Crash Causes, Distraction and Mitigation In Young Drivers

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Young driver crashes

- Driving is the single most dangerous thing we let our children do

- Leading cause of death ages 15-19
  - (CDC-WISQARS 2005-2009)

- Crash rates dependent on exposure

Heart disease, cancer; 6%

All other non-injury causes; 9%

Motor Vehicle Crashes 37%

Motor vehicle crash; 37%

All other injury; 16%

Homicide; 18%

Suicide; 14%
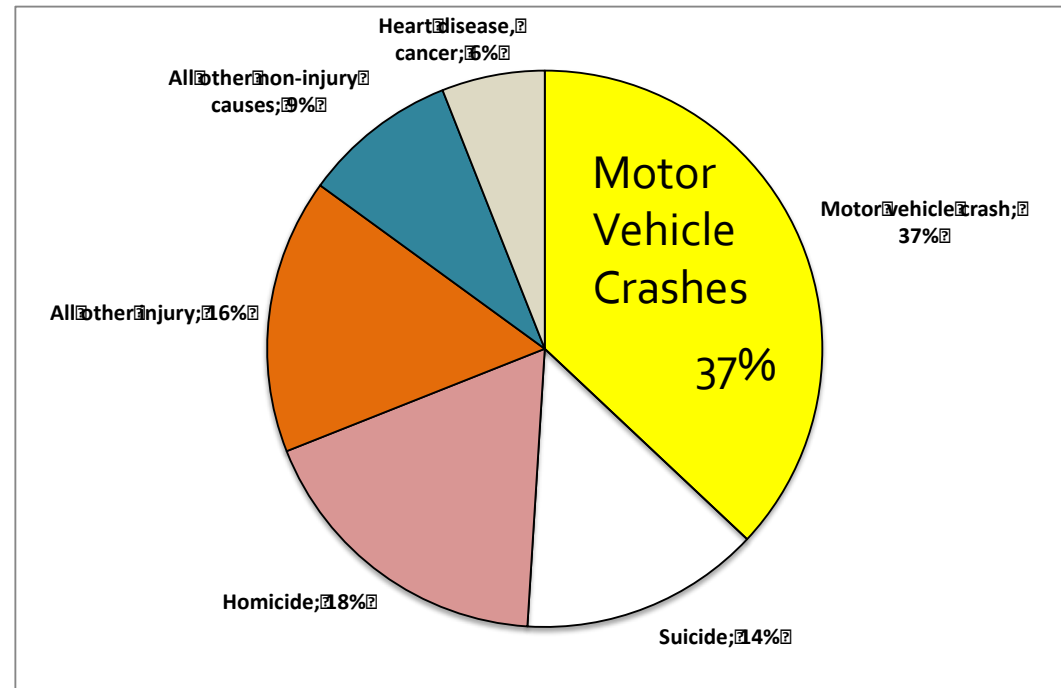
Crash causes

1. Poor judgment & decision-making exacerbated by young age and inexperience

2. Sensitivity to peer influence & risk taking
   – The more teen passengers, the more risk and device interaction; encouraging and discouraging behavior

   – Risk taking causes vary; can be intentional or naïve; reduce safety margins

3. Disconnect between driving abilities and task demands

   – Difficulties in speed maintenance and hazard perception

   – Good at the technology part, but not on task sharing

Messaging vs. voice

- Visual-manual communication among young driver age group increasing rapidly and voice communication down

- Nielsen sampled 65,000 phone records

- Teen females sent and received an average of 3,952 texts/month; Males sent and received an average of 2,815 texts/month

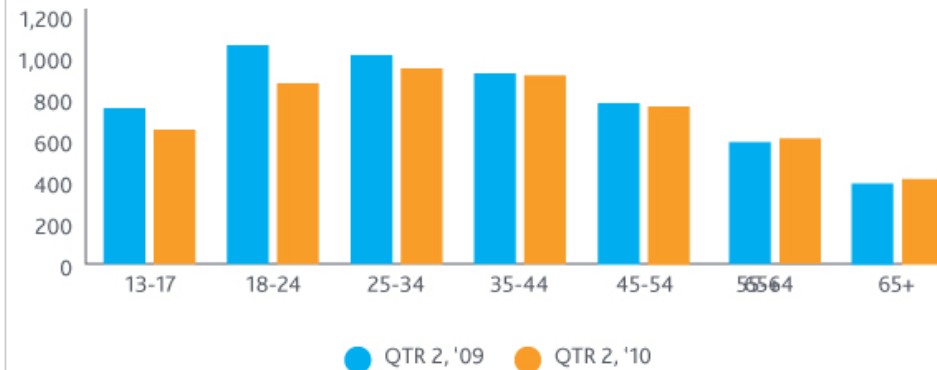- Voice use declined most among the teen group and young adults

