

# Increasing Parental Management of Young Drivers: Is it possible? Does it matter?

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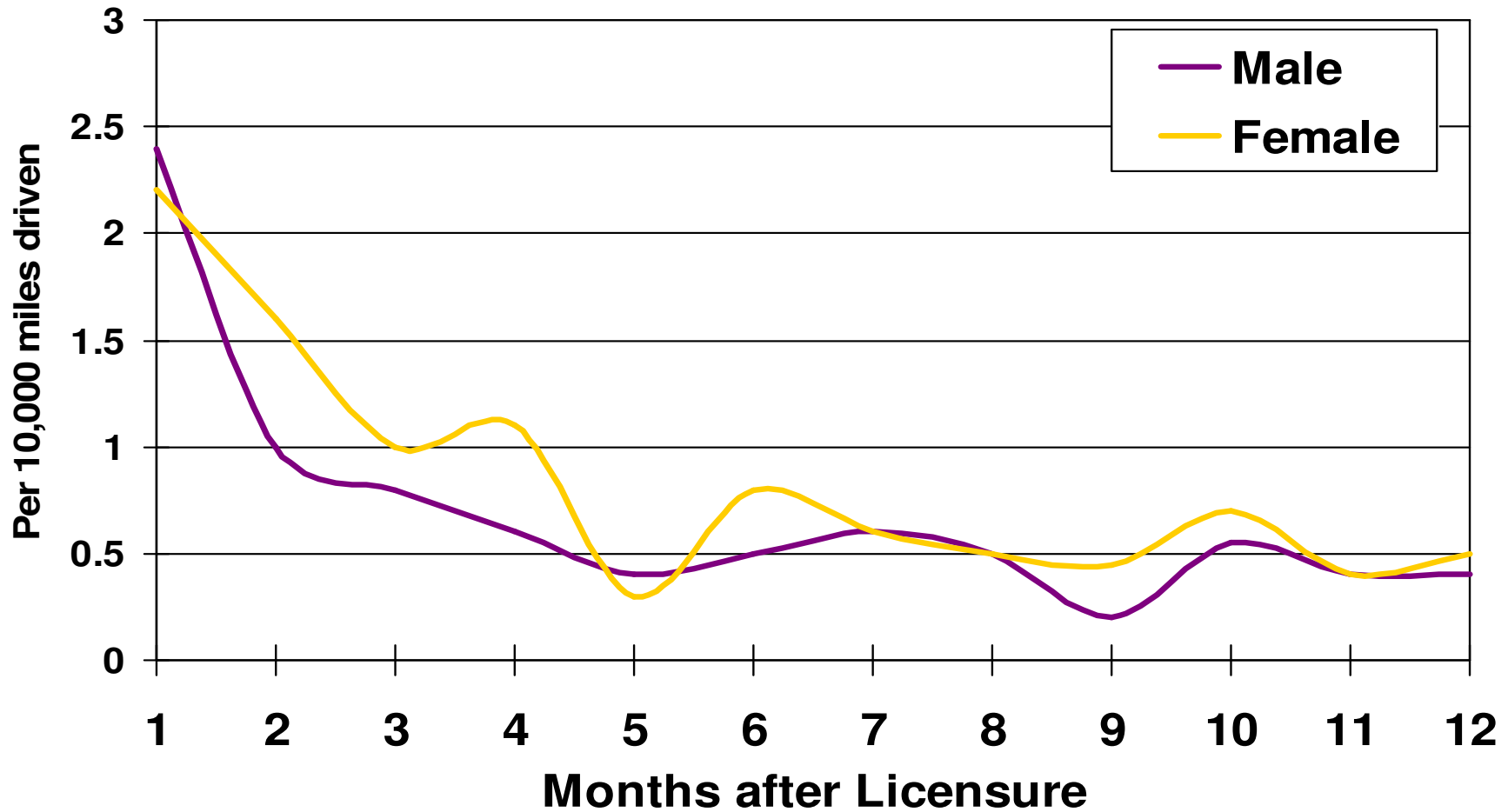
**PREVENTION RESEARCH BRANCH \* DESPR \* NICHD \* NIH \* DHHS**  
**PREUSSER RESEARCH GROUP, Trumbull, CT**



# Areas of Possible Parent Involvement

- **Supervised practice driving**
- **Deciding when to test**
  - **Learner's permit**
  - **Provisional license**
- **Managing early driving experience**
  - **Setting initial limits**
  - **Granting additional privileges**
    - **Vehicle access**
    - **Vehicle selection**
    - **Driving conditions**

