Risky Behaviors in Teenage Motor Vehicle Occupants

Vermont Child Health Improvement Program (VCHIP)

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Abstract

Background: MV occupant injuries are the leading cause of teen death. Knowing the range of driving-related risky behaviors and concerns that teens themselves report will inform efforts to reduce crash risk. (Vermont law allows learner permit (LP) at age 15, Jr. license (JL) at 16, full license (FL) at 18.)

Objective: To ascertain teens' perceptions of behaviors and concerns about driving and riding in MVs, as reported in primary care (PC) offices; to explore the influence of gender, age and license status on risk-taking.

Design/Methods: Anonymous questionnaire self-administered by a convenience sample of 15-19 yr-olds in Vermont PC offices.

Results: Staff in 14 pediatric and 2 family medicine sites collected questionnaires from 488 teens. Respondents were 54% female, 88% age 15-16, 52% age 17-19. LP was held by 28%, JL by 27%, FL by 23%; 21% had no license (of whom 25% nonetheless drove). As front- and rear-seat passengers, 23% and 31%, respectively, did not always use seatbelts; 31% of their parents and 50% of their friends did not always use them. Of the 388 teen drivers, 16% did not always buckle up, 20% had been in a crash, and 22% had moving violations (mostly speeding). Only 9% of drivers reported ever driving after substance use. They reported "sometimes" or more often engaging in other risky behaviors, including speeding (60%), driving with 2 or more friend passengers (57%), driving after midnight (48%), driving using a cell phone (36%), and driving when upset or angry (27%) or sleepy (26%). More males than females drove after substance use ($p<.01$) or when sleepy ($p<.01$), but genders were similar for other risk-taking. Drivers age 15-16 had significantly lower rates than those age 17-19 of all risky driving behaviors (all $p's<.02$). LP/JL holders had lower rates than FL holders of each risky behavior (all $p's<.05$) except for seatbelt use and driving when upset/angry. Many drivers worried at least sometimes about their own safety (61%) or about that of friends driving without them (34%). Only 46% felt they would "very likely" speak up to unsafe peer drivers in MVs.

Conclusions: Though many 15-19 yr-olds seen in Vermont PC offices worry about their own or friends' safety, many also self-report risky behaviors in MVs. Efforts to reduce risk should go beyond advice to buckle up and avoid substance use, should target genders equally, and should address the rise in risk-taking as teens age.

Background

Motor vehicle (MV) occupant injuries are the leading cause of teen death in Vermont and the US. Knowing the range of driving-related risky behaviors and concerns that teens themselves report can inform efforts to reduce crash risk. Note: Vermont law allows learner permit (LP) at age 15, Jr. license (JL) at 16, full license (FL) at 18. The seatbelt law is "secondary enforcement" after age 15.

Objectives

- **Ascertain teens' behaviors, perceptions, and concerns about driving and riding in MVs, as reported in primary care (PC) offices**
- **Explore the influence of gender, age, license status, and urban vs. rural driving location and on risk-taking.**

Methods

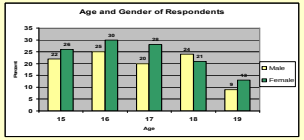
- **Anonymous questionnaire, self- administered by a convenience sample of 15-19 yr-olds in Vermont PC offices (14 pediatric & 2 family medicine sites). Questionnaire was pilot-tested and modified in 3 focus group meetings with 15-19 yr-olds**

Analysis

- **488 questionnaires were returned**
- **<1% of teens refused participation**
- **X^2 tests used to evaluate differences among subgroups; alpha = .01**

Sample Characteristics

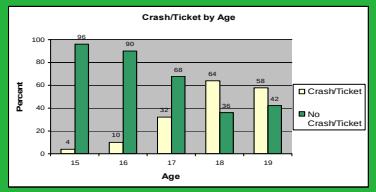
- **46% male vs. 54% female**
- **48% younger teen (15-16 yo) vs. 52% older teen (17-19 yo)**
- **93% white, 2% Asian, 2% African American, 1% Hispanic, 1% Native American**
- **21% no license, 28% Learner's Permit, 27% Jr. Operators, 23% Operators**
- **54% urban vs. 46% rural drivers**
- **Respondents most often drive: 68% cars, 16% SUVs, 8% minivans, 7% pickup trucks, 1% motorcycles**



History of Crashes or Moving Violations (ticket)

Overall:

- **20% of drivers had been involved in a crash**
- **21% had had a moving violation (mostly speeding)**
- **26% had either; 7% had both**
- ***(History of crash or violation (ticket) by age shown at right)***



Worries and Speaking Up

Among Drivers (n=388):

- **61% Worried at least "sometimes" about their own safety**
- **34% worried at least "sometimes" about the safety of their friends driving without them**
- **Only 46% felt they would "very likely" speak up to an unsafe peer driver (35% "somewhat likely," 10% "somewhat unlikely," 4% "very unlikely")**

