



FACT SHEET 5:

STRENGTHENED ACTION ON DRINK-DRIVING

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1. INTRODUCTION

Alcohol was linked with 14,380 road casualties (6% of all road traffic accidents or RTAs), 1,960 serious injuries and 540 deaths (17% of all road deaths) in 2006.¹ While the number of people killed or seriously injured from drink-driving in Britain has fallen overall since 1990, there was a 12.7% rise from 2005 to 2006.¹ Pedestrians are also at risk, representing a fifth of all RTA deaths.¹ In the North West, levels of RTAs are relatively high,¹ with almost 900 people being hurt in alcohol-related RTAs during weekends in 2007.² The costs of this are substantial: in 2001, drink-drive offences in England and Wales cost £108m, including £31m on health care.³

KEY POINTS

- Approximately 15,000 casualties and 550 deaths occur in Britain each year from drink-driving. The number of deaths rose by 12.7% from 2005 to 2006.
- Drink-drive offences cost the economy £108m annually (including £31m on health costs).
- Male, young and inexperienced drivers are the most likely to be involved in drink-driving: for example, in 2006, 82% of those who failed breath tests after road traffic accidents (RTAs) in Britain were male.
- At the British drink-drive limit (0.08% BAC), the risk of an RTA is 10 times higher than that of a non-drinker. If the drink-drive limit was lowered (to 0.05% BAC), it would save 65 lives a year.
- Drink-drive deterrents have been evaluated internationally as being highly effective and include: random breath tests, swift licence suspension, lowering the legal BAC limits, and restricted driving privileges for novice drivers.
- A combination of interventions (such as increased price) will increase their individual effectiveness.

1.1 COMPARING BRITAIN WITH OTHER EUROPEAN COUNTRIES

The European Commission recommends a drink-drive limit of 0.05% blood alcohol concentration (BAC; Box 1) for all drivers and 0.02% BAC for novice and professional drivers.⁴ However in Europe drink-drive limits range from 0.00% BAC in the Czech Republic to 0.08% in the UK.^{5,6} Over half of countries have a legal limit of 0.05% BAC, nine have a limit of less than 0.05%, and 14 have a legal limit of 0.02% or below for novice drivers. Countries with lower BAC limits have fewer alcohol-related fatalities although there is some variability (Figure 1). Interpreting these data requires caution as the legal drink-drive limit influences the definition of drink-driving. Thus, a driver with a BAC of 0.02% would be drink-driving in Hungary but not in Britain.

