

Fit to Drive

3rd International Traffic Expert Congress
Prague from June 19th - 20th 2008



Prague

Welcome

Worldwide Trends in Impaired Driving: Past Experience and Future Progress

Kathryn Stewart

Prevention Research Center

Pacific Institute for Research and Evaluation

Berkeley, California





1980s: Impressive Declines

- **50% in the Great Britain**
- **28 % in Canada**
- **28% in The Netherlands**
- **32% in Australia**
- **37% in Germany**
- **26% in the U.S.**

These declines did not continue in the early part of the 1990s

Mixed Results in 1990s

- **In some countries, increases in the early 1990s.**
- **In middle and later 1990s, some decreases occurred.**
- **Decreases at a slower rate than the dramatic decreases in the 1980s.**
- **At the end of the 1990s and in the new century, the record has been mixed.**

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

Drinking and Driving: Recent Trends

Decline halted - no clear trend:

Australia

Canada

The Netherlands

Great Britain

United States

Drinking and Driving: Recent Trends

Decline halted - major increase:
Sweden

Australia - Trends

- **Decrease in fatally injured drivers/riders above the legal limit: 44 percent in 1981 to 30 percent in 1992.**
- **Decrease in the percentage of drivers in roadside breath alcohol surveys above .08% from 1979 to 1992.**
- **Decline in alcohol consumption. 26 percent from 1981-1983 to 1991.**
- **Marked change in beer drinking, with low alcohol beer assuming an increasing proportion of beer sales.**
- Source: McLean, TRB Circular 422

Australia - Trends

The reductions through 1992 resulted from:

- Widespread use of random breath testing
- Formal and informal publicity about drink driving
- Other factors, including the increased use in seat belts (now close to 100 percent), and other vehicle safety measures

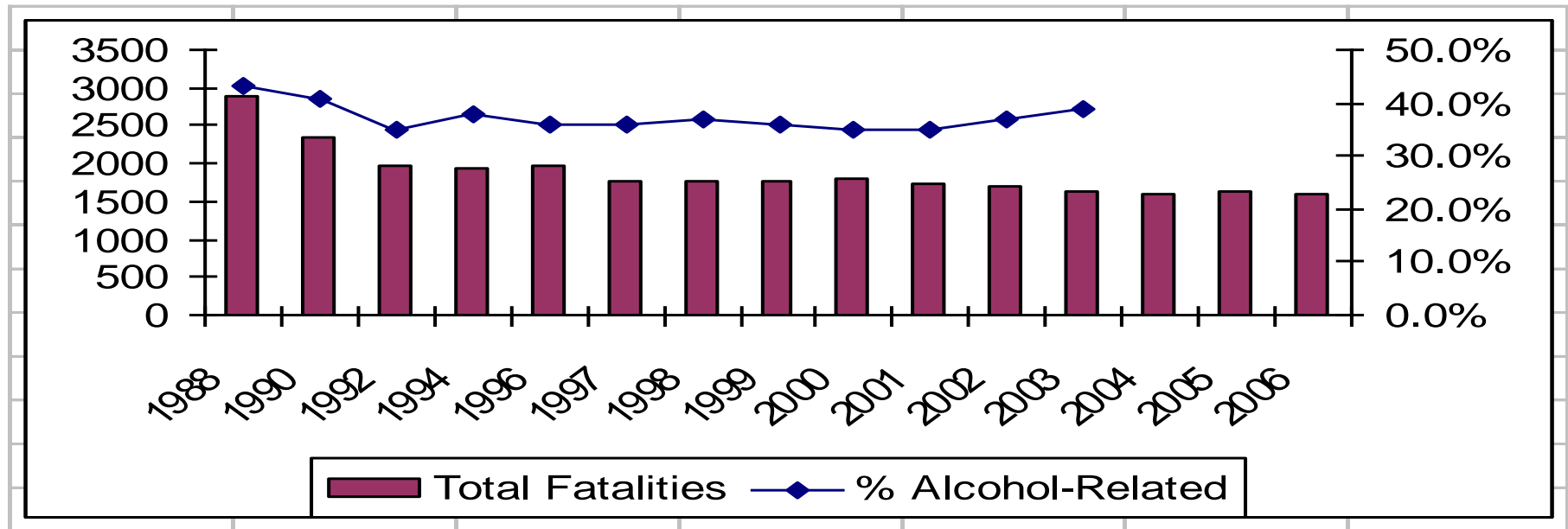
Not much progress since 1992

Source: McLean, TRB Circular 422



Australia - total fatalities & % alcohol related (where known)