RISKY BEHAVIORS: Summary and Subgroup Comparisons

	Total		Male	Female	Young (15-16)	Old (17-19)	Urban Drivers	Rural Drivers	LP/Jr Lic.	Full Lic.	Crash/ Ticket	Neither
AS PASSENGERS:	**n=488**		n=222	n=265	n=233	n=255	n=211	n=173	n=270	n=114	n=128	n=257
"Ever ride . . ."												
* in front seat **without** seatbelt	**23%**		**26%**	**21%**	**19%**	**29%**	**18%**	**23%**	**19%**	**21%**	**28%**	**19%**
* in back **without** seatbelt	**31%**		**32%**	**31%**	**28%**	**37%**	**29%**	**31%**	**28%**	**29%**	**41%**	**25%**
* with driver who feels unsafe	**64%**		**70%**	**61%**	**55%**	**75%**	**69%**	**72%**	**64%**	**85%**	**83%**	**64%**
AS DRIVERS:	**n=388**		n=178	n=210	n=149	n=240	n=211	n=173	n=250	n=113	n=128	n=257
"Ever drive . . ."												
* **without** seatbelt	**16%**		**19%**	**15%**	**7%**	**22%**	**14%**	**17%**	**12%**	**19%**	**26%**	**11%**
* after alcohol or drug use	**9%**		**16%**	**8%**	**4%**	**15%**	**12%**	**7%**	**5%**	**20%**	**20%**	**6%**
"Sometimes or more often drive..."												
* over speed limit	**60%**		**63%**	**59%**	**40%**	**74%**	**67%**	**55%**	**56%**	**73%**	**84%**	**50%**
* with 2+ friend passengers	**57%**		**54%**	**57%**	**25%**	**75%**	**58%**	**54%**	**45%**	**81%**	**83%**	**43%**
* after midnight	**48%**		**49%**	**47%**	**20%**	**65%**	**51%**	**46%**	**35%**	**79%**	**76%**	**34%**
* using a cell phone	**36%**		**37%**	**36%**	**13%**	**51%**	**40%**	**32%**	**28%**	**57%**	**67%**	**21%**
* when feeling angry or upset	**27%**		**23%**	**29%**	**19%**	**30%**	**29%**	**22%**	**24%**	**30%**	**38%**	**20%**
* when feeling sleepy	**20%**		**26%**	**13%**	**10%**	**25%**	**23%**	**14%**	**14%**	**31%**	**34%**	**12%**

For all comparisons in BOLD, p<.01

All Respondents (n=488)

HOW OFTEN DO ...	Never	Seldom	Some-times	Almost Always	Always
you use a seatbelt for **yourself** when you are **riding** as a **front seat passenger** in a car or truck?	1%	1%	6%	15%	76%
you use a seatbelt for **yourself** when you are **riding** as a **back seat passenger** in a car or truck?	1%	4%	10%	16%	68%
your **parents/guardians** use seatbelts when driving or riding in a car or truck with you?	2%	2%	9%	18%	69%
your **friends** use seatbelts when riding or driving in a car or truck with you?	1%	4%	14%	31%	49%
you **ride** with a driver who you feel is driving unsafely?	34%	44%	12%	2%	6%

Drivers Only (n=388)

HOW OFTEN DO ...	Never	Seldom	Some-times	Almost Always	Always
you **drive late at night** (after midnight)?	28%	22%	37%	8%	3%
you **drive with two or more friends as passengers**?	30%	12%	45%	9%	3%
you **use a cell phone** when you are driving?	43%	20%	27%	6%	3%
you **feel angry or upset** when you drive?	32%	41%	23%	2%	2%
you **drive when you are feeling sleepy**?	39%	40%	18%	1%	1%
you **drive over the speed limit**?	14%	24%	41%	16%	3%
you **drive after using alcohol or drugs**?	89%	5%	3%	1%	0%

Summary

- **Despite worry about their own and friends' driving safety, many 15-19 yr-olds in Vermont PC offices self-report risky behaviors in MVs, and more than 60% of those ≥ 18 yrs have had a crash or moving violation**
- **Risky behaviors are especially prevalent among older teen drivers and those who report having had a crash or ticket**
- **While teen risky driving in Vermont differs little by urban/rural location or by gender, males drivers do report higher rates of driving after substance use or when sleepy**

Implications

- **Efforts to reduce risk should go beyond advice to buckle up and avoid substance use; behavior as passengers should also be addressed**
- **Intervention efforts should address the rise in risky driving seen as teens age and advance in license status**
- **Teens with a history of crashes may require more intensive preventive interventions**
- **Teens should be encouraged to speak up to peers who are driving unsafely**

Next Steps

- **VCHIP is exploring ways to improve screening and counseling of teens in primary care practices around driving safety**