# Crashes by Time of Licensure



McCartt et al, 2003

# Adolescent Driving Dilemma

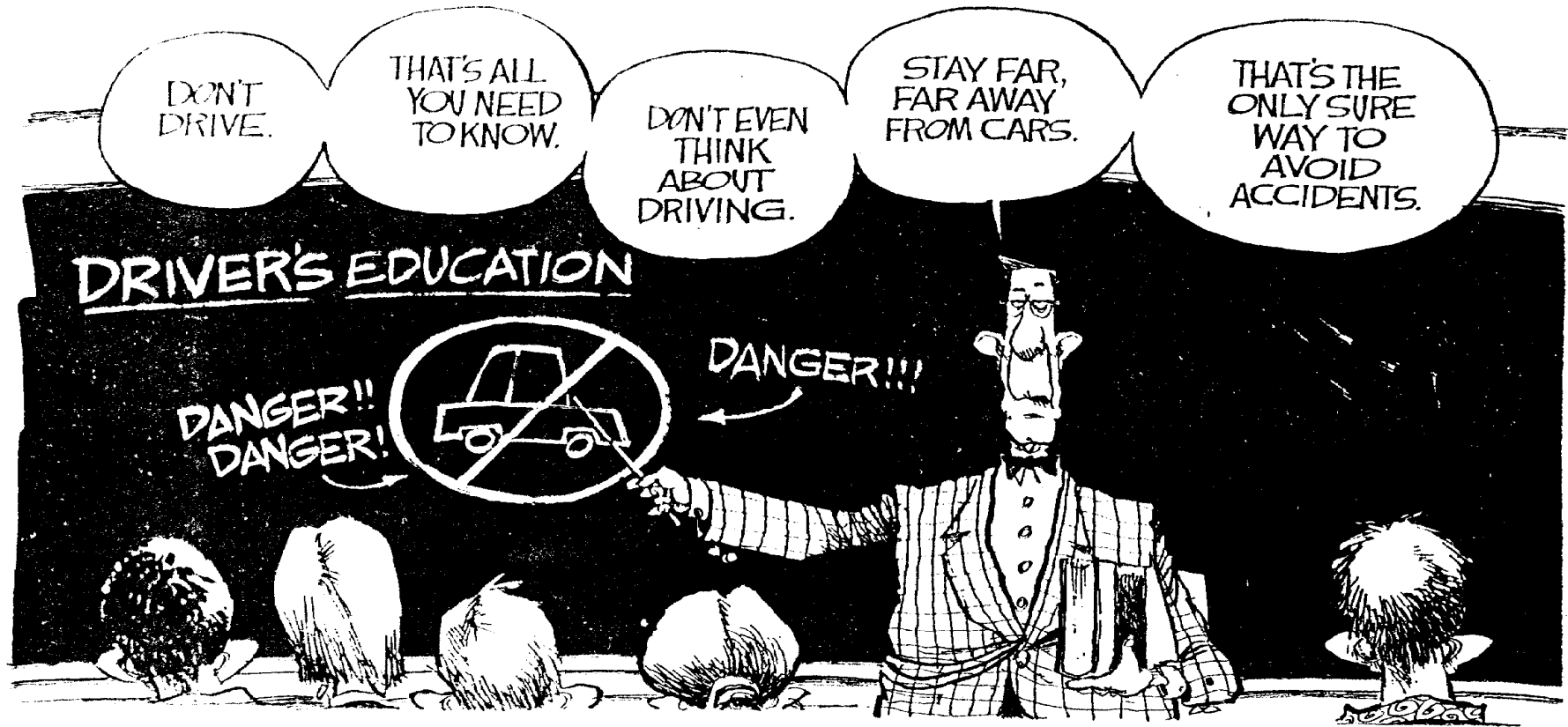
- **Dilemma**

- **Teens need independent driving experience to become safe drivers**
- **The more teens drive the greater their risk for crash**

- **Solution**

- **GDL policies**
- **Drive under lower risk conditions**
- **Parent management**

