Regulatory Impact Statement

Safer Journeys – Reducing the impact of alcohol impaired drivers

Agency disclosure statement

1. This regulatory impact statement (RIS) has been prepared by the Ministry of Transport (the Ministry).

2. It provides an analysis of options to reduce the number of road deaths and injuries caused by alcohol impaired drivers (or drink driving). Currently alcohol impaired driving is one of the main causes of serious road crashes. In 2009, alcohol contributed to 33 percent of fatal crashes and 21 percent of serious injury crashes. Crashes involving alcohol resulted in 137 deaths, 565 serious injuries[1], and 1725 minor injuries at an estimated social cost[2] of $875 million.

3. This impact analysis informs the regulatory decisions to:

    1.1. lower the adult drink drive limit from blood alcohol content[3] (BAC) 0.08 to BAC 0.05

    1.2. lower the youth drink drive limit from BAC 0.03 to zero

    1.3. introduce infringement penalties for the proposed excess BAC offences.

4. The analysis in this statement includes an examination of the likely costs, benefits and risks of these actions. It also outlines the alternative options that were examined during the policy process but not recommended to Cabinet.

5. The recommended actions are estimated to save between 17 and 35 lives, and prevent between 363 and 729 injuries each year. This equates to an annual social cost saving of between $127.5 million and $254.5 million (in June 2009 dollars).

6. It is acknowledged that the strength of the benefits gained through the recommended actions will ultimately depend on society's attitude to alcohol. This is because alcohol impaired driving is not just a transport problem – it is a wider public health and social problem.

7. As well, the costs are highly dependent on the assumptions made. The key assumption concerns the effect the new limits will have on offending rates (that is detected offences). This effect is difficult to determine in advance. However, it is the key determinant of the cost pressures that will be faced by the New Zealand Police, the Ministry of Justice (Courts) and the New Zealand Transport Agency.

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[1] As measured by the number of injuries requiring hospitalisation for more than one day.

[2] The social cost of a road crash, or a road injury, includes the following: loss of life and life quality, loss of output due to temporary incapacitation, medical costs, legal costs and property damage costs. For further information see http://www.transport.govt.nz/ourwork/Land/landsafety/Pages/TheSocialCostofRoadCrashesandInjuries.aspx

[3] Blood alcohol content, or concentration, is the amount of alcohol in the bloodstream. A BAC of 0.05 means you have 0.05 grams of alcohol in every 100 millilitres of your blood.

8. Later in June 2010 Cabinet will be asked to decide on the actions to address repeat drink drive offenders. The decisions sought will be whether to:

   8.1. strengthen the traffic offences and penalties for causing death or injury (including as a consequence of drink driving)

   8.2. enable the introduction of alcohol interlocks for repeat offenders

   8.3. introduce a zero drink drive limit for repeat offenders.

9. These proposals are on a slightly later timeline because analysis of their costs and benefits is less straightforward, and they have wider implications for the justice sector that must be worked through.

Gayelene Wright
Principal Adviser
Ministry of Transport
May 2010

Status quo

10. Currently drink driving is addressed primarily through enforcement of the legal BAC limits for driving (the drink drive limits), the penalties that apply for breach of those limits, and public advertising campaigns.

11. The drink drive limits are prescribed in sections 56 and 57 of the Land Transport Act 1998 (the Act). The current adult limit was set in 1978 and the youth limit in 1992. The limits are:

    11.1. 80mg alcohol/100ml blood or BAC 0.08 for adults; and

    11.2. 30 mg alcohol/100ml blood (0.03) or BAC 0.03 for drivers aged under 20 years.

12. All drivers (and motorcycle riders) are prohibited from exceeding the limits under Section 11 of the Act and can be subjected to a compulsory breath test. This can occur through Police mobile stops or checkpoint operations, on suspicion of a Police officer, or through involvement in a road crash. If the test shows that a driver's BAC level is above the relevant limit, they are required to accompany Police for the purposes of undergoing an evidential breath or blood test (or both).

13. A positive test results in an offender being issued a summons to appear in court for an excess breath alcohol offence. The offences and penalties for drink driving, including those for causing death and serious injury, are given in Appendix 1. These offences are summary offences[4], and the penalties encompass fines, licence suspension and disqualification and prison terms.

14. The drink driving public advertising campaigns cover the full range of communication mediums including television, radio, online, billboards, text, and print (for example, '*scratch one for the team'* cards). The campaigns are designed to support Police's enforcement effort.

Problem definition

Current situation

15. Road crashes place a substantial burden on the economy and the health sector, and lower the quality of life of many New Zealanders. The annual social cost of road crashes in New Zealand is approximately $3.8 billion dollars.

16. Drink driving is a significant contributor to this social cost and one of the main causes of serious road crashes. In 2009, alcohol contributed to 33 percent of fatal crashes and 21 percent of serious injury crashes. Crashes involving alcohol resulted in 137 deaths, 566 serious injuries[5], and 1726 minor injuries at an estimated social cost[6] of $875 million (in June 2009 dollars).

[4] A summary offence is a criminal act that can be dealt with summarily, that is, it is heard before a judge without a jury in a district court and without a preliminary hearing. Determination of guilt results in conviction and the person acquires a criminal record. Summary offences are considered less serious than indictable offences.

[5] As measured by the number of injuries requiring hospitalisation for more than one day.

17. The social cost of road crashes is borne largely by individuals and their families, in terms of loss of life and life quality. However, society (for example, the health sector and the Accident Compensation Corporation (ACC)) also bears a sizeable share of the cost. For example, ACC estimate that ACC's Motor Vehicle Account faced an additional $323 million in lifetime costs[7] from the drink drive crashes that occurred in 2008.

The effect of alcohol on driving performance

18. After drinking the brain works less efficiently, taking longer to receive messages from the eyes; processing information becomes more difficult, and instructions to the muscles are delayed. In driving, alcohol results in decreased vision, poor judgement of speed and distance, increased risk-taking behaviour, lower attention, and driver reaction time is slowed down.

19. The effect of alcohol on driving performance has been comprehensively researched over the last 50 years. The Ministry is aware of reviews examining the findings of nearly 300 studies that look at the impairment effects of alcohol at different levels of BAC while driving.

20. The findings from this extensive body of research are very consistent. It concludes that impairment starts at very low BACs, and the vast majority of drivers are affected or impaired at a BAC of 0.05, with significant impairment at BAC 0.08.

21. A summary of the effects of different levels of alcohol on the abilities needed for safe driving is given in Table 1. The table shows the BAC level at which the effect is first observed.

22. Based on what is known about alcohol consumption and driving impairment, our current drink drive limit (of BAC 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[8] it allows four standard drinks to be consumed.

Relative fatal crash risk as BAC level rises

23. One of the reasons why alcohol is a persistent factor in the road deaths and injuries is the level at which the drink drive limits are set. The limits specify the maximum level of road safety risk society is willing to tolerate from drink driving. Evidence suggests that our limits are high given what is known about the impact of alcohol on driving performance. As a society we are accepting a higher level of risk from drink driving than is desirable.

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[6] The social cost of a road crash, or a road injury, includes the following: loss of life and life quality, loss of output due to temporary incapacitation, medical costs, legal costs and property damage costs. The social cost estimates are $3,374,000 for a death, $591,000 for a serious injury and $62,000 for a minor injury.
[7] Lifetime costs are the total costs for the life of a claim from the date ACC receives the claim.
[8] Also of average height and weight – individuals process alcohol at different rates and these estimates are only guides.

Table 1 - Effects of different levels of alcohol on driving performance

BAC level	Effects on driving ability
0.02-0.04	There is no evidence of a threshold level for alcohol. Above BAC zero at least some driving skills can be demonstrated to be impaired. **Vision** Begins to be affected at BAC 0.02 eg peripheral vision is reduced by 6%. At BAC 0.03 the ability to judge the vehicle's position on the road and focus on and track the movement of other vehicles, are affected. At 0.04 'tunnel vision' becomes an issue. The eye spends longer fixed on an object trying to perceive its nature. This means fewer objects can be seen in any given time. Drivers are literally 'looking less'. This is because a driver's ability to focus is impaired by alcohol's relaxing effect on the muscles that control the shape of the eye's lens. **Alertness** Reduction in ability to remain alert beings at BAC 0.03 eg the ability to monitor and adjust speed to match the flow of traffic. **Divided attention** Decline in ability to perform two tasks at the same time begins eg drivers start focusing more on steering and miss out what is happening around them eg child about to cross the road, a truck emerging from a side road. **Perception** Decline in ability to judge time and distances eg ability to estimate how far away another vehicle is to safely proceed through an intersection, change lanes or overtake. **Psychomotor skills** Steering errors are noticed at 0.03 and collision frequencies rise. A recent study found that braking ability decreased by about 30 percent at 0.03 **Reaction time** Reaction time begins to be affected eg the time to decide whether to brake or swerve to avoid an oncoming vehicle.
0.05	**Vision and perception** Ability to focus on and track the movement of other vehicles, or to maintain lane position as the direction of the road changes, is impaired. These tracking errors can contribute to run-off road crashes and head-on crashes. Ability to judge time and distances is impaired, eg drivers will have difficulty changing lanes, passing other cars, or determining whether a vehicle is moving towards or away from them. **Psychomotor skills eg steering, braking, changing gears** Steering accuracy is impaired eg studies shows drivers hit substantially more cones in an evasive manoeuvre at 50 km/hr. Inaccurate cornering and braking can result in crashes at 0.05. **Reaction time** Reaction time is impaired, eg it takes significantly longer to respond to road hazards, road signs and traffic signals and stopping distances are significantly increased. The combination of perceiving objects later and then taking longer to react to them means an increase in 'thinking time', so that it takes significantly longer to slow or stop the vehicle to avoid a collision. The increases in stopping distances are typically 2.8 metres travelling at 50 km/h, 3.9 metres travelling at 70 km/h, and 5.6 metres travelling at 100 km/h. .

