

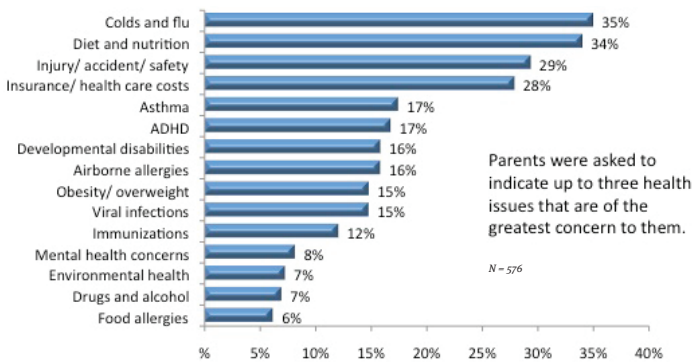
Safety and Injury



Keeping kids safe from accidental injury leading concern for region's parents

Kids get hurt. So it's not surprising that injuries, accidents and safety emerged as one of the top health concerns in the region according to Dayton Children's 2011 Regional Pediatric Health Assessment. We believe more attention needs to be paid to this area of pediatric health.

Top parental health and safety concerns

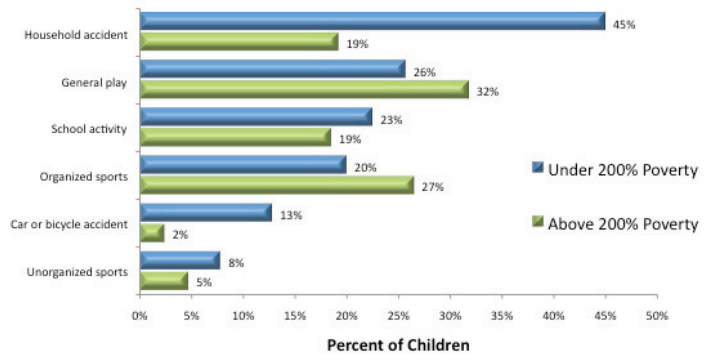


Unintentional injuries are the leading cause of death for children ages 1 to 14 nationwide. Locally, over 13,000 children visit the Soin Pediatric Trauma and Emergency Center at Dayton Children's each year for injuries – roughly 17 percent of the total number of visits to the emergency department.

This correlates with the health assessment where 10 percent of the parents responding to the survey indicated that their child received emergency treatment within the last year because of an injury.

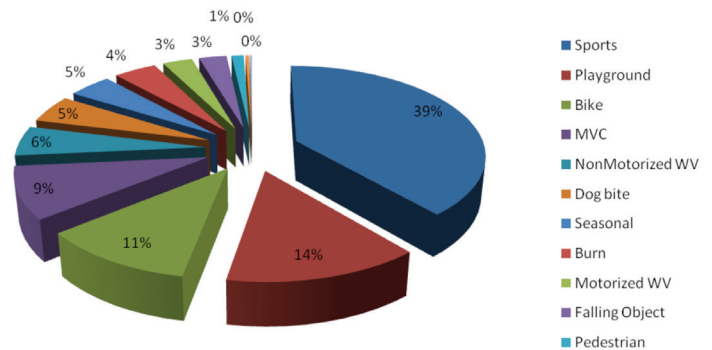
The leading causes of these injuries included household accidents, general play, school activities, organized sports, car or bicycle accidents and unorganized sports. Children from households with incomes less than 200 percent of federal poverty levels were more than twice as likely to experience a household accident that led to emergency treatment. Household accidents include falls, burns, or cuts.

Child activity/emergency care by income level



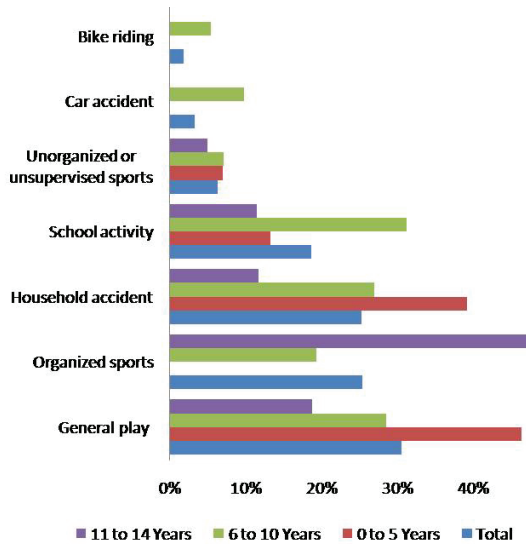
These reasons cited in the assessment mirror those from the Soin Trauma and Emergency Center at Dayton Children's where leading reasons for injury include sports (39 percent), playground injuries (13 percent), bike accidents (11 percent), motor vehicle crashes (9 percent) and accidents involving nonmotorized wheel vehicles such as rollerblades, scooters and skateboards (6 percent).

