

THE POTENTIAL OF IVDR FEEDBACK AND PARENTAL GUIDANCE TO IMPROVE NOVICE MALE YOUNG DRIVERS' BEHAVIOR

Driving Assessment, June 2013

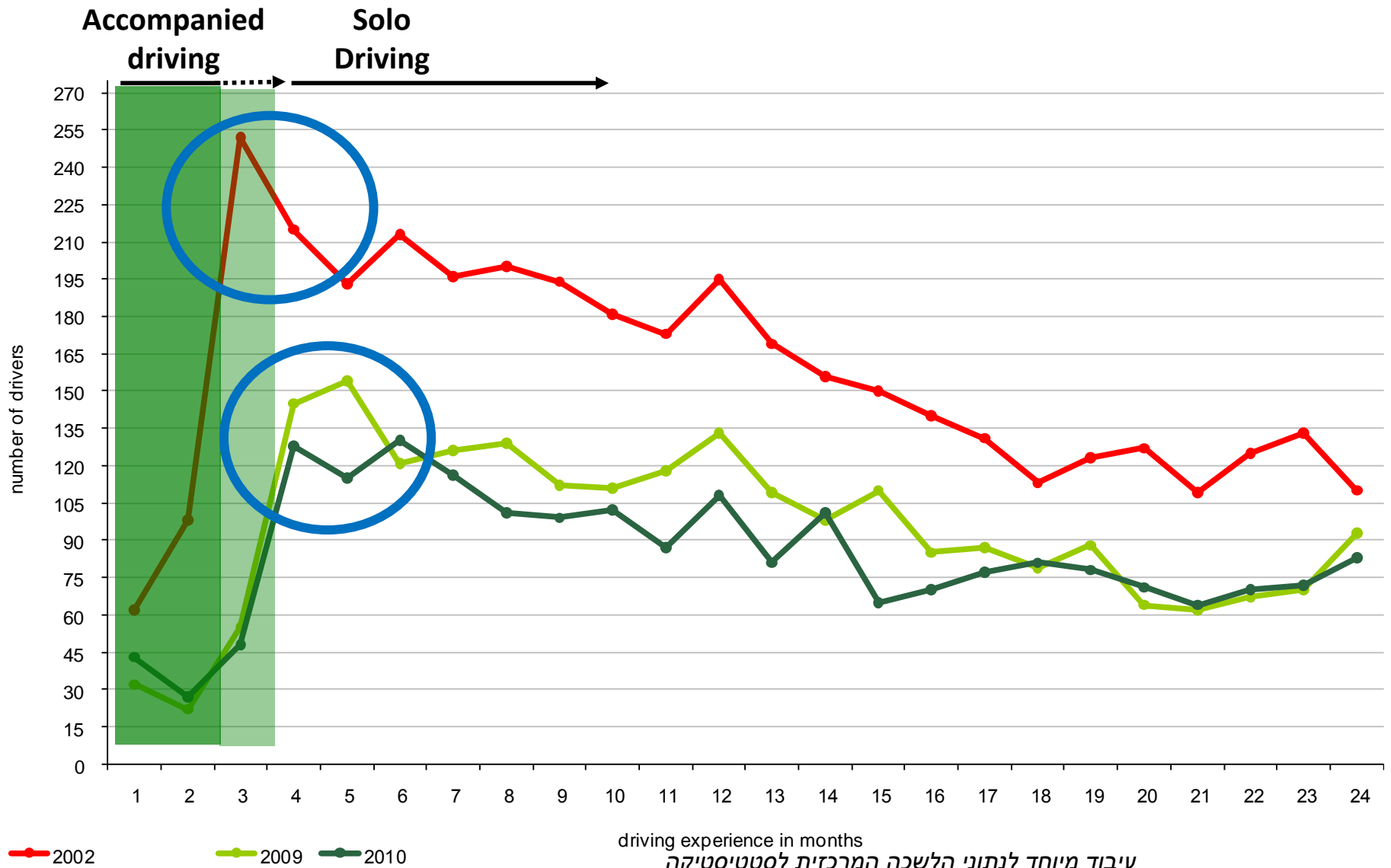
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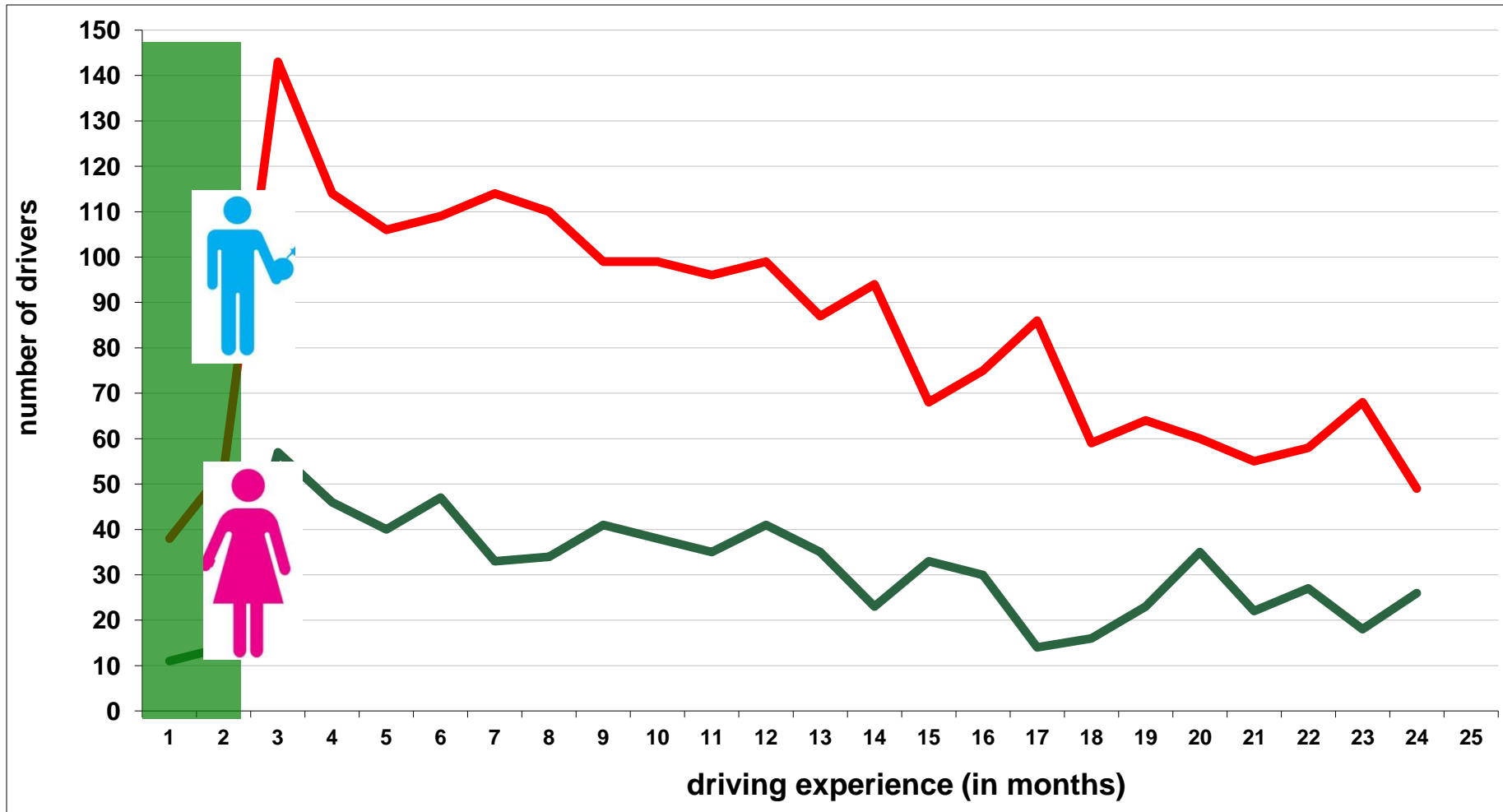
**Yaara Shimshoni
Haim Omer**



