

Research shows decline in collisions and convictions connected to increase in ridesharing

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Christopher Conner, MD, PhD's new research showed a direct connection between an increased use of ridesharing apps and a decrease in motor vehicle



collisions and impaired driving convictions. Credit: Rogelio Castro/UTHealth

The increased use of ridesharing apps was linked to a decrease in motor vehicle collisions and impaired driving convictions in Houston, according to published research by The University of Texas Health Science Center at Houston (UTHealth).

The findings were published today in JAMA Surgery.

Christopher Conner, MD, Ph.D., neurosurgery resident in the Vivian L. Smith Department of Neurosurgery at McGovern Medical School at UTHealth and the study's lead author, said the research is timely as more individuals are utilizing ridesharing apps.

"Automobile accidents are the leading cause of death and disability among young people, so anything we can do to reduce those incidents is going to have a massive effect," he said.

For the study, researchers asked rideshare app companies that were in Houston as early as 2014, to supply their utilization rates. Uber responded, submitting data from 2014, when they first started service in Houston, through 2018.

Researchers also collected data from the Red Duke Trauma Institute at Memorial Hermann Hospital-Texas Medical Center and Harris Health Ben Taub Hospital in Houston comparing rates of patients admitted for injuries sustained in a motor vehicle accident from 2007-2013 and 2014-2018. Memorial Hermann-TMC and Ben Taub are the only American College of Surgeons Level 1 <u>trauma</u> centers in Houston. All patients admitted as a result of a <u>motor vehicle accident</u> were included in the data set.



Data was also collected on impaired driving convictions from the Harris County District Attorney's Office from 2007-2019, limited to cases resulting in a <u>conviction</u> or probation.

The study found that rideshare volume had a significant correlation with the incidence of motor vehicle-related trauma, with a reduction in the rate of incidence by one-third for every 1,000 rides. The rate continued to drop as more rides occurred. The age group with the most <u>significant</u> <u>decrease</u> in motor vehicle-related trauma were those under the age of 30, with a reduction rate of almost 39%.

Impaired driving convictions also reduced in the years following the introduction of Uber into Houston. Before 2014, there were an average of 22.5 impaired driving convictions in Houston daily. After 2014, impaired driving convictions decreased to an average of 19 per day.

"I think this was the biggest takeaway from the study. The data shows that ridesharing companies can decrease these incidents because they give young people an alternative to driving drunk," Conner said, adding that he hoped the results will allow people to see that anyone can be affected by a motor vehicle collision, but that they do have another option that has been proven to reduce their risk of injury, death, or impaired driving conviction.

The greatest number of <u>motor vehicle collisions</u> occurred on Friday and Saturday nights between 9 p.m. and 3 a.m. Comparing the date from before and after 2014 revealed an almost 24% decrease in <u>motor vehicle</u> collision traumas and the number of impaired driving convictions during those hours.

Conner is hopeful this study will open the door to further trauma research. "It is an area that has been really understudied," he said.



More information: Christopher R. Conner et al, Association of Rideshare Use With Alcohol-Associated Motor Vehicle Crash Trauma, *JAMA Surgery* (2021). DOI: 10.1001/jamasurg.2021.2227

Provided by University of Texas Health Science Center at Houston

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