Top unintentional injuries at Dayton Children's

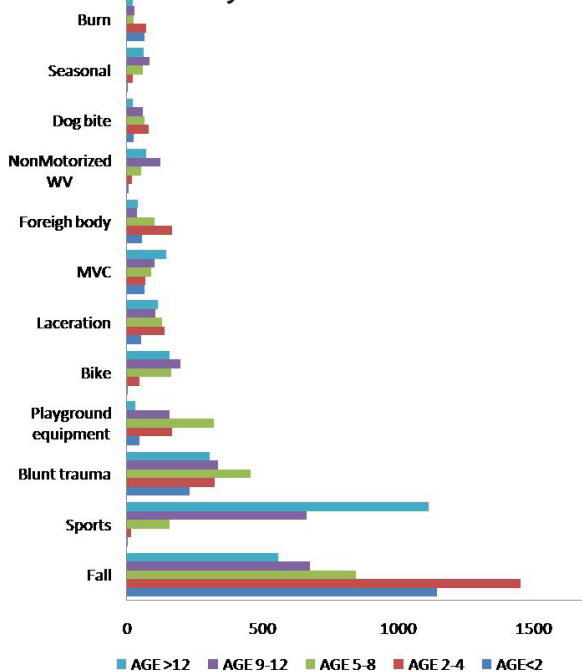


As part of the Pediatric Health Assessment, Dayton Children's wanted to identify what children were doing when an injury occurred. More than 30 percent of parents who reported their child was injured, indicated their child was playing. This was followed by 25 percent of parents reporting their child was either playing sports or at home when an injury occurred.

In addition, it's important to note that injury risk varies by the age of a child. Not surprisingly, older children (ages 11 to 14) were more likely to suffer an injury during organized sports, whereas younger children (ages 0-5) were more likely to be injured in a household accident or general play.

What children were doing when injured by age

Statistics from the Soin Pediatric Trauma and Emergency Center at Dayton Children's support these findings. In general, children older than age 12 tend to visit the emergency department for sports related injuries whereas children between ages 5 through 8 and 9 through 12 are typically injured during play on a playground, while riding bicycles or nonmotorized wheeled vehicles. Children younger than age 4 are more likely to visit the emergency departmental for falls, foreign bodies (ingestion) or burns.

Top unintentional injuries by age group at Dayton Children's 2010

Source: Soin Pediatric Trauma and Emergency Center

Parents reported that injuries from general play resulted in a sprain, break or injury to the eye, face or head. Injuries from sports most frequently resulted in a sprain or broken bone whereas injuries from household accidents most frequently resulted in injury to the eye, face or head.

Over the past three years (and earlier), Dayton Children's has focused injury prevention efforts in areas where the most severe injuries occur including motor vehicle and bicycle accidents. While injuries sustained by these mechanisms may not account for the largest number of injuries, the effects of these injuries can be great.

Child passenger safety restraints can reduce serious injuries

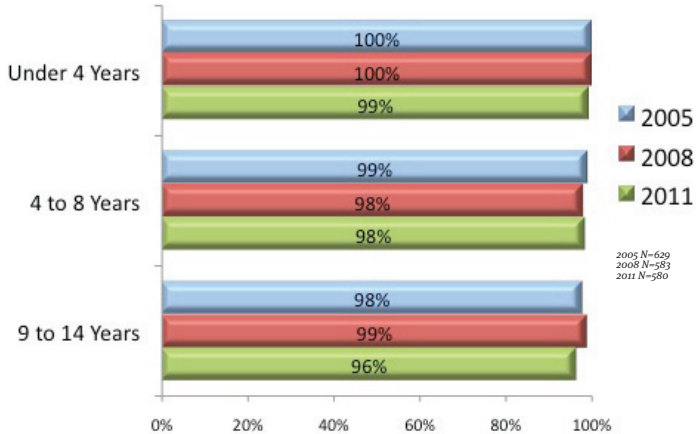
In 2010, over 460 children visited the Soin Trauma and Emergency Center for motor vehicle accidents. These injuries represent 9 percent of the total number of visits for unintentional injuries. In addition, the Centers for Disease Control and Prevention estimates motor vehicle accidents involving children, as passengers and pedestrians, cost \$61 million in Ohio each year in both medical and work loss.

According to Safe Kids Worldwide, motor vehicle crashes are the leading cause of death to children ages 2 to 14 and the leading cause of injury-related death for children under 2 in the United States. When installed and used correctly, child safety seats and safety belts can prevent injuries and save lives.