Source: ATSB



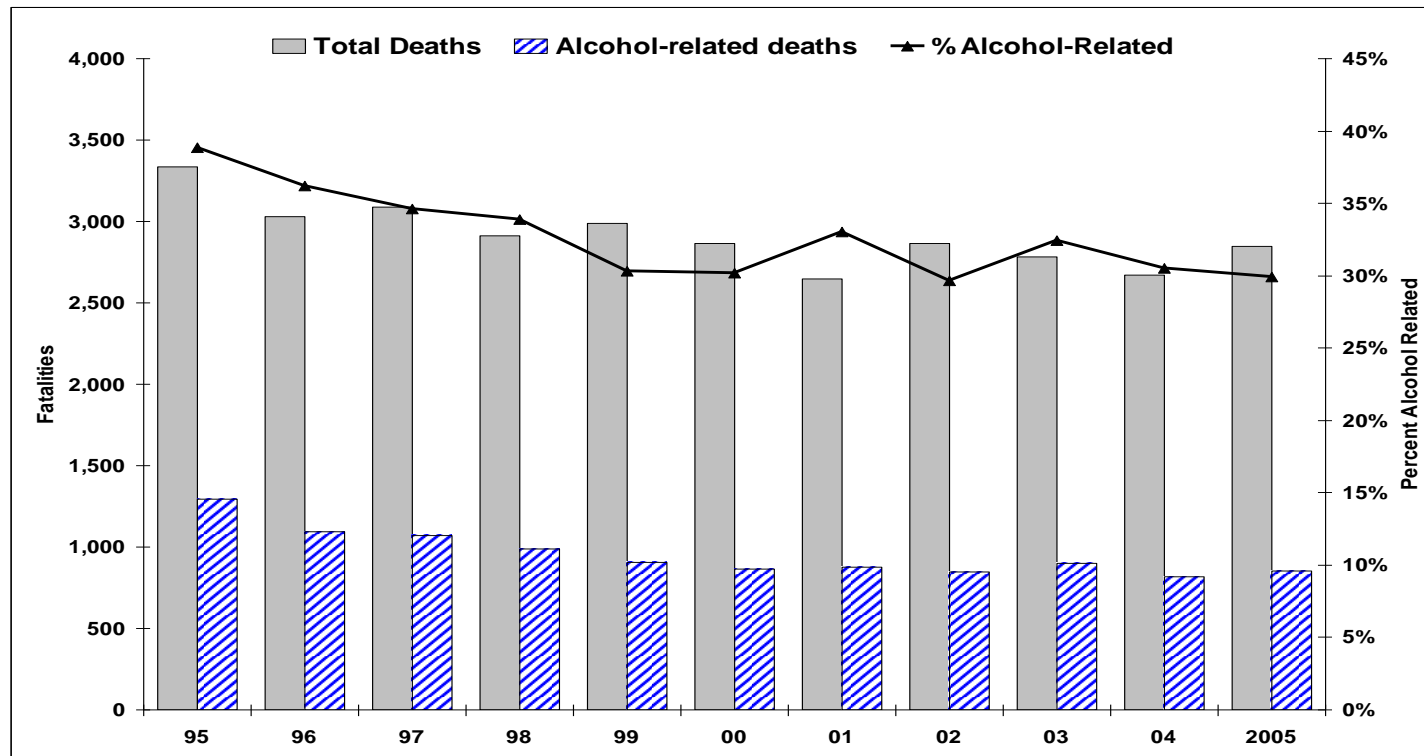
Canada - Trends

- 1991 to 1999: percentage of fatally injured drivers positive for alcohol down by 40% (from 1,000 to 600)
- Since 1999, slow, steady increase.
- 1999: percent of fatally injured drivers with positive BACs was 33%
- Since 1999, the percentage has varied from 35% to 38%

