

NATIONAL RESEARCH COUNCIL
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Board on Children, Youth, and Families
&
Transportation Research Board

**The Contributions from the Behavioral & Social Sciences
in Reducing and Preventing Teen Motor Crashes**

Workshop
May 15-16, 2006

The National Academies
2100 C Street, NW, Lecture Room
Washington, DC 20418



Meeting Goals: Provide an update and engage in discussion on the following questions:

- (1) How do theories and evidence from the behavioral, cognitive, social, health, and biological sciences inform understanding of the risk factors that increase teen motor vehicle crashes and the protective factors that reduce such crashes?
- (2) How can theories and evidence from the behavioral, cognitive, social, health, and biological sciences inform improved prevention, program, and policy interventions to reduce risky teen motor vehicle driving behaviors, as well as promote responsible teen driving?
- (3) What research and interventions are most likely to advance teen motor vehicle safety over the short and long term?

Monday, May 15, 2006

8:00 am **Continental Breakfast**

8:30 am **Welcome, Introductions, and Overview of the Workshop**

- What is the task of the committee?
- Workshop format
- What do we hope to learn from this workshop?

...*Bob Graham, MD, University of Cincinnati College of Medicine / Workshop Moderator, Committee Chair*

9:00 am

Panel 1: Teens Behind the Wheel

- Description of the problem (crashes, injuries, magnitude, forecast).
- Complexity of driving and crash avoidance, particularly for novice drivers.
- How is driving different for teens (e.g., age, inexperience, crash factors)?
- What do we know about contributing factors to teen driver crashes (e.g., age, gender experience, time of day, passengers, alcohol, seat belts)?
- What is the set of cognitive and motor skills that must be learned in order to be a safe driver?

...*David Preusser, PhD, Preusser Research Group*

...*A. James McKnight, PhD, Transportation Research Associates*

Respondent:

...*Flaura Winston, MD, PhD, Children's Hospital of Philadelphia / Committee Member*

Discussion and Q & A

10:00 am

Break

10:15 am

Panel 2: Adolescent Development

(A) Physical Characteristics of Adolescents

- How does the adolescent brain and its development affect teen driving?
- How do adolescent sleep patterns and sleep needs affect teen driving?

...*Abigail Baird, PhD, Dartmouth College, School of Psychological and Brain Sciences*

...*Mary Carskadon, PhD, Brown University*

Discussion and Q & A

11:00 am

(B) Adolescent Relationships

- What are the characteristics of adolescent peer relationships and the influence of these relationships on adolescent decision-making and risk-taking?
- What are the characteristics of adolescent relationships with parents and the influence of these relationships on adolescent decision-making and risky behavior?
- How do adolescents perceive adult authority and what is the influence of these relationships on adolescent decision-making and risky behavior?
- How do these adolescent social relationships influence risky behavior?

...*Sara Kinsman, MD, MSCE, Children's Hospital of Philadelphia*

...*Joseph Allen, PhD, University of Virginia*

...*Bruce Simons-Morton, EdD, NICHD/NIH*

Discussion and Q & A

12:00 pm

Lunch break

1:00 pm

(C) Adolescent Behavior: Risky Behavior and Decision-Making

- What do we know about social and behavioral research on adolescent risky behavior, sensation-seeking, and reckless behavior?
- What research guides our understanding of self-regulated and executive functioning during adolescence?
- What factors and settings influence how adolescents make decisions?
- How do patterns of adolescent risky behavior and decision-making influence teen driving and teen driving interventions?

...*Ronald Dahl, MD, Staunton Professor of Psychiatry and Pediatrics, University of Pittsburgh*
...*Julie Downs, PhD, Carnegie Mellon University, Department of Social and Decision Sciences*

Respondent:

... *Don Fisher, PhD, University of Massachusetts / Committee Member*

Discussion and Q & A

2:00 pm

Adolescent Development: Cross-Cutting Discussion

...*William DeJong, PhD, Boston University / Committee Member*

2:45 pm

Panel 3: Current Approaches to the Teen Driving Problem

- Education: what approaches to improve teen driving outcomes have been tried in the U.S. and internationally (e.g., guidance for parents, driver education)?
- Laws and Enforcement: what approaches to improve teen driving outcomes have been tried in the U.S. and internationally (e.g., seat belt regulations, alcohol policies, license suspension/revocation policies)?
- Public Health / Social Policy: what approaches to improve teen driving outcomes have been tried in the U.S. and internationally (graduated licensing, mandated hours of driving practice, health care provider interventions, health education)?
- What has worked, what has not, and what has not been evaluated?
- What has been the impact of these policies?

...*Anne McCartt, PhD, Insurance Institute for Highway Safety*

...*Rob Foss, PhD, University of North Carolina*

...*Richard Compton, PhD, Director, NHTSA*

...*Larry D'Angelo, MD, MPH, FSAM, Children's Hospital, Washington, DC*

Respondents:

...*Ruth Shults, PhD, Centers for Disease Control and Prevention*

...*Allan F. Williams, PhD, Bethesda, MD / Committee Member*

Discussion and Q & A

- 4:15 pm **Panel 4: Emerging Driving Technology**
- What technologies exist to enhance training and feedback?
 - What is the field experience of driver technology and its influence on teens and driving?

...*Max Donath, PhD, Intelligent Transportation Systems Institute, University of Minnesota*
...*R. Wade Allen, MS, Systems Technology, Inc.*
...*John Lee, PhD, University of Iowa / Committee Member*

Discussion and Q & A

5:00 pm **Adjourn**

6:15 pm **Committee Dinner (and invited speakers)**

Tuesday, May 16, 2006

8:30 am **Welcome and Overview of Day 2**

...*Robert Graham, MD, Moderator, Committee Chair*

8:45 am **Panel 5: Teen Driving Current Challenges**

- To what extent are current policies and interventions informed by issues of adolescent development? How might they be revised to take into account teen driving and adolescent development?
- What role can parents, teachers, and other adults play in building driving competencies and reducing risky behaviors among teens?
- What role can the media and public messaging about driving play in building driving competencies and reducing risky behaviors among teens?
- What areas of teen driving risk have we missed in the presentations and discussion?
- What research is needed to move the field forward?

...*Richard Catalano, PhD, University of Washington, Social Development Research Group*
...*Sue Ferguson, PhD, Insurance Institute for Highway Safety*

Respondent:

...*Jean Shope, PhD, University of Michigan / Committee Member*

Discussion and Q & A

9:45 am **Discussant Reports and Group Discussion**

...*James Hedlund, PhD, President, Highway Safety North*
...*Daniel Keating, PhD, University of Michigan / Committee Member*

11:45 am **Wrap-up**

...*Robert Graham, MD*

12:00 pm **Adjourn**