Young drivers' involvement in crashes



Young drivers' involvement in crashes



Graduated Driver Licensing System

In Israel **several restrictions** apply:

Accompanied driving
(first 3 months)



**Number of
Passengers**
(first 2 years)



**ZERO Blood Alcohol
Content**



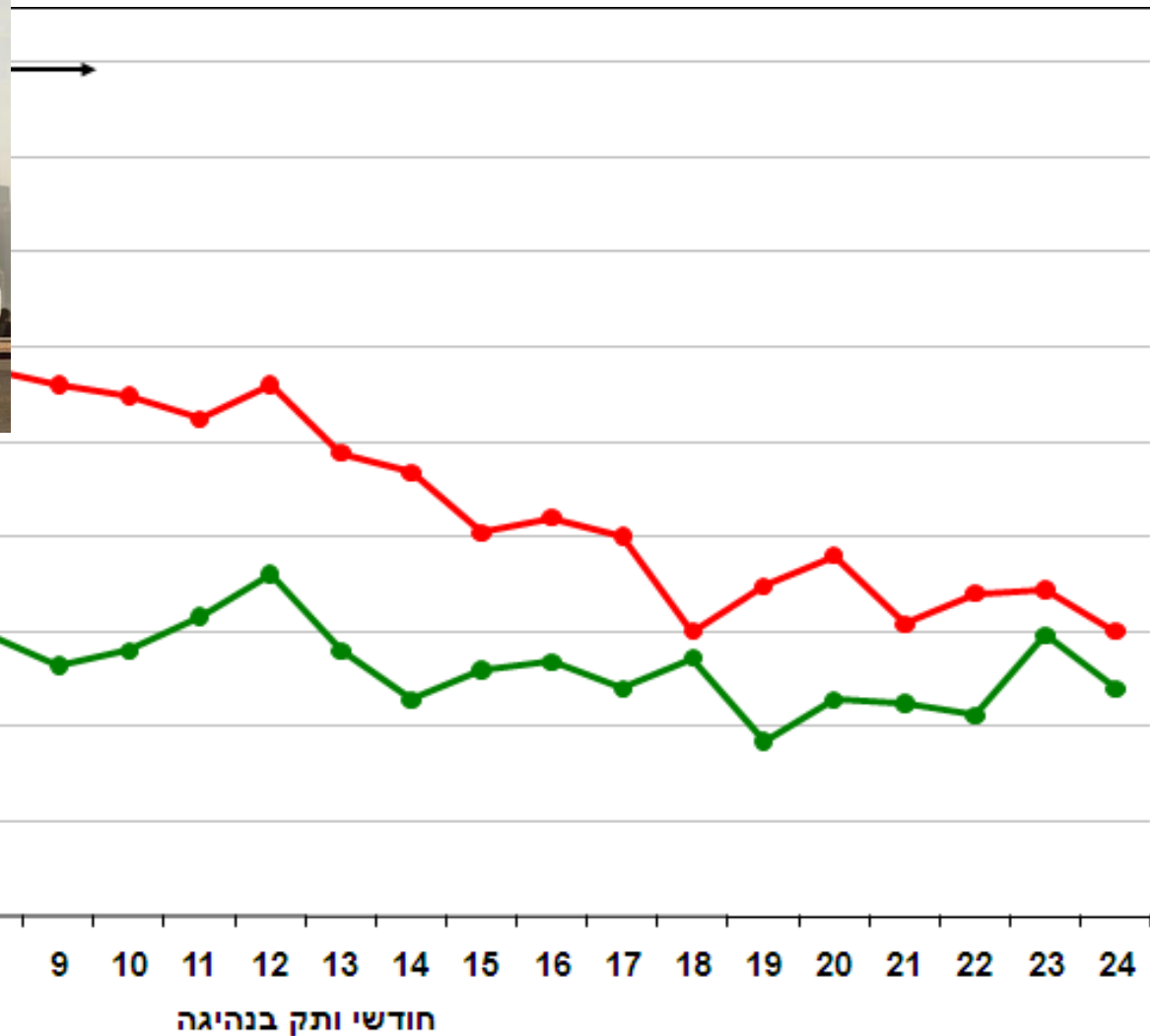
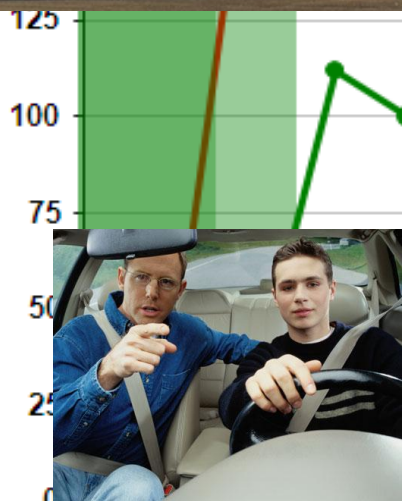
Starting July 1st, 2013

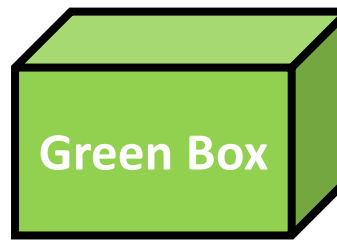
nighttime restrictions



DriversFdguru.com

Can technology help?