# How Best to Increase Teen Safety?



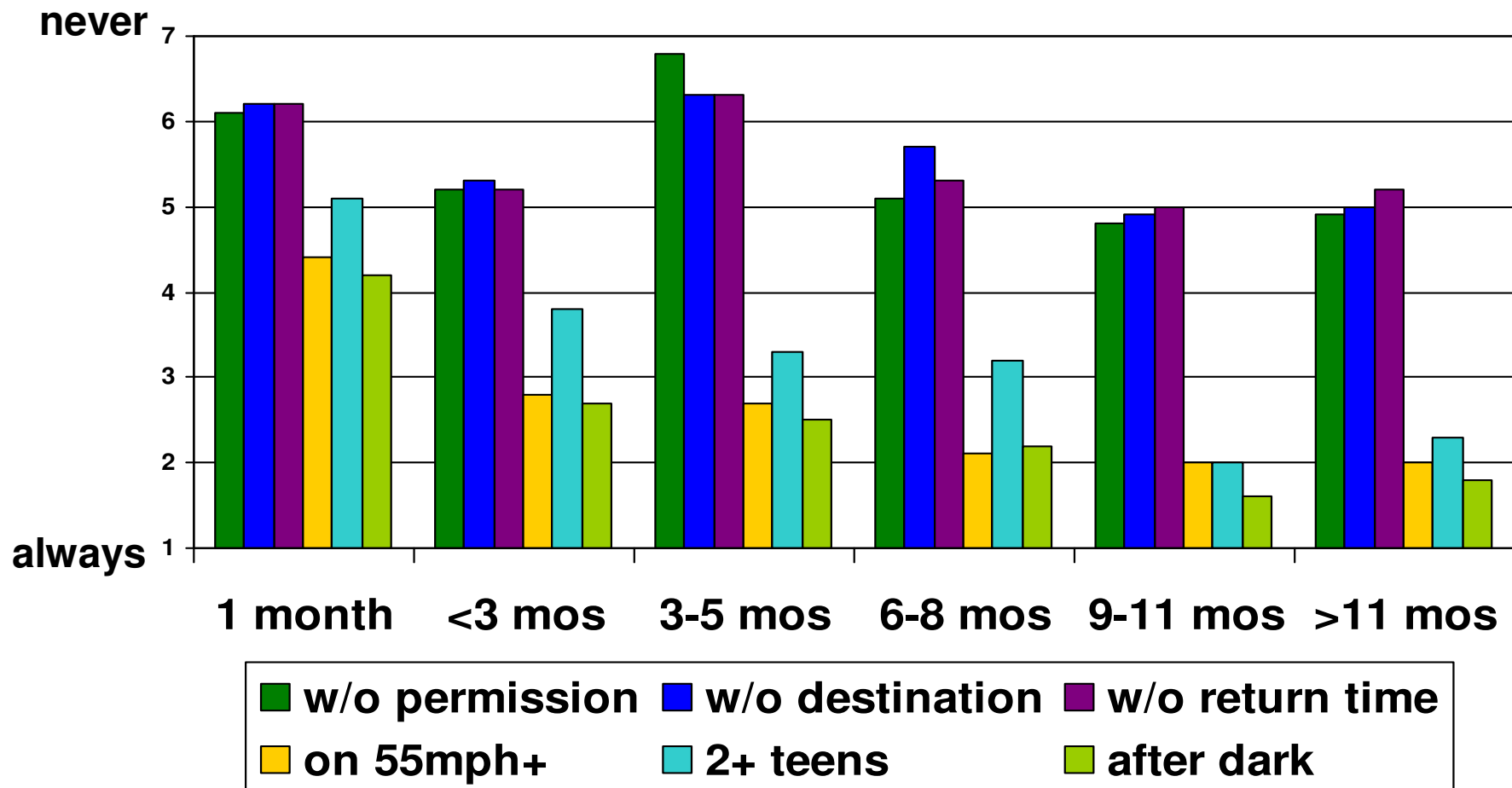
BY JIM BORGMAN FOR THE CINCINNATI ENQUIRER

IF WE TAUGHT DRIVER'S ED *the way we teach sex ed*....

# **Research on Parent Management of Novice Teen Driving (Hartos & Simons-Morton)**

- **Parent restrictions associated with fewer violations, crashes**
- **Parents delay licensure**
- **Few parent limit associated with more risky driving**
- **Parent limits greater in GDL than non-GDL state**
- **Parent limits greater for trip than risk conditions**

# Parental Restrictions on Trip and Risk Conditions



*Prev Sci, 2001*



# Increasing Parent-Imposed Limits: The Checkpoints Program

## Persuasive Communications

- video
- newsletters
- driving agreement



## Parent Management of Teen Driving

- increase limits  
on teen driving



## Mediators<sup>1</sup>

- risk perceptions
- restriction norms,  
expectations



<sup>1</sup>Protection motivation theory



# Checkpoints Parent-Teen Driving Agreement



## Maryland Parent-Teen Driving Agreement

### Part 1 DRIVING CONDITIONS

#### DIRECTIONS

- Complete one checkpoint at a time. Start with Checkpoint 1. Discuss and assign Checkpoint 1 driving privileges.
- Decide how long Checkpoint 1 privileges should remain in effect. Recommendations are provided. Write in the length of time you agree on and then a date to review teen progress.
- On the review date, consider moving to the next Checkpoint using these questions:

**QUICK CHECK.** Did teen...

- ✓ Follow daytime driving conditions?
- ✓ Follow nighttime driving conditions?
- ✓ Advance in driving skills and judgment?
- ✓ Obey traffic laws?
- ✓ "Check in" before each driving event?
- ✓ Keep up with responsibilities?
- ✓ Rarely lose driving privileges?

If teen progress is satisfactory, discuss and assign driving privileges for the next Checkpoint. Then write in the time period and set a review date. If teen progress is not satisfactory, set another review date for current Checkpoint. Continue until you have completed all 4 Checkpoints.

