Controller and Auditor-General
Tumuaki o te Mana Arotake

Performance audit report

# New Zealand Police: Enforcing drink-driving laws


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# New Zealand Police: Enforcing drink-driving laws

This is an independent assurance report about a performance audit carried out under section 16 of the Public Audit Act 2001.

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# Deputy Auditor-General's overview



Drink-driving and speed are the two leading causes of serious road crashes in New Zealand. This report sets out the findings of a performance audit that focused on alcohol. We wanted to better understand why, between 2001 and 2010, there has not been the same reduction in alcohol-related deaths as there had been in deaths caused by speeding.

After we began our audit, the 2011 road toll was released. It showed a significant decrease in the number of road deaths, from 375 in 2010 to 284 in 2011. The number of alcohol-related road deaths fell significantly, from 142 in 2010 to 85 in 2011. The 2012 road toll was 308, which is the second-lowest annual road toll since 1952.

New Zealand has adopted a "system approach" to reducing the effect of alcohol-impaired driving, where agencies with road safety responsibilities work together to achieve shared road safety outcomes. The agencies carry out a range of activities, such as breath-testing drivers for alcohol, raising awareness of the effect of drink-driving through television campaigns, improving road layout, and eliminating roadside hazards. Our audit focused on the responsibilities of the New Zealand Police (the Police) to enforce drink-driving laws by looking at how effective their breath-testing has been.

When considered together, trends in breath-testing and indicators of reduced alcohol-impaired driving suggest that the Police's enforcement work has had a positive effect. Since the mid-1990s, there has been an overall increase in the amount of breath-testing and a corresponding decrease in alcohol-related road crashes, particularly in the last few years. Surveys during the same period show that fewer people believe that there is little risk of being caught drink-driving. In recent years, the number of offences that the Police detect has reduced.

We found strengths in how the Police enforce drink-driving laws. The Police have a clear national strategy that Police officers understand well. This strategy is based on, and supported by, international research on deterring and detecting drink drivers. Our auditors observed Police officers strictly enforcing drink-driving laws, using consistent processes for testing drivers, and dealing with offenders and treating those apprehended with dignity and respect. Police officers use local knowledge, experience, and professional judgement to react to changing circumstances and priorities.

We could not form a view on whether the Police are as effective as they could be because the available information is inadequate. In part, this is because the Police's breath-testing combines with many other road safety measures to reduce

alcohol-impaired driving and improve road safety. Attributing results to the Police's breath-testing enforcement activities alone is difficult.

However, when we observed Police in action, we saw efficient practices (for example, many non-alcohol-related traffic infringements are detected and dealt with at checkpoints). In this report, we comment on some aspects where the Police could be more efficient.

In my view, the Police need to improve how they assess and report on how effectively and efficiently they enforce drink-driving laws. They need to monitor indicators consistently over time to better understand their performance. This will allow the Police to identify where gains can be made to have the best results. The Police need to report on their performance in a way that clearly shows how effective and efficient they are over time.

The Police, together with the New Zealand Transport Agency, are seeking to improve how they assess and report how effectively and efficiently they enforce drink-driving law. We consider that agencies working for safer roads should co-operate better to understand how effectively enforcing drink-driving laws can be combined with other activities to achieve better results.

The Auditor-General, Lyn Provost, was previously a Deputy Commissioner of Police. She has complied with our Office's conflict of interest policy and has not been involved in this work. As the Deputy Auditor-General, with the same powers and functions as the Auditor-General, I have overseen this work.

I thank the Police – particularly the staff at Police National Headquarters and Road Policing Managers and their teams in the Districts my staff visited – for their time and co-operation.

Phillippa Smith
Deputy Controller and Auditor-General

7 February 2013

# Our recommendation



The New Zealand Police need to improve how they assess how effectively and efficiently they enforce drink-driving laws. We recommend that the Police decide on a consistent and clear set of national indicators to measure how effectively and efficiently they enforce drink-driving laws, and:

- monitor those indicators consistently over time to better understand results and identify where they can make gains;
- use the understanding this gives them to enforce drink-driving laws more effectively and efficiently; and
- use those indicators to report publicly and consistently on how effectively and efficiently they enforce drink-driving laws over time.

# Part 1
# Introduction



1.1 In this Part, we discuss:

- the purpose of our audit;
- what we audited;
- what we did not audit; and
- how we carried out our audit.

## The purpose of our audit

1.2 We carried out a performance audit to assess how effectively the New Zealand Police (the Police) enforce drink-driving laws.

1.3 The Land Transport Act 1998, which sets out New Zealand's drink-driving laws, allows the Police to stop and test the breath of anyone driving or trying to drive a motor vehicle on a road.

1.4 A driver who is 20 years or older commits an offence if they drive with an alcohol level exceeding 400 micrograms (mcg) for every litre of breath or 80 milligrams (mg) for every 100 millilitres (ml) of blood (a blood-alcohol concentration above 0.08). Drivers under the age of 20 are not allowed to have any alcohol in their blood. In this report, "drink-driving" means exceeding these legal limits.

1.5 Drink-driving and driving too fast for the conditions are the two main causes of serious road crashes. Drink-driving contributed to about 38% and speeding to about 35% of New Zealand's 2010 road toll.[1] The road toll includes drivers, their passengers, people travelling in other vehicles, cyclists, and pedestrians.

1.6 Drink-driving and speeding concern New Zealanders. In 2011, New Zealanders rated alcohol and excessive speed as the two major road safety problems.[2]

1.7 During the 1990s, substantial progress was made in reducing the number of drink-driving and speed-related deaths. As a result, the road toll reduced significantly. Since 2001, the number of deaths that speeding causes has continued to decrease, albeit at a slower rate – from 141 in 2001 to 131 in 2010. Conversely, the number of deaths that alcohol-impaired drivers cause has increased – from 115 in 2001 to 142 in 2010.

1.8 We focused on drink-driving in this audit because we wanted to know why there had not been a reduction in the number of alcohol-related deaths since 2001. When we selected this topic, the percentage of total road deaths where alcohol was a contributing factor was increasing. The 2011 road toll figures have since been released, and both the road toll and the number of alcohol-related road

1 Some drink-driving statistics include drugged driving. We were not always able to isolate figures for drink-driving. We were told that the figures for drugged driving are low enough that they do not distort the statistics.

2 Ministry of Transport (2011), *Survey of public attitudes to road safety*, available at www.transport.govt.nz.

deaths have decreased significantly. It is too soon to tell whether the road toll will remain low.

1.9 The cost of drink-driving is high. In 2010, drink-driving resulted in 142 deaths, 552 serious injuries, and 1559 minor injuries. The estimated social cost was $898 million.[3] Between 2001 and 2010, drink-driving killed more than 1250 people and injured more than 21,000.

1.10 Males and drivers aged under 25 are more likely to drink then drive and crash than other drivers. In 2010, 76% of drink-driving offenders were male. Between 2008 and 2010, 83% of drivers involved in fatal alcohol-related and drug-related crashes were male.

1.11 Young drivers are also over-represented in drink-driving statistics. In 2011, 49% of drivers at fault in alcohol-related crashes were under the age of 25. Research shows that younger drivers who drink and drive are more likely to crash than older drivers who drink and drive.

1.12 Appendix 1 has background information on the profile of drivers who drink then drive, when people drink then drive, and the profile of those who die in alcohol-related crashes. Appendix 2 has information about the known effects of different blood-alcohol concentrations and the predictable effects on driving. Appendix 3 has information on drink-driving laws and a summary of court-imposed penalties for alcohol offences.

## Safer Journeys

1.13 The Government has produced a strategy to guide road safety between 2010 and 2020 (*Safer Journeys: New Zealand's road safety strategy 2010-2020*). The strategy recognises that New Zealand needs a safe-system approach to road safety to make real progress in reducing the number of road deaths and serious injuries.

1.14 The safe-system approach acknowledges that:

- people make mistakes and crashes are inevitable;
- the body has limited ability to withstand crash forces;
- system designers and system users must share responsibility for managing crash forces to a level that does not result in death or serious injury; and
- it will take a system-wide approach – safe roads and roadsides, vehicles, speeds, and road users – to improve road safety.

1.15 The National Road Safety Committee, which is responsible for the Safer Journeys strategy, includes representatives of the Ministry of Transport, New Zealand Transport Agency, the Police, Accident Compensation Corporation, and Local

3 The social cost of road crashes includes not only the loss of life, but also lost quality of life, lost productivity, and medical, legal, and property damage costs.

Government New Zealand. Associate members include representatives of the Department of Labour (now part of the Ministry of Business, Innovation and Employment), the Ministry of Education, the Ministry of Health, and the Ministry of Justice. Regional and local road safety partners (regional transport committees and local authorities) play a role in implementing Safer Journeys.

1.16 Safer Journeys identifies 13 "priority areas", including reducing the incidence of alcohol- and drug-impaired driving. Within this priority area, the Police are responsible for enforcing drink-driving laws. The Police also consider the "fatal five" (speeding, drink or drugged driving, restraints, dangerous or careless driving, and high-risk drivers) as priority areas that are closely in line with Safer Journeys and the Road Policing Programme.[4]

## What we audited

1.17 We audited how effectively the Police enforce drink-driving laws using general deterrence and targeted enforcement. We chose to audit the Police because international research shows that enforcement is the main deterrent to drink-driving. Although our audit focused on effectiveness, we comment, when appropriate, on how efficiently the Police work.

1.18 The New Zealand Transport Agency administers the National Land Transport Fund, which funds enforcement activities. In 2011/12, the budgeted amount for road policing was $297 million, which is about 20% of the Police's total funding of $1,480 million. We looked specifically at the $67 million (23%) of the road policing budget that was allocated to enforcing drink-driving (and drug-driving) laws in 2011/12. We focused on enforcement strategies, how the Police carried out operations, and the monitoring and reporting of drink-driving law enforcement.

1.19 The Road Policing Programme for 2011/12 sets out the desired results to which the Police are expected to contribute and estimates the demand and resources needed. It estimated that the Police needed to carry out 2.7 million breath tests using about 470-485 staff. In this report, we often refer to the number of breath tests completed. We count breath-tests by adding the number of passive breath tests (when a "sniffer" device is used to detect alcohol) and breath-screening tests (used to work out whether the breath alcohol level is above or below the legal limit) that Police officers complete at checkpoints (compulsory breath-testing, or CBT) and by officers on patrol (mobile breath-testing, or MBT).

1.20 We found it difficult to audit this topic. Some of the statistics we refer to (for example, road crash statistics) combine the number of crashes to which alcohol contributed with the number of crashes where drug use was a factor. Safer Journeys and the Road Policing Programme refer to "alcohol/drug impaired

4 The Road Policing Programme sets out what the Police will do, the funding for their activities, and the performance measures used (see the New Zealand Transport Agency website, www.nzta.govt.nz).

driving". At times, we had to refer to alcohol and drugs because it would have been inaccurate to refer to alcohol only.

