Discoveries That Make A Difference
Research • Education • Policy • Practice

Promoting safe consumer products • Keeping teen drivers safe • Reducing domestic violence • Training future leaders in injury control • Improving safety through engineering • Documenting the burden and cost of injury globally • Improving trauma outcomes • Identifying hazards in aviation • Teaching families how to prevent injuries in the home • Reducing health disparities in injury and violence • Demonstrating the role of alcohol in injury • Using information technology to promote safety • Translating scientific research into practice and policy
Throughout its history, the Johns Hopkins Center for Injury Research and Policy has helped to redefine injury as a pressing public health problem and to promote it as a scientific discipline. The Center’s expertise in addressing the burden of injury has been demonstrated through its long history, having been among the first injury control research centers funded by the Centers for Disease Control and Prevention in 1987. Since that time, the Center has successfully leveraged the initial support to grow into one of the largest injury research and educational programs in the world.

The Center is comprised of a team of multidisciplinary scientists, teachers and practitioners committed to reducing the burden of injuries through research, education, policy and practice. The diversity of disciplines needed to advance the science of injury control, from prevention to acute care to rehabilitation, are well represented among the world-renowned faculty of the Center.

Recognized around the world as a leader in injury research, education and practice, the Johns Hopkins Center for Injury Research and Policy is guided by a commitment to ensuring that its high quality research is translated into programs and policies that make a difference. The Center faculty and staff are dedicated to reaching policy makers, practitioners and communities with the latest scientific information. Using a public health approach in which science informs practice, and practice questions science, the Center has been able to save lives and reduce the burden of injuries. The Center is equally committed to its educational mission, training injury and violence prevention professionals from around the globe.

“Research has taught us that many injuries, just like diseases, are preventable. We know many of the risk and protective factors. As public health researchers, we ask ourselves, ‘How can we apply this knowledge to prevent injuries and improve trauma outcomes?’ and we conduct research to find the answers. At the Center, we don’t stop there. We believe a critically important opportunity to reduce the burden of injury lies in the translation of research into programs and policies that make a difference in people’s lives. Whether it’s keeping children safer in their homes or helping trauma survivors manage their recovery better, the Center will continue working to close the gap between research and practice.”

—Andrea C. Gielen, ScD, ScM
Professor and Director
Johns Hopkins Center for Injury Research and Policy

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The Burden of Injury

Injuries are among the most serious public health problems facing the world today. Each day, close to 500 Americans die from injuries resulting from motor vehicle crashes, gunfire, poisonings, falls, fires and drowning. In fact, injuries—both unintentional (so-called “accidents”) and those caused by acts of violence—rank third among the leading causes of death in the U.S. And for people younger than 45, injury is the number one cause of death. Injuries result in more productive years of life lost before the age of 75 than any other cause, and the total medical expenditures from trauma—$72 billion annually—is greater than cancer, high blood pressure and type 2 diabetes. The impact of injuries outside the U.S. is equally profound. Globally, over 5 million deaths are caused by injuries annually, and approximately 950,000 children under the age of 18 die as a result of injury or violence. Road traffic injuries alone kill over a million people worldwide each year and are responsible for more than $500 billion in loss to the global economy each year.

The risk of injury is so great that at some point in every person’s life, they will likely know someone who sustains a significant injury. Unlike other health problems, the burden of injuries spans from infancy to old age, representing the wide-ranging impact on public health. Simply stated, no age is “safe” when it comes to injuries.

Children
In any given year, about 5,000 children ages 14 and younger will die of an unintentional injury, making injury the number one cause of death in children. Motor vehicle injuries, drowning and homicide are the leading causes of injury-related deaths in this age group.

Youth and Adolescents
Taking into consideration sports, experimenting with drugs and alcohol, first drivers’ licenses and youth violence, it’s not surprising that the majority of deaths among youth ages 10 to 24 are caused by unintentional injuries or violence—more than the number of deaths from all other causes combined.

