adults aged 20-49 were due to excessive alcohol use.

Source: Esser et al., 2022

Alcohol-involved deaths have increased steadily over the past decade.

Iowa Alcohol Deaths High and Climbing

The rate of alcohol-involved deaths has been climbing steadily in Iowa for over a decade³. In 2012, the alcohol mortality rate was 14 deaths per 100,000 Iowans, while in 2021, it was 26 deaths per 100,000 Iowans.

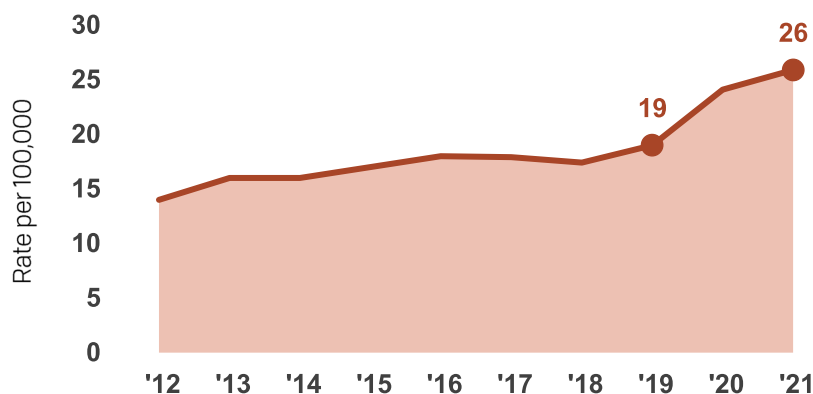
For the decade 2012-2021, only one year had a decrease in the alcohol mortality rate from the year before. The number of deaths per 100,000 reduced by one from 2017 (18 deaths) to 2018 (17 deaths).

The rising mortality rates over this time have accelerated in the last five years.

Between 2012 and 2017, the alcohol mortality rate rose by four deaths per

100,000 Iowans, while from 2017 to 2021 the mortality rate rose by eight deaths per 100,000 Iowans.

Figure 2. The rate of **alcohol-involved deaths** has risen steadily over the last decade, with a sharp increase seen between 2019 and 2021.



Source: Vital Statistics, HHS

Who is most affected?

Not all Iowans were equally affected by this public health problem. Some groups of Iowans experienced higher rates of alcohol mortality than others, such as: older age groups, people who were white, people who were

* "The underlying cause-of-death is defined by the World Health Organization (WHO) as "the disease or injury which initiated the train of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury." Each death certificate identifies a single underlying cause of death.

non-Hispanic and men experienced the highest mortality rates between 2017 and 2020.

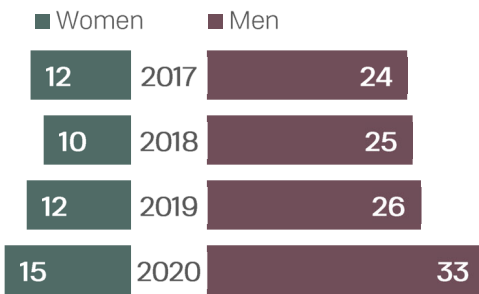
Race and Ethnicity

As Figure 3 illustrates, almost all race and ethnicity categories* experienced an increase in alcohol mortality between 2017 and 2020, with the exception of the ethnicity Hispanic/Latino which decreased from 13 per 100,000 lowans in 2017 to 9 in 2020.

Gender

As Figure 4 indicates, alcohol mortality rates per 100,000 lowans were at least two times higher among men than women in 2017-2020.

Figure 4. Alcohol mortality rates per 100,000 lowan men were twice as high as among lowan women.



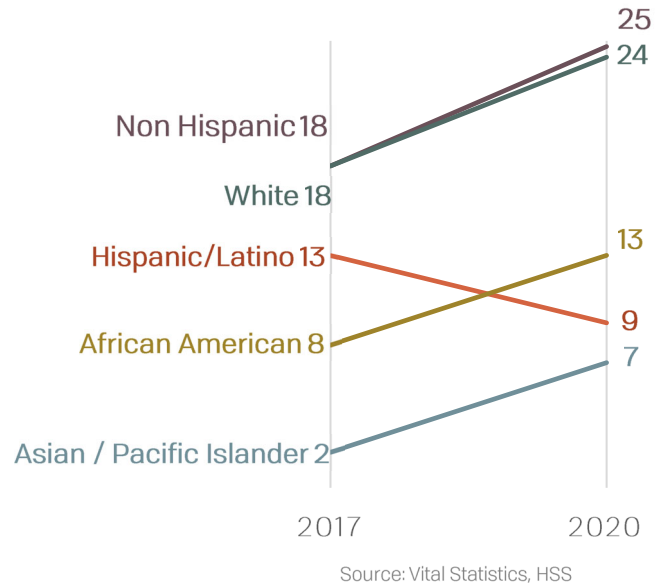
Source: Vital Statistics, HHS

Age

People over the age of 55 have experienced higher age-specific rates of alcohol mortality than all other age groups from 2017 to 2020 (see Figure 5). Alcohol mortality rates increased over time within each age group, including among those aged 12-24 (although those rates are not reported in Figure 5 due to low counts).