Safe Kids Worldwide also reports that child safety seats reduce fatal injury by 71 percent for infants (less than 1 year old) and by 54 percent for toddlers (1 to 4 years old) in passenger cars. Young children restrained in child safety seats have an 80 percent lower risk of fatal injury than those who are unrestrained. In the United States, a \$46 child safety seat generates on average \$1,900 in benefits to society. A \$31 booster seat generates \$2,200 in benefits to society.

The good news according to the assessment, nearly 100 percent of children of all ages use either seat belt or car seats regularly. Children younger than 4 years old typically ride in a car seat and children ages 4 to 8 are a target age group for booster seats. Children ages 9 to 14 are pre-drivers and statistically an age where seat belt usage rates begin to decline. Dayton Children's would like to see all of these usage rates at 100 percent.

Percent Regularly Using Car Safety Restraints



In addition, although usage rates are approaching 100 percent for all age groups, local car seat check statistics show 90 percent misuse of car seats. Misuse varies from installation errors to improper harness placement. Dayton Children's continues to work with our community partners to make sure car seats, booster seats and seat belts are not only used but used correctly for each and every trip.

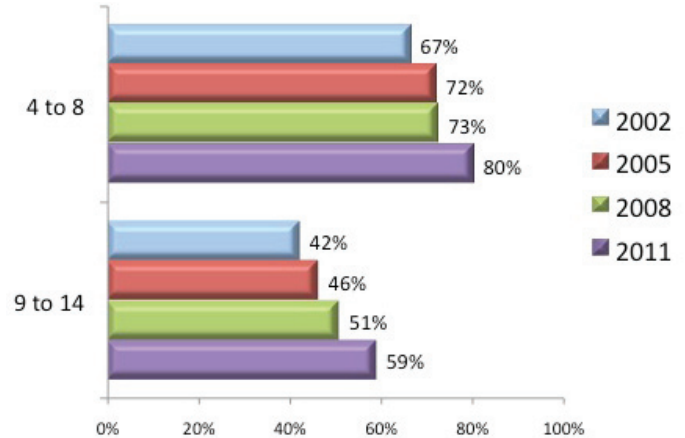
Helmet use prevents brain injury

Nearly 570 children visited the Soin Trauma and Emergency Center at Dayton Children's for bicycle accidents in 2010. This represents 11 percent of the top unintentional injuries seen at Dayton Children's each year.

According to Safe Kids Worldwide, universal use of bicycle helmets by children ages 4 to 15 could prevent between 135 and 155 deaths, between 39,000 and 45,000 head injuries, and between 18,000 and 55,000 scalp and face injuries annually. Helmet use can reduce the risk of head injury by 85 percent and severe brain injury by 88 percent.

According to the 2011 assessment, younger children are more likely to use a bicycle helmet. There appears to be an increasing trend for children to use bicycle helmets more often. However, we do view this trend with some caution because of changes in the survey question. In 2002 to 2008 the responses are for those using helmets "always" or "most of the time." For 2011 the responses are those agreeing that the child "regularly wears a helmet when riding a bicycle" and only includes children who ride bicycles.