0.08	**Vision, perception and divided attention** Vision, perception and divided attention skills will all be significantly impaired. Some drivers will suffer from double vision as their relaxed eye muscles impair the eyes' ability to work together. Peripheral vision will have decreased by 20%, so drivers are less likely to see vehicles and objects outside of their central field of vision. Drivers will deviate from their lane, be unable to control speed, there will be incorrect responses to traffic signals. Drivers have significantly reduced ability to recognise and respond to potential hazards, road layout changes and emergency situations. **Psychomotor skills eg steering, braking, changing gears** Steering and braking ability are significantly impaired. Reaction times have decreased even further. **Judgement and risk taking** Impairment in judgement, decision making, decrease in patience and self-control. A driver is more likely to take risks eg the decision to drive or take risks while driving. People will begin to overestimate their driving abilities and underestimate the level of alcohol they have consumed.

24. .The risk of being killed in New Zealand while driving at different BAC levels, including at the current drink drive limits, were estimated using data on drivers involved in fatal crashes[9]. The relative risks are shown in Table 2.

Table 2 – Relative risk of fatal crash by blood alcohol level and age

BAC	30+ years	20-29 years	15-19 years
0	1	3	5.3
0.03	2.9	8.7	15
0.05	5.8	17.5	30.3
0.08	16.5	50.2	86.6

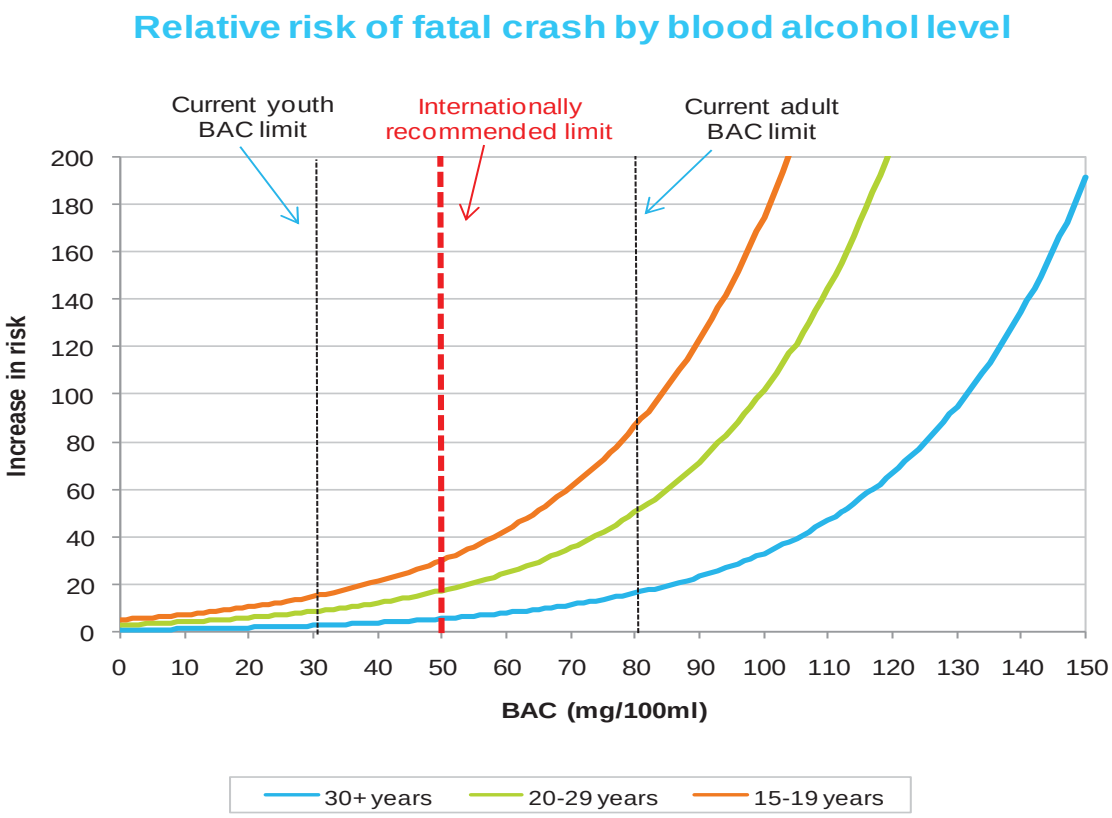
25. The table shows that at the current adult drink drive limit (BAC 0.08), drivers over 30 years of age are over 16 times as likely to be involved in a fatal crash than if they were sober. Adults aged between 20 to 29 years, are about 50 times as likely to be involved in a fatal crash than sober drivers aged over 30 years.

26. For youth, at the existing drink drive limit (BAC 0.03) a young driver is 15 times as likely to be involved in a fatal crash than a sober driver aged over 30.

27. These same results are shown below graphically. As can be seen from Figure 1, at BAC levels higher than 0.08 the rate of exponential increase in risk intensifies.

[9] Keall, M.D, Frith, W.J and Patterson, T.L. (2004) The influence of alcohol, age and the number of passengers on the night-time risk of driver injury in New Zealand. *Accident Analysis and Prevention,* 36(1), 49-61.

Figure 1



Expected outcome if we continue with the status quo

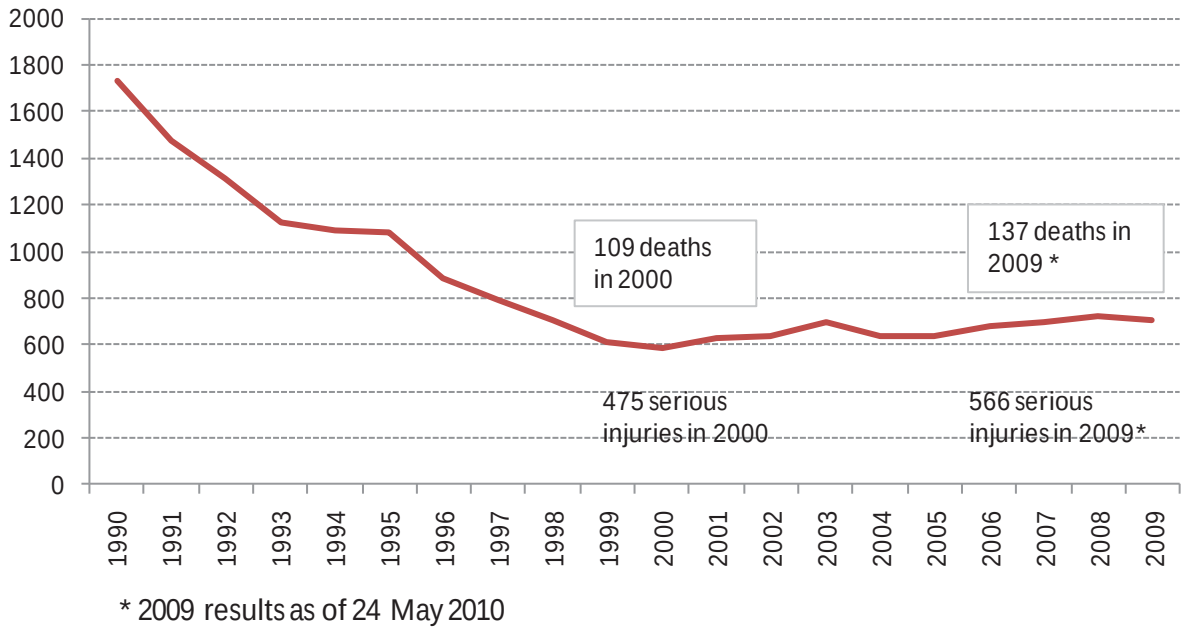
28. In terms of the progress made to reduce the number of alcohol related crashes, Figure 2 shows that though the 1990s substantial progress was made in reducing the number of alcohol related deaths and serious injuries. However, since 2000 no further progress has been made, and the level of deaths and serious injuries is now higher than it was in 2000.

29. This suggests that if we continue with the status quo, the number of alcohol related road deaths and serious injuries will continue to rise.

30. Consistent with the stalling in progress, there is some evidence to suggest that more people may be choosing to drink and drive over the existing limits. The roadside alcohol survey[10] provides the best snap shot of New Zealanders' drink drive behaviour. This survey shows that over the period 1998–2004 strong gains were made in reducing the proportion of drink drivers. However, some of these gains were lost over the following 4 years.

[10] The survey is conducted every second year by the Police using their random breath testing operations. Data is collected from all Police districts and the operations occur at randomly selected sites during the hours of 10pm and 2am.

Figure 2 - Deaths and serious injuries in crashes with driver alcohol/drugs as a contributing factor



* 2009 results as of 24 May 2010

31. In particular, there is a clear increase in drink driving among the 15 to 19 and 25 to 34 year old age groups. Figure 3 shows that the progress made through the late 1990s and early 2000 in changing drink driving behaviour among 15 to 19 year olds has been reversed. A higher proportion of young people are now driving while over the legal limit.