Text usage by Age
Q2 '09 - Q2 '10, Customer Value Metrics, National

QTR 2, '09   QTR 2, '10
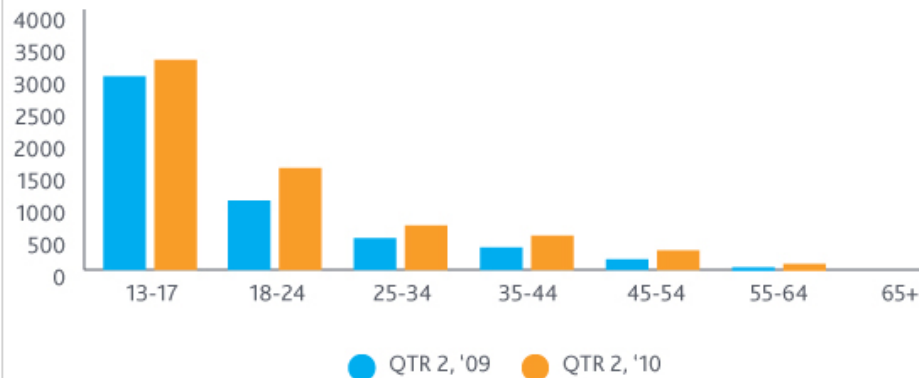
Source: The Nielsen Company

Voice Usage by Age
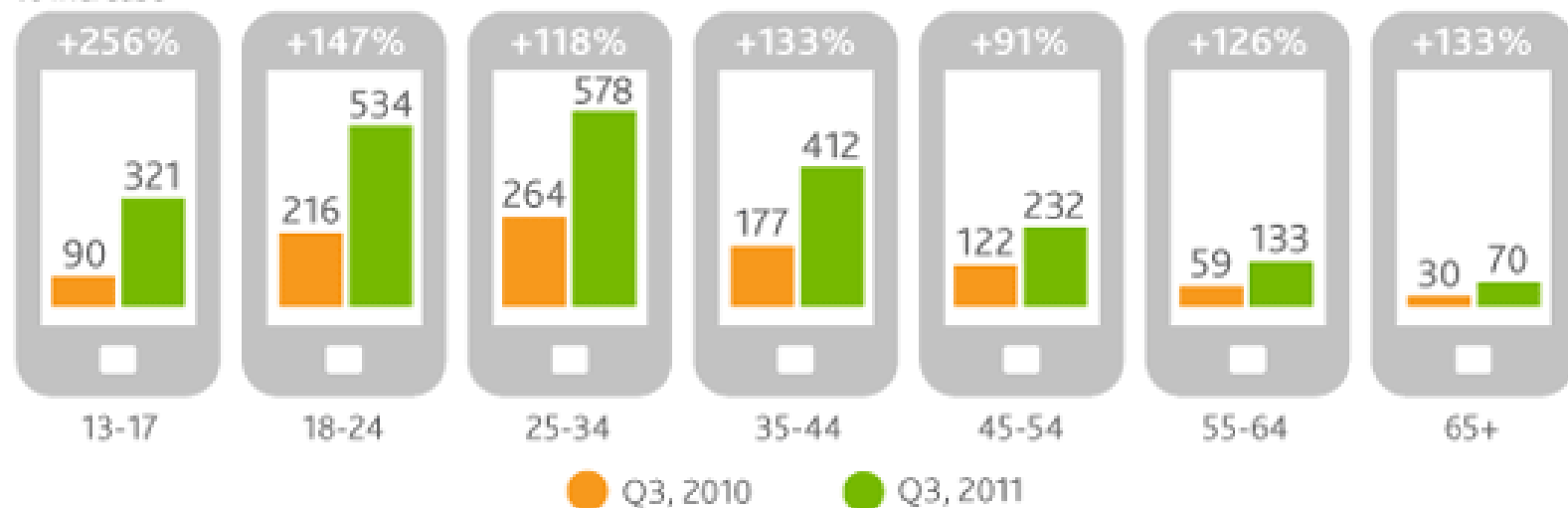Q2 '09 - Q2 '10, Customer Value Metrics, National

QTR 2, '09   QTR 2, '10

Source: The Nielsen Company

Mobile data usage by age

Monthly Data Usage by Age (MB)
Q3, 2010 vs. Q3, 2011

% increase

Age	+256%	+147%	+118%	+133%	+91%	+126%	+133%
Q3, 2010	90	216	264	177	122	59	30
Q3, 2011	321	534	578	412	232	133	70
Age group	13-17	18-24	25-34	35-44	45-54	55-64	65+

● Q3, 2010   ● Q3, 2011

Source: Nielsen

nielsen

- Data heavy downloads from mobile internet, social networking, email, app downloads/use account for this usage

- Males heavier usage with 382 vs. 266 MB/month for females

Mitigation— promising outcomes

- Graduated driver licensing systems
  - Provides a protective environment where they can learn through experience
    - Without passengers
    - No late-night driving
    - More supervised driving
- Driver feedback technologies
- Driver agreements—Checkpoints
- Risk awareness and perception training (RAPT)