IIHS activities on alcohol-impaired driving

The National Academies Committee on Accelerating Progress to Reduce Alcohol-Impaired Driving Fatalities
March 22, 2017

Jessica B. Cicchino
IIHS is an independent, nonprofit scientific and educational organization dedicated to reducing the losses — deaths, injuries and property damage — from crashes on the nation’s roads.

HLDI shares this mission by analyzing insurance data representing human and economic losses from crashes and other events related to vehicle ownership.

Both organizations are wholly supported by auto insurers.
Institute activities
We do not lobby, legislate, or litigate

- IIHS and HLDI rely on aggressive research and communications to empower people and policymakers with objective information
- Priority 1 – objective research on policy options to reduce injuries and property damage from motor vehicle crashes
- Priority 2 – effective communications to make research information attractive to news media
  - News releases (TV, print, Internet)
  - Films
  - Testimony at state and federal legislative and regulatory hearings
  - Briefings of other stakeholders, including vehicle manufacturers
# Haddon matrix
Recognizing opportunities to make a difference

<table>
<thead>
<tr>
<th></th>
<th>Pre-crash</th>
<th>During Crash</th>
<th>After Crash</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People</strong></td>
<td>graduated licensing</td>
<td>safety belts</td>
<td>medical bracelets</td>
</tr>
<tr>
<td></td>
<td>impaired driving laws</td>
<td>helmets</td>
<td>general health</td>
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<tr>
<td></td>
<td>automated enforcement</td>
<td></td>
<td></td>
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<tr>
<td><strong>Vehicles</strong></td>
<td>crash avoidance technology</td>
<td>airbags</td>
<td>automatic collision notification</td>
</tr>
<tr>
<td></td>
<td>crashworthiness</td>
<td>crashworthiness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>truck underride guards</td>
<td>truck underride guards</td>
<td>fuel system integrity</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>roundabouts</td>
<td>roadside barriers</td>
<td>emergency medical services</td>
</tr>
<tr>
<td></td>
<td>rumble strips</td>
<td>breakaway poles</td>
<td>long-term rehabilitation</td>
</tr>
</tbody>
</table>
Surveillance
## History of the National Roadside Survey

<table>
<thead>
<tr>
<th>dates</th>
<th>drivers interviewed</th>
<th>sponsors</th>
</tr>
</thead>
<tbody>
<tr>
<td>April - June 1986</td>
<td>2,971</td>
<td>IIHS</td>
</tr>
<tr>
<td>Sept. - Nov. 1996</td>
<td>6,045</td>
<td>IIHS, NHTSA</td>
</tr>
<tr>
<td>July - Dec. 2007</td>
<td>9,094</td>
<td>NHTSA, NIAAA, NIDA, NIJ</td>
</tr>
<tr>
<td>June 2013 - March 2014</td>
<td>8,804</td>
<td>NHTSA, NIDA, IIHS</td>
</tr>
</tbody>
</table>
Percent of weekend nighttime drivers with positive alcohol test in National Roadside Surveys

- Positive BAC
- BAC ≥ 0.08 percent

Data points:
- 1973: High positive BAC
- 1986: High positive BAC
- 1996: Moderate positive BAC
- 2007: Lower positive BAC
- 2013-14: Lower positive BAC
Enforcement
Percent of high BAC drivers detected by officers, with and without passive alcohol sensors

IIHS, 1986-1995

<table>
<thead>
<tr>
<th>Type of Checkpoint</th>
<th>Without Sensors</th>
<th>With Sensors</th>
</tr>
</thead>
<tbody>
<tr>
<td>sobriety checkpoints</td>
<td>45-55</td>
<td>68-71</td>
</tr>
<tr>
<td>routine patrol</td>
<td>69</td>
<td>77</td>
</tr>
<tr>
<td>special DUI patrol</td>
<td>88</td>
<td>94</td>
</tr>
</tbody>
</table>
Annual number of sobriety checkpoints conducted in states per 100,000 residents
Survey of state highway safety offices, 2012

- > 20
- 3 to 20
- < 3
- not conducted
- unknown
Frequency of sobriety checkpoints conducted by local and state agencies

- County
- Municipal
- State
- National estimate

- At least monthly
- Quarterly
- Less than quarterly
- None
- Other or unknown

Graph showing the frequency distribution across different levels of government.
Alcohol ignition interlocks
Cumulative percent of recidivism among 1st simple DUI offenders in WA arrested after 2004 law change

By status of interlock, arrested between June 2004 and June 2006

- Installed interlock
- Ordered to install interlock but did not
Predicted cumulative 2-year recidivism rate for 1st simple DUI convictions in WA with & without 2004 law change

By quarter of arrest, January 1999-June 2006

- 0%
- 2%
- 4%
- 6%
- 8%
- 10%
- 12%

- 2004 law change
- without 2004 law change

- all offender law

- 2004
Ongoing research

- Follow-up study of Washington’s interlock laws
  - Interviews with offenders on why they choose or don’t choose to install interlock, and effects on travel patterns
  - Evaluation of additional law changes in 2009 and 2011
- Cross-state study of effects of first offender interlock laws on fatal crashes
Advanced in-vehicle alcohol detection technology
### Potential lives saved in 2015 if BACs of drivers limited to specific maximums

<table>
<thead>
<tr>
<th></th>
<th>BAC &lt; 0.08 g/dl</th>
<th>zero BAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>drivers with multiple DUI convictions within 3 years</td>
<td>128</td>
<td>187</td>
</tr>
<tr>
<td>drivers with at least one prior DUI conviction within 3 years</td>
<td>646</td>
<td>942</td>
</tr>
<tr>
<td>all drivers</td>
<td>6,973</td>
<td>10,652</td>
</tr>
</tbody>
</table>
Attitudes toward advanced alcohol test technology in all vehicles, if technology shown to be reliable

IIHS national telephone survey, 2009

- Very good idea: 36%
- Good idea: 28%
- Not a good idea: 19%
- Bad idea: 6%
- Don't know: 11%
Percent of respondents who think advanced alcohol test technology in all vehicles is good or very good idea

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>all</td>
<td>60%</td>
</tr>
<tr>
<td>drive regularly</td>
<td>60%</td>
</tr>
<tr>
<td>drink</td>
<td>60%</td>
</tr>
<tr>
<td>drive after drinking</td>
<td>50%</td>
</tr>
<tr>
<td>don't drink</td>
<td>70%</td>
</tr>
</tbody>
</table>
More information and links to our YouTube channel and Twitter feed at iihs.org

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