Figure 3

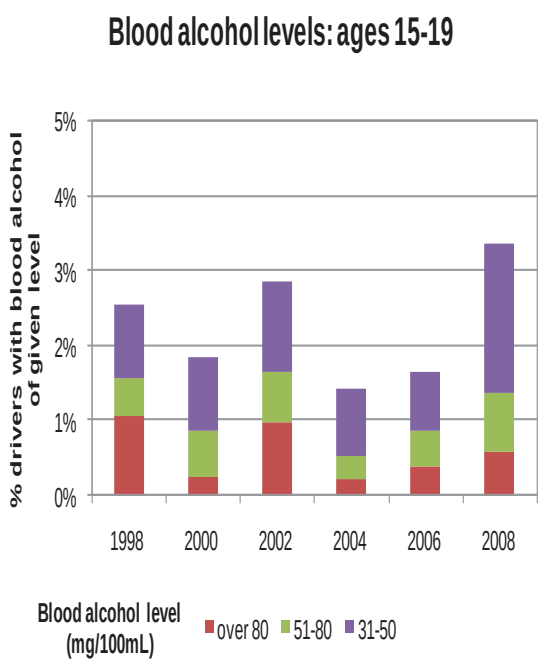
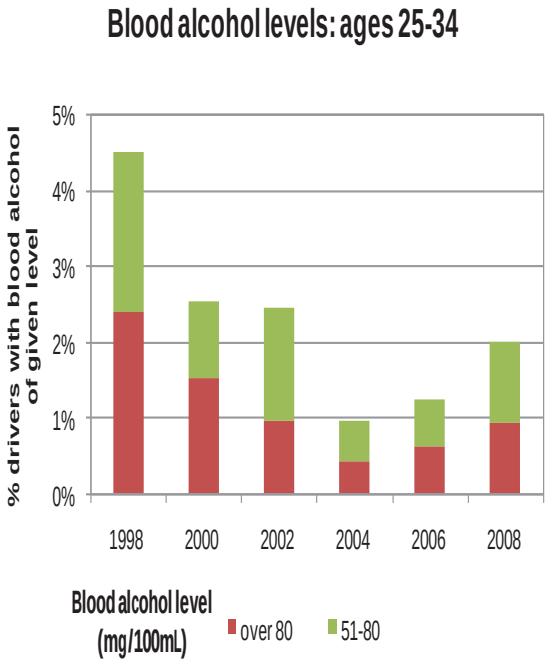


Figure 4



32. Similarly, Figure 4 shows that the proportion of drink drivers aged 25 to 34 has approximately doubled between 2004 and 2008.

33. The persistent number of deaths and serious injuries that are alcohol related suggests New Zealand needs a more effective response to drink driving. We have to set and enforce drink drive limits that better protect road users.

How does New Zealand compare with Australia?

34. In comparison with Australia, where an adult drink drive limit of BAC 0.05 has been in place for many years, and lower youth limits apply (either BAC 0.02 or zero depending on the state or territory), New Zealand experiences a higher level of alcohol related road crashes.

35. Based on the Australian results for 2006 (the latest available), around 22 Australians die in alcohol-related road crashes per one million population. This compares with 28 New Zealanders per one million population in 2008.

36. Another indicator of the prevalence of drink driving is the results from Police breath testing operations. Nationally about 1 in 150 Australian drivers tested exceed the legal limit of BAC 0.05. In contrast, 1 in 85 New Zealand drivers exceed our limit of BAC 0.08. In Victoria the rate is 1 in 314 drivers tested and in Queensland it is 1 in 192 drivers tested.

Decisions taken to date

37. On 15 February 2010 Cabinet, in considering the *Safer Journeys* strategy, agreed five possible actions to reduce the incidence of drink driving [CAB MIN (10) 5/9 refers]. These possible actions are to:

    37.1. either:

        37.1.1. lower the adult drink drive limit to BAC 0.05 and introduce infringement penalties for excess BAC offences between BAC 0.05 and 0.08

        or

        37.1.2. conduct further research on the level of risk posed by drivers with a BAC between 0.05 and 0.08

    37.2. lower the youth drink-drive limit for drivers under 20 years of age to zero, and introduce infringement penalties for excess BAC offences up to BAC 0.03

    37.3. enable the introduction of alcohol interlocks for offenders

    37.4. introduce a zero drink drive limit for repeat offenders

    37.5. review the traffic offences and penalties for causing death or injury.

Objectives

38. The public policy objectives are to:

    38.1. lower the level of alcohol consumption among drivers and thus lower the crash risk

38.2. reduce the number of alcohol-related crashes and thus significantly lower the number of road deaths and serious injuries

38.3. improve public attitudes and behaviour towards drink driving.

39. The aim of the alcohol actions in *Safer Journeys* is to reduce the level of fatalities caused by drink driving, currently 28 deaths per one million population, to a rate similar to that in Australia of 22 deaths per one million population.

Regulatory impact analysis

40. As outlined in the status quo and problem definition sections, the current response to drink driving needs to be strengthened if we are to achieve the above objectives.

Recommended option

41. The recommended option is to implement two of the possible actions outlined in paragraph 36 above at this point in the term of *Safer Journeys*. These initiatives are to:

41.1. lower the adult drink drive limit to BAC 0.05 and introduce infringement penalties for excess BAC offences between BAC 0.05 and 0.08

41.2. lower the youth drink-drive limit for drivers under 20 years of age to zero, and introduce infringement penalties for excess BAC offences up to BAC 0.03

42. These initiatives are based on road safety research, international experience and public feedback. They are the ones most likely to achieve the greatest gains at this time. They address some of the key reasons why drink driving is a larger road safer issue in New Zealand than it is in Australia.

Option of further research in lieu of a lowered adult drink drive limit

43. The Cabinet paper contains the option to conduct further research rather than to lower the adult drink drive limit. In the Ministry's view it is difficult to sustain a case for maintaining a limit of BAC 0.08. As discussed in the problem definition section, there are nearly 300 studies that look at the impairing effects of alcohol at different levels of BAC while driving.

44. The conclusions from this extensive body of research are very consistent. They are that impairment starts at very low BACs, and the vast majority of drivers are affected or impaired with a BAC of 0.05, with significant impairment at BAC 0.08. A New Zealand specific study will simply generate results that are consistent with this.

45. In the Ministry's view, delaying lowering the adult limit would unnecessarily forego the saving of lives, and prevention of injury that could otherwise be made. It would also divert up to $100,000 in research funding that could usefully be applied elsewhere.

Lower the drink drive limits and introduce infringement penalties

46. International experience[11] shows that an effective response to drink driving is based on three building blocks:

- Police enforcement of drink-driving laws
- random breath testing
- legal blood alcohol limits set to a blood alcohol content of no more than 0.05 for adults, and a limit of zero, or no more than BAC 0.02, for young drivers.

47. Internationally, the great majority of countries with legal blood alcohol limits set an adult limit of BAC 0.05 or lower. The United Kingdom, Ireland, the United States and 4 of Canada's 13 provinces and territories are the only western nations that have a limit of BAC 0.08. Of these jurisdictions, Scotland is looking to move the United Kingdom to a BAC limit of 0.05. If Scotland does not achieve a consensus with the rest of the United Kingdom, it will set its own limit of BAC 0.05. Ireland is currently consulting on lowering its adult limit for driving to BAC 0.05.

48. Similarly, youth limits of either zero or BAC 0.02 are common internationally. For instance, these limits apply in Canada, Australia, the United States and Europe. This is because while drink-driving is dangerous at any age, the impact on young drivers is even more severe than for older drivers.

Benefits

49. Benefit cost analysis indicates a potential benefit-cost ratio (BCR) of 173:1 for lowering the adult limit and a net present value (NPV) of $740 million. A zero youth limit has a potential benefit-cost ratio of 68:1, and a NPV of $109 million. These cost and benefit estimates are based on the lower end of the safety benefit estimates and the higher end of the cost estimates, using an annual discount rate of 8 percent and a 10-year evaluation period.

Benefits of a lowered adult limit

50. Experience from other countries suggests that lowering the adult limit to BAC 0.05 is likely to be the most effective intervention in addressing drink driving. This is because it:

    50.1. has been successful in other jurisdictions in reducing the number of drivers with very high BAC levels

    50.2. requires people to make a responsible decision (that is, to either stop drinking before they reach the limit, or to not drive) when they are still able to. People with a BAC closer to 0.08 are less able to do this.

51. Reducing the number of drivers with very high BAC levels is important as the relative risk of a fatal crash occurring is extreme. As can be seen from Figure 1, at a BAC of 0.15 a driver is over 180 times more likely to be involved in a fatal crash than a sober driver aged over 30.

[11] OECD 2008 Towards Zero: Ambitious Road Safety Targets and the Safe System Approach. pg 78.

52. Following the lowering of the limit to BAC 0.05 in the Australian Capital Territory, drivers stopped in random breath tests with BACs between 0.15 and 0.2 declined by 34 percent, and those with BACs above 0.2 declined by 58 percent.

