

# Improving Parent-Involved Teen Driving Interventions: Checkpoints

Jean T. Shope, BSN, MSPH, PhD

Lifesavers Conference, Long Beach, California, April 4, 2016

---

---

---

---

---

---

---

---

## Acknowledgements

- **Colleagues**
  - Bruce Simons-Morton
  - Jennifer Zakrajsek
  - Ray Bingham
- **Sponsors**
  - US National Institute of Child Health and Human Development
  - US Centers for Disease Control and Prevention's National Center for Injury Prevention and Control



---

---

---

---

---

---

---

---

## Overview

- Injury (motor vehicle) leading cause of teen deaths
- Evidence-based approaches to reduce teen deaths
- Parents' important role
- Checkpoints background
- Series of four projects testing efficacy, effectiveness, and translation of Checkpoints program
- Implications for practice



---

---

---

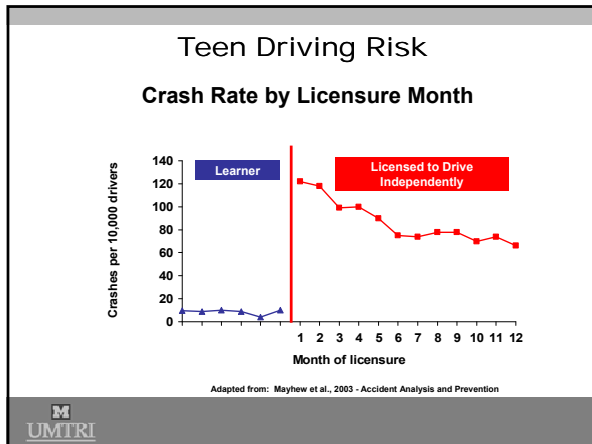
---

---

---

---

---




---

---

---

---

---

---

---

---

---

---

---

---

- ### Evidence-Based Approaches that Affect New Teen Drivers
- **Graduated Driver Licensing (all US states by 2011)**
    - Three stages, more practice, intermediate stage with restrictions (night, passengers, cell phone use, etc.)
    - Effective – reduces 16 year old crashes 20-40%
  - **Checkpoints Program**
    - Enhance GDL
    - Parent-directed
- UMTRI**

---

---

---

---

---

---

---

---

---

---

---

---

- ### What/Why of “Evidence-Based”
- Spend precious resources well to ensure desired outcomes
  - Good programs have:
    - Theory or conceptual base
    - Important and clear behavioral outcomes
    - Outcomes feasible to change by intervention
    - Process and outcome evaluation
  - Scalability
- UMTRI**

---

---

---

---

---

---

---

---

---

---

---

---

### Teen Driving: Why Involve Parents?

Because parents:

- Can and should decide teens' readiness to drive
- Give permission for teen to learn, get licensed
- Supervise practice driving
- Know their teen best
- Own the car, have the keys
- Pay insurance, petrol, repairs
- Must enforce GDL restrictions; police can't



---

---

---

---

---

---

---

---

### What Do Parents Need?

- Essential information, but not too much
- Support that they are valued, that teens listen to them
- Help with communication
- Tools to use, especially if fear is aroused
- Efficient use of their time



---

---

---

---

---

---

---

---

### Background: Checkpoints Objectives (Simons-Morton at NICHD)

- Raise parents' awareness of risks to teen drivers
- Encourage adoption of parent/teen driving agreement
- Encourage setting appropriate driving restrictions
- Involve parents in monitoring teens' early driving
- Reduce teens' risky driving



---

---

---

---

---

---

---

---

### Checkpoints (Simons-Morton)

- **Self-administered** parent program delivered through state licensing offices
- **Facilitated** parent management of teen driving to reduce risk, based on Protection Motivation Theory and Social Learning Theory
- **Persuasive messages** and parent/teen driving agreement
  - Initially, teens drive alone only in low-risk conditions
  - Later, teens gain privileges with experience/responsible behavior
- **Shown promise** increasing agreement use/restrictions, and reducing risky driving, but limited uptake



---

---

---

---

---

---

---

---

### Driver Education as a Potential Setting for Checkpoints

- **'Teachable moment'** for parents
- **Good venue** for parent-teen discussion (classroom)
- **Good venue** for interaction with a facilitator
  - Face-to-face
  - Small group
  - Brief intervention
- **Required** in Michigan



