



DISCUSSION DOCUMENT  
**HAVE YOUR SAY ON OUR NEXT  
ROAD SAFETY STRATEGY**

**AUGUST 2009**

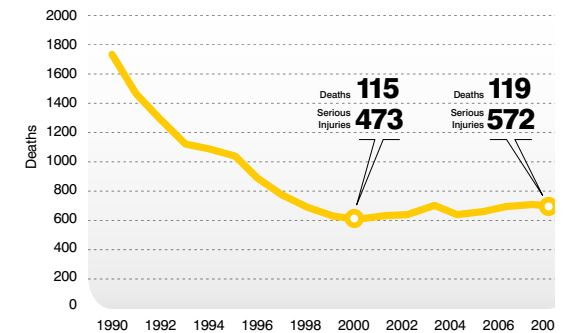


**WHAT IS THE PROBLEM?**

- Alcohol/drug impaired driving is one of the largest causes of serious road crashes.
- In 2008, alcohol and drugs contributed to 31 percent of fatal crashes and 21 percent of serious injury crashes. These crashes resulted in 119 deaths, 572 serious injuries, and 1,715 minor injuries.
- It is estimated that the social cost of crashes where alcohol/drugs were a factor was \$833 million in 2008.

Figure 5 shows that through the 1990s substantial progress was made in reducing the number of alcohol/drug related deaths and serious injuries. However, we have made no further progress since 2000.

Figure 5: Deaths and serious injuries in crashes with driver alcohol/drugs as a contributing factor



Does this trend suggest that more people are opting to drink and drive? The roadside alcohol survey<sup>4</sup> provides the best snap shot of New Zealanders’ drink driving behaviour.

We know from this survey that over the period 1998–2004, strong gains were made in reducing the proportion of drink drivers across the population. However, some of these gains were lost over the following four years.

It is especially concerning that the survey shows a clear increase in drink driving among the 15-19 and 25-34 year old age groups. Figure 6 shows the progress made through the late 1990s and early 2000 in changing drink driving behaviour among 15-19 year olds has been reversed. A higher proportion of young people are now driving while over the legal limit.

Similarly, Figure 7 shows that the proportion of drink drivers aged 25-34 has approximately doubled between 2004 and 2008.

<sup>4</sup> The survey collects data from all Police districts and the operations occur at randomly selected sites during the hours of 10pm and 2am.

This argument and other concerns that have been raised by stakeholders are discussed further in Appendix 1.

### **Introduce infringement penalties for offences between 0.05 and 0.079**

If the adult BAC was lowered to 0.05 we could have infringement penalties for offences between BAC 0.05 and 0.079<sup>10</sup> and continue with court-imposed penalties for offences above BAC 0.08. The penalties could be in the form of fines, demerit points and/or short-term licence suspension (up to 24 hours).

Infringement penalties would help to deter drink driving by instantly reinforcing the message that drink driving poses a significant safety risk. It would do this without the cost and delay of court-imposed sanctions. This approach is successfully used in many jurisdictions in Europe, Australia and Canada and is likely to be successful here.

### **Maintain the BAC at 0.08 and increase the severity of penalties**

As an alternative to reducing the adult BAC, penalties could be strengthened. This could be done by increasing the maximum level of fines, increasing minimum disqualification periods and lengthening the time for which prior convictions are counted in sentencing.

This initiative would be dependent on maintaining the current high level of drink drive enforcement. This would be necessary to maintain the public's perception of the likelihood of being caught drink driving. Without this perception increased penalties may not deter people from drink driving.

There is a risk that this initiative may not be as effective as lowering the legal BACs. New Zealand's penalties have been strengthened twice since 1999 and it is not clear if this has resulted in increased compliance.

<sup>10</sup> Where the person has not caused death or injury to another person.

### **Inform New Zealanders about the impact of alcohol on driving**

New Zealanders tend to be uninformed about how increasing amounts of alcohol impact on a person's driving ability and how this varies with age. They also tend to be misinformed about the amount of alcohol that different BAC levels relate to. By giving people this information it would allow them to decide, irrespective of the legal BAC limit, the level of risk they are prepared to take and the level of risk they are prepared to impose on others.

