Miles to go
FOCUSING ON RISKS FOR TEEN DRIVER CRASHES

A 2013 NATIONAL TEEN DRIVER SAFETY REPORT — THIRD IN A SERIES

The Children's Hospital of Philadelphia
RESEARCH INSTITUTE

State Farm
Motor vehicle crashes are the No. 1 cause of death for teens. To address this problem, an academic-industry alliance between CHOP and State Farm® was created. This alliance led to the creation of a series of reports, funded by State Farm, which monitor teen driver statistics and provide a yearly snapshot of teen driver safety for the nation. In 2011, this alliance produced Miles to go: Establishing Benchmarks for Teen Driver Safety. We established 11 key indicators as a framework to measure the impact of teen driver safety policies and programs in the United States. In 2012 the second report, Miles to go: Monitoring Progress in Teen Driver Safety, highlighted substantial progress toward reducing crashes involving teens behind the wheel (ages 15 to 19 driving passenger vehicles) based on an analysis of trends in several indicators between 2005 and 2010.

In this year’s report, Miles to go: Focusing on Risks for Teen Driver Crashes, in addition to monitoring indicators of teen driver safety, we provide insights on making further progress, grounded in our past-reviewed research, for the following key metrics:
- Number of fatal crashes with teens behind the wheel
- Number of people killed in crashes with teens behind the wheel
- Seat belt use among teens behind the wheel and their passengers
- Distraction among teens behind the wheel killed in crashes

In addition, we provide updated figures on the following indicators:
- Alcohol use among teens behind the wheel and their passengers
- Speeding among teens behind the wheel
- District among teens behind the wheel
- Seat belt use among teens behind the wheel and their passengers

The results of our research provide direction for the development of strategies that hold promise to further reduce the number of teens killed or injured in crashes each year. This year, we focus specifically on a number of driving skills and behaviors that are known to influence the risk of crashes, as well as injuries and deaths in the event of a crash.

**Crash Fatalities with Teens Behind the Wheel (2005 – 2011)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Number of Fatalities</th>
<th>Total Number of Fatal Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>3,150</td>
<td>2,400</td>
</tr>
<tr>
<td>2006</td>
<td>2,330</td>
<td>2,000</td>
</tr>
<tr>
<td>2007</td>
<td>2,130</td>
<td>1,950</td>
</tr>
<tr>
<td>2008</td>
<td>1,720</td>
<td>1,700</td>
</tr>
<tr>
<td>2009</td>
<td>1,270</td>
<td>1,144</td>
</tr>
<tr>
<td>2010</td>
<td>1,065</td>
<td>922</td>
</tr>
<tr>
<td>2011</td>
<td>1,022</td>
<td>833</td>
</tr>
</tbody>
</table>

- **Since 2005, deaths in crashes with teens behind the wheel declined 47 percent.**
- **263 fewer people died in 2011 as compared to 2010, an 8 percent reduction in teen-driver related crashes.**

**Miles to go: Monitoring Progress in Teen Driver Safety (2012)**

In this series of reports, we focus on a number of driving skills and behaviors that are known to influence the risk of crashes, as well as injuries and deaths in the event of a crash:
- **Teen driver error has long been recognized as a contributing factor in a majority of crashes with teens behind the wheel. That is why we analyzed a nationally representative federal database of more than 800 serious teen driver crashes and identified common “critical errors” that are often the last in a chain of events leading up to a crash:**
  - 75 percent of all teen driver crashes were the result of a teen driver’s error, most commonly:
    - not properly scanning the driving environment, detecting or reacting to hazards (21 percent of all errors)
    - driving too fast for road conditions (21 percent of all errors)
    - being distracted by something in or outside the vehicle (19 percent of all errors)

**CALL TO ACTION**

These findings suggest that a balanced approach to crash prevention is needed—one that includes evidence-based training programs to encourage the development of specific driving skills, such as scanning and hazard detection, as well as the prevention of risky driving behaviors.
TEEN DRIVING BEHAVIOR INDICATORS

The majority of crashes involving teens behind the wheel are due to inexperience compounded by risky driving behaviors, such as speeding and alcohol use, and distractions, such as cell phone use and peer passengers. In addition, not wearing a seat belt increases the risk of death or injury in the event of a crash. The following summary provides current estimates of several key behavior indicators among teens behind the wheel and their passengers involved in fatal crashes, as well as among the general population of teens in the United States. We also focus on our peer-reviewed research on seat belt laws and distraction from cell phone use and peer passengers that provide insights for the development or refinement of interventions to further impact these key teen driver safety indicators.

