

AlcoholNZ

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THIS ISSUE

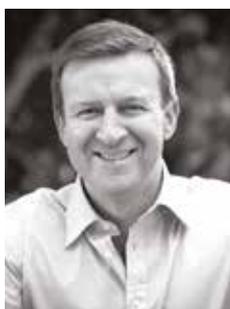
Research and data

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Editor – Rosie Pears, Health Promotion Agency



Message from the **Minister**

Hon Dr Jonathan Coleman
Minister of Health

We live in an age of information, digitalisation and innovation, a time when large amounts of information are widely available to many people. Today's technology is making the collection and dissemination of data and information easier and faster.

Data collection and research involve commitment and dedicated time from both the researchers and respondents. Thousands of people are involved in national population health surveys, like the New Zealand Health Survey or the Health Promotion Agency's (HPA's) Attitudes and Behaviour towards Alcohol Survey.

Robust research is deepening our understanding of what contributes to good health and wellbeing and what can be done to prevent and reduce harm. Research is an important input to guide policies and practice, to monitor progress, to evaluate the effectiveness of programmes and strategies and to enable a smart system.

This issue of *AlcoholNZ* presents research that expands the knowledge-base about alcohol-related issues. Some of the articles use data from national collections and population health surveys to provide a New Zealand picture about alcohol available for consumption, what people drink, who consumes alcohol at hazardous and risky levels, where people purchase alcohol, and who is injured or dies from alcohol-related traffic crashes.

Other articles summarise commissioned research. This includes research – to explore consumer awareness and understanding of pregnancy warning labels and to provide insights into parents' attitudes and behaviours in choosing to supply or not to supply alcohol to their teenagers.

Data from our national surveys shows that many New Zealanders are continuing to drink alcohol at risky and hazardous levels. Looking to the future, we need more quality, innovative research to understand how we can be more effective in preventing and reducing alcohol-related harm.

Contents

Welcome to <i>AlcoholNZ</i>.....	3
Types of alcoholic beverages – What is available and who drinks what types.....	5
Alcohol pregnancy warning labels – Consumer awareness and understanding.....	9
Consumer information – The energy content of alcoholic beverages.....	13
Parental supply of alcohol to under-18s – What parents and caregivers think	17
Hazardous and risky drinking – Differences among past-year drinkers	21
Attitudes and behaviour towards alcohol – Auckland regional analysis	24
Injuries and death from traffic crashes with alcohol as a contributing factor	26

Welcome to

AlcoholNZ

Welcome to the Health Promotion Agency's (HPA's) *AlcoholNZ* magazine. *AlcoholNZ* provides evidence-based articles, topical commentaries, case studies and summaries of new alcohol-related research to update readers' knowledge of, and inform debate about, alcohol issues in New Zealand. The theme of this issue is alcohol research and data.

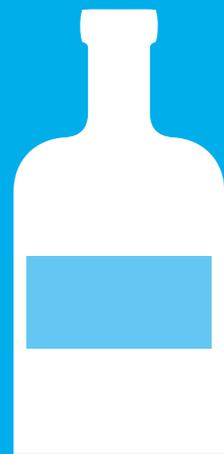
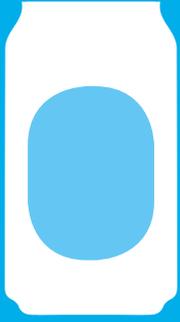
AlcoholNZ contributes to HPA's statutory alcohol-related functions to:

- give advice on the sale, supply, consumption, misuse and harm of alcohol
- undertake, or work with others, to research alcohol use and public attitudes towards alcohol in New Zealand, and problems associated with, or consequent on, the misuse of alcohol.

This issue of *AlcoholNZ* provides analysis of alcohol-related data and summaries of recent HPA-commissioned research reports. Highlights include analysis of data about energy content information on alcoholic beverages, the types of alcoholic drinks consumed, and alcohol-related injuries and deaths from traffic crashes. It also features summaries of new research on parental supply of alcohol and on warning labels on alcoholic

drinks about not drinking during pregnancy. Other articles cover analysis of national hazardous and risky drinking data and Auckland region data about attitudes and behaviour towards alcohol.

HPA's published research reports and data analysis factsheets can be found on hpa.org.nz. Links to other alcohol-related statistics can be found on alcohol.org.nz.