Feedback to Drivers

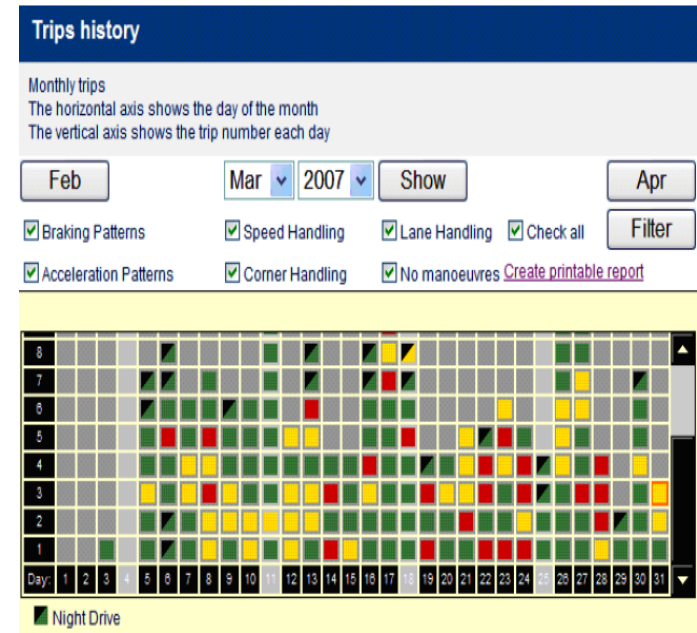
Online

In-vehicle display



Off-line

Web-based application



Parents



Parents and Teens



Parents and Teens

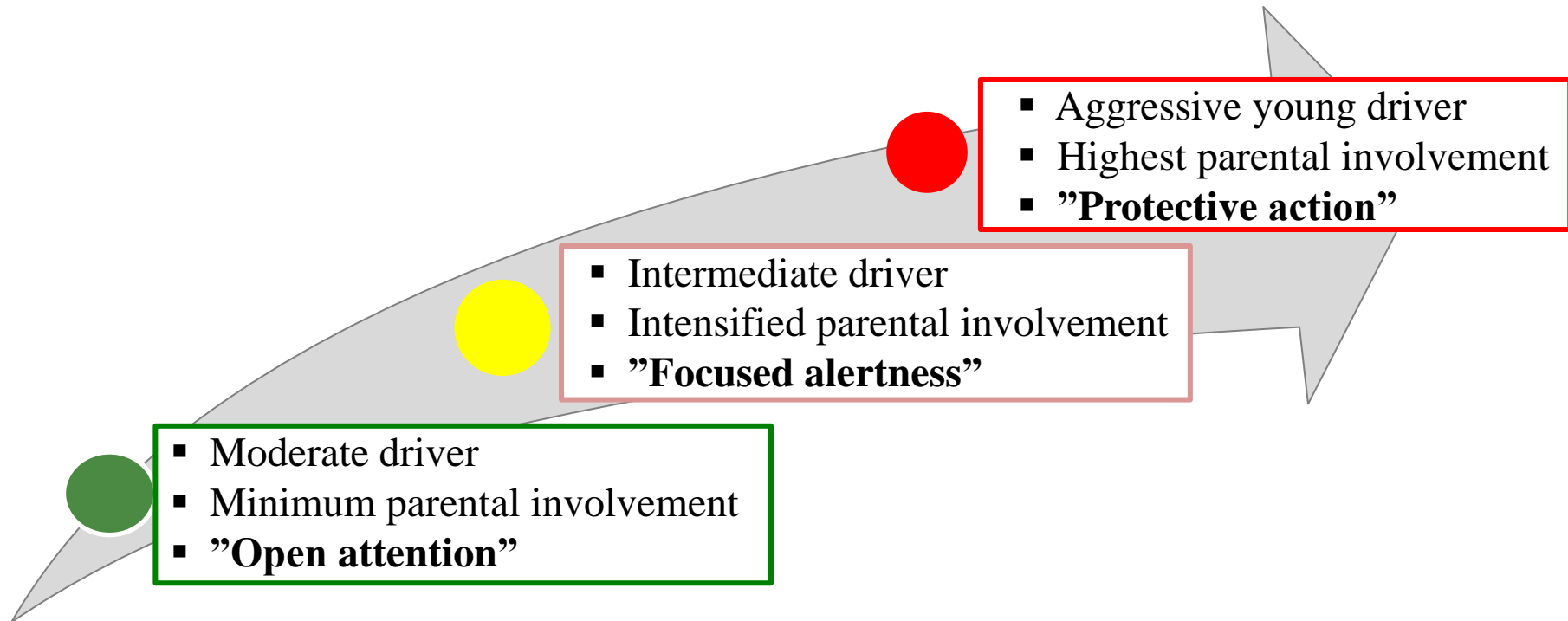
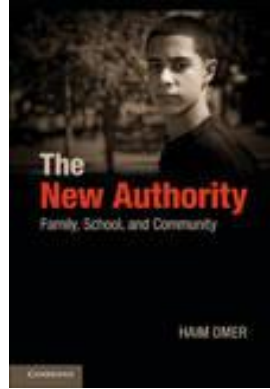