#### CHECKPOINT 1

	CURFEW	TEEN PASSENGERS	ROAD TYPES	WEATHER
DAY	SUNDOWN OR 9 PM	IF ADULT PRESENT	LOCAL ONLY	FAIR ONLY
NIGHT		IF ADULT PRESENT		
TIME PERIOD (recommendation: 3 months from now)				
NEXT REVIEW DATE:				

#### CHECKPOINT 2

	CURFEW	TEEN PASSENGERS	ROAD TYPES	WEATHER
DAY	10 PM	1 TEEN	ALL BUT HIGHWAYS	FAIR, RAIN
NIGHT		IF ADULT PRESENT	LOCAL ONLY	FAIR ONLY
TIME PERIOD (recommendation: 3 months from now)				
NEXT REVIEW DATE:				

#### CHECKPOINT 3

	CURFEW	TEEN PASSENGERS	ROAD TYPES	WEATHER
DAY	11 PM	2 TEENS	MOST	MOST
NIGHT		1 TEEN	ALL BUT HIGHWAYS	FAIR, RAIN
TIME PERIOD (recommendation: 6 months from now)				
NEXT REVIEW DATE:				

#### CHECKPOINT 4

	CURFEW	TEEN PASSENGERS	ROAD TYPES	WEATHER
DAY	12 AM	3 TEENS	ANY	ANY
NIGHT		2 TEENS	MOST	MOST
TIME PERIOD (recommendation: 6 months from now)				
NEXT REVIEW DATE:				



# Parent-Teen Driving Agreement

## *Parents agree!*

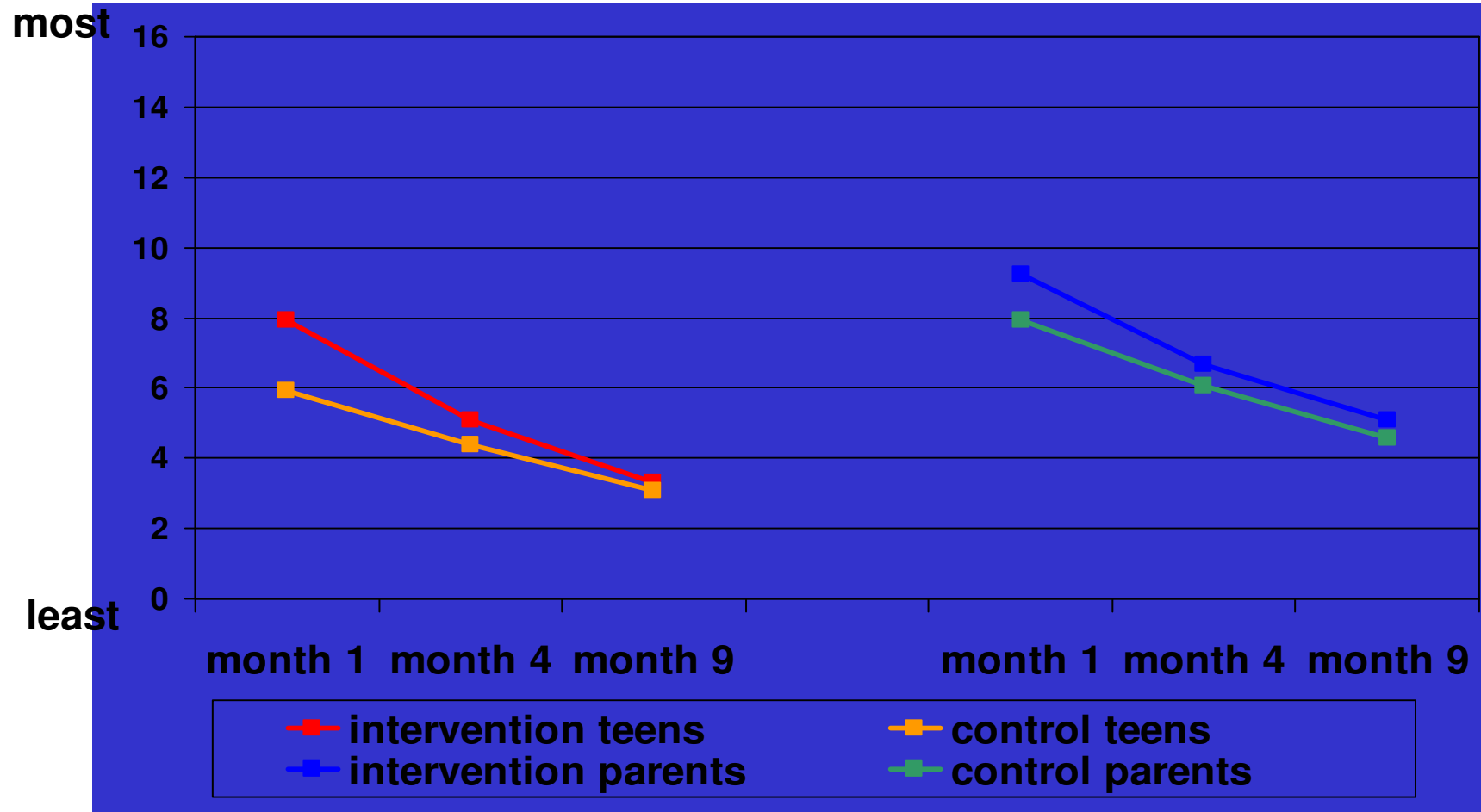
Using the Checkpoints Parent-Teen Driving Agreement helps manage teen driving. This newsletter and the newsletters you will receive over the next 6 months will explain how other Checkpoints parents have dealt with challenges in managing teen driving.