Types of alcoholic beverages

What is available and who drinks what types

The types of alcoholic beverages (ie, beer, wine, spirits and cider) that people consume often vary by sex, age and ethnicity. Preferences can also change over a lifetime and be influenced by changes in the popularity and availability of different drinks. New beverages come onto the market; for example, RTDs (ready-to-drink spirits) became available in larger volumes from the mid-1990s and more recently there has been an increase in the range of beers of different strengths.

Several data sources can be used to form a population-level picture of who is drinking what type of alcohol beverages. This includes data on:

- alcohol available for consumption, which is collected by Stats NZ (formerly Statistics New Zealand)

- reported types of alcoholic beverages consumed, which is collected:
 - » periodically in the Ministry of Health's New Zealand Health Survey (Ministry of Health, 2012)
 - » annually in the Health Promotion Agency's (HPA's) Attitudes and Behaviour towards Alcohol Survey (ABAS).

Alcohol available for consumption

Stats NZ measures the volume of pure alcohol (ethanol or ethyl alcohol) and the volume of alcoholic beverage available for consumption (ie, released to the domestic market). Actual consumption is not measured but the amount available is a close proxy measure, as alcoholic beverages are usually released close to the time of sale. Stats NZ data also provides information on beverage type (ie, beer, wine and spirits) available and changes in the amount available, indicating changes in drinking preferences.

In the year ending December 2016, 34.7 million litres of pure alcohol were available for consumption in New Zealand. By comparison, 26.3 million litres of pure alcohol were available in the year ending June 2000. It is usual, however, to standardise data as a rate per capita to take account of population changes. Between 2010 and 2015 the volume of alcohol per capita (using the population aged 18 or older) decreased steadily, from 10.2 litres per capita to 9.2 litres per capita. This increased to 9.4 litres per capita in 2016 (Stats NZ, 2017).

Information on pure alcohol available for consumption is also provided by alcoholic beverage types. As illustrated in Figure 1, the proportions of pure alcohol available for consumption have changed over time. The most significant change is for beer, which decreased 10 percentage points from 2000 to 2016, although beer remains the most popular beverage type and provided 12.6 million litres of pure alcohol available for consumption in the year ending December 2016. Wine and spirits increased to a total of 11.4 and 9.7 million litres of pure alcohol available for consumption, respectively. The increase in pure alcohol from spirits is largely driven by spirit-based RTDs (Stats NZ, 2017).

Types of alcohol consumed by adults on their last drinking occasion

HPA's ABAS provides information on the self-reported types of alcoholic beverages consumed on the last drinking occasion. The following analysis combines results from three years (2013/14, 2014/15 and 2015/16). On average, 73% of New Zealanders aged 18+ years had consumed alcohol in the last 12 months and 55% had consumed two or more alcoholic drinks in the past three months. The following results are based on the last drinking occasion in the past three months where two or more alcoholic drinks were consumed. Respondents could choose as many types of drinks as were consumed on that occasion (multiple responses).

Most people (70% of women and 66% of men) consumed one type of alcoholic drink (eg, wine or beer), and almost a quarter (24%) consumed two types of drinks. One-third of 18 to 24-year-olds consumed two types of alcoholic drink and 13% consumed three types of alcoholic drink. This age group was more likely to report drinking spirits (50%), RTDs (36%) and cider (19%) on their last drinking occasion than people of other ages. There are, however, differences by sex and age.

Women and men typically drink different types of alcohol. On the last drinking occasion, two-thirds of women reported drinking wine and two-thirds of men reported drinking beer. Women were more likely to report drinking RTDs (13%) and cider (10%) than men (10% and 6%, respectively). These differences are mostly because younger women are more likely to consume these types of drinks. The most common type of drink consumed on the last occasion by young women aged 18 to 24 years was spirits (52%) followed by RTDs (41%). Women in all other age groups most commonly reported drinking wine.

Young men aged 18 to 24 years most commonly reported drinking beer (66%) on their last drinking occasion, similar to men aged 25 to 44 years (71%) and 45 to 64 years (70%). Older men aged 65 and over reported drinking wine or beer in equal proportions (53%).

Figures 2 and 3 illustrate the types of alcoholic drinks consumed by women and men across different age groups.