1.21 Another complexity relates to collecting, collating, and reporting information. Most road safety results (road crashes, injuries, and fatalities caused by road crashes) are reported by calendar year. The Police plan and report what they do to enforce drink-driving laws by financial year. This means that sometimes the data sets in our analysis were not completely in line. We indicate where this happens. In parts of this report, we have referred to 2012 road toll figures. However, because of the timing of publication, we were not always able to provide a full analysis of 2012 road toll figures and had to use 2011 statistics.

## What we did not audit

1.22 We did not audit:

- the effectiveness of activities to reduce the effect of alcohol-impaired driving that the Police do not carry out (such as education programmes, advertising campaigns, and engineering activities[5]);
- the Road Policing Programme and funding model or the non-alcohol-related priorities in Safer Journeys and the Road Policing Programme;
- the enforcement of laws against driving while drugged, because drugged-driving laws date from 2009 and there is not enough prosecution data to show trends; or
- enforcement targeted at recidivist drink drivers (drivers with three or more drink-driving offences), because research shows that enforcement strategies are unlikely to have a significant effect on high-risk or recidivist drink drivers.

1.23 We have not formed a view on any aspects of drink-driving laws or policy because doing so is outside the Auditor-General's mandate.

## How we carried out our audit

1.24 We visited four of the 12 Police Districts, choosing a mix of metropolitan, provincial, and rural areas. We observed booze bus operations and we accompanied officers in patrol cars who stopped and breath-tested drivers. We watched drink-drivers being processed in booze buses and at police stations.

1.25 We interviewed and got documents from Police National Headquarters staff who manage road policing and enforcing drink-driving laws. We interviewed staff and reviewed documents from entities that the Police work with on road safety. The interviewees included representatives from the Ministry of Transport, New Zealand Transport Agency, Accident Compensation Corporation, local authorities,

5 Engineering activities include designing and building median barriers, rumble strips, and guard rails; putting in place line markings, electronic warning devices, and road shoulders to create forgiving roadsides; and applying skid-resistant surfaces.

and the National Road Safety Committee. We met with relevant staff to help us interpret the documents or data and to answer our questions.

1.26 We examined many documents relevant to drink-driving aspects of the Police's operations, including:

- policy manuals and strategic documents;
- national and international research on enforcing drink-driving laws;
- internal and external performance reports;
- training manuals;
- asset management plans; and
- accountability documents, financial statements, and costing reports.

# Part 2
# Reducing the road toll



2.1 In this Part, we discuss the significant drop in the road toll and in drink-driving deaths that happened in 2011.

### Summary of our findings

2.2 The annual road toll and the number of alcohol-related road deaths decreased significantly in 2011. Recent road safety outcomes have improved significantly, but it is too soon to tell whether the road toll will remain low.

2.3 The stated desired outcome in Safer Journeys for reducing alcohol- and drug-related deaths was exceeded in 2011. The road toll for the year ended 31 December decreased from 375 in 2010 to 284 in 2011, which was the lowest annual road toll since 1952. The 2011 road toll equated to a rate of 6.5 deaths for every 100,000 people, based on the current Statistics New Zealand population estimate of 4.4 million. The National Road Safety Committee noted this was a "significant decline" from the 2008 baseline measure used in Safer Journeys, which was 8.6 deaths for every 100,000 people.

2.4 In recent years, New Zealand's road toll has not been declining as fast as that of some other countries. New Zealand's road toll decreased by 5% between 2006 and 2010. In the same period, Australia's road toll decreased by 15%, the United States' by 23%, and the United Kingdom's by 42%. New Zealand's road toll for the 12 months up to June 2011 was 20% lower than it was in 2006, which brings New Zealand more into line with international trends.

2.5 The 2011 road toll figures must be read with caution. The number of drivers killed has not decreased as much as the overall road toll, there were two fewer three-day holiday weekends in 2011 (because Waitangi Day and Anzac Day were in weekends), and the effect of the Christchurch earthquakes on the regional road toll has not been fully assessed. It is too soon to know whether the drop marks the start of a consistent improvement in road safety. In 2012, the road toll was 308. Although higher than 2011, this is the second-lowest annual road toll since 1952.

## Alcohol-related road deaths

2.6 The Safer Journeys goal for alcohol and drug-impaired driving was to reduce the number of alcohol- and drug-related road deaths from 28 for every million people to 22 for every million people, and to reduce the number of serious injuries.

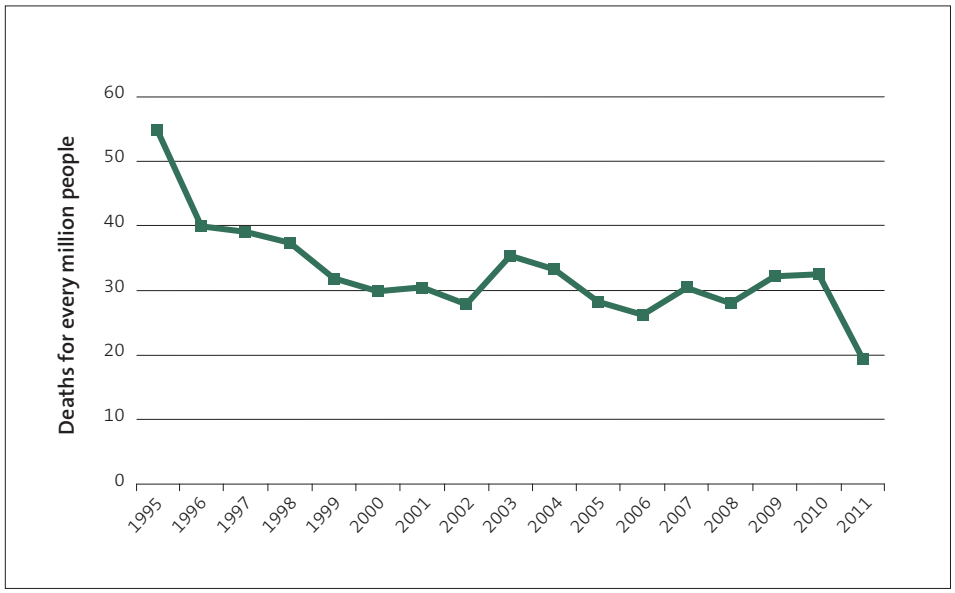
2.7 Between 2001 and 2010, the death rate from alcohol- and drug-related crashes fluctuated between 27 and 35 for every million people. Figure 1 shows that, in

2011, the number of alcohol-and drug-related road deaths fell significantly to 19 deaths for every million people.

2.8 It can take months to complete investigations into crashes. At the time of writing, the Ministry of Transport was unable to estimate the number of crashes in 2012 where alcohol-impaired driving was a contributing cause.

2.9 Figure 1 shows a significant drop in the number of alcohol-and drug-related road deaths between 1995 and 1996. We did not seek to explain this drop, but we note that booze buses were introduced in 1994.

**Figure 1**
**Alcohol- and drug-related road deaths, 1995 to 2011**




Source: Ministry of Transport.

2.10 Having only 19 deaths for every million people means that, in 2011, the desired outcome in Safer Journeys for reducing the effect of alcohol- and drug-impaired driving was achieved.

## Social cost

2.11 The Ministry of Transport estimates that the average social cost of each road fatality is $3.7 million. The social cost of each serious injury is $390,400, and $20,700 for each minor injury.

2.12 Using crash statistics for the year ended 31 December 2010, the Ministry of Transport calculated the social cost of crashes involving alcohol and drugs at about $898 million. The calculation included 121 fatal crashes, 398 serious injury crashes, 1011 minor injury crashes, and included an allowance for non-reporting of crashes.

2.13 The Ministry of Transport estimates that alcohol- and drug-related crashes cost society $685 million for the year ended 31 December 2011. The reduction in alcohol- and drug-related crashes between 2010 and 2011 has saved an estimated $213 million.

2.14 It is too soon to tell whether the improved road safety results (and savings in social cost) are the start of a consistent improvement in road safety.

# Part 3
# Effective enforcement



3.1 In this Part, we:

- discuss the complexity of assessing the effectiveness and efficiency of the Police's efforts to enforce drink-driving laws;
- discuss how well the Police report on their performance in enforcing drink-driving laws;
- describe how the New Zealand Transport Agency and the Police plan to better assess and report on effectiveness and efficiency and to get the best value for money from road policing; and
- present some high-level indicators of the effect of enforcement on the incidence of alcohol-impaired driving.

## Summary of our findings

3.2 Although we found evidence of positive and encouraging trends, we could neither form a conclusive view on how effectively the Police enforce drink-driving laws nor conclude whether the Police are as efficient as they could be. The information that is available is inadequate. Also, assessing effectiveness and efficiency is complex because the Police's work is part of a system of factors that together affect road safety, and the Police officers devoted to enforcing drink-driving laws are spread throughout units with other responsibilities.

3.3 The Police's current measures are not specific enough to show us the relationship between the investment in enforcing drink-driving laws and the desired outcomes or to form a view about how effectively the Police enforce drink-driving laws.

3.4 We consider that the Police need to improve how they report on their performance. Reporting should be useful to the Police, their road safety partners, the public, and other interested parties. It should show what the Police are achieving and what effect changes in policing and other factors have on the prevalence and effect of drink-driving. To better report on performance, the Police will need to collaborate with the other agencies working to improve road safety.

3.5 The New Zealand Transport Agency and the Police want to improve how they assess and report on how effectively and efficiently they enforce drink-driving laws. Doing so should help them to make better decisions about how much to invest in various activities that aim to improve road safety, including how to enforce drink-driving laws in the most effective and efficient way.

3.6 The Road Policing Programme for 2011/12 details steps the Police are taking that should improve aspects of their reporting. The Police are considering other ways to improve, which need more time to be put into effect. The New Zealand Transport

Agency and the Police must identify where they can be more effective and make changes so that enforcement work does more to reduce the number of road deaths and injuries that drink-driving causes.

## The complexity of assessing effectiveness and efficiency

3.7 In September 2012, a Performance Improvement Framework (PIF) review of the Police noted the New Zealand Transport Agency's concern that it could not work out whether the amount and pattern of spending was achieving the best results and whether redistributing resources within road policing would achieve better results.[6]

### Assessing how effectively the Police enforce drink-driving laws

3.8 The PIF review found that the Police needed to make road safety programme spending more transparent. The review report said that the Police should prepare regular performance reports that are acceptable to transport agencies and produce analysis that helps the transport sector work out the most effective way to use resources to reduce road trauma. The review report noted that doing this would require much better evidence about the effect of different activities.