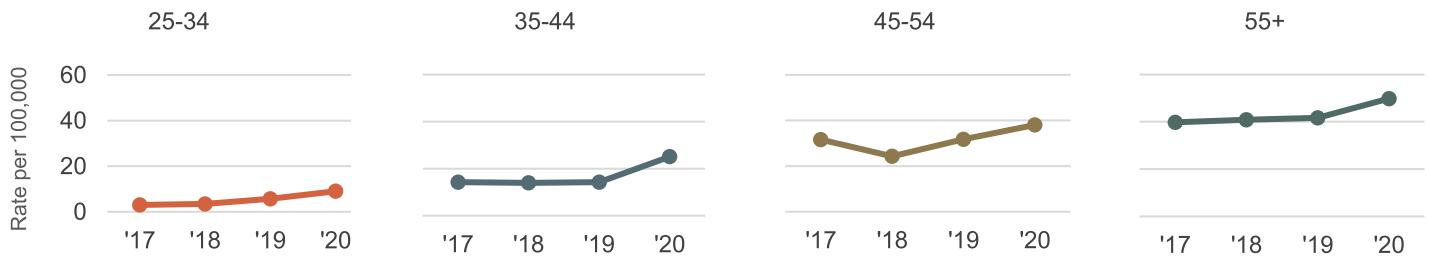
Figure 3. Mortality rates were highest among the categories white and non-hispanic in Iowa from 2017 to 2020.

Hispanic was the only category that experienced a decreased alcohol mortality rate between 2017 and 2020.



Source: Vital Statistics, HSS

Figure 5. Alcohol mortality rates were highest among lowans 55 years and older, but rose across all age groups.



Source: Vital Statistics, HHS

How are people dying?

The harmful use of alcohol is a causal factor in more than 200 disease and injury conditions⁴. The CDC’s Alcohol-Related Disease Impact application (ARDI) which estimates the alcohol-related disease impacts on America includes 58 causes of death from alcohol use. Most of these causes (40) are chronic (meaning that they develop over time) while 18 are acute (meaning that they develop suddenly)⁵. See Tables 1 and 2 for a grouped listing of these causes.

However, the mortality causes in this brief are only a subset of the mortality causes in Tables 1 and 2. Vital Records data from the Iowa Bureau of Vital Statistics only include the 12 chronic and two acute mortality causes that were 100% attributable (where the death could not have occurred without the use of alcohol) and four directly attributable causes (where alcohol was a causal factor in the death)⁶.

The bulk of the remaining 28 mortality causes are indirect estimates of motor-vehicle crashes, injuries, and cancer as research is clear that every alcohol beverage consumed increases an individual’s risk of cancer⁷. Most alcohol-involved deaths between

Figure 6. More than 90% of alcohol-involved deaths between 2012 and 2020 were due to **chronic causes**. The proportion of **acute causes** declined over time.

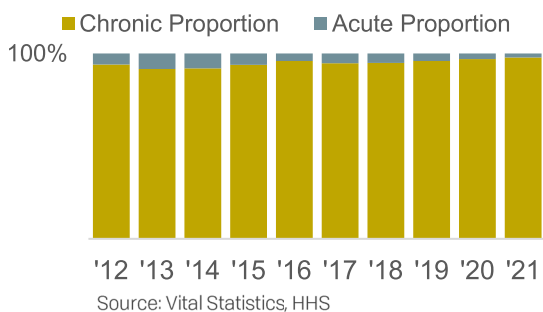


Figure 7. The proportion of acute and chronic deaths changes with age.

69% of deaths among Iowans younger than 49 were due to acute causes, while 81% of deaths among Iowans 50 years and older were due to Chronic causes.