ABAS and analysis methods

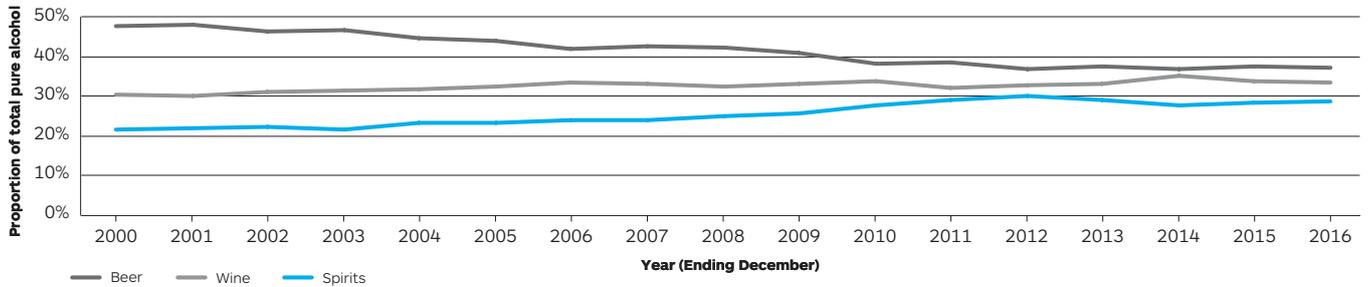
HPA's ABAS is a national telephone survey of people aged 15 years and over about alcohol consumption patterns, and alcohol-related behaviour and attitudes. The results provided in this article are from combined 2013/14, 2014/15 and 2015/16 ABAS surveys and are based on respondents aged 18 years and over who had consumed two or more drinks on any one occasion in the last three months (n=6,270). Results from the combined three surveys can be considered an average value across the three-year time period. Results presented are weighted so that they are representative of the total New Zealand population. Differences between sub-population groups were identified using confidence intervals, and statistically significant differences (when p -value < 0.05) are noted in the report as 'more likely/less likely'.

References

Ministry of Health. (2015). *Alcohol use 2012/13: New Zealand Health Survey*. Wellington: Ministry of Health.

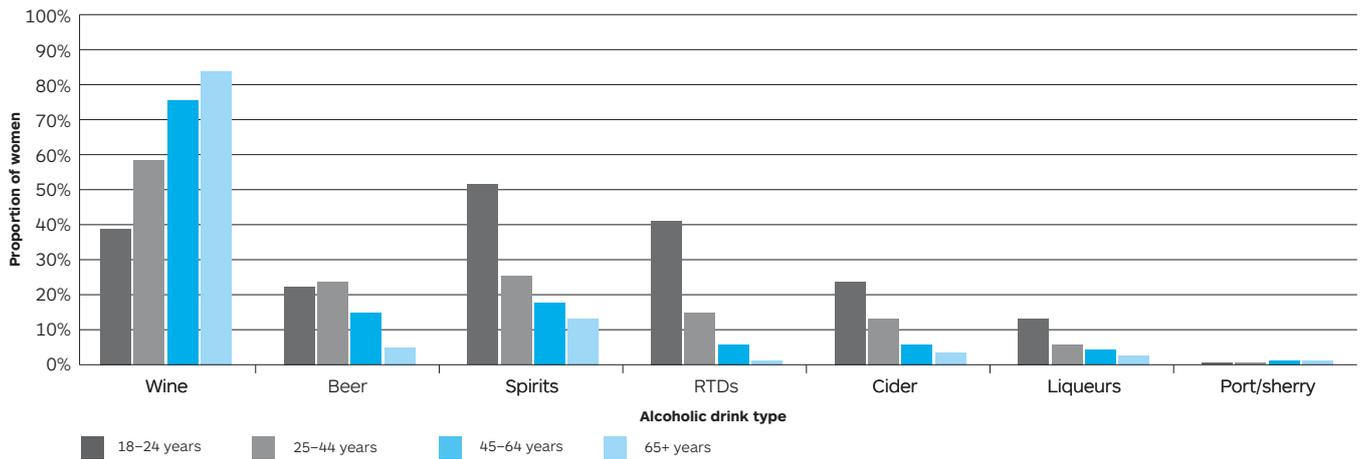
Stats NZ. (2017). *Stats NZ Infoshare data tables: Alcohol available for consumption*. Retrieved from <http://www.stats.govt.nz/infoshare/>.

