PREVENTING CHILDHOOD INJURIES & VIOLENCE

A summary of our research | October 1, 2026

Preventable injuries are the #1 cause of death for children in the United States.

Each year on average, unintentional injuries claim the lives of about **3,100 children** under the age of 10, and an estimated **2.5 million** more are seen in emergency rooms for nonfatal unintentional injuries. In 2020, **firearm-related injuries** became the leading cause of death among children and teens. **Suicide** is the second leading cause of death for youth ages 10-14.

Children **living in rural areas** face injury risks including:

- gravel roads and two-lane roads with no shoulders
- long distances to social and preventative services; shortages of mental health care services
- having unsecured firearms in the home
- high-risk farming activities
- high poverty levels

Our teams: The UI Injury Prevention Research Center (UI IPRC) addresses pediatric injuries though seven of its Research and Practice Action Teams (RPATs): **Trauma Care; Road Safety; Intimate Partner Violence; Adverse Childhood Experiences; Drug Overdose; Firearm Safety; and Suicide Prevention**. RPATs are topical areas of focus that encourage and strengthen collaboration between research and practice partners. We partner with the Stead Family Children's Hospital, Iowa Department of Health and Human Services, and community organizations across the state.

Topics we study:

Violence, Childhood Trauma, & Suicide

TEEN DATING VIOLENCE

State laws addressing teen dating violence (TDV). We found: State policies aimed at preventing TDV in schools vary widely and are generally incomplete, with every state policy having significant room to strengthen protections and education for students.

Teen dating violence prevention programs in rural schools. We found: Most Iowa school counselors view teen dating violence as a problem, but many schools lack prevention education, staff training, and formal response policies, with the COVID-19 pandemic worsening the issue and reducing prevention efforts.

BULLYING & ONLINE SAFETY

HEAR online toolkit to help educators use art to reduce bullying: hear-project.org

Iowa's anti-bullying law. We found: Iowa's law has promise for improving traditional forms of bullying but not cyberbullying.

Parental responses to cyberbullying. We found: Parents are uncertain if and how to intervene in teen cyberbullying.

Risky online experiences. We found: Adolescents with autonomy-supportive parents feel more comfortable discussing online experiences and report fewer risky online behaviors.

ADVERSE CHILDHOOD EXPERIENCES (ACEs)

Effects of childhood adversity on long-term cardiovascular health. We found: ACEs predict cardiovascular disease risk in adulthood even when these experiences are not recalled as adults.

Parental emotional support. We found: Warm, supportive parenting during childhood buffers cardiovascular risk later in life.

SUICIDE & MENTAL HEALTH

U.S. youth suicide trends vary by sex, race, and location. **Suicide clusters** – when individuals die by suicide at a similar place and time – also differ across these groups.

Structural factors affect suicides, such as economic status, education, and local policies.

Social media behaviors that pose higher risks to mental health. We found: The greatest social media risks are linked to social comparison, seeking feedback, and heavy nighttime use that disrupts sleep.

Safer Firearms Storage & Gun Violence

RURAL IOWA YOUTH:

Unsecured firearms. We found: The vast majority of youth have firearms in their homes and a large proportion of these firearms are not secured. Among youth with rifles or shotguns in their homes, 51% reported that these firearms were stored unlocked.

Use of firearms. We found: 32% shot a firearm before age 9, and 79% before age 13. Most youth firearm users (61%) and hunters (80%) completed some form of safety training.

Support for firearms safety interventions. We found:

- Most youth expressed support for firearm safety measures such as required training for a hunting license (89%), background checks (89%), and laws requiring safe storage practices (61%).
- Rural parents with a firearm in the home identified law enforcement, Department of National Resources personnel, and community members affected by violence as the most trusted messengers.

IN THE UNITED STATES:

Exposure to firearms violence. We found:

- 35% of youth have experienced a school lockdown; 46% knew someone killed or injured by gunfire; and about 10% have witnessed someone being threatened with a firearm.
- Youth who experienced school lockdowns were more supportive of firearm safety interventions, while those who knew someone injured or killed were more likely to believe having firearms at home increased safety.