Source: Mayhew

Canada - number and percent of motor vehicle deaths involving a drinking driver

Source: TIRF



France - Trends

Fatally injured victims in alcohol-related crashes reduced from:

- **11,946 in 1983**
- **10,289 in 1990 - drop of 14%**
- **7,242 in 2002 - drop of 30%**

Progress attributed to massive alcohol screening enforcement – 9.7 million breath test in 2000

France - Trends

- French policies and public attitudes have changed radically
- The new policy includes:
 - dramatically stronger enforcement of speed limits - 1,000 speed cameras installed,
 - tougher penalties,
 - and heavy media campaigns designed to stigmatize road violations as “road violence” and “road delinquency.”

Assailly, T2007 paper



Fit to Drive

3rd International Traffic Expert Congress
Prague from June 19th – 20th 2008

SPAI





France - Trends

- This new policy, (July 2002) has:
 - Decreased traffic fatalities by 30% in three years, from approximately 8,000 per year to approximately 5,000 per year.
 - Decreased injuries (from approximately 150,000 per year to approximately 100,000 per year today).

Assailly, T2007 paper

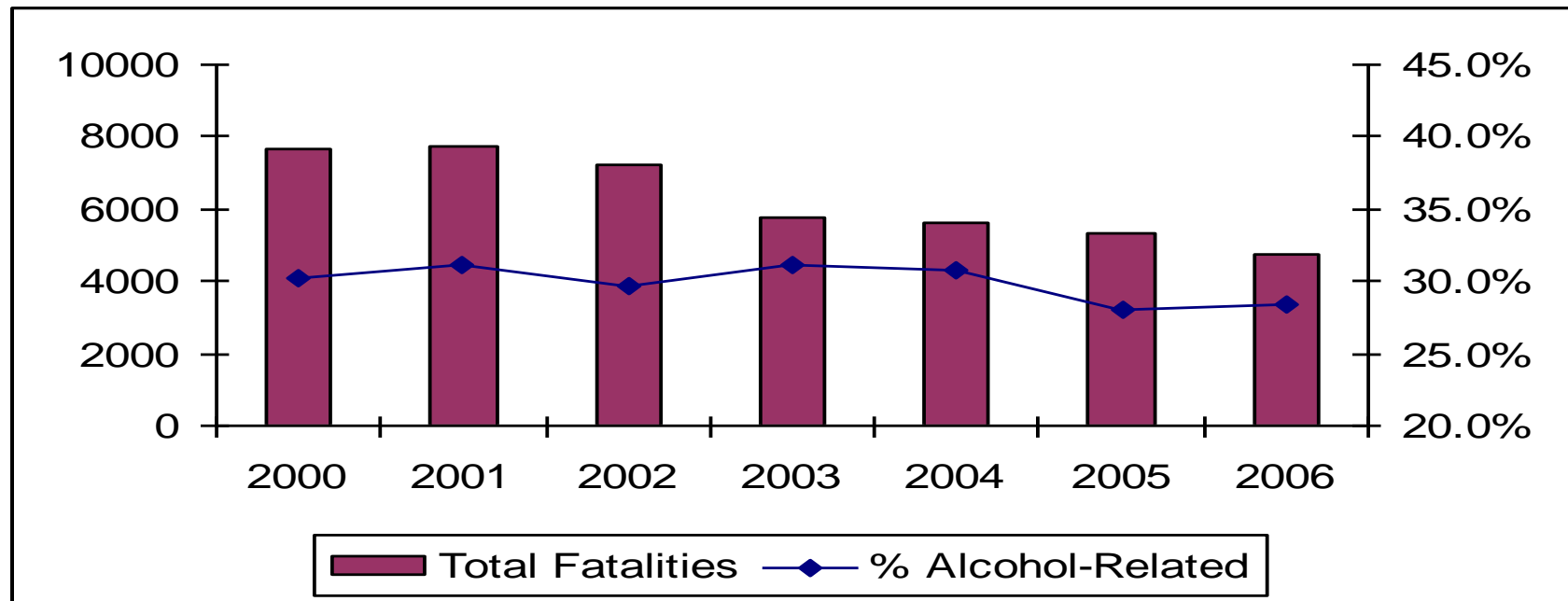
France - Trends

- Target of new policy was speed, not impaired driving
- Proportion of alcohol related fatalities declined: 31% to 28%
- Prevalence of positive BAC among all drivers unchanged (About 2.4%).
- One logical conclusion: as drivers drive more slowly, crashes are less severe, fewer fatalities occur.