Adults
Almost 80,000 adults ages 25 to 54 die from injuries annually, with unintentional poisoning as the leading cause. Other major causes are motor vehicle crashes, suicide and homicide. Workplace injuries take a large toll on this age group as well.

Older Adults
Older persons have the highest rates of fatal injuries. Falls are the leading cause of injury death for this age group, and each year about one-third of adults 65 and older fall at least once. Older adults are also at high risk for other injuries including suicide, motor vehicle crashes and residential fires.
Making a Difference

Whether through new injury prevention programs for underserved communities, new laws designed to keep people safer on the roads, new resources for trauma survivors, or training new leaders in the field of injury prevention, the work of the Johns Hopkins Center for Injury Research and Policy reduces the burden of injury for this and future generations. The following examples illustrate how the Center saves lives by reaching four key audiences: communities, policy makers, health care providers and students.

Prompted by Center research showing that low-income Baltimore families experience obstacles to keeping their kids safe, the Center partnered with the Johns Hopkins Department of Pediatrics to develop the first-of-its-kind Children’s Safety Center (CSC). Housed adjacent to the Pediatric Emergency Department, the CSC provides visitors with personalized safety information, including car seat safety checks and installations. The Safety Center also provides families with heavily discounted safety products such as carbon monoxide alarms and stair gates. Since its inception in 1997, the Safety Center has served as a model for children’s hospitals throughout the U.S.

The results of evaluative research and the demand for services led to the creation of two additional Safety Centers: Safety Lane in the Harriet Lane Clinic and the CARES Safety Center, a mobile safety center run in partnership with the Baltimore City Fire Department that resembles a typical home with a kitchen, bedroom, bathroom and stairway. CARES visits neighborhoods and schools to provide low-cost safety products and teach visitors about home and motor vehicle safety.

In response to national and international requests, Center researchers produced a replication guide and video that provides how-to information for those interested in developing their own Safety Centers.

“I was driving home with my one-year-old son Antoine buckled into his rear-facing car seat when a car ran a red light and smashed into the passenger side of my car where Antoine sat. After the immediate relief of realizing my son wasn’t hurt, my next thought was how thankful I was that I had visited the Children’s Safety Center. Just a few weeks before the crash, I had met with a health educator there who explained to me my son was too small to sit forward-facing, and still needed to be rear-facing. Had I not done that, I’d likely be visiting my son in a trauma center or at a grave site. The Children’s Safety Center saved Antoine’s life.”

—Nadra Robinson
Baltimore Resident
Researchers at the Center completed a nationwide, multi-year effort to evaluate whether GDL programs do in fact reduce the risk of fatal motor vehicle crashes among teens. The study had two particularly important findings: the implementation of GDL programs was associated with a 12 percent reduction in fatal motor vehicle crashes among the teens, and comprehensive GDL programs had the greatest benefit. This research has since been used to provide the scientific basis for more states to adopt GDL. Today, virtually all states have GDL laws.

“After completing our study on graduated driver licensing, it was clear that more comprehensive programs have the greatest effect. Our results provided extremely valuable new information for states searching for solutions to the tragic problem of crashes involving teenagers. By ensuring research reached those in positions to create or amend legislation, we were able to have a long-lasting impact.”

—Susan P. Baker, MPH
Professor and Center Founding Director, 1987
Research conducted by Center faculty found that the overall risk of dying among individuals who had been seriously injured was 25 percent lower in trauma centers compared to non-trauma centers. But long-term functional outcomes for all trauma survivors were often poor. In fact, the study showed 51 percent of trauma survivors were not back at work within a year of their injury.

Aware of the extensive literature suggesting that outcomes can be improved by providing peer support and building self efficacy, Center researchers collaborated with the American Trauma Society (ATS) to develop The Trauma Survivors Network (TSN), a community of patients and families looking to connect after a serious injury. In addition to creating the infrastructure to allow this community to connect together online, researchers developed the NextSteps self-management program that helps survivors become more active and take control of their recovery. Now the Center is working with the ATS and other partners to widely disseminate and evaluate these new services to improve the outcomes of trauma survivors throughout the U.S.