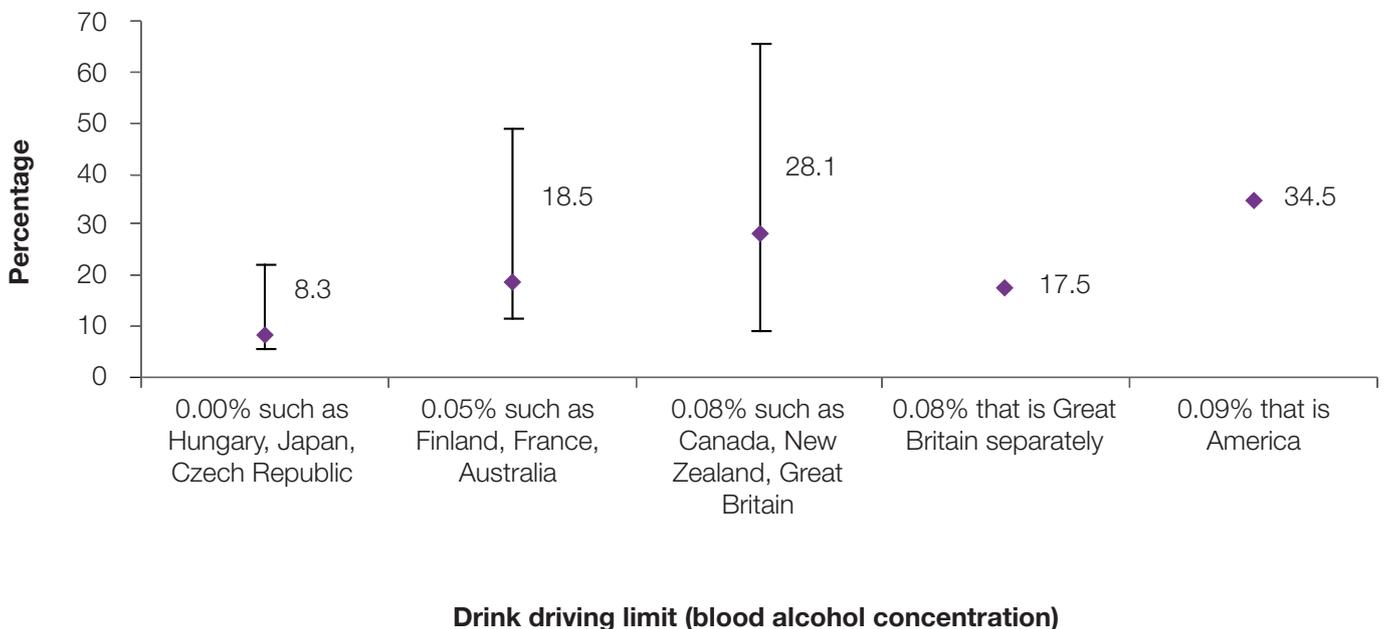
BOX 1: BLOOD ALCOHOL CONCENTRATION

Alcohol absorption is affected by age, gender, metabolism, weight, rate of drinking, quantity consumed and food consumption. This prevents a legal limit being defined by the number of units consumed. Instead, the concentration of alcohol present in the bloodstream (blood alcohol concentration; BAC) is used, presented as a percentage of the volume of blood. **The UK drink-drive level is 0.08% BAC (80mg of alcohol per 100 millilitres of blood).** Drivers with BAC levels at or above 0.08% can be prosecuted for drink-driving (in some cases a BAC level just below 0.08% has been regarded by the courts as

an aggravating factor in a road traffic accident). Breath, urine or blood tests used to detect alcohol use⁷ are admissible in a court of law. The Government advises not drinking when intending to drive,^{1,8} because performance is compromised at even low levels of alcohol use,^{1,9} and deteriorates as the BAC increases:¹⁰⁻¹²

- At 0.05% BAC, the relative crash rate is double that of a non-drinker;
- At 0.08% BAC, the relative crash rate is 10 times that of a non-drinker; and
- Above 1.15% BAC, the risk is over a 100-fold higher than that of a non-drinker.

FIGURE 1: AVERAGE* PERCENTAGE OF ALCOHOL-RELATED ROAD TRAFFIC ACCIDENTS THAT ARE FATAL BY DRINK-DRIVING LIMIT⁷



* Bars around the points are standard deviations – large bars indicate a lot of variability.

2. ENFORCING DRINK-DRIVE LAWS IN THE UK

Severe penalties are enforced for drink-driving accidents in the UK (Table 1). Police use selective breath testing (SBT; Box 2) to stop and test a driver suspected of being under the influence of alcohol or

drugs or if an offence has been committed (including an RTA). Random breath testing is not currently legal. Blood samples can be taken from hospitalised drink-drive suspects who are unable to give consent.