France - total fatalities & % alcohol related (where known)

Source: INRETS



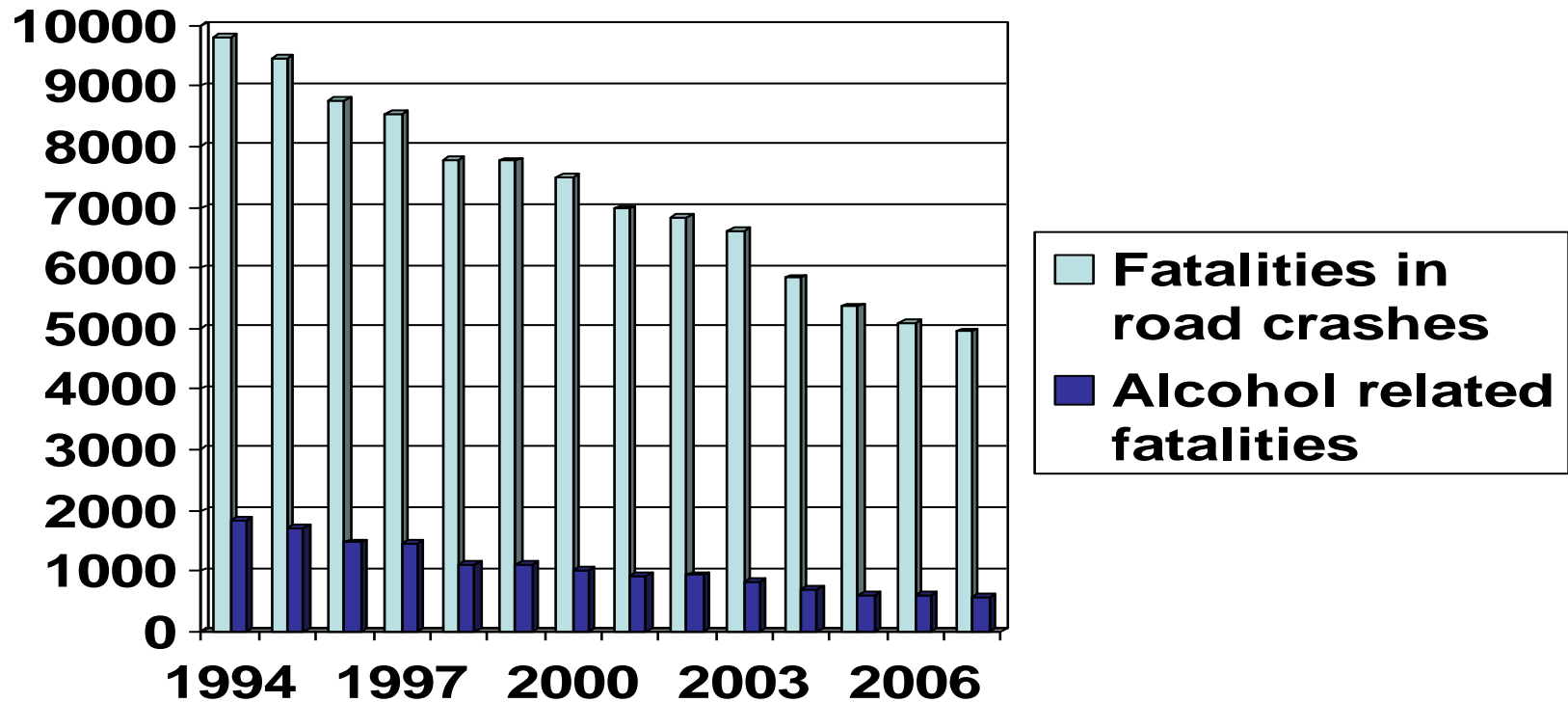
Germany - Trends

- From 1995 to 2005 crash fatalities declined from 9,454 to 5,361 – a drop of 43%
- Alcohol related fatalities declined from 1,716 to 603 – drop of 65%
- The share of alcohol related fatalities declined from 18.2% to 11.2% - a drop of 38%



Time series of fatalities in road crashes and alcohol related fatalities in Germany

source: BAST



The Netherlands -Trends

- Between 1970 and 1999 the proportion of drivers with a BAC above 0.5 g/l in weekend nights dropped from 15% to 4.3%.
- Downward trend occurred after police enforcement was intensified.
- Between 1999 and 2005, studies show a stable proportion of alcohol related fatalities.