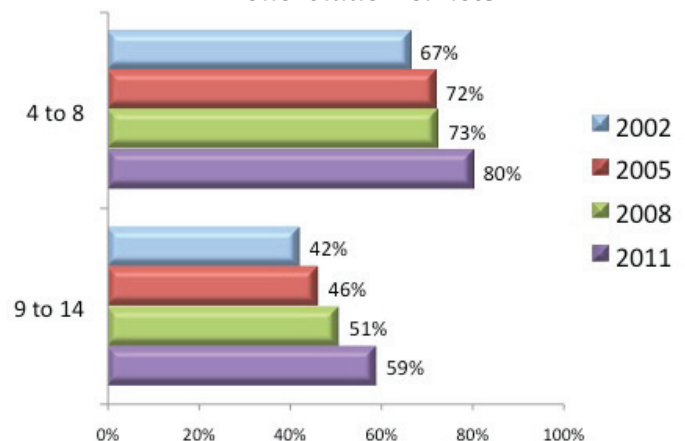
Percent Regularly Using Bicycle Helmets



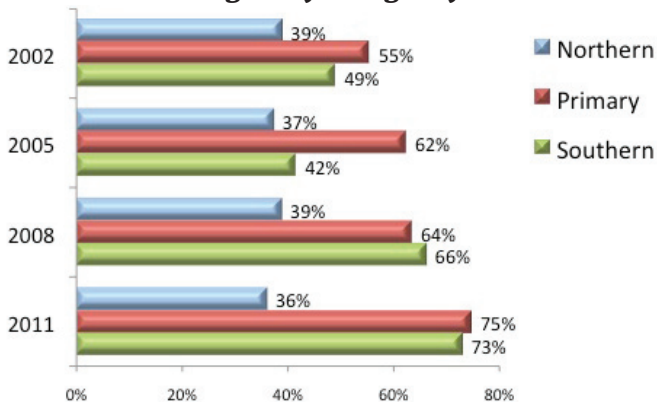
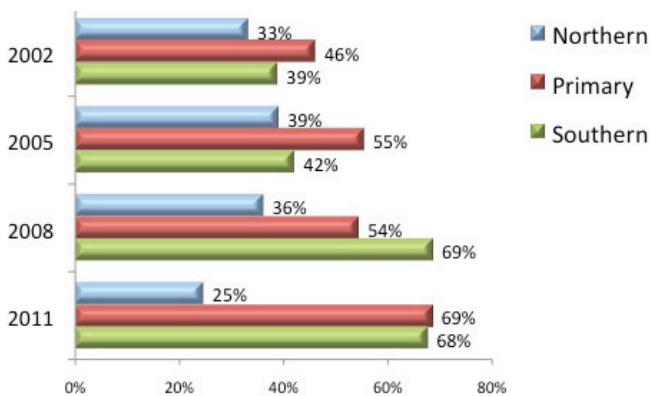
Clearly, we have work to do to increase helmet usage among children – particularly for children ages 9 to 14. This is a more difficult age as children are beginning to become more independent and peer pressure to not wear helmets becomes stronger.

Similar to bicycle riders, older children were more likely to not use helmets when riding scooters, skateboards or rollerblades. As with bicycles, there appears to be an increasing trend to use helmets more often; however, some of the same cautions regarding the way the survey question was asked should be considered.

Percent Regularly Using Scooter, Skateboard or Rollerblade Helmets



When looking at children by service region, children living in the northern service region are consistently more likely to ride bicycles without helmets than children in either the primary or southern service regions. This trend is similar for those children riding scooters, skateboards and rollerblades.

Percent Regularly Using Bicycle Helmets**Percent Regularly Using Scooter, Skateboard or Rollerblade Helmets****Education key to preventing injuries at and away from home**

Unintentional injury remains a leading cause of death and disability for children in our community. According to the Ohio Child Fatality Review 2010 Report, sponsored by the Ohio Department of Health, accidents (unintentional injuries) accounted for 16 percent of child deaths in 2008. Locally, in Montgomery County 20 percent of the childhood deaths between 2005 and 2008 were caused by unintentional injuries. Dayton Children's remains focused on injury prevention as we move forward to improve the health status for all children in our community.

Our goal is to educate parents and caregivers to *prevent the preventable* when it comes to injuries.

"We've always taught parents how to keep their kids safe, but we need to highlight precisely when and why those precautions are essential," says Lisa Schwing, Trauma Program Manager at Dayton Children's. "Understanding children's cognitive, behavioral and physical abilities and limitations at various stages is the first step in being able to foresee and prevent serious injuries."

We want to work with parents – through our partners in pediatrician offices, day care centers and other child-serving organizations to understand that a child's age and development can impact their injury risk.

Key strategies include:

- ▶ Working with parents of children 0 to 5 year olds to decrease car seat misuse rates through child seat inspection stations and booster seat education and decreasing the rates of household accidents and general play activities through education about a child's development and the appropriateness of activities.
- ▶ Working with parents of 6 to 10 year olds to increase bicycle helmet usage, booster seat and proper seat belt usage as well as education and outreach focused on household, play and school accident injury prevention.
- ▶ Working with parents and youth coaches of 11 to 14 year olds to decrease sports injuries through proper stretching, hydration, training and the use of appropriate safety equipment through sports safety workshops and media outreach.
- ▶ Collaborating with injury prevention partners from across the region, and state to encourage adoption of laws or ordinance requiring bicycle helmets, "return to play standards" regarding concussion and other legislation to protect children from accidental injury.

About the assessment

The 2011 Regional Pediatric Health Assessment, generously funded by Dayton Children's Foundation Board and conducted by Schwartz Consulting Partners, Inc., was administered between January and March 2011. The survey included both online and telephone responses of over 600 parents and guardians, the primary health care decision makers of children 14 years old and younger in a 13 county area served by Dayton Children's. This assessment helps Dayton Children's and its partners identify pediatric health and safety issues that require communitywide attention and action.

For the complete 2011 Regional Pediatric Health Assessment, please visit www.childrensdayton.org. If you have questions about the information in this report, please contact Dayton Children's at 937-641-3666.



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