BOX 2: SELECTIVE BREATH TESTING IN THE UK

Each year 600,000 drivers are breath tested,¹³ with a concentration in December to curb seasonal drink-driving.¹⁴ In December 2007, 5% of drivers tested

(n=155,216) in England and Wales were positive. This is 10,000 more tests than the previous December, with 20% fewer being arrested for drink-driving. This suggests that increased enforcement and related marketing campaigns (such as THINK!) may be affecting drinking behaviour.¹⁴

TABLE 1: PENALTIES FOR DRINK-DRIVING AND RELATED OFFENCES IN THE UK*¹

Offence	Maximum penalty
Failing to provide a specimen of breath, blood or urine.	Six months' imprisonment, plus a fine of up to £5,000 and a driving ban of at least twelve months.
Driving while over the legal limit or being unfit to drive due to alcohol.	Six months' imprisonment, plus a fine of up to £5,000 and a driving ban of at least twelve months.
Causing death by careless driving when drunk.	Fourteen years in prison, a minimum two year driving ban and a requirement to pass an extended driving test before the offender is able to drive legally again.

* The Road Safety Act 2006 contains provisions for serious or repeat offenders to retake the driving test at the end of a ban; offenders may reduce their ban by taking a rehabilitation course.

The Government aims to reduce road deaths and serious injuries by 40% (50% for children) by 2010 from 1994-98.¹ To do so, there will be stricter enforcement for groups at greatest risk, such as:

- **Inexperienced and young males:** internationally, 20-29 year olds are three times more at risk of an RTA than drivers aged 30 or over.¹⁵ In Britain, accidents are caused by inexperienced, particularly young male drivers (a group more likely to indulge in binge drinking and risk taking):⁸ in 2006 82% of those who failed breath tests in alcohol-related RTAs were males, and 52% of all male breath test failures were for 17-29 year olds.¹
- **Young teenagers:** drinking in public places puts them at risk of being in a pedestrian accident (nearly half of 15-16 year olds in the North West who drink at least occasionally drink in public places).¹⁶
- **Heavy drink-drivers:** they represent 1% of all drivers but cause 50% of fatal car crashes at night and on weekends.¹⁷
- **Repeat offenders:** 12% of offenders are reconvicted within 10 years.¹

3. EVIDENCE OF THE EFFECTIVENESS OF DETERRENCE INTERVENTIONS

Drink-driving interventions represent some of the most successful initiatives implemented to tackle alcohol-

related harm.¹⁸⁻²⁰ Such deterrents can be divided into two types: universal (which tackle alcohol consumption generally; Table 2) and drink-driving specific deterrents (which tackle drink-driving and associated harms specifically; Table 3). Four interventions that are seen as being particularly effective include:^{19,20}

- Highly visible sobriety checkpoints using random breath testing;
- Lower legal BAC limits;
- Rapid licence suspensions where drivers are over the drink-drive limit; and
- Graduated licences for novice drivers.

4. SUMMARY

Drink-drive accidents continue to be a public health problem in Britain, with young adult males involved in a high proportion of serious and fatal injuries. British legal requirements for blood alcohol limits are more lenient than most countries in Europe, where more progress has been made reducing the contribution of alcohol to RTA deaths. A large body of research data and international experience has accumulated to indicate effective deterrents against drink-driving. These include increasing the price of alcohol, random breath tests, swift licence suspension, lowering the legal drink-drive BAC limits, and restricting driving privileges (graduated licences) for young and novice drivers. A combination of interventions is most likely to increase effectiveness.

TABLE 2: GENERAL DETERRENTS AGAINST ALCOHOL CONSUMPTION WHICH IMPACT ON DRINK-DRIVING HARM (FROM MOST TO LEAST EFFECTIVE)*

