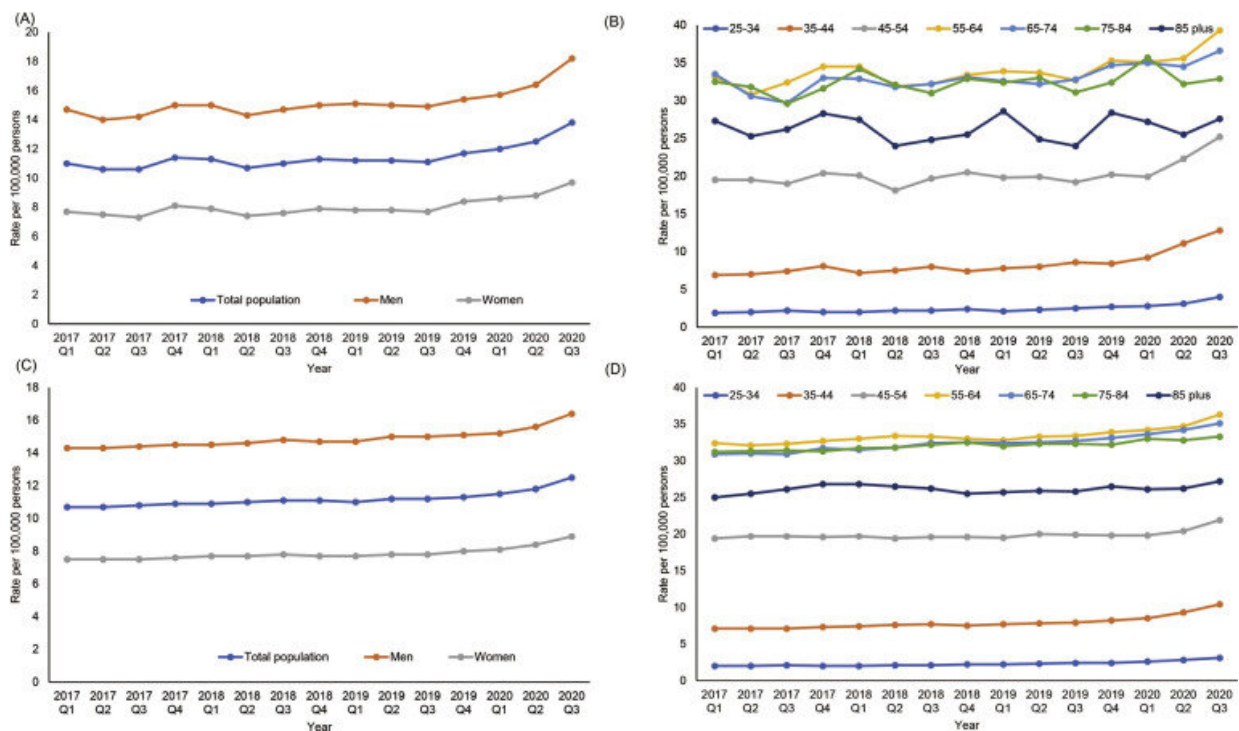


Increase in alcohol-associated liver disease mortality accelerates during COVID-19 pandemic

April 6 2022



Quarterly age-adjusted mortality for chronic liver disease and cirrhosis in the United States between 2017 Quarter 1 and 2020 Quarter 3. (A) Total population and stratified by sex using the quarterly (3-month period) mortality. (B) Stratified by age using the quarterly (3-month period) mortality. (C) Total population and stratified by sex using mortality for 12 months ending with quarter. (D) Stratified by age using mortality for 12 months ending with quarter. Credit: *Clinical Gastroenterology and Hepatology* (2021). DOI: 10.1016/j.cgh.2021.07.009

A study published in the *Clinical Gastroenterology and Hepatology* journal, and led by UNC School of Medicine researchers, found that alcohol-associated liver disease (ALD) mortality accelerated during the COVID-19 Pandemic.

"We've actually seen for quite some time now that alcohol-associated liver disease mortality has been increasing in the United States," said Sasha Deutsch-link, MD, study lead author and a fellow in the UNC Division of Gastroenterology and Hepatology in the UNC Department of Medicine. "This trend goes back to 2006, and we have seen a steady increase overtime. In our paper we really wanted to update these trends to see if we were seeing this continued increase."

The study's senior author is Andrew Moon, MD, MPH, and co-authors are A. Sidney Barritt IV, MD, MSCR, and Anne Peery, MD, MSCR, all from the UNC Division of Gastroenterology and Hepatology.