Great Britain - Trends

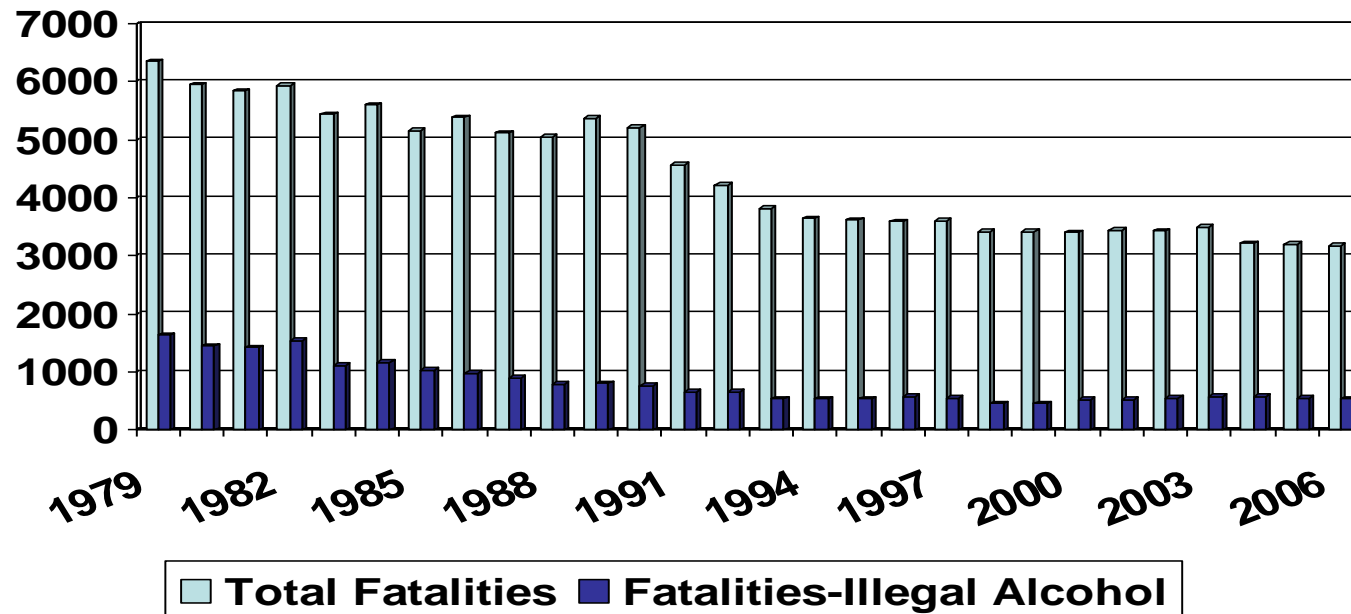
- In the 1980s and early 1990s fatalities and serious injuries in drivers over the legal limit fell from 9,000 to 4,000.
- In the past ten years, no over-riding trend.
- Those killed in drink-drive crashes fell to a low of 460 in 1998.
- But number has risen to 590 in 2004.
- **Roadside screening breath tests: 815,000 in 1998 but declined steadily since to 534,000 in 2003.**