Parents

- ❑ Many parents did not make full use of IVDR technology or even rejected it completely (*Farmer et al., 2010; Guttman et al., 2010*);
- ❑ Parents need guidance on how to:
 - motivate the young driver to use the feedback effectively;
 - avoid conflicts with them around the feedback.
- ❑ Teens with authoritative parents are less involved in unsafe behaviors (*Ginsburg et al., 2009*);

Guidance to Parents

- The New Authority (NA) approach (Omer 2004, 2011)
- Vigilant Care
- Link level of involvement to the level of driving aggressiveness



Guidance to Parents

- ❑ Administered in a **90 minute meeting** at the family's home;
- ❑ **Both parents and the young driver** were invited to the meeting;
- ❑ **Written material** was provided with instructions on how to implement the guidelines to increase its effectiveness and minimize escalation;
- ❑ **3-4 bi-weekly phone conversations** were initiated by the counselors to help the parents better cope with the difficulties they face.



Participants and Recruitment

- ❑ A rolling recruitment procedure was used (07/2009 – 11/2010);



Male young drivers



Licensed recently
(driving experience up-
to 1.5 month)



Live in the
central
part of
Israel



Drive the family car
(i.e. do not have their own car)



Their parents have
access to the internet



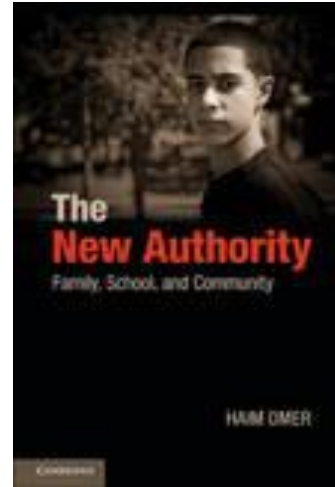
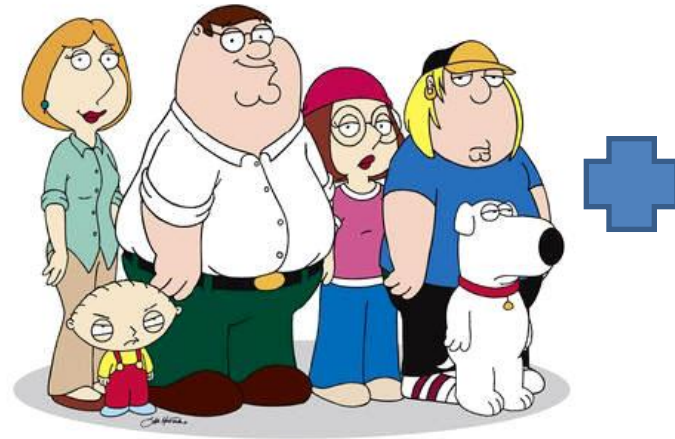
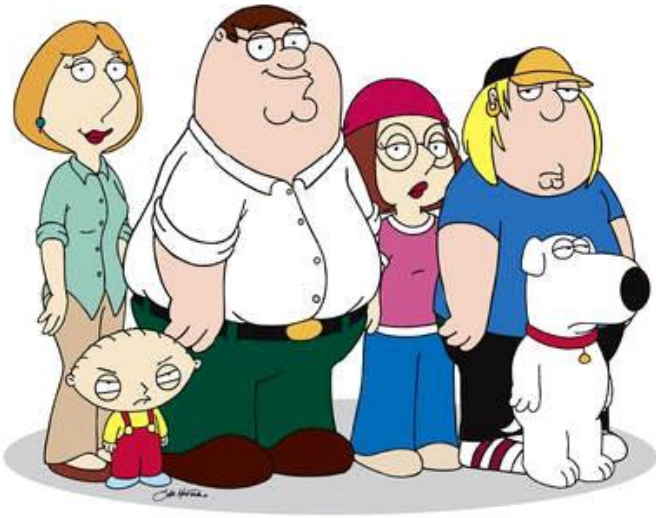
Do not have untreated
ADHD

Final Sample of Participants

- ❑ 242 young male drivers and their families;
- ❑ Of these, 217 completed the one year period;
- ❑ Young drivers' average age 17.5 (± 0.8);
- ❑ Participating families received 1000 NIS (approximately \$250).