53. In terms of the benefits in reducing fatal and injury crashes, to the Ministry's knowledge 10 evaluations have been done of the effects of lowering the limit from BAC 0.08 to 0.05. These studies cover eight jurisdictions. Positive road safety results were reported for six of the jurisdictions, while for the other two the results were mixed. A summary of the evaluations is in Appendix 2.

54. As can be seen from Appendix 2, after lowering the adult limit from BAC 0.08 to BAC 0.05:

    54.1. New South Wales achieved an 8 percent reduction in fatal crashes and a 7 percent reduction in serious injury crashes

    54.2. Queensland achieved an 18 percent reduction in fatal crashes and a 14 percent reduction in serious crashes

    54.3. Haute-Savoie (France) achieved more than a 30 percent reduction in alcohol related fatal crashes.

55. Australian evaluators suggested that the lowered limit is likely to have reduced the incidence of drink driving through:

    55.1. its reinforcement of the anti drink-driving message, and the change in social pressures and expectations that it generated

    55.2. an increased perceived risk of apprehension after a lower number of drinks

    55.3. its encouragement of drivers to be more conscious of the amount of alcohol they consume

    55.4. requiring people to make a responsible decision (for example, to either stop drinking before they reach the limit, or not drive) when they are still able to. People close to the higher BAC 0.08 limit are less able to do this

    55.5. the lower limit's additional incentive to make special arrangements to avoid drink driving (such as, nominating one member of a social group to be the sober driver).

56. Analysis suggests that we would see similar improvements to those achieved in other jurisdictions if we lowered the drink drive limit to BAC 0.05. It is estimated that between 15 to 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.

57. The lower estimate (15 deaths) is based on an average of the results for Australian States. Appendix 1 shows the results for these studies. As can be seen they use a variety of methods and state their results in a variety of ways. Some of which relate specifically to alcohol related crashes and some to crashes generally. For some of those that stated results in terms of a reduction in alcohol related crashes they noted that there was a reduction across the whole range of blood alcohol levels. As can be

seen in Figure 1 the risk of crashing rises quite steeply with blood alcohol levels. So for levels above 100mg/100ml, where many alcohol related crashes occur, the transfer of risk to sober driving would result in a negligible increase in sober driver crashes. Given the range of results from the different studies this is not worth considering.

58. The higher savings estimate (33 deaths) is based on the best international experience.

59. ACC estimate that this initiative could save the ACC Motor Vehicle Account between $44.9 million and $94.5 million in lifetime costs.

60. Of the adult driving population, the safety of 20 to 29 year old drivers is likely to be the most improved from a limit of BAC 0.05. As can be seen from Table 2, at the current BAC 0.08 limit a 20 to 29 year old is 50 times more likely to be involved in a fatal crash than a sober driver aged over 30. With a limit of BAC 0.05 this risk is reduced by almost two-thirds, to 17 times more likely.

61. A lower adult limit would also provide a safer transition for young drivers who choose to consume alcohol before driving but remain within the legal limits. If the youth limit were lowered to zero without a change to the adult limit, then a 20 year old guided by the drink drive limits would increase their risk profile by a factor of 10. If we had an adult BAC of 0.05 the risk would go up by a factor of three.

62. Moreover, a limit of BAC 0.05 would be more in line with the level of risk most New Zealanders are prepared to accept from alcohol impaired drivers. When New Zealanders are asked what limit should be placed on the number of standard drinks before driving, 85 percent of people favour a limit of BAC 0.05 or lower. Only two percent favour the current limit of BAC 0.08.

Benefits of a zero youth limit

63. Drink driving is one of the reasons why young drivers under the age of 20 have lower levels of road safety than other age groups. Table 2 shows that as more alcohol is consumed young drivers' fatal injury risk increases substantially faster than that of older drivers.

64. At the existing youth limit (BAC 0.03), a 15 to 19 year old driver is 15 times more likely to be involved in a fatal crash than a sober driver aged over 30. This level of risk is roughly the same that an adult driver aged over 30 years faces with a BAC of 0.08.

65. There are various reasons why alcohol has a greater effect on the driving capabilities of young drivers, including that:

    65.1. Young people's tolerance of alcohol is often lower, as their bodies are not accustomed to it.[12]

    65.2. For young drivers the task of driving is more demanding than for experienced drivers. Alcohol reduces a person's ability to pay attention to the driving task even at relatively low levels of BAC (see Table 2). As young drivers have to allocate more of their attention to the driving task than experienced drivers, the effect of alcohol on their driving performance is greater.

[12] Young Drivers: The Road to Safety, OECD, 2006 pg 78

65.3. Alcohol reduces social inhibition and increases risk taking. As young people's self-control and risk assessment skills are still developing, alcohol has a greater impact on their driving behaviour than on older drivers.

66. Alongside being more affected by alcohol, young drivers tend to drink and drive more often than other age groups. For example in 2008, 15 to 19 year olds comprised 6.5 percent of the licensed driving population, but 23 percent of drink drive offenders. This compares with 25 to 29 year olds, who comprise 9 percent of licensed drivers and 13 percent of offenders.

67. International experience suggests that limits of zero, or BAC 0.02, for young drivers are effective in lowering the level of alcohol related road deaths and injury. For example, evaluation of the effect of a limit of BAC 0.02 in the United States found that it lead to a 21 percent decline in single-vehicle, night-time fatal crashes among young drivers[13].

68. An Australian evaluation found on average a 22 percent reduction in night-time, single-vehicle crash fatalities following the introduction of a zero BAC limit for young drivers[14].

69. There are no specific evaluations that look at the effect of lowering the youth limit from BAC 0.03 to zero. The evaluations tend to concern the effect of moving from the limits of BAC 0.08 or 0.05 to zero or BAC 0.02.

70. However, in Japan a lowering of the general limit from BAC 0.025 to 0.015 was followed by a 5 percent reduction in all traffic fatalities[15].

71. Analysis of New Zealand crash data suggests that lowering the youth limit to zero would save 2 lives and prevent 43 injuries every year. This corresponds to an estimated annual social cost saving of $16.5 million.

72. ACC estimate that this initiative could save the ACC Motor Vehicle Account around $2 million in lifetime costs.

73. In practice, the zero drink drive limit would be enforced at BAC 0.01 (10 mg per 100ml of blood). This is to remove the possibility of young drivers being wrongly apprehended for drink driving because of mouth alcohol[16].

Introducing an infringement regime for the proposed drink drive limits

74. It is proposed that an infringement regime be introduced for the proposed excess BAC offences between zero and BAC 0.03 (for youth), and BAC 0.05 and BAC 0.08 (for adults). Above these limits the existing summary[17] offences and penalties would continue to apply.

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[13] OECD (2006) Young Drivers: The road to safety, pg 140
[14] ibid
[15] ibid
[16].Mouth alcohol is one of the most common causes of falsely high breathalyzer readings. Other than recent drinking, the most common source of mouth alcohol is from belching. Mouthwashes also contain fairly high levels of alcohol
[17] A summary offence is a criminal act that can be dealt with summarily, ie it is heard before a judge without a jury in a district court and without a preliminary hearing. Determination of guilt results in conviction and the person acquires a criminal record. Summary offences are considered less serious than indictable offences.

75. The alternative to an infringement regime would be to extend the existing summary regime to the proposed drink drive limits. This would have the advantage of maintaining consistency with the existing legislation, and its premise that drink drive offences are more serious than other traffic offences. It would also provide a stronger deterrent to drink driving, thereby reducing the number of alcohol impaired drivers at a faster rate. This in turn would secure larger reductions in the number of road deaths and serious injuries.

76. However, at this point in time introducing the lowered drink drive limits with an infringement regime is likely to be preferable because it would:

    76.1. be perceived publicly as a fair way to allow New Zealanders to adjust to the new drink drive limits. It could give lower level offenders a way to acknowledge their error, modify their behaviour, and put it behind them without the cost and stigma of a criminal conviction

    76.2. allow a lowering of the limits while at the same time reducing the level of additional costs associated with court prosecutions that would be imposed on police, courts, and judiciary.

77. The penalties need to be:

    77.1. effective in deterring people from drink driving, including for both potential first time and repeat offenders

    77.2. substantial enough to hold offenders to account and to promote a sense of responsibility for the level of road safety risk they have exposed the community to

    77.3. fair, having regard to the nature and circumstances of the offence and not disproportionately severe to any particular group

    77.4. proportionate and consistent in terms of the level of harm they seek to deter, and in terms of the existing alcohol penalties and wider body of traffic penalties

    77.5. simple to enforce and administer and easily understood by the public.

78. The challenge with infringement penalties is to set penalties that achieve the above objectives across the driving population. By their nature infringement penalties are blunter than court imposed penalties as they can not take into account the individual circumstances of the offending, or the financial means of the offender to pay a monetary penalty. However, this is mitigated to some extent as time payment arrangements are available and can be tailored to meet the offender's ability to pay.

79. The preferred way to achieve these objectives with an infringement regime is to have a combination of monetary penalties (that is infringement fees) and demerit points. In the Ministry's view this would capture the advantages of these two different types of penalty, the:

    79.1. demerit component would bring an element of fairness. All drivers would be equally affected by the accumulation of points regardless of their financial position. As well, demerit points may be more successful in deterring drink

driving for drivers who have already accumulated some demerit points and are at risk of losing their licence

79.2. monetary component provides a means by which offenders can bear some of the cost they impose in the enforcement of drink driving. This in turn reduces the call on general taxation.

