Advanced Alcohol Detection --

The Way Forward

Susan A. Ferguson, Ph.D.

Insurance Institute for Highway Safety

IIHS

Drinking and Driving Worldwide Recent Trends

Three groups of countries

- Continued decline
- Decline halted - no clear trend
- Decline halted - major increase

Drinking and Driving Worldwide Recent Trends

Continued decline

- France
- Germany

Decline stalled - no clear trend

- Australia
- Canada
- Great Britain
- United States

Decline halted - major increase

- Sweden

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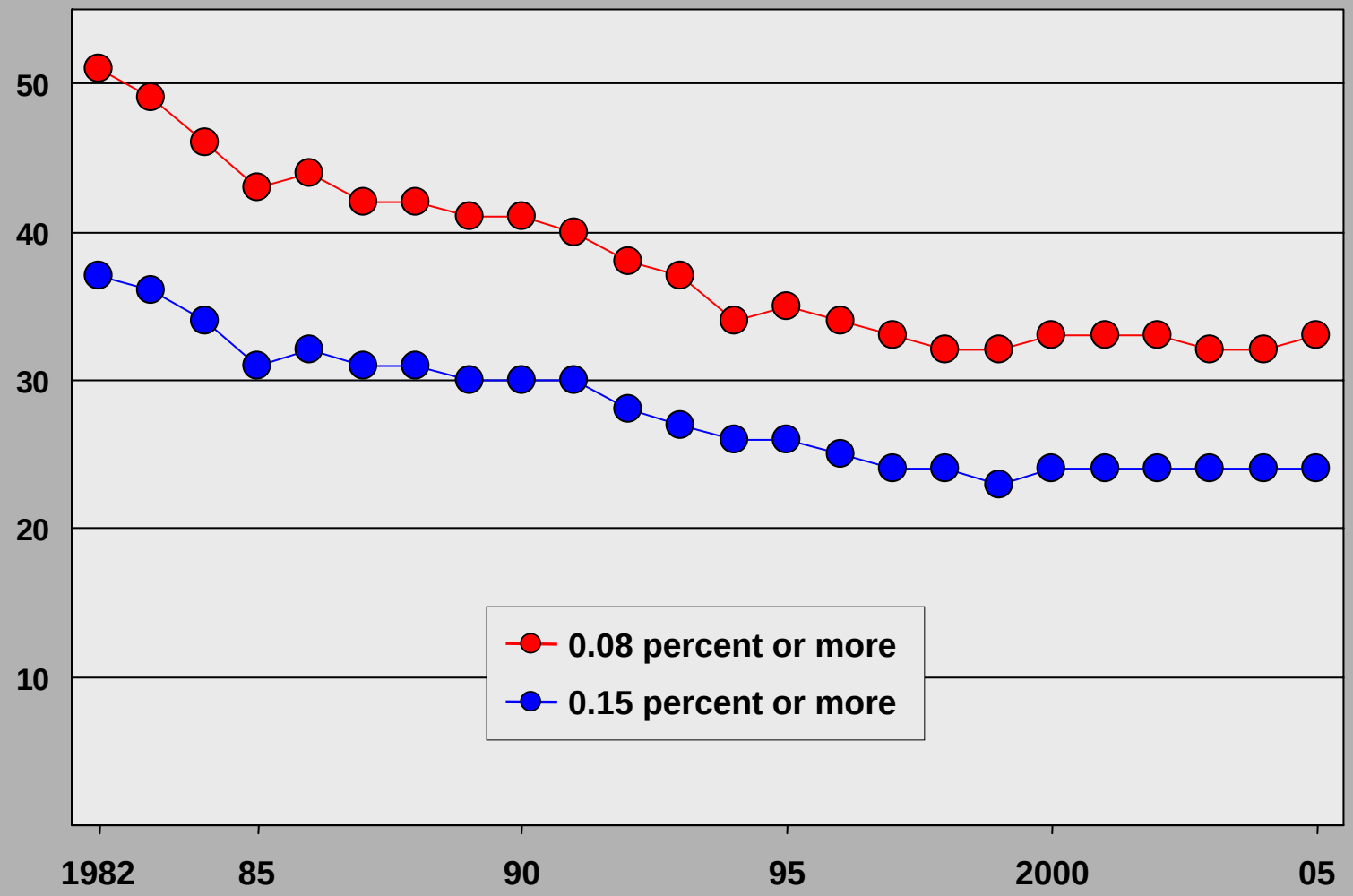
Percent of fatally injured drivers with BACs at or above 0.08 and 0.15 percent, 1982-2005