**Drop-off
rate of
10.3%**





CONTROL
GROUP

Research Questions



(1) What is the impact of self-regulated feedback on the driving safety of young (male) drivers ?



(2) Does family-regulated feedback affect young male drivers' behavior more than a self-regulated feedback?



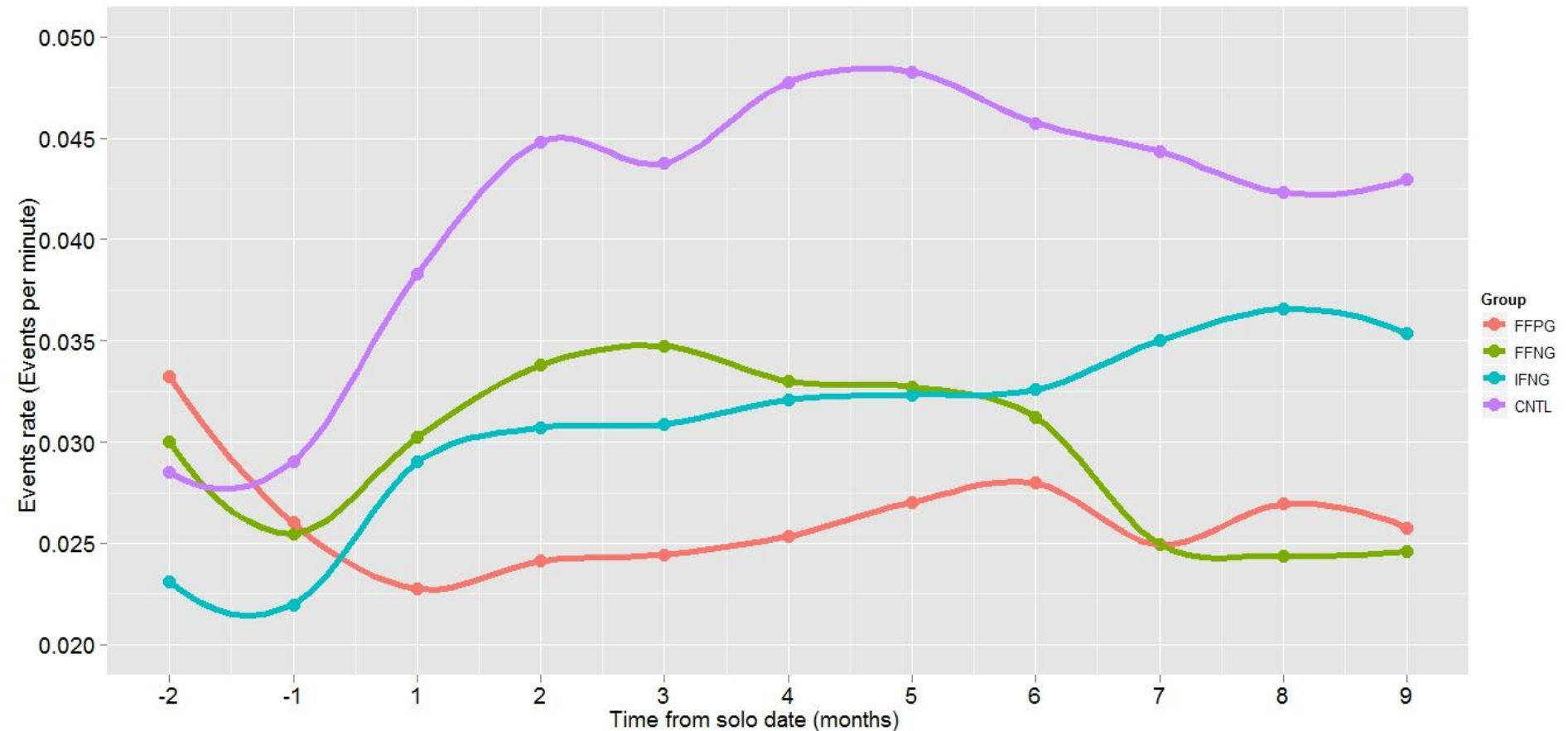
(3) Does providing parents with guidance on parental monitoring increase the benefits compared to the family feedback?

