

Partners for Child Passenger Safety

A Joint Venture of Academia and Private Industry



Partners for Child Passenger Safety

State Farm Insurance Companies
The Children's Hospital of Philadelphia

Neighbors working together



Strength in Unity, Safety in Numbers

In a unique collaboration between academic institutions and private industry, The Children's Hospital of Philadelphia, The University of Pennsylvania and State Farm Insurance Companies[®] joined forces in 1997 to form Partners for Child Passenger Safety (PCPS). PCPS soon became the world's largest child-focused motor vehicle crash surveillance system, and its findings are recognized worldwide. PCPS applies the Center for Injury Research and Prevention at CHOP's interdisciplinary approach to studying injury from many perspectives to determine the most effective ways to improve child safety in crashes. This research initiative's data collection, which ended in December 2007, has published more than 60 papers in scientific journals. Its ongoing analyses will continue to be shared with industry, regulators, policymakers, public health educators and the media through scientific publication.

Study Design

Between Dec. 1, 1998, and Nov. 30, 2007, the PCPS research team collected information, with privacy safeguards, from State Farm on nearly 200 children per day who were involved in crashes in 15 states and the District of Columbia. This information represented State Farm-insured children up to age 16 in crashes involving vehicles with model years from 1990 to 2008.

With policyholder consent, State Farm headquarters electronically forwarded information to the research team at CHOP. Data were manually selected for on-site crash investigations and automatically chosen for detailed telephone interviews. These interviews provided researchers with a comprehensive view of the range of crash and injury severity. The detailed crash investigations gave the research team crucial information to form hypotheses on mechanisms of injury to children in crashes.

As of Dec. 31, 2007, more than 875,000 children involved in 600,000 crashes reported to State Farm had participated in the study. The study included more than 30,000 in-depth interviews and more than 800 crash investigations.

Research

One of the study's first research findings was to demonstrate patterns of inappropriate child restraint in motor vehicle crashes. In 2000 its researchers found that the majority of children between ages 3 and 8 were not appropriately restrained in child safety seats; they were prematurely graduated to vehicle seat belts. Soon after, PCPS reported that 2- to 5-year-olds using vehicle seat belts were three and-a-half times as likely to be injured in crashes as those in child restraints.

Action

Sharing these findings propelled a number of organizations to enhance their own promotion of age-appropriate restraint for young children, resulting in quick gains in booster-seat use. While patterns of injury associated with inappropriate use of seat belts by children had been previously documented, the nature of PCPS data describing new patterns of injury served to raise public awareness of the benefits of age-appropriate restraint. This culminated in the first real-world demonstration of the incremental benefits of belt-positioning booster seats. Our data have supported the passage of upgrades in child-restraint laws to require booster seats for children ages 4 and older in most states and Washington, D.C.

Impact

Recent educational and legislative interventions have dramatically increased the number of children who now use child safety seats and booster seats. Therefore, in just nine years, PCPS research fulfilled the research-to-action cycle, from problem identification to demonstration of intervention effectiveness regarding age-appropriate restraint for children.

Between 1999 and 2006, child-restraint use (including booster seats) among 4- to 8-year-olds increased from 15 percent to 60 percent. Overall, child-restraint use for all children through age 8 increased from 51 percent in 1999 to 79 percent in 2006. Booster seat laws resulted in demonstrated increases in child-restraint use. Most importantly, efforts have led to a 15 percent reduction in motor vehicle crash fatalities for children, according to federal data sources.

More details are available at www.chop.edu/injury.