

Alcohol-Related Death in Virginia, 2016-2020

VIRGINIA DEPARTMENT OF HEALTH

Summary Points

- Alcohol-related deaths are increasing in Virginia.
- Alcoholic liver disease was the most common alcohol-related death.
- Males died of an alcohol-related death at higher rates than females.
- Black Virginians had the highest rate of alcohol-related death.
- People aged 85+ years are at highest risk of alcohol-related death in Virginia.
- Rural areas have higher rates of alcohol-related death than urban areas.

Introduction

Alcohol-related deaths are caused by both chronic diseases and injuries. This is because of the health effects of drinking too much over time or drinking a large amount of alcohol in a short period of time.¹ Examples are chronic diseases, like liver damage (cirrhosis) after years of heavy drinking, or injuries, like a car crash after drinking and driving. Excessive alcohol use, including binge drinking, is associated with alcohol-related death.

On average from 2016 to 2020, approximately 16% of Virginians aged 18 years and older who participated in the Virginia Behavioral Risk Factor Surveillance Survey (BRFSS) reported binge drinking (five or more drinks for males and four or more drinks for females on one occasion).² In addition, about 6% of 2019 and 2020 Virginia BRFSS participants reported heavy drinking, where adult men had more than 14 drinks a week, and adult women had more than seven drinks a week.² A Morbidity and Mortality Weekly Report from the Centers for Disease Control and Prevention (CDC) also found that the total number of drinks among Virginian adults who reported binge drinking increased significantly from 2011-2017.³ Further, in 2019, one-quarter (25%) of Virginia high school youth from the Virginia Youth Risk Behavior Surveillance Survey reported current alcohol use, and about 12% reported binge drinking.⁴ Excessive drinking occurs in Virginia, despite an estimated 44% of Virginians aged 12 years and older perceiving that binge drinking once or twice a week is a high risk behavior.⁵ The Virginia Department of Health (VDH) examined alcohol-related death in Virginia to describe the full range of causes of alcohol-related death and changes in these deaths over time using the CDC Alcohol-Related Disease Impact (ARDI) Application.⁶

Methods

CDC ARDI was used to describe alcohol-related death in Virginia from 2016 to 2020 by year, sex, age group, cause, race/ethnicity, county, region, and rurality using numbers and rates of death. Rurality was defined by the use of CDC National Center on Health Statistics rural-urban classifications that were collapsed from six into two categories. Large central metro, large fringe metro, medium metro, and small metro were re-categorized into 'urban.' Micropolitan and noncore classifications were re-categorized into 'rural.' In this report, deaths with non-Hispanic/Latino ethnicity will be reported by their race (Black, White, Asian/Pacific Islander, American Indian/Alaska Native). Deaths with Hispanic/Latino ethnicity can be of any race group and will be reported as Hispanic/Latino. *Rate per 100,000 population* is a common calculation used in public health that offers a standardized way to compare the burden of a health condition across different geographic areas or demographics and time. This rate can then be compared to rates in other areas or demographic populations, regardless of population size. Unless specified, rates are average annual rates for the five-year period of 2016-2020. All rates, except for rates by age group, were age-adjusted to the U.S. 2000 standard population and will be referred to as 'rates' throughout the report. Population estimates are from CDC NCHS. Alcohol-related deaths were rounded to the nearest whole number. Rates were rounded to one decimal place.

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Results

The number of alcohol-related deaths increased each year from 2016 to 2020, with the greatest increase in 2020. Overall, the number of alcohol-related deaths increased 25% from 2016 (2,926) to 2020 (3,667) (Figure 1).

On average from 2016 to 2020, 57% of the alcohol-related deaths each year were chronic disease deaths; 43% were injury-related.

Figure 1: Number of alcohol-related deaths in Virginia, 2016-2020

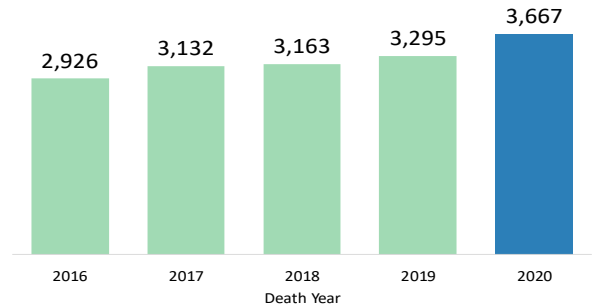
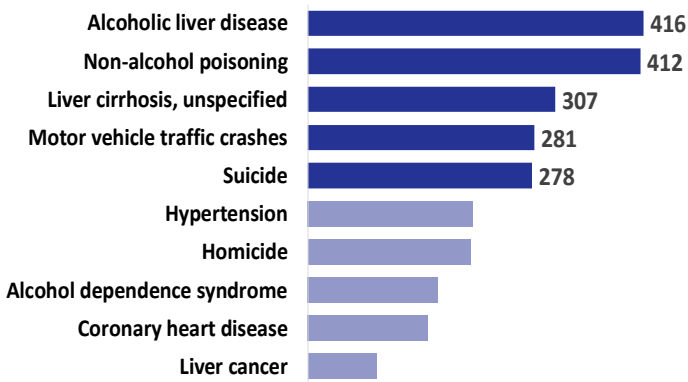


Figure 2: Top ten average annual causes of alcohol-related death in Virginia, 2016-2020