Driving Behavior

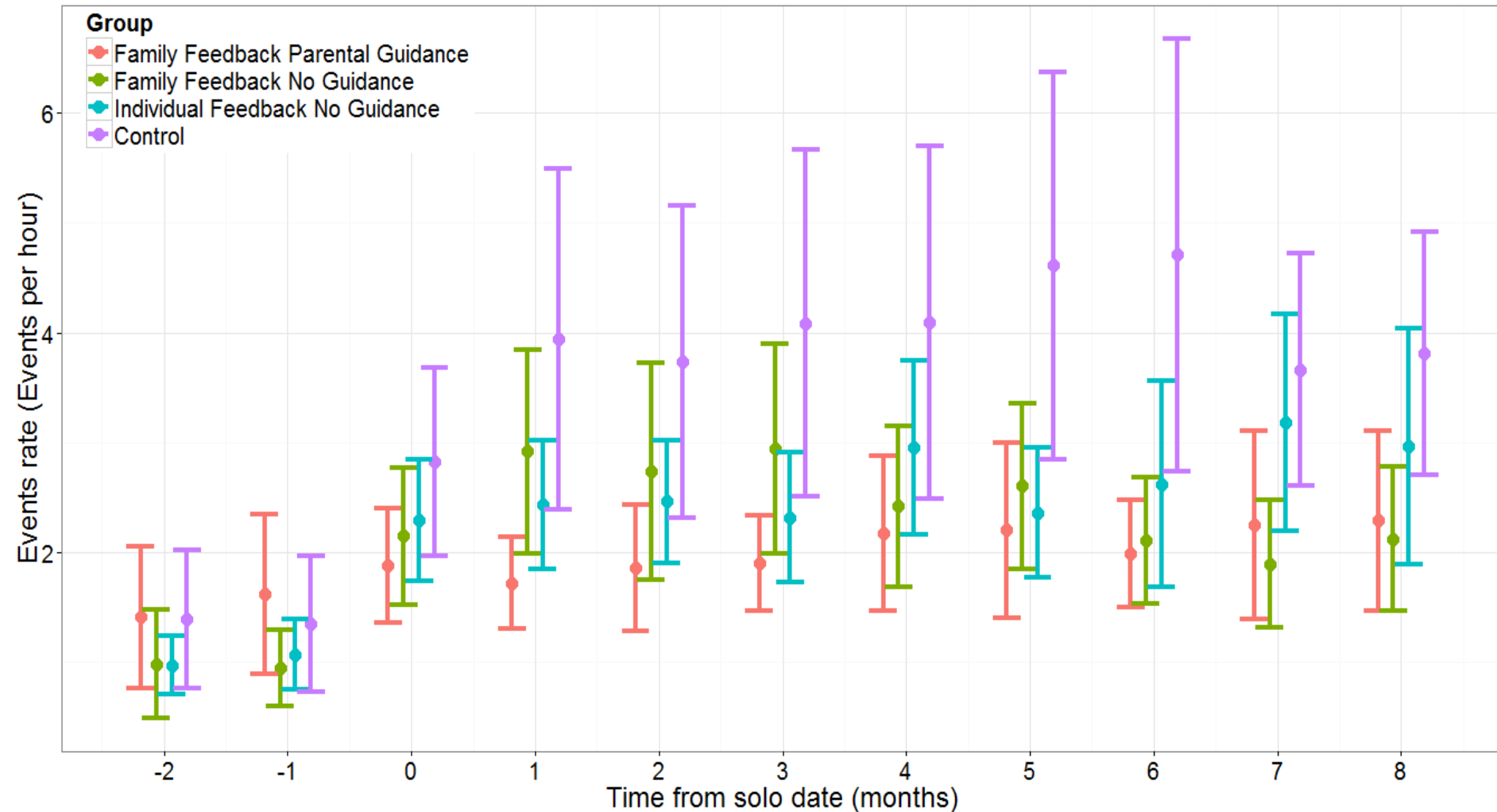
Driving behavior is measured by the number of excessive maneuver events normalized by the number of driving hours.