FOCUS ON RISKS

DOING DIE-CREASES

Miles to go

FOCUSING ON RISKS

Teen Driver Belt Use by License Type & State Law

<table>
<thead>
<tr>
<th></th>
<th>Primary Enforcement State</th>
<th>Secondary Enforcement State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner Permit</td>
<td>88%</td>
<td>69%</td>
</tr>
<tr>
<td>Restrictions</td>
<td>87%</td>
<td>82%</td>
</tr>
<tr>
<td>Unrestricted</td>
<td>86%</td>
<td>74%</td>
</tr>
</tbody>
</table>

% teens behind the wheel not wearing a seat belt: 60%
% teens passengers not wearing a seat belt: 30%
% teens not always wearing a seat belt as passengers: 40%
% teens killed in crashes not wearing a seat belt: 58%
% passengers killed in crashes not buckled up: 50%
% general population teens not always wearing a seat belt: 46%

Q U. S. high school students who reside in states with a primary enforcement seat belt law are 12 percent more likely to wear a seat belt as a driver and 15 percent more likely to buckle up as a passenger than those living in states with a secondary enforcement seat belt law.

As teens move through the stages of Graduated Driver Licensing (GDL), they are more likely to stay buckled up in primary enforcement states than in secondary enforcement states.

CALL TO ACTION

Primary seat belt laws should be part of any state’s strategy to reduce teen crash deaths. In states with significant resistance to enacting a primary enforcement seat belt law, include it as a provision in their GDL program.

FOCUS ON: SEAT BELT USE

Teens have the lowest rate of seat belt use of any age group, according to the Centers for Disease Control and Prevention (CDC). Many deaths and injuries to teens in crashes could have been prevented by buckling up. This report shows that, while a majority of teen passengers report always wearing a seat belt, fewer fatally injured teens behind the wheel were buckled up in 2011 than in 2008. That is why we examined self-reported seat belt use by teen drivers and passengers to see if primary seat belt laws are a potential strategy for increasing seat belt use among teens.


FOCUS ON: DISTRACTION FROM CELL PHONES WHILE DRIVING

The safe behavior of abstaining from cell phone use while driving is currently inconsistent among teens. This needs to be promoted and further explored to achieve a larger percentage of teens not texting or emailing while driving in the future. To better understand why teens use cell phones while driving, we reviewed their safety beliefs. Only 25% of teens believe that the benefits of abstaining from cell phone use while driving outweigh the negatives. Teens with stronger beliefs about these benefits reported less frequent cell phone use while driving.

The Benefits of Abstaining from Cell Phone Use While Driving

- Teens who say they do not use a cell phone while driving are more likely to perform an illegal maneuver (data not shown in graph) and twice as likely to act aggressively compared to males driving alone.
- In-car distractions also involve more passengers, with driver who had been drinking: 24%...
The Fatality Analysis Reporting System (FARS) is a nationwide census providing annual data regarding fatal injuries suffered in motor vehicle traffic crashes occurring within the 50 states, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway customarily open to the public and result in the death of a person (occupant of a vehicle or a nonmotorist) within 30 days of the crash. FARS was conceived, designed and developed by the National Center for Statistics and Analysis (NCSA) of the National Highway Traffic Safety Administration (NHTSA). Available at www-fars.nhtsa.dot.gov/Main/index.aspx.

The National Motor Vehicle Crash Causation Survey (NMVCCS) is a study of 5,470 crashes conducted by NHTSA between July 2005 and December 2007, designed to identify vehicle, driver, and environmental factors that contribute to crashes. We identified 677 16- to 18-year-old drivers involved in 656 serious crashes included in the NMVCCS. Through on-scene crash investigation, researchers determined whether the teen made a critical error — i.e., the single most important reason for the event immediately preceding the crash — and documented the presence of other driver-related pre-crash factors. We compared the frequency and type of critical driver errors and relevant pre-crash factors for teen drivers that crashed while carrying peer passengers (i.e., all passengers were 14 to 20 years old) to teens that crashed while driving alone. Available at www.jahonline.org/article/S1054-139X(11)00360-0/abstract.

The Youth Risk Behavior Surveillance System (YRBSS) monitors priority health-risk behaviors and the prevalence of obesity and asthma among youth and young adults. The YRBSS includes a national school-based survey representative of students in grades 9-12 in U.S. public schools conducted biannually by the CDC, as well as surveys conducted by state, territorial, and tribal governments, and local education and health agencies. Available at www.cdc.gov/healthyyouth/yrbs/index.htm.

The National Young Driver Survey (NYDS) was created to help better understand how teens perceive and experience driving. In 2006, the survey was distributed to 5,665 9th through 11th graders in 68 randomly selected high schools. The weighted data from the survey are representative of all 10.2 million public school students in 9th through 11th grades in the U.S. Available at www.teendriversource.org/more_pages/page/young_driver_survey/researcher.

About the Authors
This report was compiled by researchers at the Center for Injury Research and Prevention (CIRP) at The Children’s Hospital of Philadelphia Research Institute in collaboration with and with generous support from State Farm®.
CIRP’s interdisciplinary team is comprised of experts in the fields of injury prevention, traffic safety, adolescent health, behavioral science, epidemiology, biostatistics, engineering, and public health.