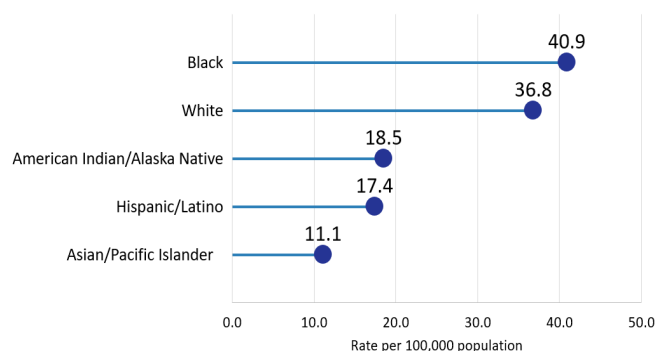
Each year on average, alcoholic liver disease (416) was the most common cause of death, followed by non-alcohol poisonings (overdoses) (412), unspecified liver cirrhosis (307), motor vehicle traffic crashes (281), and suicide (278) (Figure 2).

In 2020, males (55.7 per 100,000) died due to excessive alcohol use at 2.5 times the rate of females (22.0). This similar finding was observed over the full five-year time period. However, from 2016-2020, females saw a slightly larger increase in the number of deaths than males (27% versus 24%, respectively).

The age group with the highest age-specific death rate was Virginians aged 85 years and older (172.2 per 100,000), and the age group with the lowest age-specific death rate was Virginians aged 0-14 years (1.4).

Black Virginians had the highest death rate at 40.9 per 100,000. Asian/Pacific Islander Virginians had the lowest death rate at 11.1 per 100,000 (Figure 3).

Figure 3: Average annual alcohol-related death rate per 100,000 population by race/ethnicity in Virginia, 2016-2020



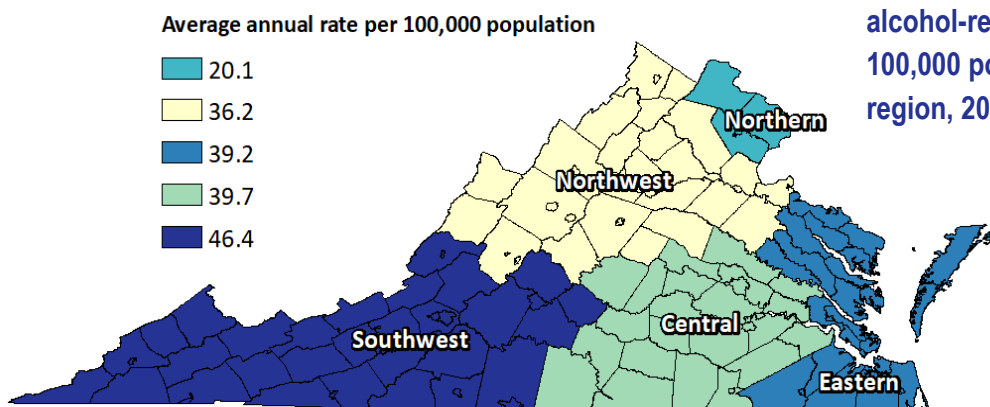
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Results (continued)

The Southwest health region had the highest death rate (46.4 per 100,000), and the Northern health region had the lowest death rate (20.1) (Figure 4). The Southwest health region also had the largest increase in the number of alcohol-related deaths from 2016 (647) to 2020 (887) at 37%, followed by the Northwest health region at 25% (494 in 2016 to 619 in 2020). The localities with the highest average annual deaths over the five-year time period were: Fairfax County (n=220),

Virginia Beach City (n=158), Chesterfield County (n=131), and Prince William County (n=120). These localities were also all classified as urban. Rural localities had the highest death rate at 53.4 per 100,000 compared to urban localities (32.7). Although urban areas had a higher average number of alcohol-related deaths each year from 2016 to 2020 (n=2,611) due to their larger population, rural areas had a higher death rate overall.

Figure 4: Average annual alcohol-related death rate per 100,000 population by health region, 2016-2020



Conclusions

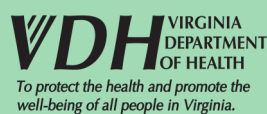
The number of alcohol-related deaths in Virginia increased each year from 2016 to 2020, with the greatest increase in 2020. Being male, Black, aged 85 years and older, or living in the Southwest health region resulted in higher rates of death associated with alcohol. More investigation is needed into possible causes of these increases, including examining any changes in social and alcohol policy changes due to the COVID-19 pandemic. The United States Community Preventive Services Task Force lays out a set of evidence-based population-based strategies, such as increasing alcohol taxes and regulating alcohol outlet density, that have been shown to reduce alcohol consumption and could be further utilized in Virginia.

FOR MORE INFORMATION:

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Citations:

- <https://www.cdc.gov/alcohol/features/excessive-alcohol-deaths.html>
- <https://www.cdc.gov/brfss/brfssprevalence/index.html>
- <https://pubmed.ncbi.nlm.nih.gov/31945030/>
- <https://nccd.cdc.gov/youthonline/app/Results.aspx?LID=VA>
- <https://www.samhsa.gov/data/sites/default/files/reports/rpt35339/2020NSDUHsaePercents012422/NSDUHsaePercents2020.pdf>
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