---

---

---

---

---

---

---

---

### 1) Checkpoints in Driver Education (Shope, Simons-Morton; NICHD-funded)

- **Test efficacy**, in a group-randomized trial, of Checkpoints intervention (large driving school, 344 parent/teen dyads)
  - Adapted Checkpoints for Michigan's GDL
  - Delivered as a 30-minute group intervention
  - Led by trained health educator
  - Delivered to driver education classes



---

---

---

---

---

---

---

---

1) Checkpoints in Driver Ed Results  
*(Family & Community Health 32, 175-188)*

■ Checkpoints parents (licensure phone survey):

- Had increased awareness of teen driving risk
- Were more likely to have completed agreement
- Were more likely to set recommended restrictions
  - For heavy rain
  - For local roads
  - For roads with speed < 55 mph
  - For teen passengers (marginal)
  - For snow or ice (marginal)
- Were not more likely to set recommended restrictions for nighttime driving



---

---

---

---

---

---

---

---

1) Checkpoints in Driver Ed Discussion

- First report of Checkpoints in driver education
- Efficacy was demonstrated for parents who participated, but they were not the majority
  - Needed to increase participation
- Stronger effects would be desirable
  - Comparison parents had comprehensive materials
  - Booster could be needed



---

---

---

---

---

---

---

---

2) Checkpoints in Driver Education  
*(Shope, Simons-Morton; CDC-funded)*

- Trained driver education instructors administered program
  - 10 small driving schools
  - 152 parent-teen dyads
- Additional poster for class session
- Parent responsibilities added to agreement
- Booklet for parents to take home



---

---

---

---

---

---

---

---

## 2) Checkpoints in Driver Ed Session

- Parents/teens in driver education classroom together
- Introduction
- Video “Who Want to Be a Driver;” discussion
- Persuasive messages
- Teen drivers’ risk (4 posters)
- Written parent/teen agreement: discuss and complete together, one condition at a time
- Conclusion/parent poll of intended driving restrictions




---

---

---

---

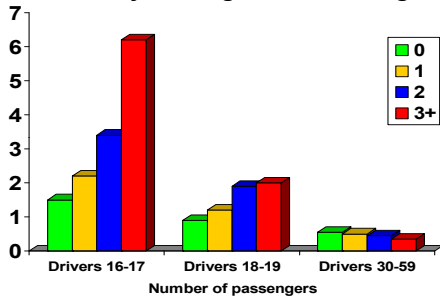
---

---

---

---

## Classroom Figure: Teen Driving Risk Crashes by Passengers and Driver Age




---

---

---

---

---

---

---

---

## Checkpoints Agreement: Part 1 Driving Conditions Parent-Teen Driving Agreement

**DIRECTIONS**  
 1. Review risks, discuss, and fill in Checkpoint privileges for each driving condition.  
 2. Decide how long these privileges should remain in effect, and fill in length and date for next review.  
 3. Initial and date agreed-upon privileges.  
 4. At review date, discuss staying in Checkpoint longer, or increasing privileges and filling in next Checkpoint.  
 5. Repeat process for all Checkpoints.

DRIVING CONDITIONS	CHECKPOINT 1	CHECKPOINT 2	CHECKPOINT 3	CHECKPOINT 4
NIGHTTIME Daytime Nighttime				
TEEN PASSENGERS Daytime Nighttime				
WEATHER Daytime Nighttime				
ROADS Daytime Nighttime				
Length of time in effect				
Next date to review if teen: Followed privileges? Improved skills? Had enough practice? Observed other?				
Parent and teen initial: understand and agree to accept driving privileges	Parent _____ Teen _____	Parent _____ Teen _____	Parent _____ Teen _____	Parent _____ Teen _____




---

---

---

---

---

---

---

---

## Checkpoints Agreement: Part 2 Rules and Consequences

Part 2...DRIVING RULES These are absolutes - ones that apply to every trip every time