80. Moreover, monetary penalties alone can have little deterrent effect for drivers who view the penalty as an affordable cost of choosing to operate outside of the road rules. Or for drivers who choose not to pay their fines. Currently over 90 percent of New Zealand's unpaid fines are for traffic offences.

81. In terms of the level of infringement penalties it is proposed that the:

81.1. adult penalty be 50 demerit points and an infringement fee of $300

81.2. youth penalty be 50 demerit points and an infringement fee of $200.

82. The level of these penalties has been set to be consistent with the existing alcohol penalties, and with the wider body of traffic penalties. As well as ensuring the penalties are strong enough to deter and sanction given the significant road safety risk drink driving imposes.

83. The proposed level of 50 demerit points is the maximum amount that can currently be applied for a single offence, and a licence is suspended for 3 months if 100 points or more are accumulated within 2 years. This proposal means that someone would have their licence suspended for 3 months if they commit a second drink drive infringement within a 2 year period. It would also mean that if someone had already accumulated at least 50 demerit points, through other traffic offences, and was caught drink driving (between BAC 0.05 and 0.08 for adults and BAC 0.01 and 0.03 for youth), their licence would be suspended for 3 months.

84. The proposed infringement fees are based on half the level of the average fine the courts typically impose for first time excess blood alcohol offences (that is, for adults offences above BAC 0.08 and for youth excess blood alcohol offences between BAC 0.03 and BAC 0.08). However, they do not include a proportionate amount for court costs (nor does the level of demerit points reflect half the mandatory minimum disqualification periods).

Costs

85. The New Zealand Police, the New Zealand Transport Agency and the Ministry of Justice will all face additional cost pressures giving effect to the lowered drink drive limits which are detailed below. All costs are indicative and are highly dependent on the following assumptions:

85.1. Lowering the limits will result in an initial increase in the annual number of detected drink drive offences. Two scenarios are costed. The first assumes a 10 percent increase, and the second a 20 percent increase.

85.2. The initial increase in the annual number of detected drink drive offences will dissipate over the following three years, at a rate of 33 percent in each of years 2, 3 and 4. This assumption is based on the Australian experiences.

85.3. Lowering the limits will reduce the level of alcohol consumption across the population of drink drivers. This will mean there is a reduction in the number of offences above the current limits, and an increase in offences within the new limits. We have assumed a 15 percent reduction in the number of BAC 0.08 and above offences (4900 less BAC 0.08 offences), and an extra 10 percent reduction in the number of youth offences (760 less BAC 0.03 offences). This is based on the lower end of the expected reduction in the number of fatal crashes.

85.4. Excess BAC offences for the proposed limits will be dealt with via an infringement regime as proposed in the Cabinet paper.

85.5. The initial increase in offences for the proposed adult limit is estimated to be 7440 for the 10 percent scenario, and 9980 for the 20 percent scenario. This is based on an anticipated increase of 2540 (10% of total adult offences) or 5080 (20% of total adult offences), plus the 4900 new infringement offences that would previously have been court offences.

85.6. The initial increase in offences for the proposed youth limit is estimated to be 1520 for the 10 percent scenario, and 2280 for the 20 percent scenario. This is based on an initial increase of 760 (10% of total youth offences), or 1520 (20% of total youth offences), plus the 760 new infringement offences that would previously have been court offences.

85.7. The rate of re-offending against the proposed new limits will be the same as for the existing limits, of 27 percent. Of the re-offenders it is assumed that 50 percent will drive with a suspended licence. The first costing scenario (10 percent increase in initial offending) assumes 10 percent of these drivers will be detected and prosecuted. The second scenario (20 percent increase in initial offending) assumes 20 percent of these drivers will be detected and prosecuted.

85.8. Based on the current number of blood tests, 18 percent of adult offenders and 12 percent of youth offenders will have evidential blood tests.

Cost to the New Zealand Police

86. The Police would face an additional estimated cost pressure of between $1.61 million – $2.03 million over three years to give effect to the lowered adult and youth limits. The estimated increase in costs is outlined in Table 3.

87. These estimates are based on current levels of enforcement activity. That is, Police would retain the same focus on alcohol as now. However under *Safer Journeys,* changes to increase focus on alcohol and young drivers, by adjusting Police tactics, will see an increase in detected offences.

88. It should be noted that the cost of $145,000 to reprogramme the breath screening and evidential devices would be incurred each time the limits are changed. Table 3 assumes both the adult and youth limits would be lowered at the same time. If they are lowered separately, the $145,000 cost would be incurred twice.

89. The estimates in Table 3 assume a cost of $318.00 per evidential blood test. This is made up of the cost of the blood analysis, blood kit and registered medical practitioners call out and service fee.

Table 3 – Estimated costs to the New Zealand Police

Cost($)	**2010/11**		**2011/12**		**2012/13**	
Scenario (percentage increase in detected offences)	**10% $**	**20% $**	**10% $**	**20% $**	**10% $**	**20% $**
Reprogramming 2707 breath screening devices	125,000	125,000	0	0	0	0
Software changes for the evidential breath devices	20,000	20,000	0	0	0	0
Increased requests for blood tests						
• BAC 0.05 adult limit	426,120	572,400	378,420	473,820	330,720	378,420
• Zero youth limit	57,200	85,900	47,700	66,800	38,200	47,700
Infringement processing						
• BAC 0.05 adult limit	56,000	75,100	49,700	62,500	43,400	49,900
• Zero youth limit	11,400	17,200	9,600	13,400	7,700	9,600
Increase in driving while disqualified offences						
• BAC 0.05 adult limit	3,700	9,800	3,200	8,100	2,900	6,600
• Zero youth limit	800	2,300	700	1,800	500	1,300
Estimated total additional cost						
BAC 0.05 adult limit	558,320	729,800	431,320	544,420	377,020	434,920
Zero youth limit	141,900	177,900	58,000	82,000	46,400	58,600
Total costs	**700,220**	**907,700**	**489,320**	**626,420**	**423,420**	**493,520**

Cost to the New Zealand Transport Agency

100. The New Zealand Transport Agency (NZTA) would face an estimated cost pressure of $1.60 million – $1.76 million over three years to give effect to the lowered adult and youth limits. Of this amount $1 million (the publicity costs) represents a business- as-usual cost. The estimated costs are outlined in Table 4.

Table 4 – Estimated costs to NZTA

Cost **Scenario (percentage increase in detected offences)**	**2010/11**		**2011/12**		**2012/13**	
	10% $	**20% $**	**10% $**	**20% $**	**10% $**	**20% $**
Issue of demerit warning notices • BAC 0.05 limit • Zero youth limit	6,800 1,400	9,100 2,100	6,000 1,200	7,600 1,600	5,200 900	6,000 1,200
Licence suspension notices • BAC 0.05 limit • Zero youth limit	143,200 29,600	190,900 43,900	127,000 24,800	159,400 34,400	110,800 20,100	127,000 24,800
Helpdesk (licensing and offence enquires) • BAC 0.05 limit • Zero youth limit	9,800 2,000	13,100 3,000	8,700 1,700	10,900 2,300	7,600 1,400	8,700 1,700
Administration of licence records • BAC 0.05 limit • Zero youth limit	86,000 43,500	115,400 65,300	72,000 36,400	95,900 50,900	72,000 36,400	76,600 36,600
Printing and postage of reissued licences • BAC 0.05 limit • Zero youth limit	17,000 3,500	22,800 5,200	15,100 2,900	18,900 4,100	13,200 2,400	15,200 3,000
Licence reinstatement fee revenue • BAC 0.05 limit • Zero youth limit	(105,100) (21,400)	(140,900) (32,600)	(93,500) (17,700)	(117,200) (25,100)	(81,400) (14,400)	(93,900) (18,100)
Public awareness raising campaign	1,000,000	1,000,000	0	0	0	0
Estimated total additional costs BAC 0.05 limit Zero youth limit **Total costs**	$657,700 $558,600 **$1,216,300**	$710,400 $586,900 **$1,297,300**	$135,300 $49,300 **$184,600**	$175,500 $68,200 **$243,700**	$127,400 $46,800 **$174,200**	$139,600 $49,200 **$188,800**

101. In addition to the assumptions outlined in paragraph 84, it has been assumed that:

101.1. 38 percent of new infringements will result in a suspension notice. This is based on the assumption that 27 percent of offenders will re-offend, coupled with the fact that any two traffic offences at 50 demerit points result in a demerit suspension

101.2. 45 percent of suspension notices incur a fee for unsuccessful service on the first attempt

101.3. 20 percent of suspended drivers are unlicensed drivers and will not be subject to a reinstatement fee. However all licensed drivers (80 percent of total) will pay the reinstatement fee at the end of their suspension

101.4. 33 percent of suspended drivers ring the contact centre to query the licence suspension or entitlement to drive

101.5. there is a 27 percent rate of re-offending rate for out years that if occurring within 4 years will result in a 28-day suspension. All costs associated with 28-day suspensions are not recoverable through payment of the reinstatement fee

101.6. legislation will be amended so that a driver will remain unlicensed at the end of their licence suspension until the reinstatement fee is paid. This will ensure that NZTA will not forfeit any renewal fees as is currently the case

101.7. the cost of re-aligning all relevant printed material (for example, the *Official New Zealand road code*, pamphlets, fact sheets) would be a business as usual cost. This assumption is dependent on there being a lead-in period of 6 to 9 months.