	Events Rate Average (std)	
	Accompanied	Solo
Control	1.43 (2.14)	3.85 (4.91)
Individual Feedback No Guidance	1.07 (1.30)	2.89 (4.32)
Family Feedback Parental Guidance	1.56 (2.42)	2.01 (2.43)
Family Feedback No Guidance	1.13 (1.95)	2.43 (2.80)
Overall Sample	1.27 (1.77)	2.76 (3.28)

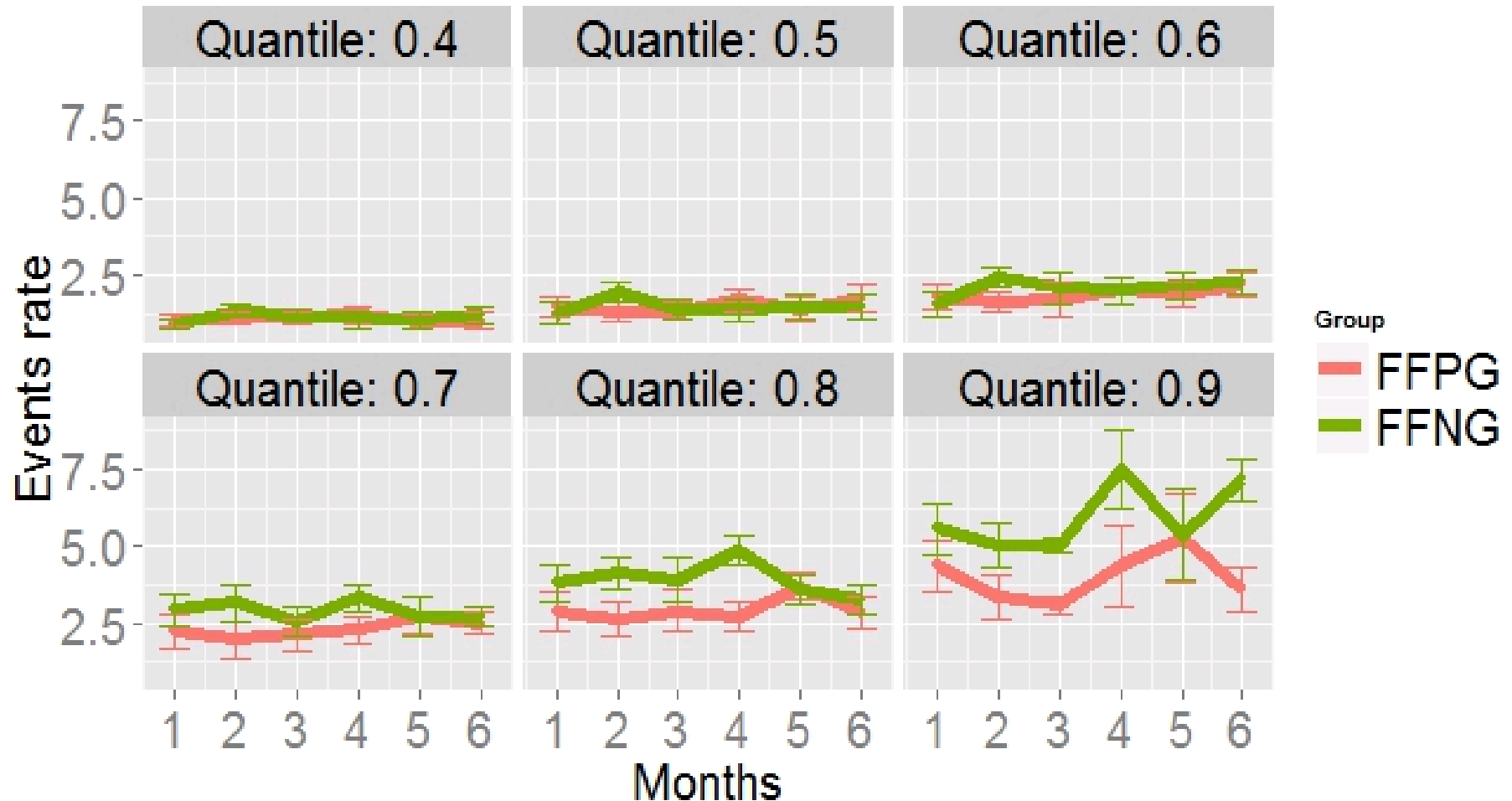
Driving behavior over time



Driving behavior over time



Effects of parental guidance



Summary & What's Next?

- ❑ it works
 - ❑ parents need to be motivated and guided
 - ❑ it is most effective for those who need it
 - ❑ still – it is far from being widely used
-
- ❑ need to connect to motivations of young drivers
 - ❑ needs to be simplified

Thank you

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קרן רן נאור THE RAN NAOR FOUNDATION



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Israel Institute of Technology



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