Route	Rank	Impact
Increasing the price of alcohol	+++	Price can be altered in various ways (such as by keeping price in line with inflation; see Fact Sheet 3). Models show: <ul style="list-style-type: none"> • A 10% price increase would decrease drink-driving for 7.4% and 8.1% by men and women respectively with a larger effect in underage drinkers.²¹ • Adjusting American tax on beer for inflation between 1951 and the mid 1980s would have reduced road traffic accident (RTA) fatalities of 18-20 year olds by 11.5%.²² • A 78% tax increase in America (restoring it to that of 1975) would reduce road fatalities by 7-8%.²³
Raising minimum drinking age	+++	A review in America found that a higher minimum drinking age (21 years) is associated with reduced RTAs (46 of 79 reviewed studies found this; none found an increase). ²⁴ Enforcement can reduce fatality rates by 7%. ²¹
Server training with legal liability	+++	In the UK, parts of America and Australia, it is illegal to serve alcohol to an intoxicated individual. Sales still occur, ²⁵ exemplified by excessive consumption in the night-time economy. To promote adherence to the law and reduce consumption, servers can become legally liable and receive training on refusing customers. ^{26,27} American States where servers are liable for alcohol-related damage have lower rates of RTA fatalities than those that are not. ^{22,23,28} Following an American community programme including bar server training, there was a slight reduction (<5%) in night RTAs. ³⁰
Community mobilization interventions	++	Such interventions are used in America and include a range of initiatives such as media and community education, responsible beverage service, enforcement of drink-drive laws, limiting underage sales and outlet restrictions. They show: <ul style="list-style-type: none"> • A 51% reduction in self-reported drink-driving;²⁹ • A 10% decrease in night-time injury crashes;²⁹ and • A significant fall in drink-driving arrests (by 30 per 100,000 population).³⁰
Restrict density of outlets	++	There is an association between higher levels of alcohol outlet density and increased alcohol-related RTAs, fatalities; ³¹ and RTAs causing injuries to pedestrians. ³² Evidence on the effect of reduced density on drink-drive is pending.
Alcohol education in schools	O	Where pupils receive information-only education on alcohol or drink-driving, the impact has been limited with little or no sustainable effect on consumption or related harm. ^{33,34} Educational approaches are most successful when they incorporate areas such as skills development. In Australia, consumption was reduced by 9% at a 17 month follow-up after pupils participated in special curricula involving skills-based activities but no impact was reported on driving. ³⁵

* Effectiveness is ranked from O (lacks effect) to +++ (highly effective) using international evidence regarding impact on alcohol consumption and related harm.¹⁸ NK signifies not known.