102. The $1 million cost of the public awareness raising campaign in Table 4, covers the cost of informing people about the new limits via extensive nationwide promotion including television advertising. The campaign would also include information on the impairing effect of alcohol on the ability to drive at different levels of BAC. For example at BAC 0.02 vision is affected and by BAC 0.04 tunnel vision occurs. This cost would be a business-as-usual cost, as the alcohol campaign that would have otherwise occurred would be refocused on the change in the drink drive limits.

Cost to the Ministry of Justice (Courts)

103. As a result of lowering the adult and youth limits, the Ministry of Justice (Courts) could experience a cost saving, or a modest cost pressure, depending on what happens to the level of offending.

104. The increase in the number of offences detected between the new and the existing limits would, to some extent, be offset by a reduction in the number of higher end offences. Depending on the relative size of these changes, the net change in the number of defended hearings and driving while disqualified cases to be handled by Courts, ranges from a net reduction to a net increase. Based on the assumptions discussed, under the 10 percent scenario, the Ministry would make an estimated saving of $825,000. Whereas with the 20 percent scenario it would face an estimated cost pressure of $493,000.

105. The estimated savings and costs are summarised in Table 5.

Table 5 – Estimated costs to the Ministry of Justice

Cost($)	**2010/11**		**2011/12**		**2012/13**	
Scenario (percentage increase in detected offences)	**10%**	**20%**	**10%**	**20%**	**10%**	**20%**
Processing s78B applications						
• BAC 0.05 limit	3,400	4,500	3,000	3,800	2,700	3,000
• Zero youth limit	700	1,100	700	900	500	700
Defended infringement hearings						
• BAC 0.05 limit	796,700	1,085,040	645,100	856,500	586,700	647,200
• Zero youth limit	161,520	270,340	134,900	170,300	117,500	135,600
Increase in driving while disqualified cases						
• BAC 0.05 limit	90,400	295,820	79,300	245,900	70,100	207,100
• Zero youth limit	18,500	55,400	16,600	44,300	12,900	31,400
Reduction in court hearings of excess BAC 0.08 cases						
• BAC 0.05 limit	(1032500)	(1032500)	(1032500)	(1032500)	(1032500)	(1032500)
• Zero youth limit	(156,100)	(156,100)	(156,100)	(156,100)	(156,100)	(156,100)
Estimated total cost						
BAC 0.05 limit	(142,000)	352,860	(305,100)	73,700	(373,000)	(175,200)
Zero youth limit	24,620	170,740	(3,900)	59,400	(25,200)	11,600
Total costs	(117,380)	523,600	(309,000)	133,100	(398,200)	(163,600)

Total costs of implementing the lower drink drive limits

106. The total costs across the three agencies are summarised in Table 6. For each initiative the table also shows the estimated NPV and potential BCR. These estimates

are based on the lower end of the safety benefit estimates, using an annual discount rate of 8 percent and a 10-year evaluation period.

Table 6 – Total costs of implementing the lower drink drive limits

Action	2010/11 $	2011/12 $	2012/13 $
Lowering the adult limit			
Police	558,320–729,800	431,320–544,420	377,020–434,920
NZTA	657,700-710,400	135,300-175,500	127,400-139,600
Justice(Courts)	(142,000)–352,860	(305,100)–73,700	(373,000)–(175,200)
Total	1,074,018-1,793,061	261,517-793,620	131,417-399,318
Estimated BCR	172.9–399.2		
Estimated NPV	$740,511,000– $742,953,000		
Zero youth limit			
Police	141,900–177,900	58,000–82,000	46,400–58,600
NZTA	558,600-586,900	49,300-68,200	46,800-49,200
Justice(Courts)	24,620–170,740	(3,900)–59,400	(25,200)–11,600
Total	725,120-935,540	103,400-209,600	68,000-119,400
Estimated BCR	67.8–101.1		
Estimated NPV	$109,082,000– $109,621,000		

Risks

Infringement penalties may be insufficient to deter drink driving

107. Adopting infringement penalties may create a risk that drink driving over the new limits, but below the current limits, is perceived as a trivial offence, despite this behaviour posing a significant road safety risk to the community. This will be mitigated by the proposed levels of the infringement penalties which are not trivial.

108. Alongside this, the fact that someone would have their licence suspended for 3 months, if they commit a second drink drive infringement within a 2 year period, should be sufficient to deter most drink drivers.

109. Nevertheless, there is a risk that the level of the proposed penalties may not be adequate to deter some repeat drink drivers. To minimise this risk, it is proposed that officials from the Ministry of Transport and Police, in consultation with the Ministry of Justice, review the adequacy of the infringement penalties in deterring repeat offending once the infringement regime has been in place for at least 2 years.

Increase in initial offending may prove larger and/or slower to dissipate

110. As stated in the cost section above, we have assumed an initial increase of 10 or 20 percent in the number of drink drive offences. These offences would occur within the

new offence levels. We also assumed that this increase would dissipate over the following 3 years as drink drive behaviour changes.

111. These assumptions are based on the Australian experiences of lowering the adult limit from BAC 0.08 to BAC 0.05. These experiences suggests there would be a short-term increase in offences, then a quick adjustment to the new limit and a return to previous levels of offending in the first couple of years. In Australia this level of offending then reduced further over time. Nationally about 1 in 150 Australian drivers tested exceed the legal limit of BAC 0.05. In contrast, 1 in 85 New Zealand drivers exceed our limit of BAC 0.08.

112. However, there is some risk that the initial increase would be greater and prove slower to dissipate. This would mean the actual costs faced by agencies in giving effect to the lowered limits are greater than the estimated costs (in the section above).

113. This risk would be mitigated by the public awareness campaign that would occur before the limits were lowered. This campaign will ensure people are aware of the changes and the reasons for them. It will also provide information on the impairing effect of alcohol on the ability to drive at different levels of BAC. For example, that at BAC 0.02 vision is affected and by BAC 0.04 tunnel vision occurs.

114. As well, the Police's enforcement effort would have an increased focus on drink driving at the time the limits change. The public awareness campaign will be designed to work with, and support, the Police's enforcement effort.

<u>The lower drink drive limit may increase the number of requests for evidential blood tests</u>

115. Related to the initial increase in offences, there is some risk that this increase will be associated with a rise in the number of people requesting an evidential blood test as a way of avoiding prosecution. Over the past five years, the requests for blood tests have increased on average 9.7 percent each year for the over 20 age group, and by 0.2 percent for those under 20.

116. An increase above current levels would mean the actual costs faced by Police in giving effect to the lowered limits are greater than the estimated costs (in the section above).

117. Moreover, Police estimate that it can take 1 to 1.5 hours to complete a blood test over and above the average time taken for a breath only alcohol test. For people with a BAC slightly higher than the BAC enforcement tolerance, the time delay can be long enough for their BAC level to fall to be within the legal limits. The time delay occurs while awaiting the expiration of the 10 minute decision-making period for electing to have an evidential blood test, the location and call out of a registered medical practitioner, the taking of the blood sample and completion of the blood specimen administration requirements.

118. Where people successfully avoid prosecution through electing to have a blood test, not only does this imposes a direct cost on Police, it also brings a loss in forgone enforcement time. and weakens the deterrent effect of the drink drive penalties.

119. To mitigate this risk, Police will monitor the number of requests for evidential blood tests. If there is evidence of a significant increase in the number of requests, then a

wider review of the desirability of maintaining the evidential blood test will be progressed.

Perception that an adult limit of BAC 0.05 would target and penalise responsible drivers

120. Some submitters to the *Safer Journey's* consultation were of the view that an adult limit of BAC 0.05 would target and penalise responsible drivers. This perception could undermine public support for a lowered adult limit.

121. To mitigate this risk, communications material would make it clear that responsible drivers would not be targeted. This is because currently the proportion of drivers at risk of being apprehended for drink driving is low.

122. The roadside alcohol survey, gives an indication of the number of people likely to be apprehended if the adult limit were lowered. This survey is conducted every 2 years, and collects data from compulsory breath testing operations held between the hours of 10pm and 2am on Friday and Saturday nights during February, March, April and May. The survey collects data from all Police districts.

Table 7 - Proportions of adult drivers registering positive alcohol levels

Year	Number of drivers over 20 years of age tested	0.03-0.05	0.05-0.08	0.08+
1997	19,187	2.7%	2.2%	1.9%
1998	15,209	2.6%	1.7%	1.9%
1999	19,613	2.2%	1.3%	1.4%
2000	19,381	2.1%	1.2%	1.2%
2002	20,884	2.0%	1.3%	1.0%
2004	20,727	1.5%	0.7%	0.5%
2006	20,944	1.7%	1.2%	0.8%
2008	19,608	1.8%	1.0%	0.8%

123. The proportions of adult drivers registering positive alcohol levels over the past eight surveys are shown in Table 7. Based on results from 2004 to 2008, between 7 and 12 additional drivers in every 1,000 drivers could be at risk of being apprehended for drink driving if the limit was lowered to BAC 0.05 and they do not subsequently change their behaviour. However, in practice if the limit were lowered then it is likely to reduce the number of people choosing to drink and drive.