If this initiative is supported, we would investigate the most cost-effective way of informing New Zealanders about the impact of alcohol on driving.

### **Have a zero BAC for certain drivers**

We could consider lowering the BAC to zero for the following drivers:

- *Youth (under 20 years) regardless of licence status* – Figure 8 shows the crash risk for young drivers rises significantly, even at very low BAC levels. Currently, New Zealand has a BAC limit of 30 mg per 100 ml (BAC 0.03) for drivers under 20 years of age. At BAC 0.03 the risk of a 15 to 19 year old driver being involved in a fatal crash increases by 15 times compared with a sober driver aged over 30.
- *Adults without a full licence* – adult learner drivers can legally drive up to a BAC of 0.08. Evidence shows that any amount over a zero BAC impacts negatively on driving skills. When this is linked with the inexperience of learner drivers the crash risk is increased.
- *Commercial drivers (ie heavy vehicle, taxi and bus drivers)* – commercial drivers have a very low rate of involvement in alcohol/drug related crashes. However, because of the risk posed to the safety of others there is considerably less tolerance for alcohol impairment among commercial drivers. Many of the better performing jurisdictions (eg Victoria, South Australia,

New South Wales, Germany, Austria and Ireland) have a zero BAC limit for commercial drivers. Norway and Sweden have a BAC 0.02 limit for the whole adult driving population including commercial drivers.

To make a zero BAC limit as effective as possible in preventing deaths and injuries, it would need a public awareness campaign about the new limit and who it applies to. It would also have to be adequately enforced. We also suggest having infringement penalties for drink drive offences between zero and BAC 0.029 for youth, and BAC 0.05 and 0.079 for adult learners and commercial drivers (see earlier initiative). This would ensure that the new limit does not impose any additional workload on the courts.

### **Address repeat drink driving**

Fines and licence disqualification work well in deterring most people from drink driving. However this is not true for all drivers. Currently, 23 percent of drink drivers are re-offenders. To increase the likelihood of changing offenders' drink drive behaviour we could:

- *have a zero BAC limit for recidivist drink drivers for a period of three years* – a zero BAC for recidivist offenders could work with other penalties and help create a culture of not drinking and driving.
- *move towards the compulsory use of alcohol interlocks* – an alcohol interlock is an electronic device installed in a vehicle that requires a driver to provide a low or alcohol-free breath sample before the vehicle will start. A number of jurisdictions in the United States, Canada, Australia and Europe have interlock programmes for drink drive offenders. The programmes have been effective in preventing drink driving, particularly when combined with education and/or addiction treatment. Analysis suggests that they are likely to be effective here. As alcohol interlock programmes operate on a user-pays basis they offer a cost-effective way of responding to drink drive offending.

Figure 6: Blood alcohol levels: Ages 15-19

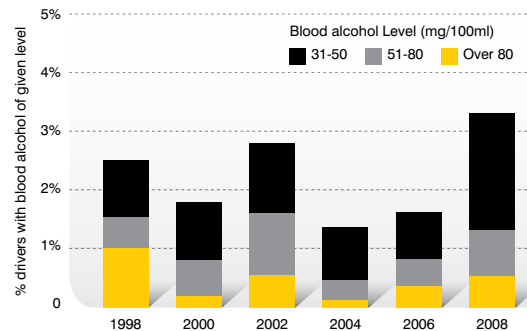
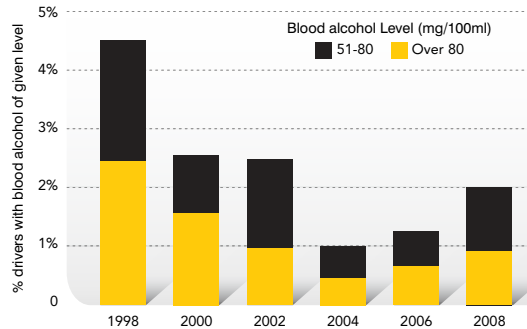


Figure 7: Blood alcohol levels: Ages 25-34



5 Cross, J; Jeffery, W and Blackburn, N. Road Policing Support, New Zealand Police. Rural drink drive enforcement in the Southern Police District. *New Zealand Transport Agency Research Report SAF 08/10.*

6 Ibid.

7 From New Zealand focus group research and a 2008 AA membership poll.

8 Blood alcohol concentration is the amount of alcohol present in a 100 millilitre (mL) volume of blood. For example 50 mg is 0.05 grams, 0.05 grams of alcohol in 100 mL is written as 0.05%. In other words, 50 mg is equal to 0.05% which is equal to 50 mg/dL (decilitre; 100 mLs). This value can also be described as BAC 0.05.

