A safer tomorrow

Professor Andrea Gielen introduces her work on preventing injury, informing policy and developing programmes to help keep families safe from accidents and violence

Could you begin by explaining your scientific interests and how you came to be involved in the field of injury prevention?

I am interested in understanding how human behaviour is influenced at multiple levels and using that information to create effective interventions to prevent injuries. These typically include elements of education, policy change and environmental modification.

I have studied psychology, health education and communication, health services research, health policy, behavioural science theory and methods, public health, injury prevention epidemiology, and principles of practice. I have also had the opportunity to gain valuable experience through internships and employment in health departments and hospital settings, which informed me about how to identify real-world needs and constraints.

What are the greatest benefits of conducting your work at the Johns Hopkins Center for Injury Research and Policy?

The Center provides essential infrastructure to support grant preparation and management, administrative support to run projects, as well as communications support that allows us to widely and effectively disseminate the results of our work. Importantly, the Center gives us access to the expertise of scientists from a variety of disciplines that enriches our research ideas and project implementation. We also have access to outstanding students who are affiliated with the Center during their academic training and who contribute to our work while learning how to become the next generation of leaders in injury prevention.

How is the Center developing effective programmes and dissemination materials to inform policy?

The faculty and staff at the Center are experts at compiling and assessing research evidence to determine the effectiveness of specific policies and programmes. Translating this evidence into information that policy makers, government agencies and community-based organisations can use is a priority for the Center. We have produced a resource guide for state policy makers that synthesises the evidence on specific injury issues of particular relevance to our state, and we make this available to our legislators and stakeholders through our website and other communication platforms.

Informed injury prevention

For over a quarter of a century, the Johns Hopkins Center for Injury Research and Policy has highlighted that injury is a major yet preventable public health problem. Through research, dissemination and practice, the group aims to reduce incidences across Maryland, USA, and beyond

UNINTENTIONAL INJURIES ARE the leading cause of death for children and adolescents in the US. This chilling statistic sparked the launch of the Johns Hopkins Center for Injury Research and Policy in 1987. Since then, the Center’s staff, students and faculty have conducted extensive research into the underlying causes of injury and devised effective strategies to keep the public safe from injuries and violence.

Led by Professor Andrea Gielen, the research team comprises scientists from a wide range of disciplines to provide a broad spectrum of perspectives from which to inform ideas for research and projects. While the Center focuses on many different injury and violence problems, Gielen’s research is concerned with finding innovative ways to reduce injury risks in vulnerable women and children.

VULNERABLE FAMILIES

Gielen’s research team has repeatedly found evidence to suggest that low-income families are far more susceptible to injury and accidents than their higher-income counterparts. “Our work has demonstrated that proximity to vacant properties and poor housing quality can contribute to increased risk of injuries such as fire and burns,” Gielen explains. “In addition, access to safety products is reduced due to low income; the costs of products such as smoke alarms can be huge barriers for some families.” Findings of this nature helped the Center create national model programmes such as its Children’s Safety Center and CARES Mobile Safety Center, which give the public access to information and safety products at reduced cost.

KISS

Early research by the Center’s Founding Director Susan Baker informed Gielen’s practice as a health educator at the Maryland Department of Health and Mental Hygiene. With funding from the Maryland Department of Transportation, the Kids in Safety Seats (KISS) programme was developed, which sought to educate the public on car safety issues and, ultimately, save lives. “We built a comprehensive intervention strategy to educate communities about child passenger safety laws; provided education and training programmes for healthcare providers and the public; and developed car seat loaner programmes to serve low-income families,” enthuses Gielen.

VIOLENCE PREVENTION

More than 12 million people in the US are the victims of rape, physical violence, or stalking by an intimate partner annually. A great challenge presented by intimate partner violence is...
the fact that it is not always evident when a person – most commonly women – has been subjected to violent acts. Screening by medical professionals, now a preventive service covered by health insurance in the US, helps identify those at risk. Faculty at the Center are developing interventions to meet the needs of women who are screened as well as for women being seen in other settings such as shelters, and by law enforcement and mental health professionals.

In the policy arena, faculty members are working to understand how state-level prescription drug monitoring programmes are implemented and how to maximise their ability to reduce misuse, abuse, addiction and overdose. We are also working closely with hospitals and shelters to bring evidence-based programmes and policies to bear on reducing domestic violence.

Finally, are there any notable successes that you would like to highlight?

Over the last 25 years or so, the Center has achieved many successes such as using smart phone technology to educate parents; partnering with public health lawyers who provide technical legal assistance on safety issues to community agencies and organisations; and bringing evidence on effective injury prevention policies and practices to decision makers from local legislators, to Congress, and even helping to inform Supreme Court decisions.

One thing is sure: if an injury can be prevented then Gielen and her team will work hard to inform the public and future policy.

SAFETY FIRST
The Center has received competitively awarded core funding from the Centers for Disease Control and Prevention for over 25 years. This success is due to the talented, award-winning faculty, staff and students who have collectively built upon the strong foundation set by our Center’s previous directors, including injury prevention pioneers Sue Baker, Stephen Teret and Ellen MacKenzie.

SAFETY IN SECONDS STUDY
To evaluate the impact of a mobile app educational tool on parents’ use of car safety seats and booster seats for their children. This is a randomised controlled trial comparing the child passenger safety intervention to an attention-matched home fire and burn safety control among parents whose children are being treated in an urban paediatric emergency department and trauma service.

DOMESTIC VIOLENCE WORK
To assist hospital-based and community-based domestic violence programmes with data-driven programme planning, implementation and evaluation to enhance services for domestic violence survivors.

What activities are taking place at the Center to prevent injury to women and children?

Building on decades of basic research to understand the injury problems affecting women and children, our researchers are developing and testing innovative prevention programmes and evaluating public policy solutions. For example, our mobile app and web-based programmes provide parents with safety education tailored to their family’s unique needs. These products address car seat and booster seat use, home fire and burn safety, and poison prevention. Bicycle and pedestrian safety for children is another area of focus for the Center – we provide community education and helmets.

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