

Enhancing Surveillance of Work-Related Motor Vehicle Crash Injuries and Deaths in Massachusetts

Motor vehicle crashes (MVCs) are the leading cause of fatal work injury in the United States and one of the leading causes of nonfatal injuries to workers. Yet surveillance of work-related MVC injuries comes with many barriers that may impact our ability to assess the true risk of such injuries within different workforces. This is especially true among emerging workforces of great interest, like gig workers.

The Challenge

The Massachusetts Department of Public Health (DPH) Occupational Health Surveillance Program (OHSP) sought to improve identification of these injuries by examining how they appear across different data sources. The team wanted to understand how to enhance surveillance by looking at new and improved use of existing data sources.

The Response

Teaming up with DPH's Injury Surveillance Program, OHSP hosted a CSTE Applied Epidemiology Fellow to work with the Massachusetts Crash-Related Injury Surveillance System (MA CRISS). This is a collection of police crash report data, Massachusetts Ambulance Trip Record Information System data, acute care hospital record data (inpatient hospital discharge, outpatient observation stay, and emergency department discharge data), and Trauma Registry data. The team met with colleagues from several state-based occupational health and injury surveillance programs and experts from the National Institute for Occupational Safety and Health (NIOSH) Center for Motor Vehicle Safety to share ideas. The team identified and tested indicators for work-related MVC injuries in each data source, assessed the completeness of the indicators, compared the overlap between data sources, and evaluated the strengths and limitations of each data source's ability to identify work-related MVC injuries.

"[The Fellow] is paving the way in developing novel methods for the identification of work-related crashes."
-From a leader in motor vehicle safety research

The Impact

When compared to the number of work-related MVC injuries estimated by the Bureau of Labor Statistics' Survey of Occupational Injuries and Illnesses (SOII), the team found about three times as many potential work-related injuries in MA CRISS. The rich data available from MA CRISS data sources represent a great enhancement in surveillance and a complement to traditional systems used by occupational health researchers and policy makers. Findings that can help researchers and public health practitioners identify work-related MVC injuries are available in a detailed [paper](#). These findings also include recommendations to the agencies that administer national data systems about how they may improve recordkeeping of this important public health outcome.



For more information, visit DPH's website:

<https://www.mass.gov/info-details/ma-crash-related-injury-surveillance-system-ma-criss>