# Maryland Trial: Brief Intervention

- **GDL state**
- **Recruit/baseline: MVA, provisional license**
- **n=658**
- **Randomize weeks**
  - **intervention**
    - **video & driving agreement at MVA**
    - **follow-up newsletter**
  - **Comparison (safe driving newsletter)**
- **Parent & teen phone interviews: 1-, 4-, 9-mo**

# MD Driving Limits COMPOSITE



*Prev Res, 2003; Inj Prev, 2003*

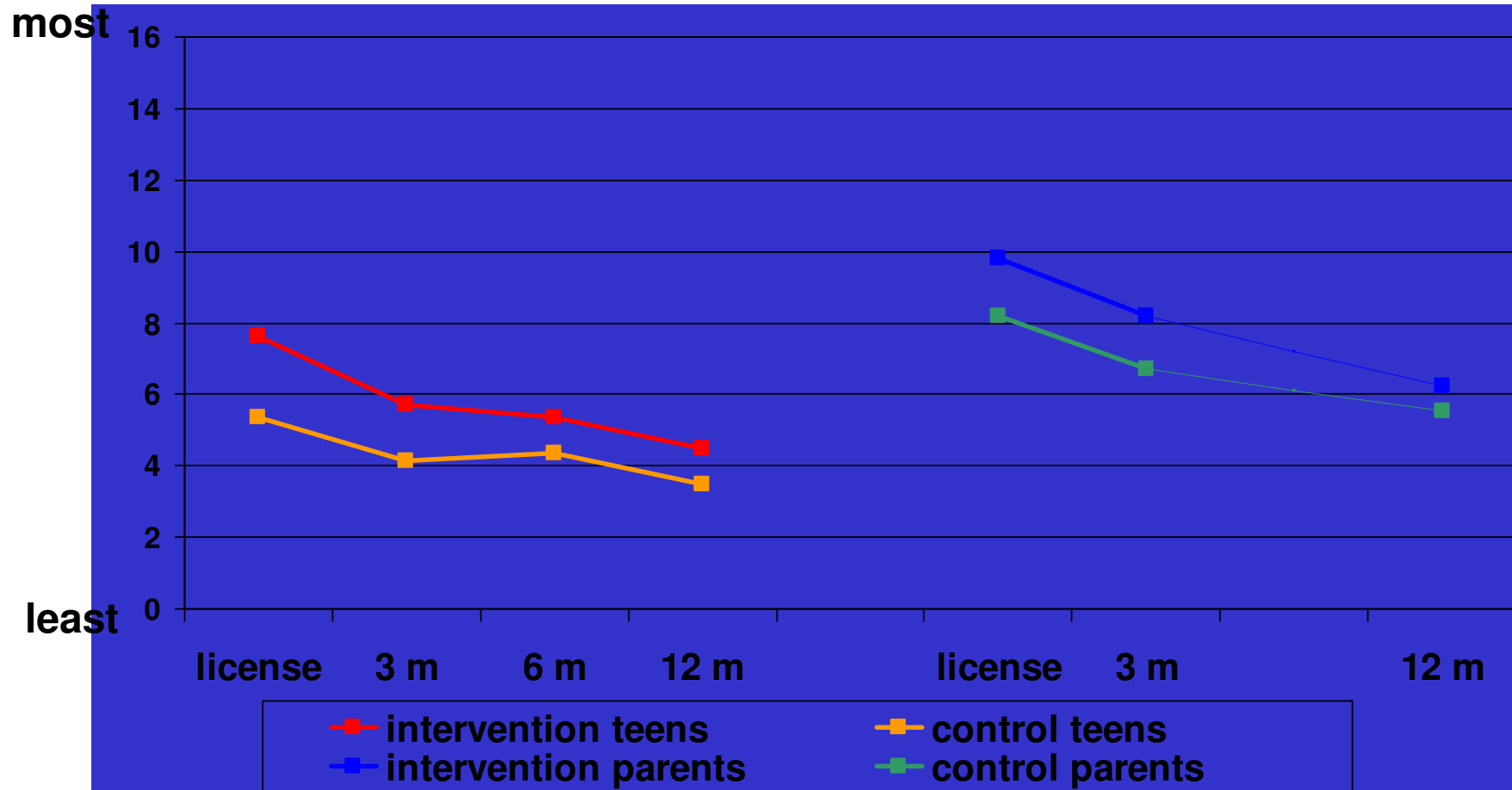
# Maryland Summary

- **Brief intervention at licensure**
- **Interpersonal dose**
- **Effects on parent limits at 1-month**
- **Persistence of effects for 4-months**
- **Possible practice model**
- **How to sustain effects over time?**