3.9 Measuring how effectively the Police enforce drink-driving laws is complex. In many instances, a combination of activities rather than any one specific activity has affected road safety.

3.10 Better understanding of cause-and-effect relationships between activities, behaviours, and results is required to better assess the value of work to enforce drink-driving laws. Better understanding would help the agencies working to improve road safety to decide on the best balance of road safety work, such as breath-testing drivers, raising awareness of the effect of drink-driving through television campaigns and education programmes in schools, improvements to road layout, and eliminating roadside hazards.

### Assessing how efficiently the Police enforce drink-driving laws

3.11 Although our audit focused on effectiveness, where we could, we formed a view on how efficiently the Police enforce drink-driving laws. When observing the Police at work, we saw efficient and less efficient practices. When appropriate, we comment on the efficiency of the work that we observed.

6 The State Services Commission commissions PIF reviews, which look at the state of an agency and how able it is to deal with issues that confront it in the medium term, and describe where the agency needs to do the most work. The 2012 PIF report on the Police flagged road policing as needing more focus from executives. On 1 November 2012, the Police reorganised portfolio allocations of the Assistant Commissioners, creating a new Assistant Commissioner: Road Policing role. (Road Policing was previously one of a number of portfolios managed by an Assistant Commissioner.) The Police told us that separating road policing from other operational portfolios at Assistant Commissioner level will help to reinforce the continued significance of road safety in the Prevention First strategy.

3.12 We looked at trends in some obvious indicators of efficiency, such as how many breath tests each officer carries out. However, we did not consider these indicators sophisticated enough to form a view about the overall efficiency of drink-driving law enforcement work.

## Shortfalls in the Police's performance reporting

3.13 Our review of the Police's annual reports from 1989/90 to 2010/11 showed inconsistency in the measures of effectiveness that the Police report from year to year. For example:

- From 1999/00 to 2001/02, and from 2006/07 to 2009/10, the Police reported information about road deaths involving alcohol. The descriptions were worded differently in these years.
- From 2002/03 to 2005/06, the Police did not report any information about road deaths involving alcohol.

3.14 The Police's annual report for 2010/11 describes the focus the Police have given to Safer Journeys and putting into effect a safe-system approach. It sets out information about road crash casualties, population, and vehicle fleet compared with 2001. The information allows deaths and injuries to be viewed within the context of growth in the population and vehicle fleet.

3.15 Nationally, the Police monitor and report how much compulsory and mobile breath-testing they carry out. The Police and New Zealand Transport Agency decide how much breath-testing will be carried out each year. The Police told us that this number is based on population. The Police's annual report for 2010/11 stated that all strategic road policing was in line with Risk Targeted Patrol Plans with regard to the "fatal five" (see paragraph 1.16).

3.16 Reporting breath-testing numbers gives some assurance that output targets have been met (and exceeded in 2010/11). However, it does not give assurance about quality (how much Police operations target risks or how efficiently the Police carry out tests). The numbers do not provide enough context or analysis to form a view about how much enforcing drink-driving laws has helped to reduce the number of deaths and injuries.

3.17 A peer assessment of the Police, which German and Australian police officers carried out in 2009, supports our view.[7] The peer assessment report described how any integrated planning framework should ensure that services focus on achieving key goals and objectives, in the end contributing to outcomes. The report said that the New Zealand model did not encourage such a focus.

7 Lay, K and Heller, B. (2009), *New Zealand Police Peer Assessment*, New Zealand Police.

3.18 Without measuring input or effort (such as full-time equivalent hours spent testing) required to do tests to compare with the number of tests carried out, counting the number of breath tests alone does not measure efficiency adequately.

## Improving effectiveness and efficiency

3.19 The New Zealand Transport Agency and the Police have identified some ways to better assess and report on how effectively and efficiently the Police enforce drink-driving laws, and help decision-making about getting the best value for money from the investment in road policing.

### The 2012-15 Road Policing Programme

3.20 The Road Policing Programme for 2012-15 set out revised monitoring and reporting requirements for all road policing work that the New Zealand Transport Agency and the Police agreed to. The revisions signal a move towards more focus on outcomes and away from focusing only on the number of breath tests to measure performance.

3.21 To help to measure how much the Police contribute to road safety outcomes, the Road Policing Programme for 2012-15 describes key results to which the Police will contribute significantly. The percentage of people surveyed who think there is a high probability of being stopped at a CBT checkpoint is used to gauge how much enforcing drink-driving laws contributes to the desired outcomes. The Road Policing Programme set baseline data against which progress can be measured.

3.22 The New Zealand Transport Agency will use the survey information to track trends in public perception to help assess the effect of road policing.

3.23 As well as more outcome-focused reporting, the Road Policing Programme for 2012-15 introduced improvement initiatives for the Police, to support effective and efficient road policing.

3.24 The Police will benchmark activity and performance to allow comparisons with other jurisdictions (such as Australia). This is intended to improve understanding of the factors that push costs up and provide a quality assurance tool for reviewing the efficiency of the Police's work. The Police intend to prepare and introduce an "intervention logic framework" to bring about more transparent decision-making and support continuous reviews of road policing. Other initiatives involve investing in technology and improving the profile information about drink drivers, to improve the quality of intelligence and targeting to risk.

3.25 The New Zealand Transport Agency told us that it expects the combination of outcomes-based reporting and the improvements to allow it to better assess the effectiveness of what the Police do will help it to form more conclusive views about road policing's value for money. Between 2012 and 2015, the Police will introduce revised monitoring and reporting requirements and improvement initiatives.

### Other planned improvements

3.26 The Police acknowledge the need to better understand how much their enforcing of drink-driving laws contributes to changed public perceptions, attitudes and behaviours, and reduced fatalities and injuries caused by alcohol-impaired driving. A better understanding would help the Police to make better decisions about where to do the most work in road safety, including enforcing drink-driving law in the most effective and efficient way.

3.27 On 1 October 2012, a new National Road Policing Manager took up his post. He told us that his priorities so far include:

- carrying out a stock take of resources and funding for road policing to better assess how capable the Police are to bring about the expected road policing outcomes – this stock-take is under way;
- improving the use of intelligence and analysis nationally to help with road policing tactics (see paragraph 4.17);
- increasing the Police's understanding of relationships between enforcing drink-driving laws, changes in driver behaviour, and road safety outcomes and use this to better enforce drink-driving laws;
- benchmarking road policing activity and performance (see paragraph 3.24); and
- working more with educators, high-risk communities, and the public through the media to raise awareness of road safety and to promote behavioural change.

## High-level indicators of effectiveness

3.28 We looked at trends in three indicators relevant to alcohol- and drug-driving, as identified in Safer Journeys. These are:

- fatal and serious injury crashes involving alcohol-impaired drivers;
- public attitudes to alcohol and driving; and
- the number of drink-driving offences detected.

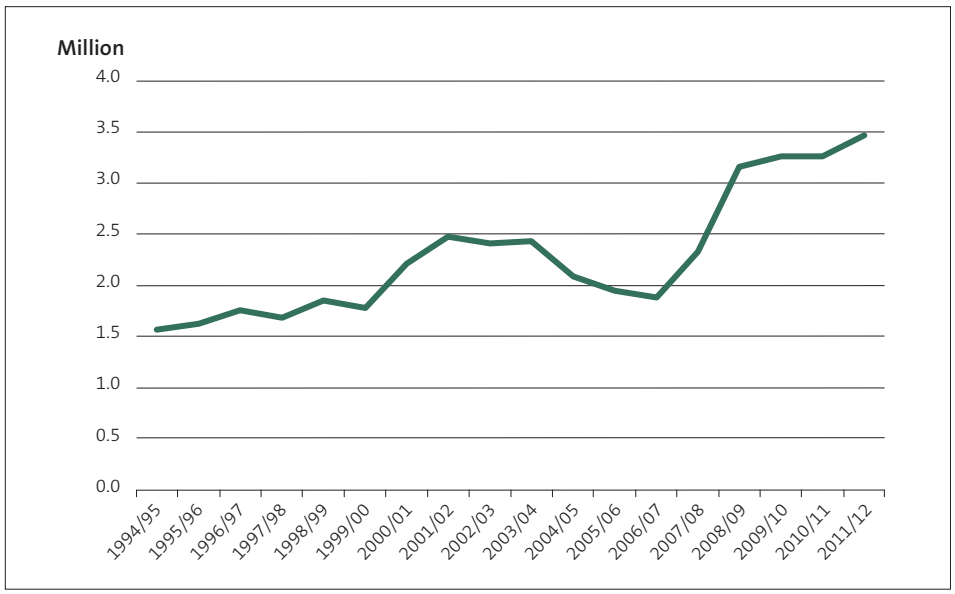
3.29 We compared trends in these indicators with trends in the number of breath tests carried out.

3.30 Enforcing drink-driving laws is only one factor contributing to the trends, and we are unable to quantify the precise effect of enforcement. Other activities, such as advertising, building safer roads, running education and advertising campaigns, and legislative change have also contributed. However, research has shown that breath-testing is the most effective way to deter drink-driving. We do not consider the information in paragraphs 3.31-3.41 to be conclusive evidence of performance.

## Alcohol-related fatal and serious injury crashes as an indicator of effectiveness

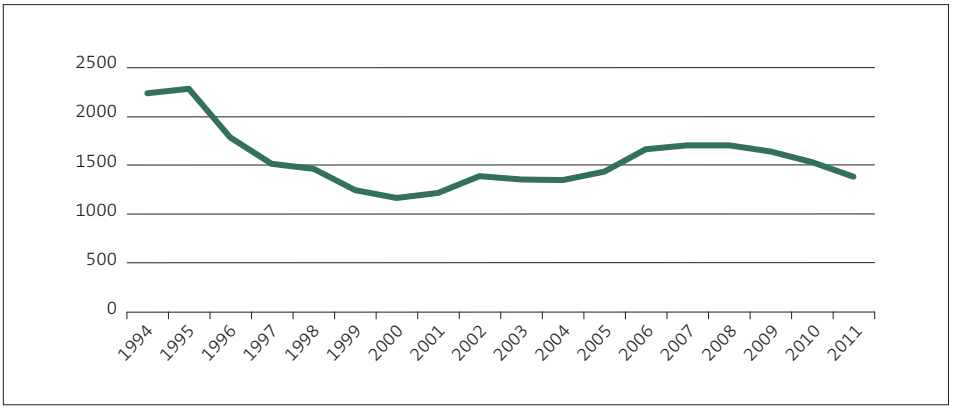
3.31 We compared data on crashes involving deaths or serious injuries where alcohol was a contributing factor with the number of breath tests each year between 1994 and 2011 (see Figures 2 and 3).