Source: Road Casualties Great Britain 2004



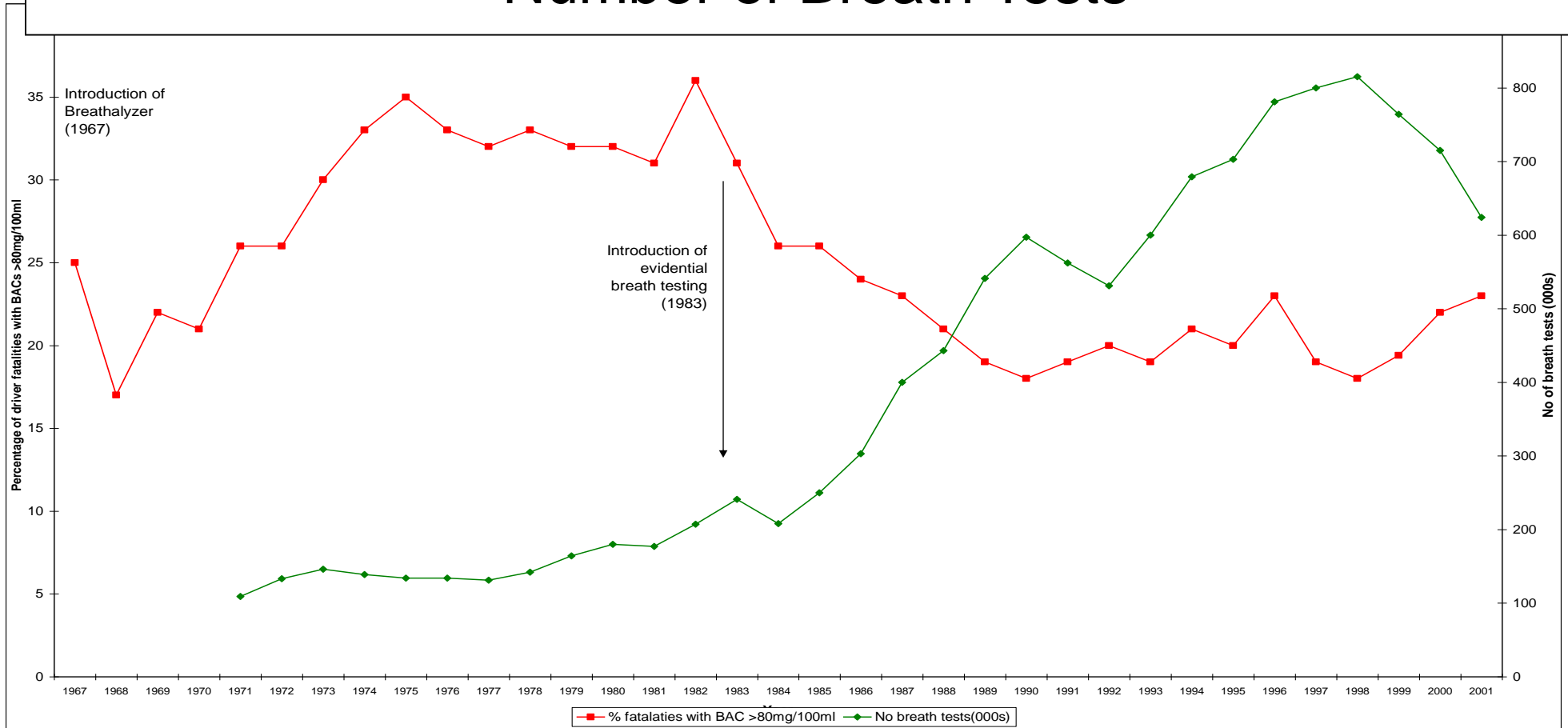
Great Britain - estimates of fatalities involving illegal BACs (.08%) & total fatalities

Source: Road Casualties Great Britain 2006





Great Britain- Driver Fatalities with BACs >0.08% & Number of Breath Tests



United States - Trends

- Alcohol-related fatalities fell from 26,173 in 1982 to 16,673 in 1997 – a drop of 36%
- Percentage of alcohol-related fatalities fell from 60% to 40% - a drop of 33%.
- Since 1997, there has been no clear trend.