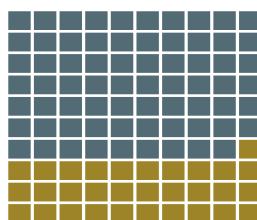
Table 1. Chronic Causes	CDC (ARDI)	Vital Statistics
Alcohol abuse, dependence and psychosis	✓	✓
Skeletal muscle dysfunction (alcoholic myopathy)	✓	✓
Degeneration of nervous system (including alcohol polyneuropathy)	✓	✓
Fetal and newborn effects (fetal alcohol syndrome, low birth weight, infant death)	✓	Fetal Alcohol Syndrome & Infant Death Only
Cancers (breast, colorectal, esophageal, laryngeal, liver, oral, pancreatic, prostate, stomach)	✓	-
Heart disease (alcohol cardiomyopathy, stroke, atrial fibrillation, portal hypertension, stroke)	✓	Portal Hypertension Only
Esophageal varices	✓	✓
Gallbladder disease	✓	-
Stomach diseases (gastritis, gastroesophageal hemorrhage)	✓	Gastroesophageal Hemorrhage Only
Liver disease (cirrhosis, alcoholic liver disease)	✓	✓
Pancreatitis (alcohol-induced pancreatitis)	✓	✓
Chronic hepatitis	✓	-
Unprovoked seizures, epilepsy, or seizure disorder	✓	-

Table 2. Acute Causes	CDC (ARDI)	Vital Statistics
Alcohol Poisoning	✓	✓
Suicide	✓	✓
Motor-vehicle crashes	✓	-
Fall Injuries	✓	-
Homicide	✓	-

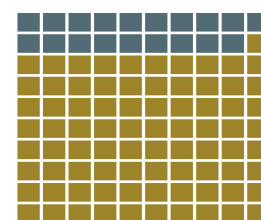
2012 and 2021 in Iowa were from chronic causes and the proportion of chronic deaths increased over this time (see Figure 6).

Comparatively, the CDC estimated the average alcohol mortality in Iowa between 2015 and 2019 using 58 causes of death and estimated that 67% of deaths annually were due to chronic causes with both men and women more likely to die from a chronic cause. The CDC estimates also indicated that although those above the age of 50 were more likely to die from chronic alcohol causes, both men and women younger than 49 between 2015 and 2019 were more likely to die from acute causes (see Figure 7).

Iowans younger than 49



Iowans 50 years and older



Source: ARDI, CDC

How can we prevent alcohol deaths?

Alcohol deaths are the outcome of harmful alcohol consumption, whether a one-time occurrence (acute) or due to a lifetime of occurrences (chronic). Therefore, the prevention of alcohol deaths includes programs, actions, and policies that affect the levels and patterns of alcohol consumption. These programs, actions and policies can be at the individual, community, or state level.

Increasing alcohol prices, limiting alcohol outlet density (the number of alcohol outlets within a geographic area) and strengthening compliance monitoring are options of evidence-based strategies to reduce access to alcohol, which reduces consumption.

Increasing public health surveillance helps to inform targeted prevention strategies and implementing screening, brief intervention, and referral to treatment helps clinicians and individuals identify and reduce problematic use of alcohol.

For more information on preventing alcohol-involved deaths in Iowa, please read the [Addressing Alcohol-Involved Deaths in Iowa](#) Report created by Iowa stakeholders and experts. Please go to the [Prevention page](#) on YourLifelowa.org to find more prevention and treatment resources.

Sources

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Evidence-Based Strategies to Reduce Alcohol-Involved Deaths



INCREASE ALCOHOL PRICES

Even a small increase in the price of alcohol can lead to reductions in excessive drinking and alcohol-involved harms.



LIMIT ALCOHOL OUTLET DENSITY

Density refers to how many and how close together alcohol outlets (such as bars, restaurants or liquor stores) are in an area. Regulating outlet density is an effective way to reduce excessive alcohol use and alcohol-involved harms.



STRENGTHEN COMPLIANCE MONITORING

Enforcement of alcohol laws is an important way to ensure compliance among license holders. Compliance monitoring of the alcohol outlet environment is known to prevent illegal alcohol sale and can help foster a balanced marketplace.



INCREASE PUBLIC HEALTH SURVEILLANCE

Strong collection and tracking of critical data such as alcohol license holder information, adjudication, compliance, enforcement, alcohol-involved harms and consumption rate is critical to inform and educate the public on Iowa's alcohol environment.



IMPLEMENT PROBLEMATIC USE SCREENINGS

Screening, Brief Intervention, and Referral to Treatment (SBIRT) incorporates prescreenings often conducted in healthcare settings to identify and reduce problematic use of alcohol or other substances.



CONTINUE PUBLIC EDUCATION

In collaboration with other population-level policy change efforts, public education and communication about alcohol use and guidelines can maximize effectiveness and impact.

Source: Addressing Alcohol-Involved Deaths in Iowa

For more prevention and treatment resources in Iowa, visit YourLifelowa.org