**Figure 2**
**Number of breath tests carried out, 1994/95 to 2011/12**




Source: New Zealand Police and the Ministry of Transport.

**Figure 3**
**Fatal and serious-injury road crashes involving alcohol, 1994 to 2011**




Source: New Zealand Police and the Ministry of Transport.

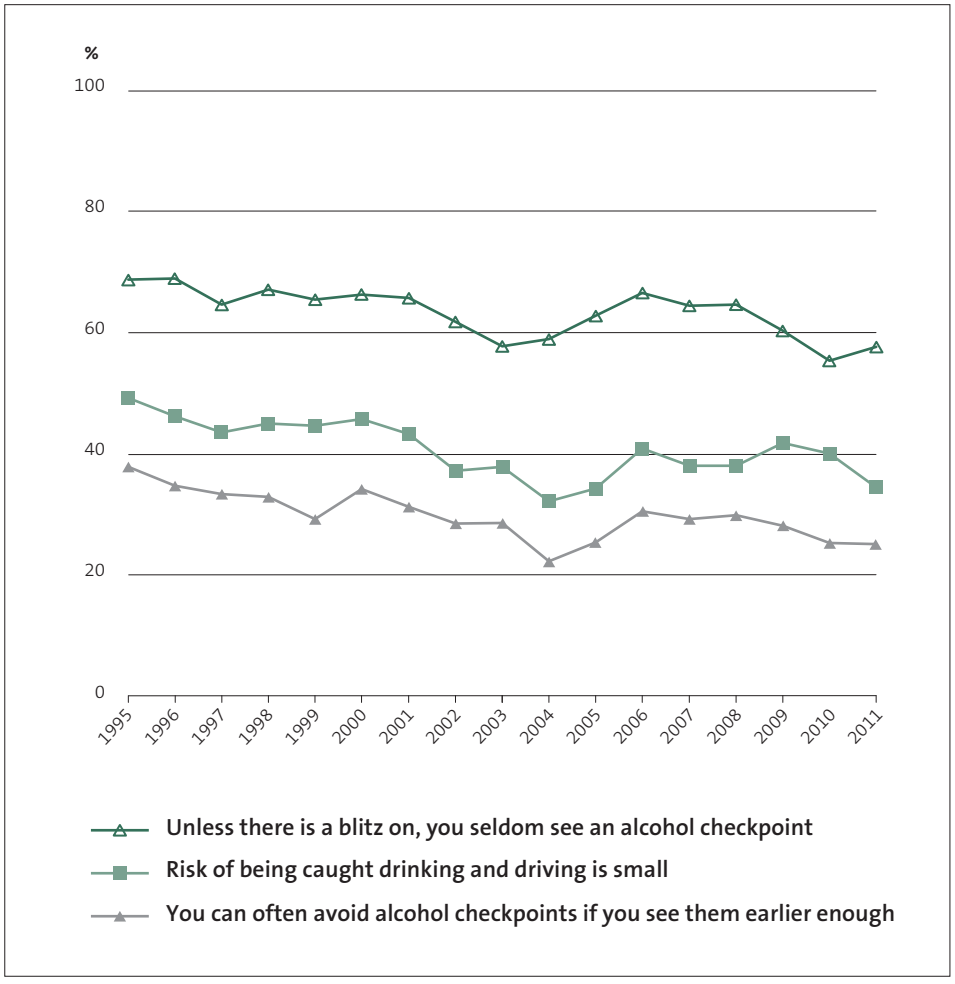
3.32 Although there is no strong statistical correlation, our comparison showed that some trends in the figures for alcohol-related crashes seemed to follow trends in the number of breath tests. Between 1994 and 2001 and between 2008 and 2011, when the Police increased the number of breath tests they carried out, the number of alcohol-related crashes decreased. Between 2004 and 2007, when the number of breath tests decreased, the number of alcohol-related crashes increased.

## Public perceptions of drink-driving enforcement as an indicator of effectiveness

3.33 Public attitudes towards drink-driving enforcement appear to have changed in line with changes in the number of roadside breath tests. Figure 4 shows that, between 1995 and 2004 (when, as Figure 2 shows, the number of breath tests was increasing), the public's perception of the effectiveness of drink-driving enforcement improved.

3.34 From 2004 to 2006 – when the number of breath tests was decreasing – the public perceived enforcement to be less effective. From 2008 to 2011, when the number of roadside breath tests increased, New Zealanders perceived enforcement to be more effective.

**Figure 4**
**Public attitudes to how effectively the Police enforce drink-driving laws, 1995 to 2011**

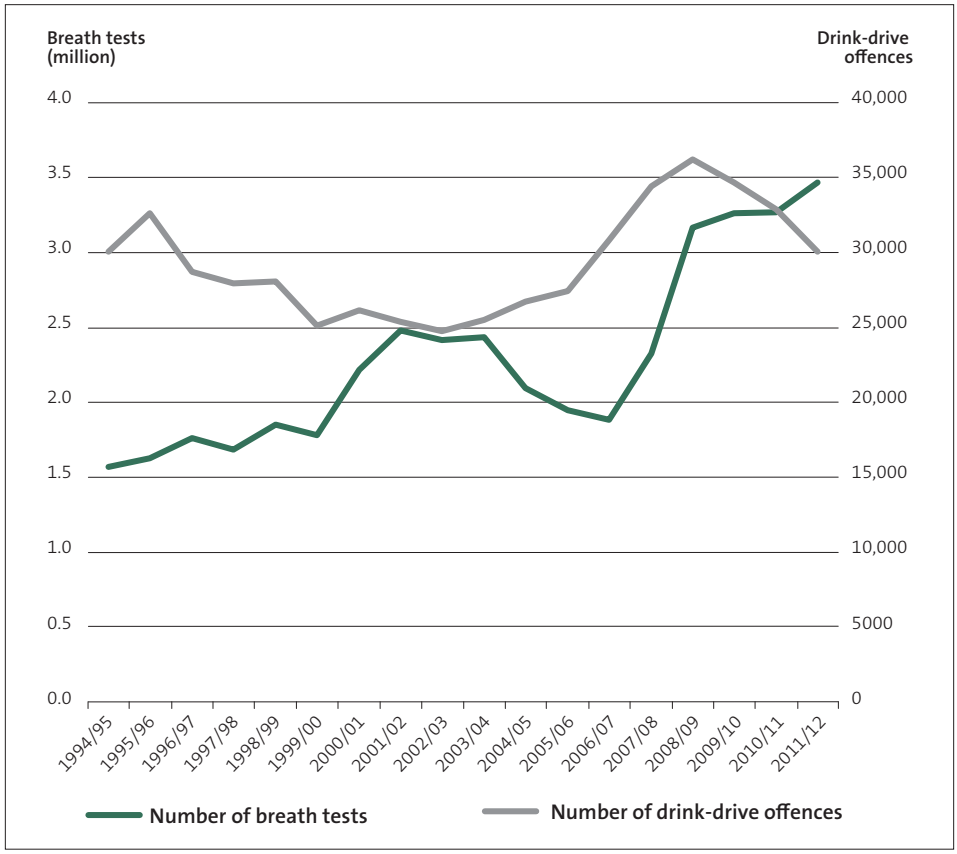



Source: Ministry of Transport (2011), *Public Attitudes to Road Safety Survey*.
Note: In this figure, a downward trend represents improved public attitudes to road safety.

## Drink-driving offences as an indicator of effectiveness

3.35 In 2011/12, the number of breath tests carried out was 121% higher than in 1994/95. Despite significantly more tests, the number of offences detected in 2011/12 (30,058) is nearly the same as the number detected in 1994/5 (30,078). However, during this period, the number of offences detected and the number of breath tests fluctuated (see Figure 5).

**Figure 5**
**Number of drink-driving offences and the number of breath tests, 1994/95 to 2011/12**




Source: New Zealand Police.

3.36 Between 1994/95 and 1999/00, when the number of breath tests increased, the number of offences detected decreased. Between 2003/04 and 2006/07, when the number of breath tests decreased, the number of offences increased to 31,053.

3.37 The number of breath tests increased significantly between 2006/07 (1.9 million) and 2008/09 (3.2 million), and the number of offences detected continued to increase. There were 36,199 offences detected in 2008/09, the most in any year during the period in review. However, since 2009/10, the number of offences detected has steadily decreased to 30,058 in 2011/12, when 3.5 million breath tests were carried out.

3.38 We looked at whether the way in which the Police tested drivers influenced these changes. For example, the Police could carry out high-volume testing on main roads during the day at times when drivers are less likely to be drinking. This could create a distorted impression of offences reducing because of effective enforcement. However, the Police's enforcement methods have remained relatively consistent over time.

## Our conclusions about the effectiveness of enforcement

3.39 Assessing how effectively the Police enforce drink-driving laws is complicated. Recent road safety outcomes have improved significantly, but it is too soon to tell whether the road toll will remain low. We could not work out the extent to which the enforcing of drink-driving laws has contributed to the improved results.

3.40 We did not have enough information to be sure whether the Police enforce drink-driving laws as effectively as they could. We know that some changes in public attitudes and in the number of drink-driving crashes and drink-driving offences that the Police detect seem to follow changes in the number of breath tests.

3.41 When considered together, the information suggests that the Police's enforcement work has a positive effect on road safety. However, we could not see a strong cause-and-effect relationship. Other variables that could have an effect include education campaigns, road engineering changes, and improvements in vehicle safety. Law changes (such as lowering the legal age for buying alcohol from 20 to 18 in 1999) might also have affected drivers' behaviour.

3.42 The Police try to be efficient in their use of time (for example, when they stop drivers to test their breath, they also check the driver's licence and the vehicle's registration). At checkpoints, Police officers detect and deal with many traffic infringements that are not related to alcohol (see paragraph 6.12). However, because the available information is inadequate, we could not form a view on whether the Police are as efficient as possible.

3.43 The Police are seeking to improve how they assess and report on how effectively and efficiently they enforce drink-driving laws. This should help the New Zealand Transport Agency to decide how much to invest in various road safety activities. The initiatives discussed in paragraphs 3.20-3.25 need more time to be put into effect.

3.44 Public reporting should be useful to the Police and their road safety partners, the public, and other interested parties. Reporting should show what the Police are achieving and what effect changes in policing and other factors have on the prevalence and effect of drink-driving. The shared nature of road safety work

means that there are benefits in the Police collaborating with other agencies working to improve road safety to consider the most appropriate way to report performance to different audiences.