9 Also of average height and weight – individuals process alcohol at different rates and these estimates are only guides.

## HOW CAN WE REDUCE DRINK DRIVING?

The suggested initiatives for reducing the impact of alcohol impaired driving are to:

- reduce the legal adult blood alcohol concentration (BAC) limit to 50 mg per 100 ml (BAC 0.05)
- introduce infringement penalties for offences between BAC 0.05 and BAC 0.079 if the legal blood alcohol limit is lowered
- maintain the legal blood alcohol limit at 80 mg per 100 ml (BAC 0.08) and increase the severity of penalties (this is an alternative to lowering the BAC to 0.05)
- inform New Zealanders about the impact of alcohol on driving
- introduce a zero blood alcohol limit for certain drivers (drivers under 20 years, adults without a full licence, commercial drivers)
- address recidivism through a zero blood alcohol limit for recidivists and move towards mandatory alcohol interlocks
- promote the use of alcohol interlocks.

The persistent number of deaths and serious injuries that are alcohol-related suggests New Zealand needs a more effective response to drink driving. If the trend for alcohol impaired driving continues over 2010–2020 it will reduce New Zealand’s ability to improve road safety.

Drink driving is a wider public health and social problem – it is not just a transport problem. The decisions made

on the Sale and Supply of Liquor and Liquor Enforcement Bill and on the review of the Sale of Liquor Act will have a significant influence on what we achieve in road safety.

In addition to those reforms, there are a range of transport initiatives that could be considered. All initiatives depend on maintaining the current high level of drink drive enforcement to continue to deter potential drink drivers.

### *The impact of drink driving on rural communities*

The questions at the end of this section include one about whether targeted initiatives are needed for rural communities. These communities have a disproportionate number of alcohol related crashes and the crashes tend to be more severe, that is they result in a larger number of fatal and serious injuries. For instance, research shows that around five percent of all urban alcohol-related crashes result in a death, whereas 13 percent of all rural alcohol-related crashes result in a death<sup>5</sup>. Around 66 percent of all deaths resulting from alcohol-related crashes are sustained on rural roads<sup>6</sup>.

### **Reduce the adult blood alcohol concentration limit to 0.05**

When asked how many drinks a person should be allowed to have before driving, most New Zealanders<sup>7</sup> give an answer of around two standard drinks. This is equivalent to a BAC<sup>8</sup> of 0.05 or 50 mg of alcohol per 100 ml of blood. Based on Australian guidelines, for women of average height and weight a BAC of 0.05 equates to one standard drink per hour. For men it equates to two standard drinks in the first hour and one standard drink per hour thereafter.

Our current BAC of 0.08 allows people to become significantly impaired and still legally drive. It allows a man of average height and weight to consume six standard drinks within 90 minutes. For a woman<sup>9</sup> it allows four standard drinks to be consumed.

Internationally, the great majority of countries with legal blood alcohol limits set a limit of BAC 0.05 or

lower. Britain, the United States and four of Canada's 13 provinces and territories are the only developed nations that do not. A limit of BAC 0.05 or lower is recommended by the World Health Organization as key to reducing alcohol-related deaths and injuries.

The current BAC of 0.08 for adult drivers was set in 1978. Since then New Zealand and international research has consistently demonstrated the benefits associated with BAC levels of 0.05, or lower, in saving lives and preventing serious injuries.

There is a well-established relationship between blood alcohol levels and crash risk (see Figure 8). As blood alcohol rises, so does the risk of driver involvement in a fatal crash. Compared to a sober driver, a driver aged over 30 with a BAC of 0.08 is 16.5 times more likely to have a fatal crash and 5.8 times more likely with a

BAC of 0.05. Drivers aged between 20 and 29 years are 50.2 times more likely to have a fatal crash at BAC 0.08 compared to 17.5 times as likely at BAC 0.05.