“The Trauma Survivors Network, when fully implemented, will provide critical support for trauma survivors - patients and families - as they rebuild their lives after trauma.”

—Harry Teter
Executive Director
American Trauma Society

“The TSN provides new tools critical to rebuilding the lives of trauma survivors. By extending the continuum of trauma care through the recovery process, we can positively impact the lives of those who are injured.”

—Ellen MacKenzie, PhD, ScM
Fred and Julie Soper Professor and Chair
Department of Health Policy and Management
Center Director, 1994-2005
Ten courses specific to injury and violence are taught to public health students, some that are available online. Faculty also give special workshops and lectures locally, nationally and internationally. And for two decades, the Center has offered the Summer Institute: Principles and Practice of Injury Prevention, a one-week intensive training program for students from around the world.

As a new epidemiologist for the Oklahoma State Department of Health’s Injury Prevention Service, Mendy Spohn’s first responsibility was surveillance of house fires, burn injuries and other injury events. To prepare her for this new position, the health department sent her to the Summer Institute.

“The Institute allowed me to understand injury as a broader issue,” said Spohn. “It also showed me that there are different ways to reduce injuries: from active to passive prevention, as well as through advocacy.” Mendy now serves as health department administrator for six agencies, yet she continues to apply the knowledge and skills she gained.

“Even though I now direct all the public health services in my region,” Spohn said, “I encourage a non-traditional approach by training all my staff how to incorporate injury prevention into each of our programs.”

“An essential ingredient to the continued success of the Center’s efforts in reducing injury and its impact on society is the quality education of research scientists and public health practitioners. As injury remains a pressing public health problem deserving of more attention, training new leaders is of utmost importance.”

—Stephen Teret, JD, MPH
Professor and Center Director,
1988-1994
Joining the Cause

While the Center has accomplished a tremendous amount, there is much left to be done. In fact, as the science of injury control has advanced, the need has never been greater to get this knowledge into the hands of those who can act on it—policy makers, communities and other partners. As demonstrated time and again, the Center’s multidisciplinary team of researchers is uniquely positioned to translate the science into usable and actionable messages to inform practice, policy and behavior.

With your support, we can continue to ensure that research findings reach those who need it most, to reduce the burden of injuries nationally and globally. We invite you to join our lifesaving work.

Collaborators / Partners

Faculty and staff of the Center routinely work closely with a variety of organizations to help design, implement, evaluate and disseminate effective and innovative injury programs. We continually seek additional partners to help deliver on our mission to reduce the burden of injuries. The list of Center partners spans from local to international, and includes such groups as the Baltimore City Fire Department, Baltimore City Health Department, Maryland Department of Health and Mental Hygiene, Maryland Department of Transportation, Maryland Institute College of Art, CareFirst BlueCross BlueShield, Erickson Foundation, MIEMSS, National Study Center, Maryland Injured Workers Insurance Fund, House of Ruth Maryland, Home Safety Council, American Trauma Society, Amputee Coalition of America, Major Extremity Trauma Research Consortium and the World Health Organization.

With your support we can:
• Conduct innovative research
• Design and evaluate programs
• Disseminate research findings to reach communities
• Provide technical expertise on prevention options
• Increase marketing and public relations efforts

“We understand that collaboration is instrumental to accomplishing our goals. As we continually seek to expand our presence and impact in the community, we seek partners who will help us take the work that we do beyond institutional boundaries. This is a key to our success.”

—Eileen McDonald, MS, Program Director, Johns Hopkins Children’s Safety Centers

Funding from the American Recovery and Reinvestment Act supports an innovative partnership between the Center and the House of Ruth Maryland, one of the nation’s leading domestic violence organizations. The partnership is fostering collaboration between practitioners and researchers, which will lead to enhanced services for victims of domestic violence.

“The Johns Hopkins Center for Injury Research and Policy is an important partner for the House of Ruth Maryland. Their expertise in research, evaluation and programming is invaluable to our organization, and the results of our partnership will undoubtedly better the lives of domestic violence victims across our state.”

