

In-car breathalyzers for DUI offenders curb drunk-driving deaths by 15 percent

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State laws that require drivers who've been convicted of drunk driving to pass a breathalyzer-type test before starting their cars saved an estimated 915 lives between 2007 and 2013, according to a study published in the *American Journal of Public Health* by researchers at the Perelman School of Medicine at the University of Pennsylvania. The findings represent a 15 percent reduction in drunk driving-related deaths compared to states without legislation requiring DUI offenders to use "mandatory ignition interlock."

The research, led by Elinore J. Kaufman, MD, a student in Penn's Health Policy master's degree program and a resident at New York-Presbyterian Weill Cornell Medical College, used National Highway Traffic Safety Administration data to compare alcohol-related crash deaths in the 18 states that required ignition interlocks for all those convicted of DUI as of 2013 with the number of alcohol-related crash deaths in states without mandatory interlocks.

States with mandatory interlock laws saw a 0.8 decrease in deaths for every 100,000 people each year - which is comparable to lives shown to have been saved from mandatory airbag laws and the 21-year minimum legal drinking age combined (0.9 and 0.2 lives saved per 100,000 people, respectively).

Car crashes involving alcohol make up 30 percent of vehicular fatalities, resulting in 11,000 deaths each year. The National Highway Traffic and Safety Administration estimates that for each of the million drunk

driving convictions each year, there are 88 previous instances of drunk driving.

"These laws are proven feasible and effective, and they are low hanging fruit for the remaining half of states, including Pennsylvania, that don't have this protection in place yet," Kaufman said.

Following increasing support for interlock laws in other states, Pennsylvania's House of Representative's Transportation Committee is considering legislation - SB 290 - that would require first-time DUI offenders with a blood-alcohol content of .10 or higher to install these devices.

"Our findings show that by preventing intoxicated drivers from starting their vehicles, these ignition interlock laws can directly prevent drunk driving and save lives," Kaufman said. "We are encouraged by growing public and governmental support for expansion of interlock programs and innovative ways to use this technology to prevent more lives lost resulting from drunk driving."

Previous research on mandatory interlock laws focused on recidivism rates, but the new Penn study serves as the first national analysis of the impact of a universal interlock requirement on alcohol-involved crash deaths.

"Although crashes and crash fatalities decline, we're not seeing a significant reduction in those involving alcohol," said the study's senior author, Douglas J. Wiebe, PhD, an associate professor of epidemiology in the department of Biostatistics and Epidemiology and a senior scholar in the Center for Clinical Epidemiology and Biostatistics. "We're encouraged by the increasing number of states enacting mandatory interlock laws since 2013 and hope these findings advance public health conversations aimed at saving more lives."

The researchers note that the variation in state ignition interlock laws and enforcement of those laws further illustrates the importance of taking a comprehensive approach to ensuring driving safety.

While mandatory minimum drinking age and interlock laws have shown progress in curbing [drunk-driving](#) incidence, the authors call for further steps, including new strategies to encourage alternative forms of transportation and changing "alcohol culture" and social behaviors to reduce binge drinking.

More information: *American Journal of Public Health*,
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