TABLE 3: SPECIFIC DETERRENTS AGAINST DRINK-DRIVING (FROM MOST TO LEAST EFFECTIVE)*

Route	Rank	Impact
Lowering the legal drink-drive limit	+++	In the UK, it is estimated that if the legal limit was 0.05%, it would save 65 lives and 250 serious injuries a year. ³⁶ There is much support for a lower BAC, ³⁷ and a European review recommends a maximum BAC of 0.05%. ³³ International examples show: <ul style="list-style-type: none"> • After Sweden lowered the BAC drink-driving limit from 0.05% to 0.02% in 1990, the number of alcohol-related fatal road traffic accidents (RTAs) decreased by 9%;³⁸ • After Australia lowered the limit from 0.08% to 0.05%, between 1982 and 1992 there was a 7% decrease in serious RTAs; a 7% decrease in fatal RTAs and an 11% decrease in single vehicle night time RTAs;³⁹ and • The effect of a lower BAC can reduce over time as drivers acclimatise to the likelihood of arrest.¹⁸
Lower drink-drive limits for young drivers	+++	America reduced its BAC limits to less than 0.02% for drivers under 21 years both as standalone intervention (where it reduced drink-driving in under-21 year olds by 5%) and as part of a graduated driver licence scheme (see below).
Graduated driver licences	+++	These are used in America. The exact terms vary but include reducing the limit to less than 0.02% BAC, raising the minimum drinking age to 21, curfew enforcement and limiting the number of passengers. Such schemes have: <ul style="list-style-type: none"> • Reduced the number of fatal RTAs in youth by 9-24%;⁴¹⁻⁴³ • Reduced the number of youths caught with a positive BAC by 24% nationwide;⁴⁴ • Reduced fatalities among 15-17 year old drivers by up to 19% (limiting passenger numbers had minimal effect);⁴³ • Reduced single-vehicle night-time RTAs for drivers aged 15 to 20 years old by 20%;^{45,46} and • A night-time curfew on teenage drivers can reduce RTAs by 25-69%.⁴⁷
Random breath tests (RBTs) or sobriety checks	++	RBTs vary by day, week and location, and occur without warning. Highly visible, frequent RBTs, with strong media coverage, reduced fatal RTAs in Waikato in New Zealand from 22% in 1996 to 14% in 1998. ⁴⁸ The uncertainty increases the strength of the deterrent effect. ^{49,50} Such strategies are common in Australia, where: <ul style="list-style-type: none"> • 82% of drivers have ever been stopped (compared with 16% in the UK and 29% in America);⁵¹ • In Queensland RBTs reduced fatal RTA by 35% compared with 15% using selective breath testing;³⁹ and • RBTs still have a deterrent affect 10 years later.³⁹
Licence Suspension	+++	Licence suspensions reduce alcohol-related RTAs by 5% and fatal RTAs by 26%. ⁵² Disqualified drivers who still drive do so less often and more cautiously while suspended. ⁵³ Effectiveness is increased by hastening suspension: ^{54,55} in America, administrative suspension before conviction reduced fatal RTAs by 5% (saving 800 lives a year), ^{18,53,54,58} Licence suspension should be accompanied with training, education and counselling. ^{53,54}
Raising driving age	+++	American States that increased the legal driving age from 16 to 17 years reduced RTAs involving young people by 65-85%. ⁴⁷
Mass media campaigns on drink-driving	++	Media campaigns (via TV, radio, papers) such as the THINK! Campaign can be used to raise awareness of social, health, and legal consequences of drink-driving. While combined with other interventions, effectiveness studies show: ⁵⁷ <ul style="list-style-type: none"> • Alcohol-related RTAs decrease by 13% and injuries by 10%; • Large financial savings can be made (such as 10 to 20-fold savings on medical costs); and • Law enforcement messages reduce the proportion of drivers with high BAC levels by 67%.
Selective breath tests (SBT)	++	SBTs are used in England, where police stop drivers suspected of drink-driving or if an offence has occurred. Such tests are less effective than RBTs: <ul style="list-style-type: none"> • Significant numbers of drivers who are over the limit are missed by police under SBTs:^{54,58} in America, 50% of drivers with a BAC of 0.10% were missed (the limit is 0.09%).⁵⁴ • In Queensland, SBTs reduced fatal RTAs by 15% compared with 35% for RBT.⁵⁹
Alcolocks	+	Alcolocks fitted in cars of drink-drive offenders prevent the engine starting until a Breathalyser sample is given below the drink drive limit. The effect of this is lost after the end of the court order and once the device is removed. ^{33,54}
Ride services	+/O	Free transport to and from nightlife venues can be given. One programme stopped 44% of drinkers driving home. ⁵⁹
Courses	+/O	Instructional and social programmes given in American schools have limited effect. ³³ Rehabilitation programmes can be effective for drink-drivers if they last over ten weeks with attendance enforced by court. ⁶⁰ Attendees are two and a half times less likely to re-offend compared with non-course offenders on long term (six years) follow up. ⁶¹
Designated Driver Schemes	O	Designated drivers (who abstain from consumption or remain below the legal BAC limit) can be encouraged to drive others who drink. Many schemes exist in Europe but evidence of their effectiveness is limited. ³³ In America designated student driver numbers are small (even after media campaigns) and fall if incentives are withdrawn. ⁶² Further, drivers had an average BAC of 0.06% (this level doubles the RTA risk; Box 1). ⁶³ In Australia 26% of such drivers drove even though they felt the effects of alcohol. ⁶⁴
Public transport	NK	Evidence on how better public transport affects drink-driving is sparse although it can reduce alcohol-related violence. ^{65,66}

* Effectiveness is ranked from O (lacks effect) to +++ (highly effective) using international evidence regarding impact on alcohol consumption and related harm.¹⁸ NK signifies not known.

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