Perception that the key problem is repeat drink drivers

124. A related risk is the perception of some stakeholders that a lowered adult limit would target social drinkers and detract attention from the small minority of 'hard core' repeat drink drivers. To mitigate this risk, communications material will make it clear that drink driving is not solely a problem of repeat drink drivers, but repeat drink drivers are part of the problem.

125. Table 8 shows the proportions of drivers involved in Police-reported casualty crashes between 2005 and 2007 by prior offence history.

Table 8 - Prior offending history of drivers involved in alcohol related crashes between 2005-2007[18]

Prior offending history period	Number of prior drink-driving offences within prior history period	Proportion of drivers involved in alcohol related crashes between 2005-2007		
		Alcohol involved casualty crashes[19]	Alcohol involved serious and fatal crashes[20]	Alcohol involved fatal crashes[21]
5 years	None	76%	77%	77%
	One	18%	16%	15%
	Two	5%	5%	5%
	Three or more	1%	2%	3%
10 years	None	67%	68%	70%
	One	20%	19%	17%
	Two	8%	8%	7%
	Three or more	5%	5%	6%
Lifetime	None	62%	65%	67%
	One	18%	16%	13%
	Two	9%	8%	7%
	Three or more	11%	11%	13%

126. As can be seen from the table, 76 percent of the drivers involved in alcohol related casualty crashes between 2005 and 2007 had no previous drink-driving offences within the 5 years prior to the crash. Eighteen percent of these drivers had one prior drink-driving offence, five percent had two prior drink-driving offences, and one percent had three or more prior drink-driving offences.

<u>In rural communities lowering the adult drink drive limit will result in a financial loss to the hospitality industry and a reduction in social connectedness</u>

127. The last risk identified in the *Safer Journey's* submissions is that in rural communities, lowering the adult drink drive limit would have a negative impact on the hospitality industry, and result in a reduction in social connectedness.

128. As with the risks discussed above, this risk is likely to be more a perception than an eventuality. Australian guidelines suggest that a limit of BAC 0.05 would allow a male, of average height and weight, to consume around two standard drinks in the first hour and one standard drink per hour thereafter. For women, of average height and weight, it would allow one standard drink per hour to be consumed. This level of alcohol consumption is consistent with a 'social drink'.

[18] The information is limited to those crash-involved drivers with valid licences only when linking the CAS and DLR information. Approximately 12% of the crash-involved drivers were either missing or had an invalid driver licence number for these analyses.
[19] Drivers involved in alcohol related casualty crashes comprise 9% of all drivers involved in casualty crashes during 2005-2007.
[20] Drivers involved in serious or fatal alcohol related casualty crashes comprise 14% of all drivers involved in serious or fatal crashes during 2005-2007
[21] Drivers involved in fatal alcohol related crashes comprise 18% of all drivers involved in fatal crashes during 2005-2007

129. In terms of social connectedness, arguably the existing adult limit of BAC 0.08 has more of a negative impact on connectedness than the proposed lower limit. Currently, more road users are killed or seriously injured through drink drive crashes on rural roads than urban roads. Between 2004 and 2008, 1863 people died or were seriously injured in alcohol related crashes on rural roads. This makes up about 55 percent of all alcohol related deaths and serious injuries.

130. Indeed, several submitters made the point that if someone is killed or seriously injured in a rural community this can have a greater impact on the productivity of the community than a similar injury occurring in an urban area. For example, post crash rehabilitation such as follow up GP visits, and/or physiotherapy, can be more difficult to access in rural communities.

Alternative options

Maintain the status quo

131. Though the 1990s substantial progress was made in reducing the number of alcohol-related deaths and serious injuries. However, since 2000 no further progress has been made and the level of deaths and serious injuries is now higher than it was in 2000. Maintaining the status quo will mean that this level of alcohol-related death and injury will continue.

Maintain the existing limits and increase the severity of penalties

132. This option would leave the existing drink drive limits in place, but would strengthen the penalties for breaching the limits. This approach was not progressed because when all the research and evidence is considered, it is difficult to sustain a case for maintaining a limit of BAC 0.08.

133. As discussed in the problem definition section, the effect of alcohol on driving has been comprehensively researched over the last 50 years. The Ministry is aware of nearly 300 studies that look at the impairment effects of alcohol at different levels of BAC while driving. The findings from this extensive body of research are very consistent.

134. The research concludes that critical driving abilities such as vision, steering and braking are among the most sensitive to alcohol, and by a BAC of 0.08 a driver is significantly impaired. Furthermore, a wide range of evidence also shows that driving performance begins to become significantly impaired at BAC 0.05 and that the vast majority of drinking drivers are affected by alcohol at this level.

135. Apart from the impairment effect of driving skills, people close to a BAC of 0.08 are less able to make a responsible decision, that is, to either stop drinking before they reach the limit, or to not drive.

136. Moreover, maintaining the existing limit of BAC 0.08 is out of line with the level of risk most New Zealanders are prepared to tolerate among drivers. When New Zealanders are asked what limit should be placed on the number of standard drinks before driving, 85 percent of people favour a limit of BAC 0.05 or lower. Only 2 percent favour the current limit of BAC 0.08.

Promote the voluntary use of alcohol interlocks

137. Another option considered was to promote the voluntary use of alcohol interlocks. However, if alcohol interlocks are made mandatory for drink driver offenders, then people may be less likely to voluntarily fit them. That is, people would not want to be potentially perceived as drink drive offenders.

Consultation

138. The *Safer Journeys* discussion document was launched on 18 August 2009. The consultation period closed on 2 October 2009. During the consultation period, Ministry officials attended over 40 meetings across New Zealand, including Regional Transport Committee meetings and meetings with road safety coordinators and specific interest groups like walking and cycling advocates. The *Safer Journeys* website contained an online forum, where people could exchange their views on the different priority areas and *Safer Journeys* in general. Almost 400 people joined the forum and posted more than 1000 notes.

139. More than 1500 submissions were received on the *Safer Journeys* discussion document. This is a much higher number of submissions than was received on the *Road Safety to 2010* strategy (about 800). In addition, more than 1200 members of the general public and almost 20 key stakeholders ranked the 62 initiatives outlined in the discussion document.

140. The Ministry of Youth Development (MYD) also received 310 submissions on the *Safer Journeys* youth document (264 from individuals and 46 from groups).

141. The options of lowering the adult and youth drink drive limits and alcohol interlocks were included in the Law Commission's issues paper: *Alcohol in our Lives. Alcohol in our Lives* was released in July 2009 and had a 3 month consultation period.

Feedback received on the proposed alcohol initiatives

Lowering the adult limit to BAC 0.05

142. Three-quarters of the public submitters supported lowering the adult limit and the initiative was ranked the sixth highest preferred initiative out of the 62 suggested initiatives. About 25 percent of individuals opposed lowering the adult limit. A significant number of individual submissions opposing the lowering of the limit were from the hospitality industry.

143. The proposal was also included in the Law Commission's consultation paper: *Alcohol in our Lives* and 1240 people responded. Of these submissions, 90 percent supported having an adult limit of BAC 0.05, 1.5 percent were opposed, and the remainder made no direct comment, but supported increasing alcohol countermeasures including an adult limit of BAC 0.05.

144. Reasons for supporting a lowered limit included that the current limit allows people who are significantly impaired to drive legally. This sends a message that it is okay to drink and drive.

145. Those who preferred the drink drive limit to stay at BAC 0.08 often stated that it would penalise responsible drivers, rather than focus on the issue of repeat offenders who drive well above the existing limit.

146. The great majority of key stakeholders were in favour of lowering the adult limit. However, the New Zealand Automobile Association, the New Zealand Hospitality Association and some rural members of Local Government New Zealand opposed the proposed change. The latter submitted that a lowering of the limit would result in a reduction in mobility and social connectedness in rural communities.

Lowering the youth limit

147. For the youth limit nearly all the submitters, including individuals and key stakeholders, who commented on this initiative supported it. Overall it was ranked the second highest preferred initiative out of the 62 suggested initiatives.

148. The report from MYD showed 60 percent support from young people for a zero drink drive limit.

149. The proposal was also included in the Law Commission's consultation paper: *Alcohol in our Lives* and 1240 people responded. Of these submissions, 89.3 percent supported having a zero youth limit, 1 percent were opposed, and the remainder made no direct comment, but supported increasing alcohol countermeasures including a zero youth limit.

150. Reasons for supporting a lowered limit included that drink driving is a key risk factor for young drivers. Those who opposed the initiative thought that it would be impractical to have a zero limit. Many submitters pointed to the need for the limit to be enforced with a tolerance so that young people would not be wrongly apprehended for drink-driving.

Infringement penalties

151. There was a low level of response from submitters on the issue of infringement penalties, however, those who responded strongly supported having infringement penalties. The main reasons given were that it would provide a second chance to drink drivers, and it would be a way of limiting the additional workload that would otherwise be imposed on the courts.

Other consultation

152. The *Safer Journeys* strategy, which included these initiatives, was endorsed by the members of the National Road Safety Committee (NRSC). The NRSC comprises the Secretary for Transport, the Commissioner of Police, and the Chief Executives of the NZTA, ACC, and Local Government New Zealand. The Chief Executives of the Ministries of Health, Education, Justice and the Department of Labour are associate members.