Ellyn M. Loy, LCSW-C
Director, Clinical Services & Training
The House Of Ruth Maryland
The variety of injury prevention laws and policies is considerable. In fact, at any given time, policy makers are likely considering many different injury-related issues. Examples include the regulation of child abuse reporting, changes to current speed limits, and helmet laws. Just as science must inform practice, it must also inform policymaking. Researchers at the Center are committed to ensuring that decision makers at the local, state and national levels have ready access to the best available research in a format that meets their needs.

The Center offers the following capabilities:

- Translating the research literature into pragmatic evidence-based recommendations
- Producing and analyzing data to help inform an issue
- Communicating scientific information clearly and without jargon
- Providing testimony highlighting scientific evidence during committee hearings on legislative bills
- Participating in educational forums to provide information about the burden of injury and best-practice prevention strategies

“By closing the gap that often exists between researchers and policy makers, opportunities to create effective injury prevention and control policies are cultivated.”

—Jon Vernick, JD, MPH, Associate Professor and Deputy Director

“Preventing Injuries in Maryland: A Resource for State Policy Makers” was developed in advance of Maryland’s 2010 legislative session to provide state policy makers and their staffs with easily accessible and understandable data and policy solutions to leading injury problems in the state. Center faculty and staff held a legislative briefing before key committees to introduce the Resource and distributed copies to all members of the House and Senate. As a result of our efforts, the Center received a record number of requests for written testimony during the session, and traffic to our website increased substantially. The Center developed and distributed 2011 and 2012 versions, and institutions around the country are currently replicating our efforts.

“As legislators, we are constantly under pressure to research and analyze health policy issues. Accessing reliable information quickly is therefore critical. I applaud the Johns Hopkins Center for Injury Research and Policy on their efforts to provide my colleagues with readily accessible and usable information on injuries in Maryland, and effective policy solutions to consider.”

Dan Morhaim, MD
Deputy Majority Leader
Maryland House of Delegates
Research on injury prevention receives less than two cents out of every federal dollar spent on health-related research, despite the fact that injuries are the leading cause of death in the U.S. for people under 45, and are responsible for the deaths of more than 5 million people worldwide every year. We count ourselves as very fortunate to receive core funding from the Centers for Disease Control and Prevention, but we also rely upon private foundations, donors and endowments to support our work. As a donor, you can tailor your contribution to address your priorities in injury prevention.

Examples include:
- Sponsoring student scholarships to ensure we can attract the most talented students to become the next generation of injury researchers and practitioners
- Supporting faculty research on issues of child safety, health disparities, older adults and many other areas
- Enhancing community service programs such as our Children’s Safety Centers
- Making car seats and safety products available to low-income families and all who need them

“We often refer to the work we do as ‘making discoveries that make a difference’ to communicate the real-world impact, whether by informing policies and programs, affecting clinical care, or communicating prevention messages to the public. By donating to the Center, you can be assured you are ‘making a gift that will make a difference.’”

—Andrea C. Gielen, ScD, ScM, Professor and Director

CareFirst BlueCross BlueShield made the decision to fund the Johns Hopkins CARES Safety Center for three years through its CareFirst Commitment initiative, which aims to improve health care quality, safety, affordability and access throughout Maryland and the National Capital area. The CareFirst grant has allowed the Center to increase the number of caregivers and children served by the CARES Safety Center, meet the needs of Latino families in Baltimore by tailoring educational materials and exhibits, and expand the impact of the safety center concept through the creation and distribution of a replication guide.

“CareFirst has made improving maternal and child health in our service region a top priority. Funding for the Johns Hopkins CARES Safety Center is part of our efforts in the Baltimore region to reduce the effects of social and economic disparities among underserved communities. Our support for the Johns Hopkins Center for Injury Research and Policy is helping Baltimore families avoid injuries in the home.”

Maria Harris Tildon
Senior Vice President of Public Policy and Community Affairs
CareFirst BlueCross BlueShield
Core support of the Center is provided by the Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.

Additional funding for our research, teaching and service projects comes from a wide array of sources, including other federal agencies and private foundations.