MARK EACH WITH A CHECK TO INDICATE AGREEMENT	
<b>TEEN DRIVER WILL:</b> <input type="checkbox"/> Never drive after taking any drugs or alcohol or ride with a driver who has taken any drugs or alcohol <input type="checkbox"/> Never speed, talkate, or cut off others <input type="checkbox"/> Always obey all traffic laws <input type="checkbox"/> Always wear a safety belt and require all passengers to wear safety belts <input type="checkbox"/> Always tell parent/guardian where going and with whom <input type="checkbox"/> Always call home if going to be late <input type="checkbox"/> Always call home if for any reason it is not safe to drive or ride with someone else <input type="checkbox"/> Never play around with passengers, talk on a cell phone, mess with the radio or do anything else distracting.	<b>PARENT WILL:</b> <input type="checkbox"/> Be a good role model behind the wheel <input type="checkbox"/> Point out and discuss safe and dangerous driving situations and practices <input type="checkbox"/> Apply rules fairly and consistently <input type="checkbox"/> Consider necessary exceptions to the driving privileges <input type="checkbox"/> Provide safe ride home when asked (no questions at that time)
<b>CONSEQUENCES IF TEEN VIOLATES DRIVING PRIVILEGES OR RULES:</b> <input type="checkbox"/> Lose driving privileges for _____ <input type="checkbox"/> Other _____	

AGREE: We understand and agree to these driving privileges and rules/consequences.  
 Teen Initials: \_\_\_\_\_ Date: \_\_\_\_\_ Parent Initials: \_\_\_\_\_ Date: \_\_\_\_\_




---

---

---

---

---

---

---

---

---

---

### 2) Checkpoints in Driver Ed Results

- **Checkpoints teens (up to six months later):**
  - Were 4 X more likely to have a written agreement
  - Were more likely to have restrictions on:
    - Number of teen passengers allowed (3 X)
    - Night driving (weekday and weekend)
    - Road type initially
  - Reported less risky driving overall
    - Speeding 20+ mph over limit
    - Running yellow lights




---

---

---

---

---

---

---

---

---

---

### 2) Checkpoints in Driver Ed Discussion

- Encouraging preliminary results but challenges remained:
- Parent attendance at sessions only 35%
    - Lack of time
    - No need (teen behaving; laws are enough)
  - Parents' use of materials after session
    - Lack of time or forgot
    - Work done in session was enough
  - Strengthen limits set; increase parent enforcement




---

---

---

---

---

---

---


---

---

---

Translation Research

- Not efficacy or effectiveness
- Protect and improve health by moving the best science into practice
- CDC: Accelerate translation of proven effective interventions into public health practice
- Implementation, dissemination, and diffusion research to understand how evidence-based interventions move into practice

 UMTRI

---

---

---

---

---


---

---

---

3) Translating Checkpoints for Statewide Distribution on the Web (MI)  
(Bingham, Shope, Simons-Morton; CDC/NCIPC-funded)

- Web-based, Checkpoints program (adapted with fidelity)
  - <http://saferdrivingforteens.org>
  - Register for interactive agreement/reminders
- Three-phase promotional plan with partners (posters, bookmarks, ads, PSAs)
- Measure additive effects of sequential promotion phases
  - Google Analytics
- Measure feasibility in terms of costs

 UMTRI

---

---

---

---

---

---


---

---

3) Checkpoints Michigan on the Web

Promotional Partners:

- State agencies: health department, licensing authority, highway safety, state police, education department
- Driver education: statewide professional organization, several large driving schools
- Statewide organizations: school administrators, parent/teacher associations, police associations
- Advertising agency

 UMTRI

---

---

---

---

---

---

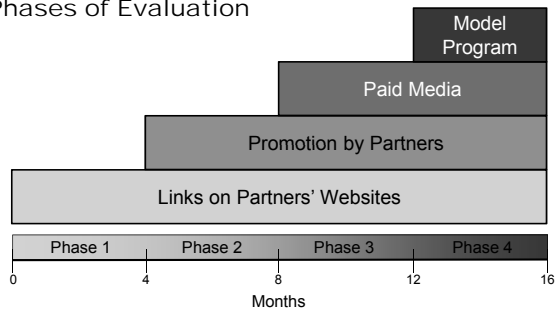
---

---



### 3) Checkpoints Michigan on the Web

Phases of Evaluation



---

---

---

---

---

---

---

---

---

---

### 3) Checkpoints Michigan on the Web

Results:

- Phases 1-3 combined: 15,278 visits over 12 months
- Press releases: 149% increase in visits (2 minutes) with 53% bounce rate
- Paid web/radio ads: 138% increase in visits (1 minute) with 77% bounce rate



---

---

---

---

---

---

---

---

---

---

### 3) Checkpoints Michigan on the Web

Discussion:

- Trade-offs for each strategy
- Paid media was costly, brought high volume, but website use limited
- Earned media was free, brought high volume, and website use better, but short impact period



---

---

---

---

---

---

---

---

---

---

#### 4) Translating an Effective Teen Driving Program for Parents to Primary Care (Shope, Bingham, Simons-Morton, Wasserman, Slora; CDC-funded)

- American Academy of Pediatrics collaboration
- Dissemination thru pediatric practices in 7 states a new Checkpoints website: [youngDRIVERparenting.org](http://youngDRIVERparenting.org)
- Training manual, protocol, and script
- Posters, button, bookmarks in offices
- Brief intervention: raise issue of teen driving and refer parents to website (give keychain, pen, notepad)
- Measure dissemination (survey), visits to website & adoption of agreement (Google Analytics)




---

---

---

---

---

---

---

---

---

---

#### Intervention Materials



ALSO:  
Button  
Key chain  
Note pads  
Pens




---

---

---

---

---

---

---

---

---

---




---

---

---

---

---

---

---

---

---

---




---

---

---

---

---

---

---

---

---

---




---

---

---

---

---

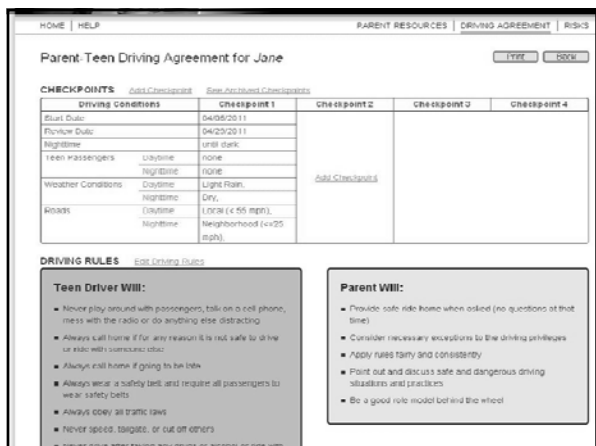
---

---

---

---

---




---

---

---

---

---

---

---

---

---

---

#### 4) Checkpoints in Primary Care: Results

- 144 providers thought program important, feasible, and delivered intervention with fidelity
- 3,465 parent interventions (87% of eligible)
- 1,453 website visits (42% of parents told)
- Visits averaged 4 minutes, 4+ topics viewed
- 346 (24%) viewed sample agreement
- 142 (10%) registered; 91 (6%) began interactive agreement; 50 completed one checkpoint (3%)



---

---

---

---

---

---

---

---

#### 4) Checkpoints in Primary Care: Discussion

- Interested providers who see teen patients can deliver brief intervention well to most eligible parents/teens
- 42% parents went to website, viewed material (more than in driver education)
- Viewing, using, completing agreement less than in driver education
- In-person facilitation needed for parent engagement/agreement completion
- Training, materials, and website are available free



---

---

---

---

---

---

---

---

#### Primary Prevention in Practice...

- Driver education a good setting for program – adapt
- Driver educators can implement/promote program
- State agencies, schools can offer/incentivize/require program
- Parent, teen, religious organizations can be involved
- Primary care providers can help parents/teens



---

---

---

---

---

---

---

---

## Primary Prevention in Practice

- Website needs promotion to engage parents/teens
  - Primary care promotion more effective than statewide
- Brief intervention plus website may be best
- Multi-pronged approach but one primary program
- Build on what's available; seek input from us to adapt



---

---

---

---

---

---

---

---

**Thank you!**

For assistance with materials, programming,  
or evaluation:

[jshope@umich.edu](mailto:jshope@umich.edu)

[jzak@umich.edu](mailto:jzak@umich.edu)



---

---

---

---

---

---

---

---