153. The following government agencies were also consulted in the development of this RIS and accompanying Cabinet paper: New Zealand Police, Ministry of Justice, the New Zealand Transport Agency, Ministry of Health, Ministry of Education, Department of Labour, Ministry of Agriculture and Fisheries, Department of Internal Affairs, Office for Senior Citizens, Office for Disability Issues, Ministry of Economic

Development, Ministry of Pacific Island Affairs, Ministry of Youth Development, Ministry of Social Development, Te Puni Kōkiri, Ministry of Tourism, ACC, Local Government New Zealand, and the Treasury. The Department of the Prime Minister and Cabinet was informed.

Conclusions and recommendations

154. Road crashes place a substantial burden on the economy, the health sector and reduce the quality of life in New Zealand. Alcohol impaired drivers are a significant contributor to this problem. As a consequence reducing the impact of alcohol impaired driving is a high priority in the *Safer Journeys* strategy.

155. It is clear that the current approach to drink driving will not achieve the objective of reducing the level of fatalities caused by drink driving, currently 28 deaths per million population, to a rate similar to that in Australia, of 22 deaths per million population, by 2020.

156. To achieve this objective, the Ministry recommends the following package of actions be implemented:

    1.4. Lower the adult drink drive limit to BAC 0.05 and introduce infringement penalties for the proposed lower level adult drink drive offence.

    1.5. Lower the drink drive limit to zero for drivers under 20 years of age and introduce infringement penalties for the proposed lower level youth drink drive offence.

157. These actions will bring New Zealand closer to Australia in terms of alcohol related deaths and injuries. The Ministry estimates the lowered limits will save between 17 and 35 lives, and prevent between 363 and 729 injuries each year. This equates to an annual social cost saving of between $127.5 million and $254.5 million.

158. The overall BCR for the above alcohol package is estimated at around 144:1, with an overall NPV of $849 million. These estimates are based on an annual discount rate of 8 percent and an evaluation period of 10 years.

159. Table 9 summarises the potential financial costs to government of these actions. These cost estimates are based on a number of assumptions, as outlined in the relevant sections. In particular, these costs may be much lower if the initial increase in drink driving offending is lower than anticipated.

Table 9: Potential cost of lowering the drink drive limits

Potential financial implications	2010/11[22]	2011/12	2012/13	Outyears
Lowering the adult drink drive limit to BAC 0.05	1,793,060	793,620	399,320	399,320
Lowering the youth drink drive limit to zero	935,540	209,600	119,400	119,400
Total financial implications	2,728,600	1,003,220	518,720	518,720

Implementation issues

160. A Land Transport Amendment Bill to give effect to the government's decisions on *Safer Journeys,* including those outlined in this RIS, is scheduled for introduction during 2010 and has a priority 2 on the 2010 legislative programme. The Land Transport (Offences and Penalties) Regulations 1999 will also require amendment.

161. The New Zealand Transport Agency and Police will have responsibility to ensure the public is aware of the changes and the reasons for them. NZTA will develop a public awareness campaign that will support and work with the Police's enforcement effort. The Police and the NZTA will also revise all relevant material including the *Official New Zealand road code*, fact sheets and website information.

Monitoring, evaluation and review

162. The effectiveness of these initiatives will be monitored as part of reviewing the *Safer Journeys* action plans. This function will be carried out by the National Road Safety Committee.

[22] Assumes legislation passed by the end of 2010

Appendix 1 – New Zealand's existing drink drive offences and penalties

Offence	Fine or prison term	Disqualification or suspension of licence
You are aged under 20 years and you drive, or try to drive, with a BAC more than 30 mg per 100ml of blood, or more than 150 mcg per litre of breath	Maximum fine $2,250 or maximum prison term 3 months	Mandatory minimum disqualification of 3 months and 50 demerit points if the court imposes a disqualification of less than 6 months
You drive, or try to drive, with a BAC more than 80 mg per 100ml of blood, or more than 400 mcg per litre of breath.	Maximum fine of $4,500 or maximum prison term of 3 months for first or second offence Maximum fine of $6,000, or maximum 2 years prison term for third and subsequent offence	Mandatory minimum disqualification of 6 months, for first or second offence, and more than 1 year for third and subsequent 28 day roadside licence suspension if you: • are found to have more than 130* mg alcohol per 100 ml of blood or more than 650* mcg of alcohol per litre of breath • have been convicted of drink driving in the previous 4 years
You refuse to give blood when asked by a Police officer, doctor or approved person	Maximum fine of $4,500 or maximum prison term of 3 months for first or second offence Maximum fine of $6,000, or maximum 2 years prison term for third and subsequent offence	Mandatory minimum disqualification of 6 months, for first or second offence, and more than 1 year for third and subsequent 28 day roadside licence suspension
You refuse to go with a police officer for an evidential breath test or blood test	Maximum fine of $4,500	As decided by the court, plus 50 demerit points if the court imposes a disqualification of less than 6 months
You are in charge of a vehicle after drinking too much or taking drugs and you do not hand over the keys when asked by a police officer	Maximum fine of $4,500	
You kill or injure someone when driving with a BAC more than 80 mg per 100ml of blood, or more than 400 mcg per litre of breath	Maximum fine of $20,000 or maximum sentence of 5 years	First or second offence 1 year or more, third or subsequent offence more than 1 year 28 day roadside licence

		suspension where the breath alcohol level exceeds 650 mcgs, or the blood alcohol level exceeds 130 mg, or the person has a previous drink drive conviction within the last 4 years

Appendix 2

Summary of studies examining the effects of lowering the drink drive limit from BAC 0.08 to BAC 0.05

Study	Summary of effects/results
Mercier-Guyon (1988)	France (Haute-Savoie). Alcohol related traffic crash fatalities decreased from 100 before the limit, to 64 in the year after the law change.
Bartl & Esberger (2000)	Austria. Reported a 9.4% decrease in alcohol-related crashes relative to the total number of crashes 22 months after the law change. Noted that the reduction was the result of lowering the limit, intense enforcement and media reporting.
Henstridge et al (1997)	Australia. Used time series analysis to analyse effects of random breath testing and BAC laws controlling for factors including seasonal effects, weather, economic trends, road use, alcohol consumption, day of week. Queensland, Australia. Reported an 18% reduction in fatal crashes and a 14% reduction in serious crashes associated with the lowering of the BAC limit. These results were not confounded with the effects of random breath testing. New South Wales, Australia. Reported an 8% reduction in fatal crashes, a 7% reduction in serious crashes and an 11% reduction in night-time single vehicle crashes associated with the lowering of the BAC limit.
Smith (1988)	Queensland, Australia. Significant 8.2% reduction in night-time serious injury crashes and a 5.5% reduction in night-time property damage crashes associated with lowering the BAC limit in the first year. Noted that the result was partly the result of increased enforcement. .
Deshapriya & Iwase (1998)	Japan. Trend analyses indicated that lowering the BAC limit reduced both alcohol-related traffic crashes and the number of drink drivers.
Bernhoft &Behrensdorff (2003)	Denmark. Results reported a decrease in alcohol-related injury crashes and an increase in fatal alcohol-related crashes in the first year after the new limit. The authors noted that a longer time series is needed post-law change to determine whether results were a result of year-to-year variability or a trend. Also found evidence that there was a significant change from drivers with higher BAC levels towards lower BAC levels.
Kloeden & McLean (1997)	South Australia. Reported that the number of night-time drivers who had been drinking was reduced by 14.1% following the

	introduction of the law.
Homel (1994)	South Australia. Reported that lowering the limit was associated with a significant 13% reduction in fatal crashes on Saturdays.
McLean et al (1995)	South Australia. Found a short-term reduction in the percentage of late night drivers with a BAC at or over 0.08 but it was not sustained. They observed a continued decrease in both drink-driving and the involvement of alcohol crashes over time. The change in limit did not significantly affect the observed trend in the number of fatally injured drivers who were legally impaired.
Brooks & Zaal (1993)	Australian Capital Territory, Australia. Reported an overall significant drop of 26% in the incidence of high BAC levels (readings above 0.10) obtained from RBTs in the year after the law change. The decrease in high BAC levels was higher for BAC levels above 0.15. Similar results were also found for the BAC levels of crash involved drivers.

Appendix 3:

Source documents

Alcohol/drugs Crash Fact Sheet 2009 Crash statistics for the year ended 31 December 2008, Transport Monitoring, Ministry of Transport

Comparing Safer Journeys proposals with Australian road safety initiatives, Ministry of Transport, December 2009

Fell and Voas (2006) *The effectiveness of reducing illegal blood alcohol concentration (BAC) limits for driving: Evidence for lowering the limit to .05 BAC*, Journal of Safety Research 37 (2006) 233-243

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Keall, M.D, Frith, W.J and Patterson, T.L. (2004) *The influence of alcohol, age and the number of passengers on the night-time risk of driver injury in New Zealand*. Accident Analysis and Prevention, 36(1), 49-61

Howat, P., Sleet, D. and Smith, I. (1991) *Alcohol and driving: is the 0.05% blood alcohol concentration limit justified?* Drug and Alcohol Review 10, 151-166.

Moskowitz, H. and D. Fiorentino (2000). *A review of the literature on the effects of low doses of alcohol on driving-related skills*. NHTSA Report DOT HS 807280. U.S. Department of Transportation, Washington DC.

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Report on Road Safety Progress Since 2000, Ministry of Transport, December 2009

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Shiner, D. *Traffic Safety and Human Behaviour*, Elsevier Limited, 2007

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