

What Have We Learned?

Implications for Traffic Safety

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IOM Young Driver Workshop

Washington, DC May 16, 2006

Workshop goals

- What does behavioral science tell us about teen driver risk and protective factors?
- What are the implications for prevention, program, and policy interventions?
- What research and interventions are most likely to improve teen driving safety?
 - Short term
 - Long term

Teens

- Teens are a mess
 - “The younger generation has been going to the dogs ever since there were dogs”
- Teens are not just young adults
 - bodies develop before brains
 - peer relations
 - decision-making and learning styles
 - don't get enough sleep

Teen driving

- Teens want to drive
 - and will, as soon as they are licensed
- Crash risk very high, especially:
 - first few months
 - nighttime
 - teenage passengers
 - alcohol

What's needed:

Teen driving SKEME

- Skills
- Knowledge
- Experience
- Maturity
- Environment

Teen driving SKEME

- Skills
 - operate the vehicle
 - hazard recognition and action
 - easiest to teach; driver ed
- Knowledge
 - operations: traffic rules, operating procedures
 - decisions: risks, potential consequences
 - goes beyond classroom

Teen driving SKEME

- Experience
 - good judgment comes from experience
 - experience comes from bad judgment
 - practice, practice, practice
- Maturity
 - wait for the brain to catch up to the body
 - can't teach maturity
- Environment
 - avoid risky situations while acquiring all this

Teen driving SKEME

- Skills
- Knowledge
- Experience
- Maturity
- Environment

How they get it now

- Driver ed
 - skills, some knowledge, only some teens
 - not successful at producing safer drivers
- Specific laws
 - alcohol: MDA 21, zero tolerance
 - successful at reducing drinking and driving

How they get it now

- Graduated Driver Licensing (GDL)
 - experience – supervised driving
 - protective environment – delayed licensure, restrict exposure in risky situations
 - successful at reducing crashes
- Parental management
 - informal, unguided
 - “parents don’t have a clue”

How they get it now

- Skills: driver ed, parents, ad hoc
- Knowledge: driver ed, parents, ad hoc
- Experience: GDL, parents, ad hoc
- Maturity: GDL (delayed licensure)
- Environment: GDL, specific laws

Relation to adolescent development

- Teens are not just young adults
 - bodies develop before brains
 - peer relations
 - decision-making and learning styles
 - don't get enough sleep
- How do current programs relate to this?
Not very much

So what can we do?

- Expand and improve current methods
- Investigate new methods that use what we know about adolescent development

Expand, improve current methods

- GDL – implementation
 - successful; could be better
- Parents – research
 - guidance, structure, motivation
 - integrate GDL enforcement
- Driver ed – research
 - integrate into GDL

Investigate new methods

- Technology
 - inform: speed, collision warning
 - monitor: recorders, tracking devices
 - intervene: speed governors, crash control
 - prohibit: alcohol, belt interlocks; fingerprint ignition
 - instruct: computer-based, simulation
- Research:
 - technology
 - human factors implications

Investigate new methods

- Peers – research
 - encourage positive safety norms
 - incentives, motivation (insurance pricing)
- Cognitive maturity – implementation
 - sneaky ways to raise licensing age: licensing and supervised driving requirements
- Sleep – implementation
 - can't change biology, but can change school hours

Pie in the sky: comprehensive system

- Driver ed, using modern technology, integrated into
- GDL, with support and full participation of
- Parents, to provide supervised practice and driving management, with backup from
- DMV and enforcement, in the setting of
- A comprehensive community health program, with
- Full health community participation.

Missing from discussion: DMV and enforcement

Some additional information

- Hedlund, Shults, and Compton (2006). Graduated driver licensing and teenage driver research in 2006. *Journal of Safety Research* 37 (in press).
- Hedlund (2006). *Countermeasures That Work. DOT HS 809 980. US Department of Transportation.*
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