**Recommendation**

The New Zealand Police need to improve how they assess how effectively and efficiently they enforce drink-driving laws. We recommend that the Police decide on a consistent and clear set of national indicators to measure how effectively and efficiently they enforce drink-driving laws and:

- monitor those indicators consistently over time to better understand results and identify where they can make gains;
- use the understanding this gives them to enforce drink-driving laws more effectively and efficiently; and
- use those indicators to report publicly and consistently on how effectively and efficiently they enforce drink-driving laws over time.

# Part 4
# General deterrence and targeted enforcement



4.1 In this Part, we:

- describe the Police's general deterrence and targeted enforcement strategies;
- discuss how well frontline Police officers understand the general deterrence and targeted enforcement strategies; and
- explain how the Police balance general deterrence and targeted enforcement when planning their daily or weekly activities.

### Summary of our findings

4.2 The Police have clear national strategies to deter and detect drink drivers. The strategies use general deterrence and targeted enforcement to bring about the perception that drivers can be breath-tested "anywhere, anytime". The strategies, well understood throughout the Police, are based on, and supported by, international research.

4.3 Planning general deterrence and targeted enforcement activities is challenging. The Police must consider many factors and use their local knowledge, experience, and professional judgement to be flexible and plan effective activities to reduce drink-driving.

4.4 Districts manage the balance between general deterrence and targeted enforcement. This means that Police officers have considerable discretion to use updated intelligence and information about risks to assign their resources.

## General deterrence and targeted enforcement distinguished

4.5 Strategies for general deterrence and targeted enforcement focus on preventing drink-driving by producing and maintaining the perception that such behaviour will be noticed and punished. In the 2011/12 Road Policing Programme, the Police explain their approach to enforcement:

> *To maximise perceptions of apprehension and therefore compliance, road-policing resources are deployed to be as visible as possible, to engage with large volumes of the driving population so as to increase awareness, and to be unpredictable in order to create uncertainty about where the Police are.*

4.6 In carrying out their activities, the Police try to achieve a balance between going to places with high traffic volumes and a relatively low likelihood that drivers have been drinking (general deterrence) and places that might have lower traffic

volumes but a much higher likelihood that drivers have been drinking (targeted enforcement).

### General deterrence

4.7 To be effective, general deterrence activities need to be highly visible, involve strict enforcement, be repeated as often as possible, and be supported by a high-profile media campaign. In Parts 6 and 7, we assess how effectively the Police enforce drink-driving laws using these principles.

4.8 An example of the Police's general deterrence approach is booze bus operations, where many motorists are breath-tested at a roadside checkpoint.

### Targeted enforcement

4.9 The purpose of targeted enforcement is to detect drink drivers by targeting high-risk times, places, and drivers.

4.10 The Police consider risks when planning targeted enforcement activities. They collect and analyse crash data, recorded offending, traffic complaints, and details of repeat offenders and repeat offending.

4.11 Examples of targeted enforcement include stopping vehicles when they leave pubs, sports events, and night clubs, and setting up a booze bus operation at a place and time where the risk of people drink-driving is high.

## Police officers understand the enforcement strategy

4.12 In the Districts we visited, we noticed a lot of awareness and understanding of the strategies of general deterrence and targeted enforcement. Every Police officer we asked knew the "fatal five" priority areas that are closely in keeping with Safer Journeys and the Road Policing Programme.

4.13 One Police officer we spoke with, who had attended a two-week road policing course, was particularly knowledgeable about the principles of general deterrence.

## Balancing general deterrence and targeted enforcement

4.14 Planning general deterrence and targeted drink-driving operations is challenging. The Police must consider multiple factors, including the best balance between general deterrence and targeted enforcement, performance targets, staff availability, the national advertising calendar, and other factors (such as local events, general crime suppression, public perceptions, agreements with local authorities, and any urgent matters that arise).

4.15 In practice, the Police do not always treat general deterrence and targeted enforcement operations as mutually exclusive. For example, we attended a booze bus operation on an Auckland motorway on-ramp at 4am on a Friday. The Sergeant told us that the time and place of the operation was chosen to catch drink drivers as they left night clubs. Between 4am and 6am, overall traffic volumes were low and the proportion of drivers who had been drinking was high. The Sergeant told us that the chance of catching drink-drivers decreased about 6.15am when traffic volumes increased because people were going to work. By then, the operation became less about targeted enforcement and more about general deterrence through high-visibility testing.

4.16 The Police use no set formula to balance general deterrence and targeted enforcement. They do not specify national risks and deployment patterns for road policing work. This is because:

- the Police believe that patterns observed nationally are not necessarily present in all Districts; and
- the success of intelligence-led policing depends on timely information and Districts being able to act on intelligence (see paragraph 4.10).

4.17 For those reasons, achieving the best balance between general deterrence and targeted enforcement operations is managed at the District level. To support Districts, the Police are exploring how to get a more intelligence-driven approach to road policing tactics by using geo-spatial mapping to overlay crash analysis data from the New Zealand Transport Agency and the Police's enforcement and ticketing work (see Part 7).

## Meeting performance targets for breath tests

4.18 In 2011/12, the Police were funded to carry out two million compulsory breath tests from booze bus checkpoints and 700,000 mobile breath tests from patrol cars. The Ministers of Transport and Police decide on these figures, which are published each year in the Road Policing Programme.

4.19 International research supports combining checkpoint and mobile breath-testing as best practice to achieve the greatest reductions in crashes and be the most cost beneficial when carried out intensively and highly visibly. International research also shows breath-testing as the most effective way to deter drink-driving.

4.20 When carried out intensively, breath-testing can substantially reduce fatal and serious injury crashes at night. Australian research shows the effect of the testing lasts for at least two weeks after being carried out.

4.21 The Police use the number of checkpoint and mobile breath-tests carried out as performance targets. This can put pressure on Districts to prioritise operations to locations and times when traffic volumes are greatest but the risks of drink-driving are not necessarily high. The Police also need to run operations in rural areas, but those operations often affect few motorists and affect the Police's ability to meet performance targets.

### Staffing enforcement operations

4.22 The Police use officers from Traffic Alcohol Group (TAG) units, Highway Patrol Units, Strategic Traffic Units, and General Duties Branches to carry out breath tests.

4.23 TAGs – specialist units whose core role is to reduce drink-driving – are responsible for running booze bus operations and contribute most to the Police's high-visibility general deterrence strategies. The peer assessment of the Police carried out by German and Australian officers in 2009 (see also paragraph 3.17) found strong anecdotal evidence of the effectiveness of TAG units. Many countries have also had success using dedicated alcohol units.

### Co-ordinating enforcement with national advertising

4.24 Each year, the New Zealand Transport Agency produces a calendar of national road safety advertising that outlines when drink-driving advertising campaigns will take place. This allows the Police to plan operational blitzes to coincide with the advertising campaigns. We have not specifically audited the Police against the general deterrence principle of publicity because the New Zealand Transport Agency is responsible for drink-driving publicity, advertising, and media campaigns. However, the Police officers we spoke with were well aware of the calendar, which was prominent on walls at Police stations and on the desks of road policing managers.

### Local knowledge, experience, and professional judgement

4.25 The Police have no formula to balance the often competing priorities that influence planning and resourcing of drink-driving operations. Circumstances constantly change, meaning that the Police must rely on the information to hand and their considerable local knowledge, experience, and professional judgement to make decisions.

4.26 In the Districts we visited, experienced Police officers' local knowledge complemented the tactical assessments that Police analysts prepared. Local officers displayed a good understanding of their communities and where drink

drivers might be. This included the back roads and arterial routes that drink drivers might use and places where the Police might expect problems. The tactical assessments and planning process gave senior officers discretion and flexibility in how and where they carried out their drink-driving operations. We saw senior officers deciding how long to leave booze bus checkpoints open (before impeding peak traffic flows), what streets to patrol in cars, and how long to monitor a targeted hotel.

4.27 Police operations can target more than just drink-driving. A strength of the Police's drink-driving operations is that they provide flexibility to work on the 13 priorities in Safer Journeys and, in particular, the "fatal five". The Police also use drink-driving checkpoints strategically to address other crime issues (for example, to increase their presence in response to burglaries in a certain area).

4.28 We saw Police officers deployed on drink-driving operations adjusting seatbelts, dealing with disqualified drivers, and ordering unsafe cars off the road. We attended one drink-driving checkpoint set up between 2.30pm and 4.30pm between two major high schools. The Senior Sergeant told us the highly visible operation had high-volume testing and targeted young drivers breaking the conditions of their learner and restricted licences – by driving without supervision and with passengers.

# Part 5
# High-volume and high-visibility breath-testing



5.1 In this Part, we assess how well the Police are putting into effect the general deterrence principle of high-volume, high-visibility breath-testing.

### Summary of our findings

5.2 The Police consider visibility when they plan and carry out operations. They choose places and times to maximise their visibility. The Police set up checkpoints in specific locations to show that they are enforcing drink-driving laws.

## The importance of high-volume and high-visibility breath-testing

5.3 The visibility of drink-driving law enforcement operations and the capacity to test the breath of many motorists are important to increase the public's perception that if you drink and drive then you will be caught and punished. Research suggests that direct contact with drink-driving law enforcement influences drivers' perceived risk of detection.

5.4 The high-visibility general deterrence message is repeated in pre-deployment briefings. For example, we heard a Senior Sergeant tell his unit before a Thursday 8am shift:

> *This is about high-visibility, high volume and reinforcing the message of anytime, anywhere. We're not likely to catch drink drivers, but it's likely we'll get unregistered cars and licence breaches.*

5.5 The Police consider visibility when planning operations. For example, a Sergeant told us how the Police chose one checkpoint site that we attended. The site was towards the end of a long, straight, wide and busy road that commuters and parents taking children to school use. The Sergeant told us he was aware of the closeness of schools and the opportunity that provided to increase the visibility of the breath-testing operation.

### Highly visible booze buses

5.6 The booze bus checkpoints we attended were highly visible and well lit. The checkpoints involved many staff (usually 6-10) and Police vehicles parked beside the bus. All the booze bus operations we attended used bright orange cones, flashing lights, and signs to tell the public that they were drink-driving checkpoints. Police officers used torches to wave down traffic and all officers wore fluorescent vests.

5.7 Booze buses were parked on the side of the road and visible to approaching traffic. The buses were positioned so that drivers could pull over safely to the side of the road. This allowed traffic to flow through the checkpoint while officers dealt with drivers on the side of the road.

5.8 Police officers can carry out evidential breath or blood alcohol tests and process drivers who exceed the legal alcohol limit on fully equipped booze buses (see Appendix 3). Despite this, it still takes about 45 to 60 minutes to process each drink driver.

5.9 Joint booze bus operations appeared to be common between different specialist units of the Police (for example, TAG units working with officers from Highway Patrol, Strategic Traffic Unit, or General Duties Branch). Combining forces to carry out operations meant that the Police were able to carry out larger operations, on bigger roads, and test the breath of more drivers.

