



INJURY CONTROL RESEARCH CENTERS: Motor Vehicle Injury Prevention

CDC’s National Center for Injury Prevention and Control currently funds 9 Injury Control Research Centers (ICRCs). These centers study ways to prevent injuries and violence and work with community partners to put research findings into action.

[Motor vehicle crashes](#) are a leading cause of death among those aged 1-54 in the United States. In 2017, 2.7 million people were injured, and 37,133 people died in motor vehicle crashes. That’s more than 100 deaths each day. The cost of medical care and productivity losses associated with injuries and deaths from motor vehicle crashes exceeded \$75 billion for crashes that occurred in 2017.

Six of the ICRCs funded from 2014-2019 were working to prevent motor vehicle crash-related injuries through research, training, or outreach activities:

- Columbia University
- Johns Hopkins School of Public Health
- University of Iowa
- University of Michigan
- University of North Carolina at Chapel Hill
- West Virginia University



Research: Studying Ways to Prevent Motor Vehicle Injuries

Examples of CDC-funded ICRC research projects are:

- Ignition Interlock Laws: Implementation and Effects on Fatal Crashes (Johns Hopkins School of Public Health)
- What are the Barriers of Cell Phone Law Enforcement for University, Local, and State Police: A Qualitative Study (West Virginia University)
- The Health of Seat Belt Legislation and Enforcement in Rear- Compared to Front-Seated Teen and Adult Passengers in New York State (Columbia University)
- Driver Licensing Policies and Young People in NC: Unintended Consequences on Racial/Ethnic Minority Populations (University of North Carolina at Chapel Hill)

Continued implementation of proven strategies can save thousands of lives and hundreds of millions of dollars in direct medical costs from motor vehicle crash injuries and deaths each year. You can find a complete list of CDC-funded ICRC research projects for 2017–2019 on the ICRC web site at go.usa.gov/xns9N



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RESEARCH IN ACTION



The **University of Michigan Injury Prevention Center (UMIPC)** wanted to evaluate whether the Michigan graduated driver licensing (GDL) program helped protect teen drivers.

GDL programs generally help new drivers gain skills under lower-risk conditions by advancing through phases of driving privileges. GDL laws have been proven effective in reducing teen driver crashes in many states, but this was the first study which examined crash variations in sub-state areas. This new research showed that there are significant differences when teen driver crashes are examined in small areas.

Overall, implementing GDL in Michigan reduced teen driver crashes across the state by 34%. Researchers then linked crash data from the Michigan State Police; census data; and organizational data such as alcohol sales outlets, movie theatres, and school locations to examine crash data in smaller areas. Post-GDL crash rate reductions were larger in areas with more alcohol sales outlets. Post-GDL crash rate reductions were smaller in areas with more schools. Areas with movie theatres showed larger post-GDL crash rate reductions after dark. There could be many factors contributing to these rates. Understanding these factors may help identify priorities for improving driver training by parents and driver educators, additional law enforcement needs, and future policy changes to current GDL laws. You can read more about this study in [Accident Analysis and Prevention](#).



The **West Virginia University Injury Control Research Center (WVUICRC)** wanted to understand the law enforcements perspective on enforcing distracted driving laws and determine potential barriers to enforcement. WVUICRC

conducted five focus groups with a total of 19 police officers from five departments. Four themes emerged from the officers' discussions of their enforcement challenges, including current driving culture, the legal system, the nature of police work, and prevention issues. WVUICRC concluded that numerous barriers exist to cell phone law enforcement. Example include lack of perceived support from courts, unclear legislation, and officers' habits. In their article, [Challenges of enforcing cell phone use while driving laws among police: a qualitative study](#), published in the journal *Injury Prevention*, the researchers suggest that their findings could help to improve challenges in enforcement and create a safer environment for drivers.



Outreach: Putting Research into Action to Prevent Motor Vehicle Injuries

The **University of Michigan Injury Prevention Center (UMIPC)** and the Kohl's Cares Program partnered to launch the [DriveSmart](#) website for teen drivers and passengers and their parents. The site provides information and tools for teens on preventing the dangers of distracted driving. It also prompts parents to model safe driving behavior and teaches passengers to limit distractions.

The **University of Iowa Injury Prevention Research Center (UIIPRC)** is a national leader in areas such as teen driving, rural road safety, simulation studies, and [driving interventions](#). UIIPRC includes an expert research team representing more than 10 disciplines such as public health, medicine, engineering, computer science, urban planning, communication, health behavior, nursing, public policy, and business. The team includes members from all the leading state agencies addressing transportation safety—the departments of transportation, public health, public safety, corrections, and the Governor's Traffic Safety Bureau. UIIPRC leveraged its CDC-funded activities and accomplishments to secure more than \$5 million each year in external research funding to support and expand this work. These additional resources have supported studies on automated vehicles, adjudication outcomes from traffic citations, farm equipment safety on rural roads, and pedestrian and bicyclist safety.

Johns Hopkins Center for Injury Research and Policy (JHCIRP) is working to improve how teens track their practice hours when participating in a state graduated driver licensing (GDL) program. Many states require teenagers who are learning to drive to complete a minimum number of GDL practice hours. Typically, these hours are manually recorded in a paper log. Some teens might forget to complete the log, resulting in missed opportunities to show their progress. Others may falsify their driver log without having completed the minimum number of practice hours. Developed by JHCIRP, the [Driving App](#) is a smartphone-based log, which provides an electronic alternative for verifying practice driving hours. A pilot study is planned to test if using the app encourages teenagers to consistently document their GDL practice hours and increases how much teens practice driving.



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