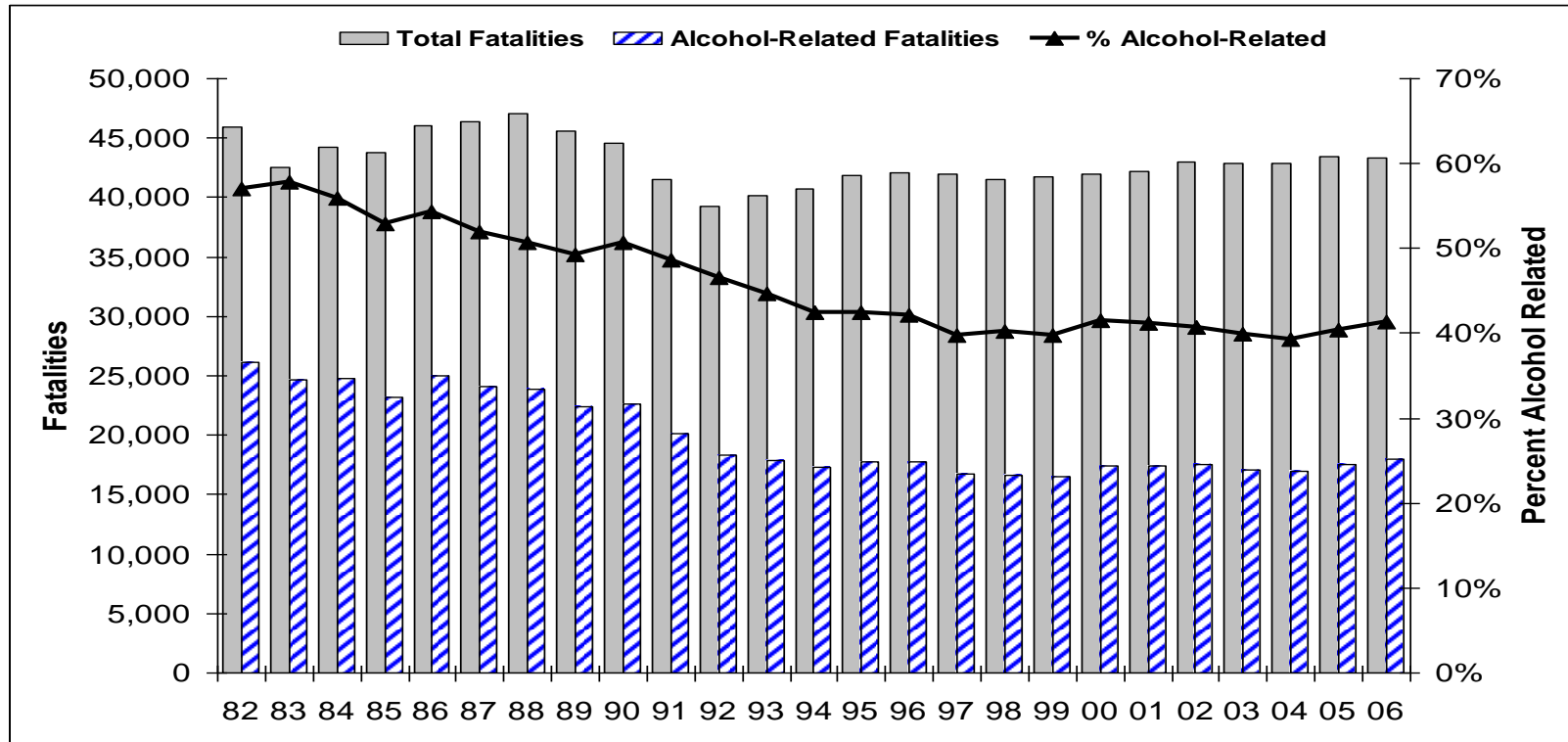
United States - Trends

- In 2006: 17,941 alcohol-related fatalities – 41% of the total fatalities
- up from 40 % in 2005 and 39% in 2003 and 2004.



U.S. total & alcohol related fatalities 1982-2006

Source: NHTSA



Sweden - Trends

- **Alcohol-related fatalities declined sharply from 31% in 1989 to 18% in 1997**
- **Decline due to:**
 - **lowering legal BAC limit to 0.02% in 1990**
 - **massive increase in enforcement (random breath test increased from 600,000 to 1.8 million in 1994)**
 - **new resources for campaigns and tougher penalties**

