## RESEARCH ADDRESSING FIREARM INJURIES BEFORE THEY HAPPEN

Every time someone buckles their seatbelt, puts on a bicycle helmet or places their child in a car seat, they are utilizing the evidence base built over decades by the field of injury prevention research

Researchers attribute the success of injury prevention research to its collaborative, multidisciplinary nature. It brings together diverse backgrounds and expertise to examine a health issue from all perspectives

When Dr. Patrick Carter began his career as an emergency physician, he knew he wanted to be part of a team working to bring evidence-based solutions to some of the most complex issues in injury prevention

Carter wanted to better understand firearm injuries and how to prevent those injuries from happening in the first place. As an emergency physician, he realized early on in his clinical training that waiting until a patient was in the trauma bay was often too late.

"Many patients don't survive long enough to get to the emergency department for help," said Carter, professor of emergency medicine at the University of Michigan and co-director of the U-M Institute for Firearm Injury Prevention. "And those that do are often left with devastating injuries and lifelong consequences of those injuries that significantly alter their quality of life. I realized that we really needed to be doing more to prevent firearm injuries from happening in the first place."

In an attempt to bridge that gap of injury and prevention, Carter and his colleagues began to think about utilizing healthcare settings as opportunities for education and intervention, specifically within the hospital emergency department setting.

With funding support from the Centers of Disease Control and Prevention (CDC) and the National Institutes of Health (NIH), Carter, working with Drs. Rebecca Cunningham and Maureen Walton, focused efforts on the development, testing and implementation of these potential strategies.

The resulting Hospital-Based Violence Intervention Programs seek to break the cycle of violence by providing interventions to promote positive behavior change. Through the programs, patients who are treated following an assault, involving a firearm or not, are connected to a variety of services in their community, including physical and mental health services, housing, job training and legal services.

Currently, there are over 40 of these types of programs nationwide, including SafERteens, which has been recognized by the CDC as an evidence-based program to reduce youth violence.

Originally developed and tested by Cunningham and Walton, and now undergoing implementation testing led by Carter, SafERteens focuses on engaging youth who seek care in an emergency department and have a recent history of fighting. The youth participate in a counseling session focused on increasing problem-recognition around youth violence behaviors and providing skills in conflict resolution, violence avoidance, and safety behaviors.

Carter is also conducting studies funded by the NIH and CDC that build from this original SafERteens work to test and evaluate more extensive programs focused on higher severity firearm behaviors and the prevention of recurrent assault injuries.

"Firearms are the leading cause of death among children and teens in the U.S., yet for decades, this public health crisis has been underfunded and understudied," Carter said. "Federal investment enables us to develop effective interventions and translate science into policy and programs that protect communities nationwide.

"These programs reduce the risk of injury from firearms, while also respecting the right to own and keep firearms legally."