Pediatric homicides with firearms. We found: There was a sustained increase in the proportion of pediatric homicides committed with firearms in the U.S, reaching an all-time high in recent years.

Road Safety

MOTOR VEHICLE SAFETY

Teen driver crash responsibility and associated medical costs. We found:

- Motor vehicle crashes are most costly when teens are at fault. When at fault in multi-vehicle crashes, teens increase the likelihood of injuries to others.
- At-fault risk is higher among males, younger teens (14–16) and those with prior citations.

Presence of passengers in the vehicle. We found: Drivers most likely to be at fault in failure-to-yield crashes with passengers present were those in the youngest (14-24) and oldest (65+) age groups.

Parent communication and supervision strategies to promote safe teen driving including a parent-focused intervention to improve teens' hazard anticipation skills on the roadway.

Parental monitoring. We found: Teens who perceived high parental monitoring engaged in fewer risky driving and passenger behaviors.

Vehicle interactions with farm equipment. We found: 25% of crashes with farm vehicles involved young drivers.

CHILD PASSENGER SAFETY

Proper restraint in vehicles. We found: Child restraint use is lower with unbelted or teen drivers, in rural areas, and in pickup trucks.

OFF-ROAD VEHICLE SAFETY (ATV, UTV)

Perceived value of helmets. We found: Among Iowa youth, helmet use is viewed as less important for ATVs than for motorcycles or dirt bikes, with support for helmet laws lowest for ATVs.

ATV injury risk factors include roadway riding, alcohol use among older teens, carrying passengers, and low helmet use. Most youth fatalities involved adult-sized vehicles.

BICYCLE SAFETY

Children's bicycling behaviors. We found:

- Helmet use is low among rural adolescents but increases with strict parental rules.
- Younger students and those in bike-friendly areas choose safer routes to school.
- Sidewalk and street riding were associated with lower safety scores compared to bike paths. 70% of trip time was spent riding on sidewalks.
- Routes suggested by Komoot — as well as the routes students actually chose — were safer than those recommended by Google Maps bike routing.

Bicycle education programs. We found: Most programs in the U.S. are not age-specific despite developmental differences among children.

PEDESTRIAN SAFETY

How children cross streets, including peer influence and parental guidance for safer behavior. We found: Children don't cross roads like adults until age 14.

Trauma Care After Serious Injury

Private vehicle transport to a hospital after serious injury. We found: Nearly 43% of children with severe injuries arrived by private vehicle.

Undertriage (when a patient is transported to a hospital that doesn't have the trauma capacity and expertise to treat them). We found:

- Private vehicle transport was a risk factor for undertriage.
- Undertriaged patients were more likely to be non-white, have a lower injury severity, reside in rural or micropolitan counties, and be injured farther from Level 1 & 2 trauma centers (the highest levels of care).

Emergency department (ED) pediatric readiness (capabilities of ED to provide care to critically injured children). We found: Children treated in high-readiness trauma center EDs after injury were less likely to die, and this lower risk lasted for up to a year after the injury.

Other Unintentional Injuries

Concussions. We surveyed 87 Iowa schools and found that 74% had return-to-learn plans to support students following a concussion.

Drowning prevention. We study a virtual reality lifeguard environment for training and research.

Falls accounted for 42% of traumatic injuries among children admitted to UI Health Care Stead Family Children's Hospital in 2023.

Firework injuries. We found: More young people and bystanders were injured by fireworks after Iowa's 2017 law allowing the sale of fireworks.

Lawnmower injuries. We found: 69% of severe childhood injuries involved bystanders who were struck by a lawn mower, many of whom ran up to it to get a ride.

Safe sleep practices. In a survey of pregnant women in Iowa, we found an association between lower income and planned unsafe infant sleep practices, such as putting babies to sleep on their stomachs or sides.

SCAN ME

Scan this QR code to visit our **Childhood Injuries** webpage and find more resources including our blog posts.

Visit us at **UIIPRC.org**

UI Non-Discrimination Agreement:
https://policy.uiowa.edu/community-policies/nondiscrimination-statement

Contact iprc@uiowa.edu for more information.