Experience from other countries suggests that a BAC of 0.05 would help to reduce the level of alcohol-related road trauma. After dropping to BAC 0.05 from BAC 0.08:

- New South Wales achieved an 8 percent reduction in fatal crashes and a 7 percent reduction in serious injury crashes
- Queensland achieved an 18 percent reduction in fatal crashes and a 14 percent reduction in serious crashes
- Belgium achieved a 10 percent reduction in all alcohol-related fatalities
- France achieved a 30 percent reduction in alcohol-related fatal crashes.

International experience also suggests that a reduction in the BAC is likely to bring down average alcohol levels amongst all drivers, including those at the upper extremes (eg people driving at almost twice the legal limit).

Analysis suggests that we would see similar improvements here if we lowered the BAC to 0.05. It is estimated that between 15 and 33 lives could be saved and 320 to 686 injuries prevented every year. This corresponds to an estimated annual social cost saving of between \$111 million and \$238 million.

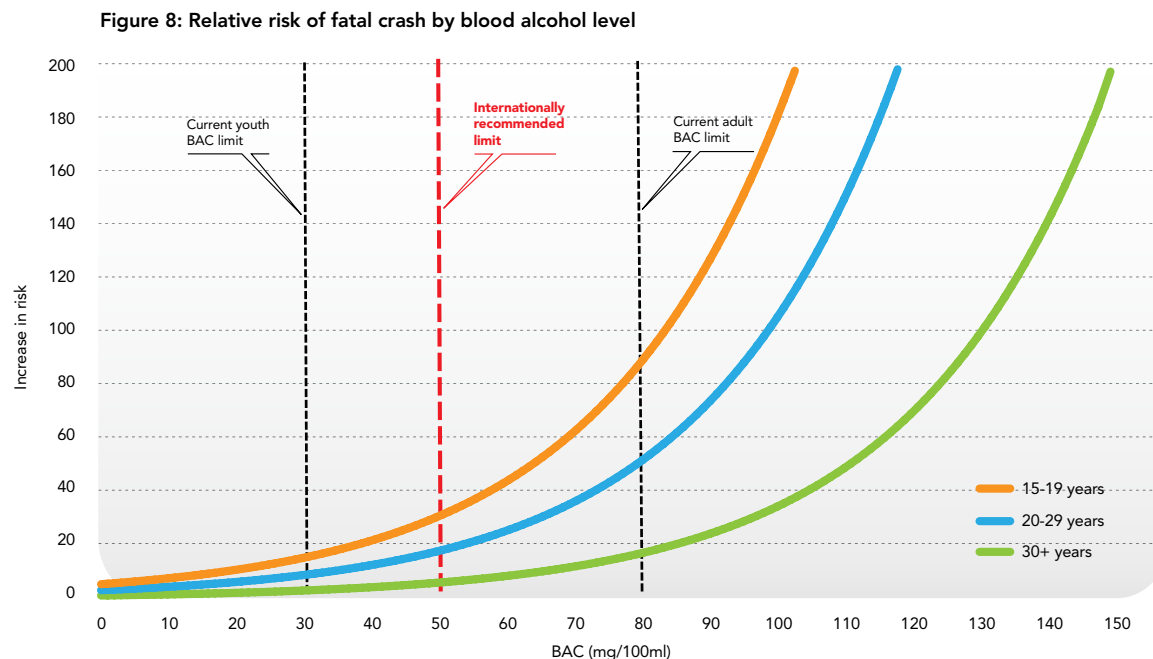
To make this initiative as effective as possible in preventing deaths and injuries we would need a public awareness campaign about the new BAC limit. This could involve a cost of up to \$1 million for nationwide television advertising. We would also have to ensure the new limit is adequately enforced.

We also suggest having infringement penalties for drink drive offences between BAC 0.05 and 0.079 (see the next initiative). This would ensure that the new limit does not impose any additional workload on the courts.

Those who argue for keeping the BAC at 0.08 say that few drivers are killed with a BAC between 0.05 and 0.08. However, this position ignores the other road users that are killed by drunk drivers and reflects a misunderstanding of New Zealand's crash statistics.