# Connecticut Trial: Pilot

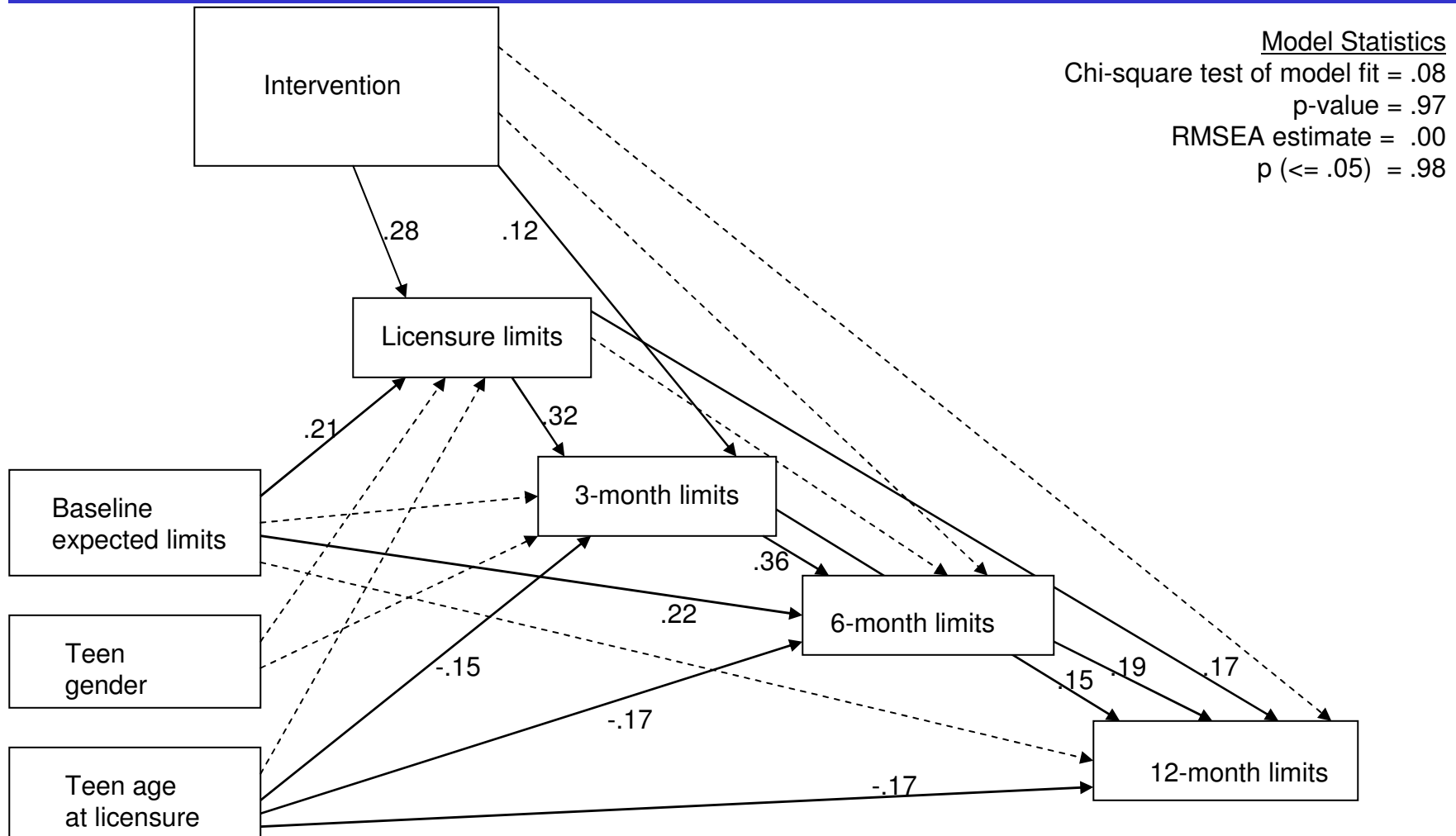
- **Non-GDL state**
- **Recruit at DMV at permit (n=452)**
- **Randomize families**
  - **Checkpoints materials**
  - **Driver safety information comparison**
- **Parent & teen phone interviews**
  - **permit, license, 3-, 6-, 12-months**

# CT Driving Limits COMPOSITE (n=469)



*AJPH, 2005*

# Path model for teen reports of composite driving limits over the first year of teen licensure



Model Statistics  
 Chi-square test of model fit = .08  
 p-value = .97  
 RMSEA estimate = .00  
 p (<= .05) = .98



# Connecticut Summary

- **Effects on limits at license, 3-months**
- **Initial limits predict future limits**
- **Persistence of effects through 12-months**