Previously, the *American Journal of Gastroenterology* reported that ALD mortality increased between 2006 and 2017. Since 2017, alcohol consumption has continued to rise. To update trends of ALD-related mortality in the US and to quantify the rate of change, researchers extracted data from January 1, 2017 to December 31, 2020 using the Underlying Cause of Death public-use data file from the Centers for Disease Control and Prevention (CDC) National Center for Health Statistics. Researchers examined age-adjusted mortality rates in ages 25 years and older on all US residents, and it was stratified by sex, age and race/ethnicity to update previously published data.

The UNC team found that from 2017 to 2020 there was a continued increase in ALD-related mortality. The average annual percent change in deaths increased about 9% per year for men and about 12% per year for

women. Researchers also saw how the rate of change in ALD deaths spiked significantly in early 2020 for both men and women. The annual percent change in increase from 2019 to 2020 in men overall was 21% and in women it was 27%. In women ages 25–34, it was a 38% increase and in ages 35–44 there was 47% increase. For men, ages 25–34, researchers saw a 51% increase and for men, ages 35–44, it was a 45% increase.

From disruptions in work and school to shifts of alcohol consumption in bars and restaurants to at-home use, [alcohol use](#) continued to climb aggressively, especially during the pandemic. From 2017 to 2020 and 2019 to 2020, the group with the highest relative increase in ALD was younger adults, ages 25–44. The demographic with the highest overall rates of ALD mortality is in the older age group, ages 45–64.

"We knew that liver disease deaths from alcohol were on the rise before COVID-19 and this study confirmed our suspicions that these concerning rises in ALD deaths were exasperated by the COVID-19 pandemic," said Moon.

Trends in [mortality rates](#) for ALD from 2017 to 2020 in age, race and ethnicity shows that annual increases in death were seen in every age group except those over age 85. The highest age-adjusted rates were found among American Indians/Alaska Native, Hispanic, and White individuals. Asian men had the highest relative increase in ALD-related mortality, likely due to a low baseline ALD mortality. The analysis also indicates that some increases in ALD mortality, both in rate and absolute count, were seen prior to the pandemic. One underlying explanation for these trends is the rise in alcohol consumption and alcohol-related complications before and during the pandemic.

"Prior research has shown that increasing unemployment and financial insecurity can exacerbate addiction at the community level," said

Deutsch-link. "Increasing in isolation and loneliness during quarantine may have also exacerbated alcohol consumption and alcohol use disorder. In patients with underlying liver disease, increased alcohol consumption or worsening severity of an alcohol use disorder can lead to increased mortality," she said.

Other potential contributors include rising obesity/[metabolic syndrome](#) and comorbid non-alcoholic fatty [liver disease](#), which can increase risk for the development of ALD. The pandemic may have also compromised appropriate healthcare for patients with ALD, especially those who were apprehensive about seeking care in a hospital setting.

"Many patients with alcohol use disorder, particularly early on in the pandemic, had a harder time engaging in alcohol use counseling, particularly in group settings like Alcoholics Anonymous," said Moon. "Patients with acute alcohol-associated hepatitis were probably delaying coming into the hospital until they were very sick. This means that patients were probably coming in at a stage when their alcohol-associated hepatitis was life-threatening and there may be less to offer from a medical standpoint."

The analysis shows how ALD mortality is increasing among males and females in almost every age and racial/ethnic demographic in the US, a troubling trend that could cause an on-going spike in ALD mortality.

"I wouldn't be surprised if many of the deaths we're seeing in the last couple of years are from alcohol-associated hepatitis, and maybe 10 to 15 years from now, we'll also see an increase in alcohol-associated cirrhosis of the liver and liver cancer among these patients," Moon said.

The urgent need to curtail the rising ALD disease burden and [mortality](#) calls for a nationwide effort to reduce national alcohol consumption, improve alcohol use disorder screening, and optimize early treatment.

"We need to increase access to evidence-based care for [alcohol use disorder](#)," Deutsch-link said. "There's a shortage of addiction treatment providers in our country. There are policies at the government level that could potentially impact [alcohol consumption](#). I think we can take some lessons learned from the opioid crisis where this became a national crisis and the response involved policy changes and funding for programs to really address these issues. We need to learn from those interventions to see what we can do now to address alcohol use disorders specifically."

More information: Donghee Kim et al, Mortality Trends in Chronic Liver Disease and Cirrhosis in the United States, Before and During COVID-19 Pandemic, *Clinical Gastroenterology and Hepatology* (2021). [DOI: 10.1016/j.cgh.2021.07.009](https://doi.org/10.1016/j.cgh.2021.07.009)

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