

## From the Car Seat to the Driver's Seat: CARE is Buckled in for Injury Prevention

Every year, about 125 children and teens die due to motor vehicle crashes, and hundreds more are seriously injured or disabled. These preventable tragedies should not be accepted as a fact of life. While national motor vehicle traffic-related deaths are declining, Arkansas rates are markedly higher than the nation as a whole and have been remained largely stable. The state ranks 3rd in the nation among young adults (ages 20 to 29) and 4th overall for motor vehicle deaths. The state has the 8th highest rate of motor vehicle death for children and teens. Researchers at the Center for Applied Research and Education (CARE) are working to reverse these trends in Arkansas.



Grace is all smiles in her car seat properly installed by a certified car seat technician.

One focus of CARE research and programming is the prevention of injuries, and motor vehicle safety is a major component. Prevention activities through the Injury Free Kids Coalition for Kids, in collaboration with ACH Community Outreach and Trauma Departments, include improving safety in homes and communities, including the Centennial Neighborhoods near ACH. Research projects searching for more effective ways to reach and encourage safe behaviors in high risk populations are ongoing. These include a school-based program, "Cubs Click It for Safety" with Martin Luther King Elementary School in Little Rock, in which school children participate in both education and measurement of safety behaviors of their peers. Another program, "Strike Out Child Passenger Injury," uses a baseball-themed message and provides targeted education and seat installation through instructional baseball programs. Strike Out is designed to reach booster seat aged children in rural communities.

Along with partner organizations, such as law enforcement and civic groups, CARE assists with providing car seat inspections, car seat installation, and safety information for parents throughout the state. As part of a contract with the Highway Safety Office of the Arkansas State Police, CARE staff members provide training for health care and public safety professionals and community members to become certified car seat installation technicians. Certified technicians increase the effectiveness of restraints by identifying and correcting misuse of car seats. These programs are part of an evidence-based research effort of CARE that began in 2000. The program will expand next year to include a new educational focus on "tween" passengers (ages 8 to 12) and novice teen drivers, who are at very high risk of injury.

Despite prevention efforts, motor vehicle injury is still common in Arkansas and nationally. Increasing the effectiveness of acute and rehabilitation management of children injured in motor vehicle crashes is another research objective of CARE. The research group reviews the health related quality of life, economic costs, and other outcomes of rehabilitation to understand the impact of the injury to patients and families.

Advocacy for effective policies and legislation is a critical component of CARE's injury prevention efforts. The Advocates for Highway and Auto Safety identified Arkansas as one of four states that have an overall rating of Red ("Danger") and indicated that Arkansas "falls dangerously behind in adoption of key laws." CARE provides education and analysis regarding motor vehicle safety policies demonstrated to increase safety for passengers, including booster seat legislation, primary safety belt legislation and graduated driver's licensing.

Prevention of motor vehicle injuries is only one of the areas of CARE's research. Under the direction of Dr. Mary Aitken, this multidisciplinary group of researchers has examined traumatic brain injury, all-terrain vehicle safety, and trauma patient outcomes. To strengthen their research efforts, CARE has recently recruited a health services researcher with an interest in injury epidemiology and trauma system development. The group also plans to expand the group in other areas of thematic interest, including pediatric obesity. CARE has been an integral part of the research efforts on the ACH campus since 1990 and will continue conducting applied research designed to make Arkansas families and communities safer.



Established in 1989, Arkansas Children's Hospital Research Institute provides an on-site research environment for faculty of the University of Arkansas for Medical Sciences working on the Arkansas Children's Hospital campus. Over 120 pediatric researchers with expertise and experience that span the breadth of medical disciplines comprise ACHRI's roster of investigators who work to fulfill its mission to improve children's health, development, and well-being through high quality research. For more information, visit <http://achri.archildrens.org>.