Drink Driving in Ireland

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13th October 2008
RSA Conference Dublin
This presentation

- Trends in fatal road crashes in Ireland
- Preliminary results of study into role of alcohol in fatal crashes
- Drivers
- Pedestrians
- Why we need to lower the legal limit to at least 50mg%
Acknowledgements

- Fellow Authors
  - Nuala McKeown
  - Ann O’Farrell
  - Fenton Howell

- Staff of the Traffic Bureau in Garda HQ
  - Josephine Healy
Deaths on Irish Roads
1961-2007
Deaths on Irish Roads 1961-2007 per million population
Alcohol Related Road Deaths In Ireland

- No systematic collection of data

- 1975 regional study:
  - 46% killed drivers above legal limit

- 2003 national study:
  - Alcohol a factor in 37% of road deaths
Drink Driving as a Factor in Fatal Crashes in Selected Countries


(Joint OECD/ECMT Transport Research Centre)
Average yearly % change in road deaths resulting from crashes related to drink driving between 1996-1998 and 2005. (ETSC)
Study Into Alcohol And Fatal Crashes

Methods

† Files on fatal crashes kept by The National Traffic Bureau of An Garda Siochana
  † Witness reports
  † Technical examination of sites and vehicles
  † Post mortem reports including toxicology
  † Garda Investigations

† All files for 2003-2005 examined by authors
Legal limit

† Blood = 80 mg/100ml.

† Urine = 107mg/100ml.

† Breath = 35ug/100ml.
Alcohol impairs driving ability

- “There is no blood alcohol level at which impairment does not occur” *

- Relative risk of a fatal crash is 4-10 times higher for drivers with BACs between 50-79mg% risk compare to drivers with BACs of zero

* Prof Moskowitz, 2001
Definition Alcohol Related Crash

Driver
† Blood alcohol level of $\geq 20\text{mg/100ml}$ (or the equivalent in urine and breath tests) in a driver.

Pedestrian
† Blood alcohol level and the circumstances of the crash

† In any crash other factors such as speed may also be involved
Results of Data
2003-2005

- 995 crashes killing 1,105 people
![Fatal Crashes That Were Alcohol Related](chart)

<table>
<thead>
<tr>
<th></th>
<th>All Crashes</th>
<th>Alcohol Crashes</th>
<th>% Alcohol Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>301</td>
<td>110</td>
<td>37%</td>
</tr>
<tr>
<td>2004</td>
<td>334</td>
<td>95</td>
<td>28%</td>
</tr>
<tr>
<td>2005</td>
<td>360</td>
<td>104</td>
<td>29%</td>
</tr>
<tr>
<td>2003-5</td>
<td>995</td>
<td>309</td>
<td>31%</td>
</tr>
</tbody>
</table>

*The decrease is not statistically significant*
## Deaths In Alcohol Related Crashes

<table>
<thead>
<tr>
<th></th>
<th>All Deaths</th>
<th>Alcohol Deaths</th>
<th>% Alcohol Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>335</td>
<td>124</td>
<td>37%</td>
</tr>
<tr>
<td>2004</td>
<td>374</td>
<td>110</td>
<td>29%</td>
</tr>
<tr>
<td>2005</td>
<td>396</td>
<td>118</td>
<td>30%</td>
</tr>
<tr>
<td>2003-5</td>
<td>1,105</td>
<td>352</td>
<td>32%</td>
</tr>
</tbody>
</table>

*The decrease is not statistically significant*
## Role of Alcohol in fatal crashes 2003-2005

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>3 Year Ave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol not a factor</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Alcohol test not available/not done</td>
<td>30</td>
<td>43</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>Driver alcohol</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Pedestrian Alcohol</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Pedestrian and Driver alcohol</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Other alcohol</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
Day Of Week Of Non-alcohol Related Crashes 2003-5
Time Of Day Of Non-alcohol Fatal Crashes 2003-5
Time Of Day Of Alcohol Related Fatal Crashes 2003-5
Alcohol Related Crashes

- 2 out of every 3 occur between 10PM on Friday night and 8AM on Monday mornings
- 1 in every 2 occur on Saturdays and Sundays
Alcohol Related Deaths

- 15% in mornings between 04.00 and 08.00
### Persons Who Died In Alcohol Related Crashes

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>All years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drivers</td>
<td>82</td>
<td>78</td>
<td>74</td>
<td>234</td>
</tr>
<tr>
<td>Pedestrians/ Cyclists</td>
<td>23</td>
<td>13</td>
<td>24</td>
<td>60</td>
</tr>
<tr>
<td>Passengers</td>
<td>19</td>
<td>19</td>
<td>20</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
<td>110</td>
<td>118</td>
<td>352</td>
</tr>
</tbody>
</table>
## BACs in killed drivers