## The ongoing role of booze buses in general deterrence

5.10 The booze bus fleet is important to the Police putting into effect the general deterrence principle of high-volume, high-visibility testing.

5.11 We noted that the booze bus fleet is relatively old (even though the mileage for each bus is low) so maintenance issues might arise during the next few years. There is no specific policy for replacing the booze buses – they are managed as part of the overall fleet replacement process. The Police replace vehicles in line with a programme and as appropriate, taking into account their fitness for service as well as their whole-of-life costs.

# Part 6
# Strict enforcement, repeated as often as possible



6.1 In this Part, we discuss:

- how well the Police are putting into effect the general deterrence principle of strict enforcement of drink-driving laws (including assessing whether the Police follow a consistent process);
- the reliability of drink-driving equipment and efficiency of paperwork processes;
- how well the Police are putting into effect the general deterrence principle of repeating breath-testing operations as often as possible; and
- the challenges the Police encounter in resourcing their enforcement operations.

### Summary of our findings

6.2 At each of the checkpoints we attended, the Police strictly enforced the drink-driving laws. There was no bargaining with drivers and the Police were polite, fair, and firm when processing each drink driver.

6.3 The Police follow a consistent process to carry out breath tests and process drivers who have a breath- or blood-alcohol concentration above the legal limit. Some aspects of this are messy and labour-intensive. The Police told us they had begun work looking into how they can process drink drivers more efficiently.

6.4 The Police's operations are generally in keeping with the characteristics of effective enforcement through general deterrence – repeating the same enforcement strategy often, night-time operations in well lit and safe areas, and breath-testing every driver they stop.

6.5 The Police face challenges in deciding how many staff and resources to assign to an operation.

## Aiming to test the breath of every stopped driver

6.6 The Police have a new policy to test the breath of every driver they pull over, regardless of why the driver was stopped. Road Policing Managers told us that it would take time to embed this new policy into daily operations, but were confident that Police officers tested the breath of most of the drivers that they stopped.

6.7 Research shows that if drink-driving laws are strictly enforced, drivers are more likely to comply with them. Drivers must understand that the Police can

legitimately stop and breath-test them, and believe that this will improve their safety.

6.8 At the checkpoints we attended, the Police tested car drivers, taxi drivers, motorcyclists, and, on one occasion, the driver of a reasonably full passenger bus. The success of strict enforcement relies on the certainty of being breath-tested when pulled over, no matter how clever a driver feels they are in concealing the effects of their drinking.

6.9 Often, there is heavy traffic at checkpoints. Police officers allow a few vehicles to pass through checkpoints without being stopped. The Police told us that this is to manage traffic. The Police said that this was not ideal but reflected the practicalities of allowing traffic to flow. At one checkpoint, the Police said that they did not like drivers to wait more than five minutes to be breath-tested. Overall, the Police handled the volume of traffic well, with minimal delays to drivers.

6.10 Most checkpoints had a car ready to chase vehicles that turned to avoid the checkpoint. When checkpoints got busy, the chase driver often had to help on the checkpoint line. This meant that if a vehicle turned to avoid the checkpoint, a Police officer would have to run to their car and give chase. Usually, the Police caught the drivers who turned to avoid the checkpoint.

## What happens when the Police stop a motorist

6.11 We observed that when a motorist was stopped at a checkpoint or pulled over by an officer in a patrol car, Police officers followed a consistent process.

6.12 The Police followed an approach of checking "licence, registration, breath". Many non-alcohol-related traffic infringements are detected and dealt with at checkpoints. For example, a Sergeant in one District showed us statistics on how effective booze bus operations can be at detecting other matters (such as stolen vehicles, burglars, and illegal drugs). This is an efficient use of Police resources.

6.13 Officers use hand-held breath-testing devices to check whether a driver has consumed alcohol. This is known as the passive breath test. If the hand-held device indicates alcohol, the driver is required to take a breath screening test. This involves a mouthpiece being attached to the hand-held device and the driver blowing into it. If the breath screening test indicates an alcohol reading over a certain limit, the driver must accompany the officer to either the booze bus or a local police station for an evidential breath or blood test.

## Reliable equipment

6.14 The hand-held devices used to test drivers are considered reliable, easy to use, and accurate. The machines used for evidential breath tests are also easy to use and considered to be reliable. The Police calibrations laboratory told us that, in the last 20 years, no court has overturned a drink-driving conviction because of a faulty machine. If any evidential machine is found to be faulty, all cases begun after it was last calibrated would be withdrawn. This has happened twice in the last 20 years.

6.15 The Police use Secure Mobile Access and Reporting Technology (SMART) devices to issue infringement notices for other traffic offences. Officers told us that SMART devices have, made the job much easier and reduced the number of mistakes, allowing Police officers to return to breath-testing as quickly as possible.

6.16 SMART devices hold drivers' licence details but do not contain photos. This means that Police officers cannot always verify drivers' identities and creates inefficiencies.

## Carrying out breath tests efficiently

6.17 Several officers we spoke to had stories of drivers avoiding conviction on a "technicality". To reduce the likelihood of this happening, the Police have prepared a detailed, step-by-step guide to completing a breath test and processing a driver.[8] The officers we observed set out to follow the process and treat all drivers the same.

6.18 Processing a drink driver requires a lot of paperwork, especially if the driver decides to take a blood test. We watched Police officers stapling, gluing, and taping forms. In our view, the likelihood of transcription errors with names and addresses or for errors crossing out the wrong option seems unnecessarily high. We acknowledge that most of the paperwork is necessary to support the prosecution of the drink driver. However, the process seemed messy and labour intensive.

6.19 We note that the Minister of Police has asked the Police to devise a quicker and more efficient system to process drink drivers. The Police told us they have begun looking into how they can process drink drivers more efficiently.

6.20 We watched officers searching for forms and other materials needed to complete tests and to process drink drivers in Police stations and in booze buses. In our view, tidying up the administration that supports the processing of drink drivers might save a few minutes for each test – but given how many tests are involved, the cumulative time savings would be significant.

8 The Land Transport (Breath Tests) Notice 2009 (SR 2009/386) details the step-by-step process that Police officers must follow.

## Repeating as often as possible

6.21 Research on the long-term effects of random breath-testing in four Australian states shows that drivers must consistently see and hear about enforcement activities to reinforce the "anytime, anywhere" message. The most effective drink-driving campaigns repeat the same enforcement strategy often.

6.22 The Global Road Safety Partnership commissioned research that found that the characteristics described in Figure 6 form the basis of a strategy that can be highly successful in bringing about a general perception that motorists can be tested anywhere, anytime.[9] In our view, the Police's operations displayed the characteristics summarised in Figure 6.

**Figure 6**
**Characteristics of effective enforcement through general deterrence and our observations of Police practice**

| Characteristics | Observations of the Police's practice |
|---|---|
| Repeat the same enforcement strategy often | Good alignment<br>The Police have been carrying out breath tests for a long time. The process is well known by the Police and the public. When a motorist is stopped, a clear process is consistently followed.<br>Operations are sometimes targeted to risk and at other times aimed at increasing public awareness of drink-driving law enforcement. These strategies are not mutually exclusive. |
| Carry out night-time operations in well-lit, safe areas | Good alignment<br>We reviewed rosters in the Districts we visited and saw evidence of TAG units being rostered on consistently at night. Almost all of the checkpoints we observed were well lit and in safe areas. |
| Test the breath of every driver stopped | CBT: Good alignment<br>At checkpoints, the Police checked car drivers, taxi drivers, motorcyclists, families, and, on one occasion, a reasonably full passenger bus. In paragraphs 6.8-6.10, we describe how the Police manage high-volume traffic at checkpoints. Very few drivers pass through a checkpoint untested.<br>MBT: Inconclusive<br>The Police have a policy to test the breath of all motorists stopped for any reason. Road Policing Managers thought it would take time to embed this new policy into daily operations. However, they were confident that the breath of most drivers stopped was tested. |

9 Global Road Safety Partnership (2007), *Drinking and Driving: A Road Safety Manual for Decision Makers and Practitioners*, Geneva.

## Challenges in finding resources for enforcement

6.23 Checkpoints come under pressure for a number of reasons. In some instances, they might need to be closed. Two of the 10 booze bus operations we attended closed earlier than planned because the Police did not roster on the number of officers required to meet demand.

6.24 Forecasting demand on any particular day or time is difficult. The Police do not know how busy they will be on any given shift and how many resources they might need to deploy. The Police could assign several resources to an operation, experience low traffic volumes, and not stop any drivers who have been drinking because it was a "quiet night".

6.25 However, when a driver has been drinking, one officer needs to process them while a second officer checks the driver's identity and licence details. This means that two officers are no longer available to direct vehicles to the side of the road and administer the "sniffer" test to detect alcohol (they are "off the checkpoint line"). If a second driver is processed, three officers will be off the checkpoint line (a single officer can check the identity of more than one driver). We saw a booze bus operation where five drink drivers were processed at the same time and traffic volumes were high.

6.26 Apprehending many drink drivers in a single operation is considered a success because the drivers have been taken off the road. However, this success can lead to booze buses closing early because there are not enough Police officers available to manage traffic. Closing early is counter to the general deterrence principles – high visibility, strict enforcement, and repeating as often as possible.

# Part 7
# Targeting enforcement at risks



7.1 In this Part, we:

- examine the effectiveness of the Police's strategy of targeted enforcement to deter and detect drink drivers;
- assess how well the Police collect, analyse, and use information (called intelligence) to target drink drivers, including understanding how the Police identify and target high-risk locations and times; and
- discuss how the Police balance targeted enforcement and general deterrence.

### Summary of our findings

7.2 The Police effectively use intelligence, local knowledge, and judgement to target their resources at local risks. The intelligence provided by Police analysts is timely and meaningful. Along with local Police officers' knowledge and judgement, it allows the Police to deploy frontline officers to high-risk drink-driving locations, times, and drivers.

## Targeting high-risk places, times, and drivers

7.3 Research shows that breath-testing when and where drivers might have been drinking is highly likely to reduce the number of crashes. The Road Policing Programme for 2011/12 describes how the Police carry out their targeted enforcement:

> *It involves the examination of crash data, recorded offending levels, traffic complaints, and details about repeat offenders and repeat offending. The process requires the collection and analysis of data to produce intelligence which is used for deployment of Police resources based on drink-driving risk.*

7.4 We saw the Police doing this. International research supports the intelligence-led approach to targeted enforcement as being best practice.

### Local tactical assessments help to target risks

7.5 At a District level, Police analysts prepare weekly tactical assessments. The tactical assessments are clear, concise, timely, and provide information that is used to plan drink-driving operations.