The number of drivers killed whose alcohol level is recorded is only a part of the total number of drivers involved in serious and fatal crashes where alcohol is a contributing factor. Between 2003 and 2007, there were 7,808 drivers involved in crashes "where the presence of alcohol is suspected" and of this number only 4,213 drivers had a BAC level recorded.

Alcohol levels tend to be recorded when Police suspect drivers of driving above the legal limit. This means the statistics are biased towards young drivers (because of the lower youth blood alcohol limit of BAC 0.03) and adult drivers with high blood alcohol levels.



**Promote the use of alcohol interlocks (eg to commercial drivers, employers and parents of young drivers)**

Although mainly used for offenders, alcohol interlocks could be promoted to commercial drivers, employers and parents of young drivers. This could have some modest impact on reducing the number of alcohol-related crashes.

**DISCUSSION POINTS**

**Which of the suggested initiatives do you support and what is the most important one for you in reducing drink driving?**

**Do you support lowering the legal adult Blood Alcohol Content (BAC) limit from BAC 0.08 to BAC 0.05?**

**How could rural communities be better empowered to address drink driving?**

**Do you have other ideas for how we can reduce drink driving?**

**HOW CAN WE REDUCE DRUG IMPAIRED DRIVING?**

**The suggested initiative for reducing the impact of drug impaired driving is to:**

- **introduce random roadside testing (as technology allows) and support this through research.**

In comparison to drink driving, less is known about the extent of drugged driving in New Zealand and the impact it has on road safety. However, evidence suggests that drugs may be a bigger factor in crashes than officially reported.

Preliminary results of a study of the blood of deceased drivers<sup>11</sup>, show a number of trends that are of concern to road safety:

- 52 percent of drivers had used alcohol and/or drugs
- 31 percent of drivers had used cannabis with or without alcohol or other drugs
- 19 percent of drivers used alcohol and another drug(s)
- 14 percent had used drugs other than alcohol or cannabis, and the most commonly detected were methamphetamine, methadone and morphine.

We also know from the 2008 Illicit Drug Monitoring System report that 90 percent of frequent methamphetamine users, 62 percent of frequent ecstasy users and 90 percent of frequent injecting drug users, have driven under the influence of a drug other than alcohol in the past six months. High proportions of frequent drug users report speeding, losing concentration, driving through a red light, and nearly hitting something while driving under the influence of a drug.

The report also shows that frequent drug users believe Police are less likely to detect them being under the influence of a drug than if they had been drinking.

**Introduce random roadside testing for illegal drugs**

Legislation introducing a roadside drug impairment test has been passed and will be implemented this year. This will go some way to address drug impaired driving. We could build on and complement this by moving towards random roadside testing for illegal drugs as technology allows. This would be similar to the current random testing for alcohol. Illegal drugs include cannabis, methamphetamine, MDMA (ecstasy), heroin, cocaine

(and 'crack'), LSD, GHB, amphetamines and prescription drugs that are abused.

Random roadside testing would deter more people from drug impaired driving than an impairment test alone. This is because the likelihood of being caught drug driving is greater.

With random testing a Police officer can require a driver to undergo a test whether or not there is reason to suspect impairment.

Testing devices for illegal drugs are still in development even though they have been implemented in some jurisdictions. Such testing would probably use saliva tests to detect drivers under the influence of certain illegal drugs (eg ecstasy, cannabis and methamphetamine).

In support of this initiative, research would be carried out to establish the prevalence of drugged driving across the general driving population, as well as for drivers involved in crashes. This would help us make informed decisions about which drugs pose a significant crash risk in New Zealand. We would then know which type of drug testing we should focus on.

**DISCUSSION POINTS**

**Do you think we should introduce random roadside drug testing for the presence of illegal drugs as technology allows?**

**Do you have other ideas for how we can reduce drug impaired driving?**

<sup>11</sup> This study by the Institute of Environmental Science and Research Limited has been conducted over 2004–2009 and is using blood samples taken from all coronial cases. It will be limited to 1,000 samples. The interim report which is quoted here has a sample size of 826.