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Australia - Trends

- Percent of fatally injured drivers and motorcycle riders with BACs above the legal limit decreased from 44 to 30 percent between 1981-1992
- Decease in the percent of drivers in roadside surveys with BACs above 0.08 percent from 1979-1992
- Per capita alcohol consumption decreased 26 percent from 1981-1983 to 1991
- Not much progress since 1992

Source: McLean, TRB Circular 422

Canada - Trends

- From1991 to 1999, the decline in fatally-injured drivers testing positive for alcohol decreased from about 1,000 to about 600.
- Since 1999 there has been a slow, steady increase, reaching about 650 by 2003

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Great Britain - Trends

- In the 1980s and early 1990s those killed or seriously injured, whilst over the legal limit, fell from 9,000 to 4,000.
- In the past ten years no over-riding trend
- Those killed in drink-drive crashes fell to a low of 460 in 1998, but has risen to an estimated 590 in 2004

Source: Road Casualties Great Britain 2004

Sweden - Trends

- Alcohol-related fatalities declined sharply from 31 percent in 1989 to 18 percent in 1997
- Alcohol-related fatalities climbed steadily from 18 percent in 1997 to 29 percent in 2004 – a 61 percent increase

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Growing interest around the world in wider use of in-vehicle alcohol ignition interlocks

- 2004 three states (NM, NY, OK) considered legislation to mandate alcohol ignition interlocks on all vehicles
- 2005 Ontario, Canada was also exploring such a requirement
- Sweden announced its intent to equip all commercial vehicles with alcohol ignition interlocks by 2010, all passenger vehicles by 2012

Growing interest around the world in wider use of in-vehicle alcohol ignition interlocks

- 2006, parliament of Finland adopts resolution committing to support Sweden's initiative to mandate interlocks
- 2006, Japan Ministry of Land, Infrastructure and Transport (JMLIT) begins exploration of in-vehicle alcohol detection technologies and other countermeasures

Potential lives saved in 2004 if vehicle technologies limited driver BACs to specified levels

maximum BAC permitted	lives saved
0.15%	4,794
0.10%	6,855
0.08%	7,886
0.05%	10,493
0.02%	12,319

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Breath alcohol ignition interlocks

Technology for preventing impaired driving

- Installed in vehicles of drivers convicted of DWI
- Reduce recidivism by about 65% while on vehicle
- Intrusive and cumbersome
- Not suitable for use in all vehicles

Minimum requirements of technologies that would be suitable for use in all vehicles

- Small
- Quick to use
- Accurate
- Reliable
- Repeatable
- Durable, robust
- No or low maintenance
- Virtually invisible to sober drivers

MADD International Technology Summit

- High visibility enforcement
- MADD will work with states to increase use of breath alcohol ignition devices for convicted DWI offenders
- Blue Ribbon Panel for Development of Advanced Alcohol Detection Technology
  - cooperative research spearheaded by MADD, Alliance of Automobile Manufacturers, IIHS, and NHTSA to develop advanced alcohol detection system
- Public support initiative

Blue Ribbon Panel Membership

- Representatives from the three major auto producing regions of the world (N. America, Europe, Asia)
  - Vehicle manufacturers
  - Suppliers
  - Governments
- Other noted experts in the field
- Public health agencies
- IIHS, MADD

Road Map for Success

- Development of performance criteria for in-vehicle alcohol detection device
- Select promising candidates following a request for proposals
- First stage proof of concept grant
- Second stage development grant to build and test hardware to meet evolving criteria
- Final stage to refine for vehicle use
- Clinical trials to determine performance under a wide set of conditions
- Extensive field testing with limited groups such as DWI offenders and commercial fleets