Sweden - Trends

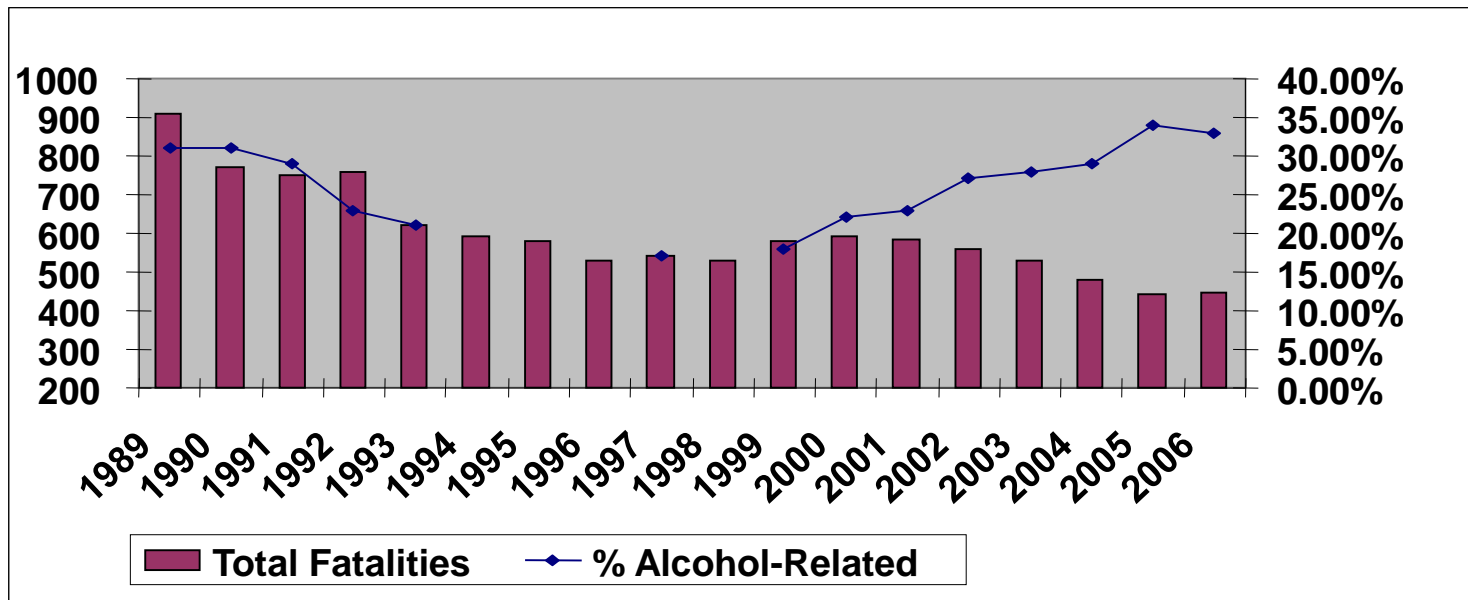
- Gradual loss of restrictive alcohol policies upon joining the EU in 1996
- Increase in total alcohol consumption
- 30% reduction of police enforcement
- Weaker sentencing
- Resources for campaigns cut in half

Sweden

- The result – Alcohol-related fatalities climbed steadily from 18% in 1997 to 29% in 2004 – a 61% increase



Sweden: Total Fatalities and Proportion of Involving Alcohol



Trends: Conclusions

- Most industrialized countries saw declines in total road fatalities and alcohol-related fatalities in the 1980s and early 1990s
- In many countries progress has stalled or even reversed

Trends: Conclusions

- A number of countries found a strong link between levels of enforcement and alcohol-related fatalities

Future Progress

- Technology applications:
 - Alcohol Interlocks



Alcohol Interlocks



Alcohol Interlocks

- Shown effective to reduce recidivism
- Increasingly used for offenders – even after first offense
- Also in use for commercial and public transport

Future Progress

- New technologies
 - Non-intrusive in-vehicle alcohol detection

The Role of Advocates

- Progress in impaired driving requires economic and social investments – often made reluctantly
- All countries have competing priorities and pressing needs
- Traffic crashes don't get the same attention as more exotic tragedies – even though they are a major threat to health and welfare
- Advocacy groups have played important roles in bringing about change
- Mothers Against Drunk Driving (MADD) is currently focusing on its Campaign to Eliminate Drunk Driving

Conclusions

- Significant progress in reducing impaired driving has been made
- Vigorous enforcement an important component
- Future progress may rely on developing technologies
- Advocacy groups may play an important role in bringing needed attention and motivating change