7.6 Generally, the assessments include information on the number and identities of recent drink drivers, the location of drink-driving offences (often mapped), and the number of drink-driving crashes, fatalities, and injuries.

7.7 The tactical assessments identify risks that include the likely times and locations (streets and roads, hotels, and sports and cultural events) where drink-driving

might be expected to happen. For example, one tactical assessment noted that local university students were likely to be quiet at the weekend because they had exams the next week.

## Better targeting enforcement at risks

7.8 In the Districts we visited, Police officers were certain that smarter planning would save lives. Road Policing Managers want more information to make better decisions about deployment and improve results.

7.9 Police officers told us that they recognised the value of general deterrence but liked "catching drink drivers" because of the risk they pose to others. Many Police officers said that they enjoyed successful targeted enforcement because drink drivers could "drive down the road and kill someone".

7.10 We saw evidence of the Police's efforts to improve their ability to deploy resources to risk. For example, an improvement initiative in the Road Policing Programme involves revising the profile of a drink driver to take account of recent and expected changes, such as changes to the drink-driving limit for drivers under 20 years old. The Police are also exploring how they can improve road policing tactics by using a mapping system to overlay crash analysis data and enforcement and ticketing activity.

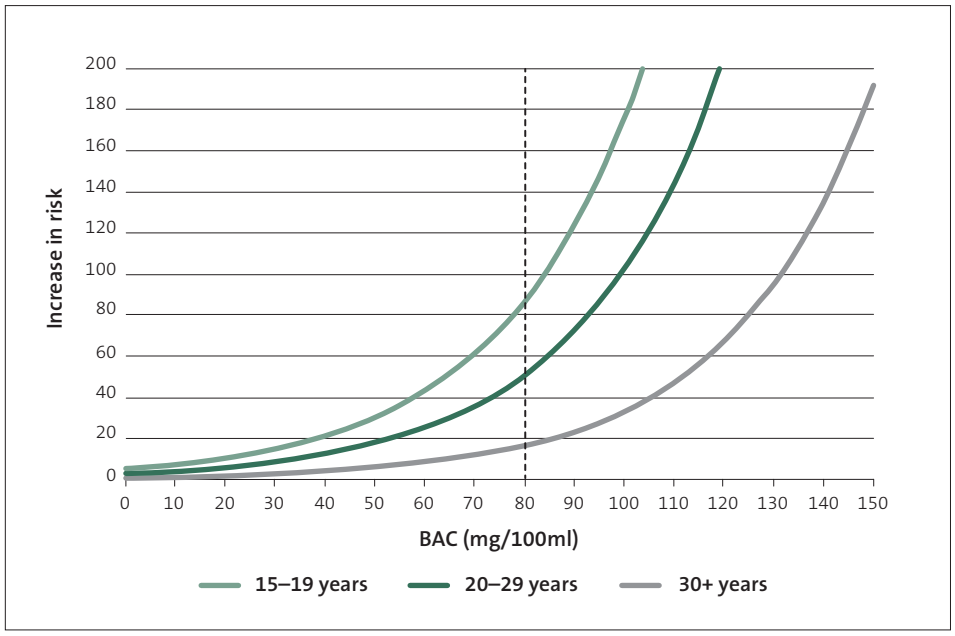
# Appendix 1
# Drink-driving statistics



Drink-driving increases the risk of causing a road crash. The degree of risk varies with age and other factors, including how often the person drinks, their height, weight, and gender.

Young drink drivers have a higher risk of crashing. Figure 7 shows that a driver aged between 15 and 19 is about 87 times more likely to crash when at the legal drink-driving limit for an adult (a blood-alcohol concentration of 80mg/100ml) compared to a sober adult aged at least 30. By comparison, a driver aged 40 who has reached the legal drink-driving limit for an adult is about 16 times as likely to crash as if they had no alcohol in their blood.

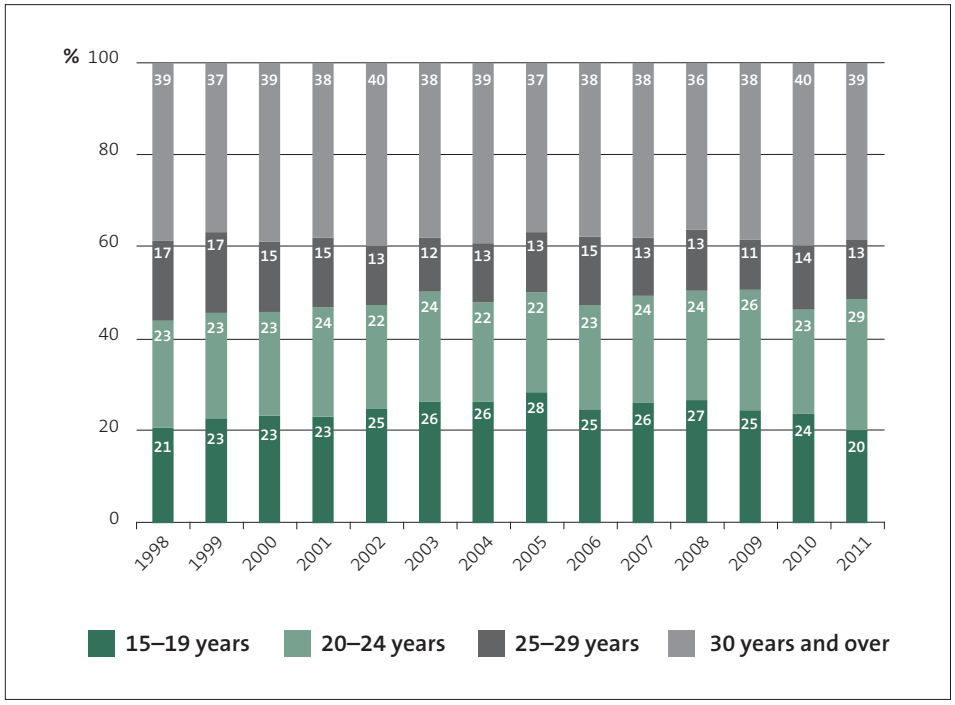
**Figure 7**
**Relative risk of a fatal crash, by age and blood-alcohol level**




Source: Ministry of Transport, *Alcohol/Drugs crash statistics for the year ended 31 December 2010.*

Young drink drivers cause more crashes than older drivers. In 2011, 49% of drivers at fault in alcohol- and drug-related crashes were under the age of 25 years, and 20% were aged 15-19 years (see Figure 8).

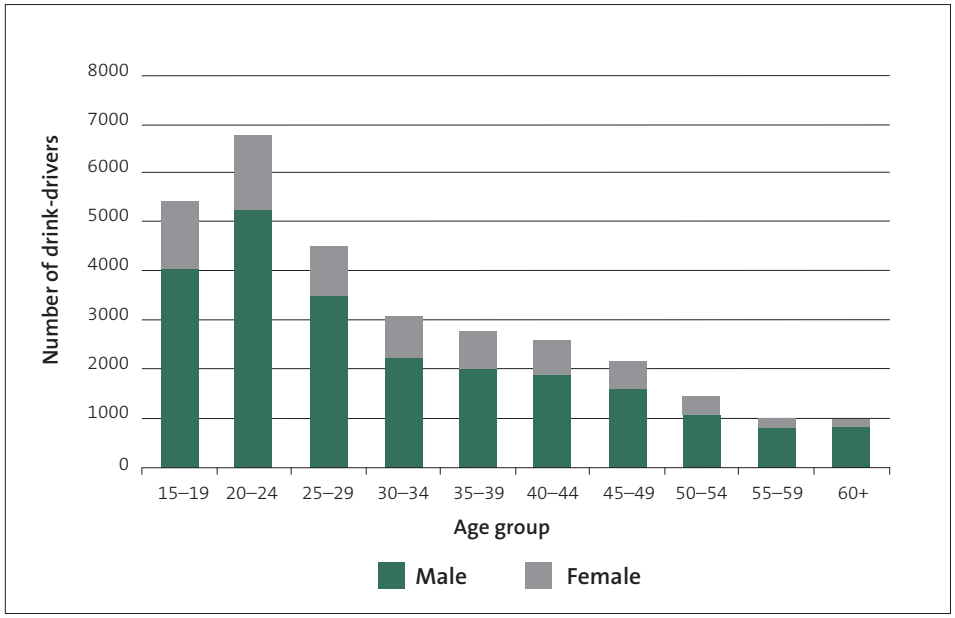
**Figure 8**
**Crashes where alcohol or drugs were a contributing factor, by age of at-fault driver**




Source: Ministry of Transport.

In 2010, 76% of the drink drivers were men. Between 2008 and 2010, 83% of drivers involved in fatal alcohol- and drug-related crashes were men. Figure 9 shows that young men made up the largest group of drink-driving offenders in 2010.

**Figure 9**
**Number, age, and gender of drink-drivers, 2011**




Source: Ministry of Transport, *Report on motor vehicle crashes in New Zealand 2011*.

However, Figure 9 also shows that men and women in all age groups drink and drive to some extent. Police officers told us that drink drivers are not necessarily community "outsiders" or a small group of known offenders. Instead, many drink drivers are middle-class, middle-aged, citizens. From an enforcement point of view, Police officers consider it just as important to test the breath of someone driving a well-maintained new vehicle as to test the breath of a driver with an older and less-well-maintained car.

## Other methods to deter drink-driving and reduce crashes, deaths, and serious injuries

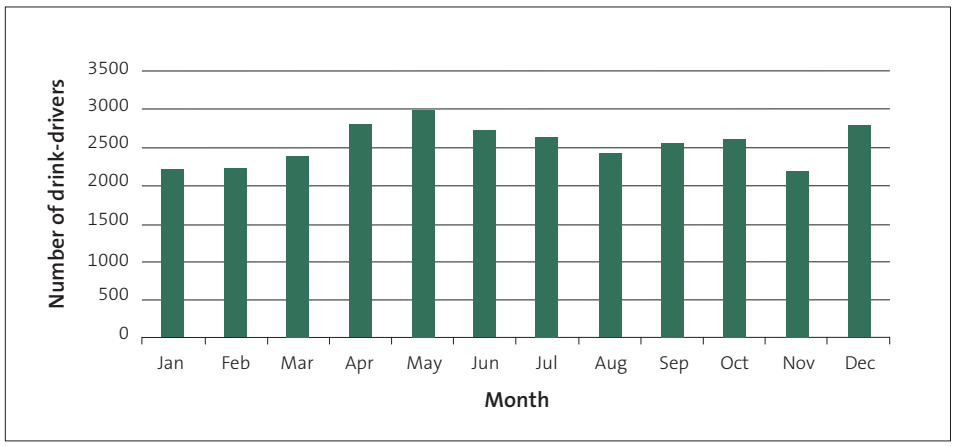
Enforcement by the Police is one way to achieve improved drink-driving outcomes. Other methods include engineering to make roads safer and running education programmes to change driver behaviour.