# Connecticut Main Trial: Design

- **Recruit at DMV at permit (n=4000+)**
- **Checkpoints group**
  - **video, revised newsletters, & driving agreement**
- **Comparison group**
  - **scheduled driving & vehicle info**
- **Telephone interviews: 0, 3-, 6-, 12-mo**
  - **Limits on night, passengers, roads, weather**
  - **Police stop, tickets, crashes**

# Treatment Group Effects – Teen Reported Driving Limits

Variables	Range	Checkpoints (n=1280)		Comparison (n=1355)		t
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Passenger limits						
License	0-4	2.0	1.4	1.9	1.4	<b>3.2</b>
3-months	0-4	1.5	1.3	1.4	1.3	NS
6-months	0-4	1.2	1.2	1.1	1.2	<b>2.0</b>
12-months	0-4	.89	1.1	.91	1.1	NS
Night driving limits						
License	0-4	1.9	1.2	1.7	1.2	<b>4.9</b>
3-months	0-4	1.5	1.1	1.3	1.1	<b>2.8</b>
6-months	0-4	1.2	.99	1.1	.97	<b>2.8</b>
12-months	0-4	.78	.87	.78	.89	NS

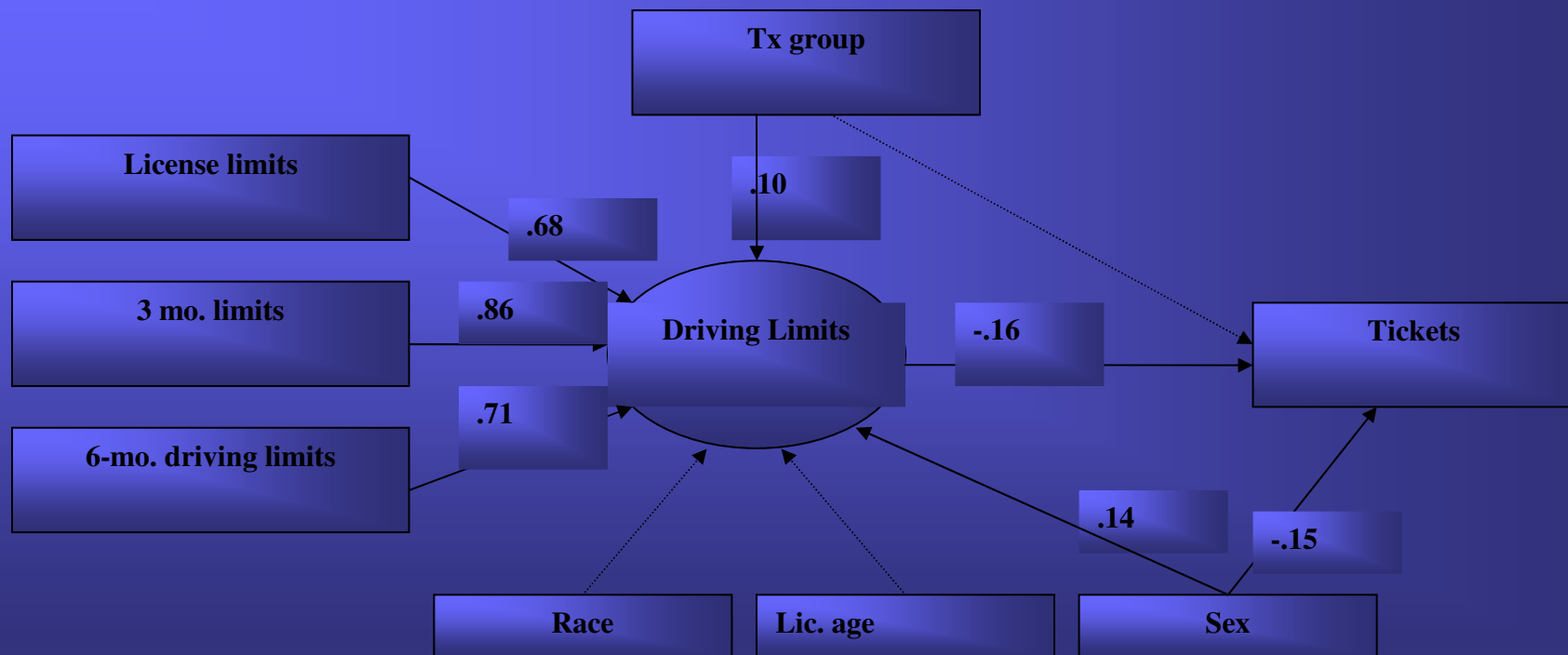
NS=non-significant; all other p's < .05

# Treatment Group Effects – Teen Reported Driving Outcomes

Variables	Range	Checkpoints (n=1280)		Comparison (n=1355)		t
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Risky driving						
3-months	0-12	2.38	2.09	2.52	2.1	<b>-1.8</b>
6-months	0-12	2.62	2.11	2.81	2.2	<b>-2.3</b>
12-months	0-12	2.76	2.37	2.95	2.5	<b>-1.9</b>
Police Stop						
12-months	0-7	.40	.80	.46	.84	<b>-2.1</b>
Crashes						
12-months	0-8	.47	.71	.48	.72	NS

