

## NEWS RELEASE

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### Statewide Retail Compliance Checks Cut DUI Crashes Among Drivers Under 21

COLUMBIA, S.C. – A new study, published this month in the journal *Alcoholism: Clinical and Experimental Research*, demonstrates the positive impact of the South Carolina Alcohol Enforcement Team (AET) program on the reduction of drinking-and-driving crashes among drivers under 21 years old.

The study was co-authored by Michelle Nienhius, M.P.H., Manager of Prevention and Intervention Services for the S.C. Department of Alcohol and Other Drug Abuse Services; Michael D. George, Ph.D., and Steve Shamblen, Ph.D., of the Pacific Institute for Research and Evaluation; Harold D. Holder, Ph.D., of the Prevention Research Center; and Rachel Holder, M.P.A., of CHES Health Solutions.

The researchers analyzed records of retail checks for compliance with the legal drinking age and traffic crash records from 2006 (just before the AET program expanded statewide in 2007) through 2016. County compliance check data were used to calculate the percentage of the under-21 state population exposed to compliance checks in a given month. The research team then examined the relationship over time between compliance check exposure and alcohol-related crashes involving drivers under age 21 and used statistical modeling to estimate the impact of the AET program. Drinking-and-driving crashes among drivers 21 and older were also assessed, to control for other factors (besides underage compliance checks) that might influence alcohol-involved traffic crashes.

Across the state, almost 65,000 compliance checks were conducted over the study period, of which almost 9,000 resulted in an illegal purchase. Youth exposure to compliance checks varied over time – rising through mid-2008 after expansion of the AET program, before declining through to 2010 following a reduction in enforcement funding, and then increasing and stabilizing through 2016 after a policy shift. By the end of 2016, 80% of the underage South Carolina population was exposed to regular compliance checks. The proportion of compliance checks that resulted in an alcohol purchase declined as checks increased, rose as checks declined, and declined again and stabilized as checks intensified from 2010. By the end of 2016, only around 9% of compliance checks involved a successful alcohol purchase.

In total over the study period, there were 4,782 road crashes in which under-21-year-old drivers were assessed by law enforcement officers as being under the influence – averaging 38 crashes per month. Crashes in this age-group declined during the first wave of compliance check enforcement, increased (after a lag) when enforcement declined, and declined again after 2010 when enforcement increased. In contrast to the decline in crashes among drivers under 21, alcohol-related crashes among drivers 21 and older trended upward between 2011 and 2016. Statistical modeling indicated that over the 78 months of stable compliance checks (2010 to 2016), AET enforcement led to a decline in underage drinking-and-driving crashes of 18-29% (depending on the method used to identify alcohol-involved crashes) compared to the pre-2010 period of inconsistent compliance. This impact was statistically significant.

Overall, the study provides strong evidence that consistent and regular retail compliance check enforcement can result in sustained reductions in alcohol availability to those under 21, sufficient to reduce alcohol-related traffic crashes in this age group. The researchers are not aware of any other state having duplicated the South Carolina AET program.

This is the second journal article co-authored by a DAODAS staff member during the past year, following the publication of “Small Area Estimation of County-level U.S. HIV-prevalent Cases” in the August 2020 issue of *Annals of Epidemiology*, which featured DAODAS epidemiologist Sazid Khan, Ph.D., as corresponding author.

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*DAODAS is the cabinet agency charged with ensuring the provision of quality services to prevent or reduce the negative consequences of substance use and addictions.*