<table>
<thead>
<tr>
<th>BAC LEVEL</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>Zero</td>
<td>132</td>
<td>26</td>
<td>33</td>
</tr>
<tr>
<td>Not recorded as done/not available</td>
<td>169</td>
<td>34</td>
<td>45</td>
</tr>
<tr>
<td>1-19</td>
<td>7</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>20-49</td>
<td>12</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>50-80</td>
<td>18</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>81-159</td>
<td>50</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>160-239</td>
<td>65</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>240+</td>
<td>50</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>503</td>
<td>100</td>
<td>108</td>
</tr>
</tbody>
</table>
# Killed Drivers With BACs Above 80 And 50 Mg%)

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>ALL YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All killed drivers</td>
<td>188</td>
<td>202</td>
<td>221</td>
<td>611</td>
</tr>
<tr>
<td>&gt;80 mg%</td>
<td>32%</td>
<td>30%</td>
<td>28%</td>
<td>30%</td>
</tr>
<tr>
<td>&gt;50 mg%</td>
<td>37%</td>
<td>31%</td>
<td>31%</td>
<td>33%</td>
</tr>
<tr>
<td>Killed drivers with test result available</td>
<td>138</td>
<td>160</td>
<td>148</td>
<td>446</td>
</tr>
<tr>
<td>&gt;80 mg%</td>
<td>44%</td>
<td>38%</td>
<td>42%</td>
<td>41%</td>
</tr>
<tr>
<td>&gt;50 mg%</td>
<td>51%</td>
<td>39%</td>
<td>47%</td>
<td>45%</td>
</tr>
</tbody>
</table>
Who are the killed drivers with alcohol?

- 9 out of 10 are men
Rate per 100,000 population for killed drivers with BAC ≥20, >50 and >80 mg/100ml
Pedestrians Aged 15 Years And Over

- 187 killed over the 3 years
- 1 in 4 of their deaths related to their own alcohol intake
- 9 out of 10 alcohol related deaths were men
- 1 in 9 had BACs in excess of 240 mg%
Average yearly % change in road deaths resulting from crashes related to drink driving between 1996-1998 and 2005. (ETSC)
Average yearly % change in road deaths resulting from crashes related to drink driving
Drink Driving

- Still a serious problem
- Kills at least 120 people a year
Annual Alcohol Consumption, Litres per population 15+
Per capita Alcohol consumption Ireland (age 15+) 1960-2007
5 drinks or more in typical session

- Ireland 34%
- Finland 27%
- UK 24%
- EU 10%
- Italy 2%
Percentage of drivers, who are drinkers, who drive after drinking 2 or more standard drinks (SLAN 2007)
Targeted action needed because of high alcohol consumption
Road Safety Strategy In Ireland
2007-2012

- Action 76: Legislate for and introduce a reduction in the legal BAC for drivers by 2nd Quarter 2009
Reducing the limit works

- NSW and Queensland 1982-92;
- 80mg% to 50mg%
- Study controlled for weather, seasons, economic and road activity, alcohol consumption and other legislations such as RBT
- Significant reduction in all collision and fatality measures in both states.
Reducing the limit works

**NSW**
- Serious collisions down 7%
- Fatal collisions down 8%

**Queensland**
- Serious collisions down 14%
- Fatal collisions down 18%
Reducing the limit works

- Scientific review (Mann et al, 2001)
  - In most but not all cases beneficial effect on traffic safety measures

- Scientific review (Fell, Voas, 2006)
  - Strong evidence in the literature that lowering the BAC limit from .08 to .05 is effective, and saves lives.
Major initiatives work
Deaths on Irish Roads
1961-2007
RBT introduced in Ireland in July 2006

- An immediate reduction in fatalities
- A reduction in hospital admissions resulting from road crashes
The Number of Road Deaths in Ireland in the 12 Months Before and After the Introduction of RBT

![Bar chart showing the number of road deaths before and after RBT introduction, with months from July to June and data for two years: 2005-2006 and 2006-2007.]
In the first 6 months after the introduction of RBT*

- 3,430 admissions to hospital from car crashes
- 352 admissions less than the corresponding 6 months in 2005

*Provisional adjusted data
In other areas major national initiatives used to prevent similar number of deaths

- In late 2000 meningococcal C vaccination introduced for children

- Prior to introduction in 1999 and 2000 average deaths per year was 8
There is support for lowering the limit:

- DOHC survey 2002: 67%
- Sartre 2004 (where limit 80+): 75%
- PARC 2007: 99%
Drivers Should Be Allowed No Alcohol At All (Sartre 3)
The legal limit needs to be reduced

- Alcohol even at low levels impairs driving ability
- The evidence has shown that reducing the limit works
- Too many deaths and injuries as a result of alcohol
- Targeted action needed because of high alcohol consumption
- There is support for a reduction
Conclusion

Drink driving is a problem in Ireland

- Lowering the Limit
  - Will save lives
  - Will reduce injury and disability