NS=non-significant; all other p's < .05

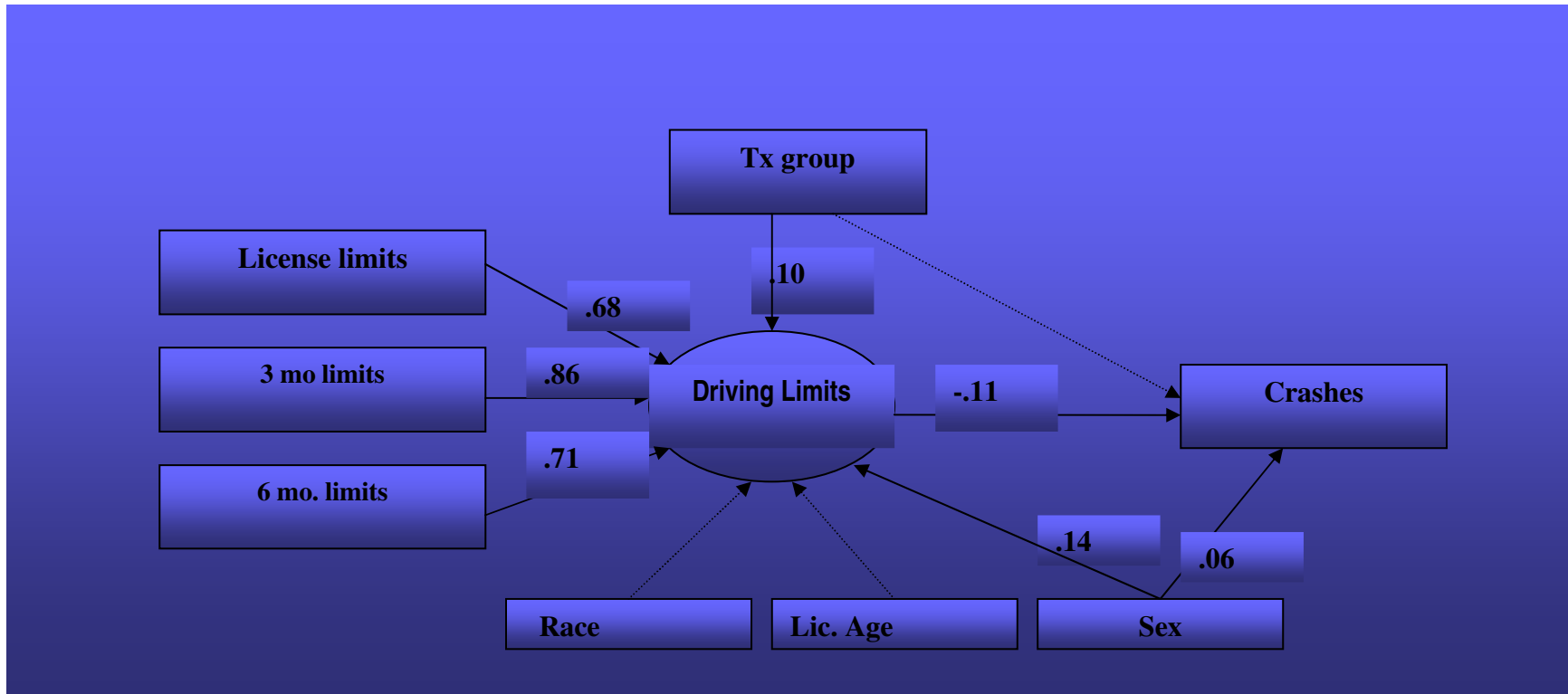
# Path Analysis for Teen-Reported Driving Limits and Tickets at 12-Months Post-license



Parent model: chi-square=7.82, p=.25; RMSEA=.01, p=1.00

Teen model: chi-square=23.20, p=.03; RMSEA=.02, p=1.00

# Path Analysis for Teen-Reported Driving Limits and Crashes at 12-Months Post-license



Parent model: chi-square=11.33, p=.08; RMSEA=.02, p=1.00

Teen model: chi-square=24.87, p=.02; RMSEA=.02, p=1.00

# Summary of Intervention Effects

- **Significant driving restriction effects**
- **Effects mediated by**
  - **Perceived risk**
  - **Outcome expectations**
  - **Restriction expectations**
- **Indirect effect on offenses and crashes through driving restrictions**

# So Much to Learn

- **Nature and effect of parent-supervised practice driving experience**
- **Teen driving risk**
- **Improving the impact of intervention on parent management**
- **Translation of intervention effects in other practice settings**



# **Intervention Studies Planned/In Progress**

- **Parental management in driver education**
- **Checkpoints delivered during permit vs at time of license**
- **Improving motivational approaches**
- **Parental management as part of routine DMV practice**

# The End