Ideally, to achieve the best results and change driver behaviour towards drink-driving, strong legislation is required alongside strict enforcement and a hard-hitting, high-profile advertising campaign. Since 1995, there has been little change to New Zealand's advertising campaign strategy. This approach is based

on the successful Victorian (Australia) road safety model and regarded as best practice.

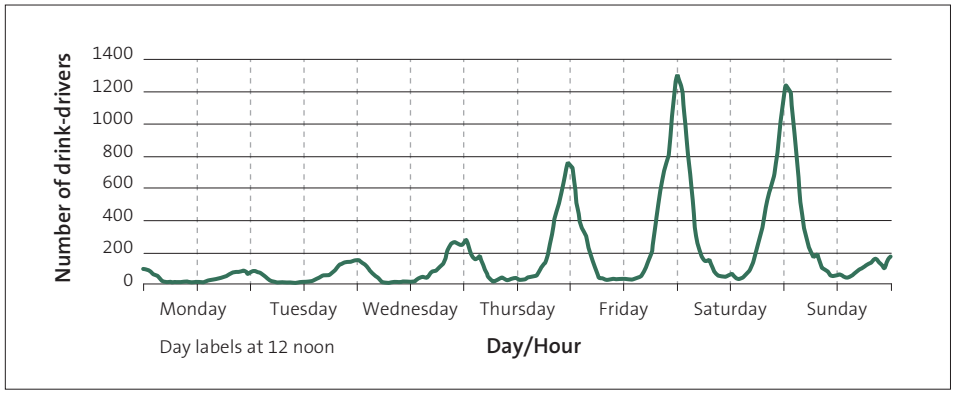
Figures 10, 11, and 12 set out statistics on the number of drink-drivers by month (in 2011), by time of day and day of week (in 2011), and by breath-alcohol content (in 2002 and 2011).

**Figure 10**
**Drink-drivers by month, 2011**



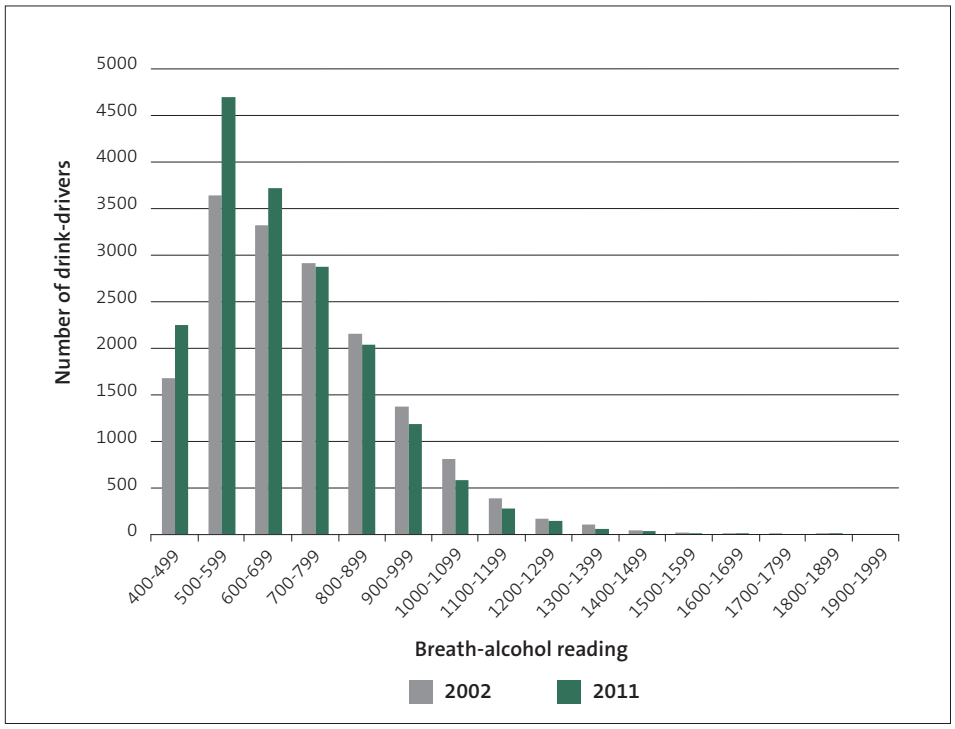

Source: Ministry of Transport, *Report on motor vehicle crashes in New Zealand 2011*.

**Figure 11**
**Drink-drivers by time of day and day of week, 2011**




Source: Ministry of Transport, *Report on motor vehicle crashes in New Zealand 2011*.

**Figure 12**
**Drink-drivers by breath-alcohol concentration, 2002 and 2011**




Source: New Zealand Police.

# Appendix 2
# The effects of alcohol on driving ability



Alcohol directly affects the central nervous system, which affects the cognitive process and impairs decision-making. Alcohol is easily absorbed into the bloodstream and, unlike food, does not have to be digested. It directly affects all vital organs, including the brain, and has varying effects on different people.

Drinking alcohol undermines people's ability to make choices – especially where rational decision-making processes call for complex and subtle judgements. It also slows a person's reactions, dulling their judgement and vision.

The risk of a crash increases as the driver's alcohol level increases. Drivers with a high blood-alcohol concentration are more likely to crash than those who are sober.

Figure 13 describes the typical effects on a person and predictable effects on driving at different blood-alcohol concentrations.

**Figure 13**
**Effects of different blood-alcohol concentrations on drivers**

| Blood-alcohol concentration (mg/ml) | Typical effects | Predictable effects on driving |
|---|---|---|
| 0.02 | Some loss of judgement<br>Relaxation<br>Slight body warmth<br>Altered mood | Decline in visual functions, such as rapid tracking of a moving target<br>Decline in ability to perform two tasks at the same time (divided attention) |
| 0.05 | Exaggerated behaviour<br>May have loss of muscle control (such as focusing eyes)<br>Impaired judgement<br>Lower alertness<br>Released inhibition | Reduced co-ordination<br>Reduced ability to track moving objects<br>Difficulty steering<br>Reduced response to emergencies |
| 0.08 | Muscle co-ordination becomes poor (such as balance, speech, vision, reaction time, hearing)<br>More difficult to detect danger<br>Impaired judgement, self-control, reasoning, and memory | Reduced concentration<br>Short-term memory loss<br>Difficulty controlling speed<br>Reduced information-processing capability (such as signal detection, visual search)<br>Impaired perception |
| 0.10 | Clear deterioration of reaction time and control<br>Slurred speech, poor co-ordination, and slowed thinking | Reduced ability to stay in lane and brake appropriately |
| 0.15 | Much less muscle control than normal<br>Vomiting possible<br>Major loss of balance | Substantial impairment in controlling vehicle, attention to driving, and in necessary processing of visual and auditory information |

Source: The National Highway Traffic Safety Administration, United States Department of Transport, Washington.

# Appendix 3
# Summary of drink-driving laws



The Land Transport Act 1998 sets out New Zealand's drink-driving laws.

A driver aged 20 or older commits an offence if they drive with alcohol levels exceeding 400 micrograms for every litre of breath (40mcg/l) or 80 milligrams for every 100 millilitres of blood (80mg/100ml) – a blood-alcohol concentration of 0.08.

Drivers under the age of 20 are not allowed to have any alcohol in their blood. A driver under 20 commits an offence and can be fined up to $2,250 or imprisoned for up to three months if they drive with alcohol concentrations exceeding 150 mcg/l or 30 mg/ml. A driver under 20 commits an infringement offence and can be fined up to $200 and incur 50 demerit points on their licence if they have any alcohol on their breath or in their blood. The Police can stop and test the breath any person driving, or trying to drive, a motor vehicle on a road.

The Police use the following tests to see whether a driver has been drinking:

- Passive breath test – The officer places a hand-held electronic device in front of the driver's mouth and asks the driver to talk. This detects the presence of alcohol. A breath screening test is required when alcohol is detected.
- Breath screening test – The driver blows into a mouthpiece attached to an electronic device. The device provides a reading of the driver's breath-alcohol. If this is above the legal limit, the Police ask the driver to take an evidential breath test.
- Evidential breath test – The driver blows into an electronic device. The device provides a reading of the driver's breath-alcohol level, which can be used in court.
- Evidential blood test – The driver can choose to have an evidential blood test if they refuse or fail their evidential breath test. A doctor, nurse, or other approved health professional must carry out the blood test.

It is not an offence for a driver to refuse a breath screening or evidential breath test. If the driver refuses these tests, they must complete an evidential blood test. It is an offence to refuse the blood test.

A driver convicted of a first or second drink-driving offence can face a prison term of up to three months or a fine of up to $4,500 and lose their driver licence for six months or more. A driver with more than two drink-driving offences can go to prison for two years and be fined up to $6,000 and lose their driver licence. A drink driver causing death can go to prison for up to 10 years. Figure 14 sets out the maximum court-imposed penalties for drink-driving.

**Figure 14**
**Summary of court-imposed penalties for drink-driving offences**

| Offence | Blood-alcohol concentration (mg/100ml) | Breath-alcohol concentration (mcg/l) | Prison penalty | Fine penalty | Disqualification or suspension of driver licence |
|---|---|---|---|---|---|
| Driver kills or injures someone | More than 80 | More than 400 | Up to five years for causing injury<br>Up to 10 years for causing death | Up to $20,000 | First offence: one year or more<br>Third or more offences: more than one year |
| A person 20 years or over drives/ attempts to drive | More than 80 | More than 400 | First or second offence: up to three months<br>Three or more offences: up to two years | First or second offence: $4,500<br>Three or more offences: up to $6,000 | First or second offence: six months or more<br>Three or more offences: more than one year |
| A person under 20 years attempts to drive* | More than 30 | More than 150 | Up to three months | Up to $2,250 | Three months or more |
| A driver refuses to have blood test when asked by a Police officer, doctor, or approved person | | | First or second offence: up to three months<br>Three or more offences: up to two years | First or second offence: up to $4,500<br>Three or more offences: up to $6,000 | First or second offence: six months or more<br>Three or more offences: more than one year |
| A driver refuses to go with a Police officer for an evidential breath or blood test | | | | Up to $4,500 | As decided by the court |
| A driver refuses to hand over keys when asked by a Police officer | | | | Up to $10,000 | |

* A driver under 20 commits an infringement offence and can be fined up to $200 and get 50 demerit points on their licence if they have any alcohol on their breath or in their blood.

Source: New Zealand Transport Agency.

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