

Higher minimum legal drinking ages linked to lower rates of suicides and homicides later in life

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Prior to the 1984 passage of a uniform drinking-age limit of 21 years in the U.S., many states permitted the legal purchase of alcohol at age 18. These lower drinking ages have been associated with several adverse outcomes such as higher rates of suicide and homicide among youth. A new study of individuals who were legally permitted to drink before the age of 21 has found they remain at elevated risk for suicide and homicide as adults, particularly women born after 1960.

Results will be published in the February 2012 issue of *Alcoholism: Clinical & Experimental Research* and are currently available at Early View.

"After prohibition, most states had a drinking age of 21," explained Richard A. Grucza, an epidemiologist at Washington University School of Medicine, and corresponding author for the study. "In the late 1960s and early 1970s, as voting rights were extended to people as young as 18, and people of that age were also being drafted to serve in Viet Nam, a lot of states lowered their drinking ages. But by the late 1970s, we saw spikes in DUI-related deaths among young people and states began to revert to a drinking age of 21. The 1984 federal act was really just a completion of change that was already underway."

"Alcohol-control policies are always controversial, as many people are generally in opposition to laws which seem to govern individual choices

and behavior," observed Katherine M. Keyes, a post-doctoral fellow in epidemiology at Columbia University. "However, this study and other data make the case for minimum legal drinking age (MLDA) laws as a public health benefit incredibly clear: MLDA laws save lives, both among young people and as currently demonstrated, throughout the life course."

Grucza added that he and his colleagues had earlier observed higher rates of alcohol and drug use disorders among adults – both men and women – who were born in states that allowed alcohol sales to youth under age 21. Furthermore, other shorter-term studies had found higher rates of DUI accidents, other drinking behaviors, suicides, and homicides in states with lower drinking ages during the time those laws were in effect. "So studying the longer-term effects of drinking ages on [suicide](#) and [homicide](#) was a logical next step," he said.

Grucza and his co-authors used data from the U.S. Multiple Cause of Death files, 1990-2004, along with data on living populations from the U.S. Census and American Community Survey. The combined data contained records on more than 200,000 suicides and 130,000 homicides for individuals who turned 18 between the years 1967 and 1989, the years during which legal drinking ages were in flux.

"A number of adverse consequences were associated with lower drinking ages during the time periods that those laws were in effect, including elevated rates of suicide and homicide," said Grucza. "In this study we found that youth who lived in states with lower drinking ages remain at elevated risk for suicide and homicide as adults. The effect seems to be specific for women."

"This study is an incredibly important documentation of the long-term impact of alcohol-control policies," said Keyes. "These findings indicate that populations among whom alcohol was restricted until age 21

experience health benefits of that restriction throughout adulthood, with significantly reduced risk of homicide and suicide among women in more recently born cohorts." More specifically, study authors estimated that the national drinking age of 21 years may be preventing approximately 600 suicides and 600 homicides annually.

"Suicide and homicide are very different phenomena," observed Grucza. "For homicide, females are victimized by acquaintances in 92 percent of the cases. If lower drinking ages result in elevated rates of alcohol problems, this could contribute to alcohol-fueled domestic violence. Alcohol use by both women and their partners could contribute to domestic-violence situations. For suicide, it may be that alcohol contributes to the severity of suicide attempts. In general, women attempt suicide more often than men, but men complete – or die from – suicide more often than women. Alcohol problems may tip the balance by turning attempts into completions more often, and this would be particularly risky for women because of the higher number of attempts."

"While women are less likely overall to drink and develop alcohol use disorders compared to men, the consequences of drinking are often more harmful for women," added Keyes. "This study adds important evidence to the literature, indicating that exposure to alcohol during a critical period of development in young adulthood may have long ranging health consequences for women, increasing the risk of suicide and homicide throughout the life course."

"Many scientists believe the adolescent brain is especially vulnerable to the effects of drugs, including alcohol," said Grucza. "But a lot of the findings supporting that idea come from animal experiments that can't be extended to humans. We saw drinking-age changes as a 'natural experiment' to see what happens to young people who have easy access to alcohol compared to those whose access is restricted: if early drinking was a true risk factor for subsequent alcoholism, then we should see

multiple adverse long-term consequences among people who lived under more permissive drinking age laws as youth. Our results help to solidify the case for drinking age laws."

Keyes concurred. "Grucza and colleagues have elegantly demonstrated that individuals who were young [adults](#) during a time in which they could legally drink between the ages of 18 and 21 have far-reaching health consequences in adulthood," she said. "Given that debate over the MLDA in the U.S. continues to persist, especially in light of the Amethyst Initiative supported by many college presidents which advocates returning to an age 18 MLDA, this study is an important reminder of the public-health effectiveness of controlling [alcohol](#) at the population level during a very critical time in development. These data underscore that, especially for young women, drinking during young adulthood can lead to a wide range of consequences throughout the life course."

"The 21 MLDA was initially adopted to reduce the number of DUI related accidents and other social consequences of drinking involving young people," added Grucza. "The finding that it may also save lives and reduce problems during adulthood shows the importance of maintaining these laws, and developing other interventions aimed toward reducing drinking among [young people](#)."

Provided by Alcoholism: Clinical & Experimental Research

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