Figure 1: Beverage type as a proportion of total pure alcohol available



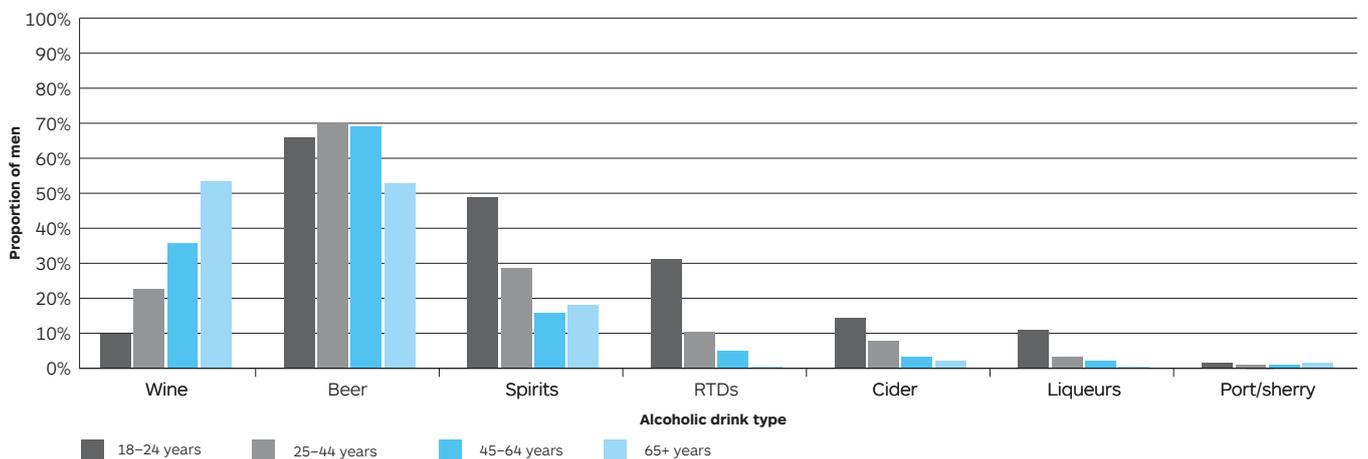
Source: Stats NZ.

Figure 2: Types of alcoholic drinks consumed by women, by age group, during last drinking occasion (multiple responses allowed)



Source: Combined 2013/14, 2014/15 and 2015/16 ABAS.

Figure 3: Types of alcoholic drinks consumed by men, by age group, on last drinking occasion (multiple responses allowed)



Source: Combined 2013/14, 2014/15 and 2015/16 ABAS.



Don't drink alcohol if you could be pregnant, are pregnant or are trying to get pregnant

There is no safe level of alcohol consumption during pregnancy



Alcohol pregnancy warning labels

Consumer awareness and understanding

Many New Zealand alcohol producers voluntarily display text and/or pictograms on alcohol beverage labels warning consumers not to drink alcohol while pregnant. Alcohol pregnancy warning labelling is one of a number of primary prevention strategies used to raise awareness of the importance of not drinking alcohol during pregnancy. Another is the Health Promotion Agency's (HPA's) Don't Know? Don't Drink social marketing campaign aimed at encouraging women not to drink alcohol if there is any chance they could be pregnant.

A range of health agencies, including the Ministry of Health and HPA, endorse and promote the following key message (see alcoholpregnancy.org.nz for a list of the agencies):

*Stop drinking alcohol if you could be pregnant,
are pregnant or are trying to get pregnant.
There is no known safe level of alcohol
consumption during pregnancy.*

Together, the endorsement message, warning labels on alcoholic beverages and campaign activities contribute to the implementation of the Government's 2016 action plan *Taking Action on Fetal Alcohol Spectrum Disorder: 2016–2019*. In particular, they contribute to Action 2 of the Plan, which is to develop and disseminate clear, unambiguous and consistent messages to increase the whole community's awareness of the risks of drinking during pregnancy.

Requirements for pregnancy warnings on labels

Some countries have mandatory pregnancy warning labelling requirements on packaged alcoholic products, while other countries have introduced voluntary labelling or have no requirements. New Zealand and Australia, who have a joint food regulation system and share food standards for labelling, currently have voluntary labelling of alcoholic beverages with health warnings about not drinking alcohol while pregnant. No standard statements or pictograms are formally specified.

An initial two-year trial of voluntary placement of pregnancy health warning labels on packaged alcoholic beverages was evaluated in both Australia and New Zealand in 2014. This led to a decision from the Australia and New Zealand Ministerial Forum on Food Regulation to extend voluntary labelling for a further two years to allow greater uptake, work on consistent messaging, and further evaluation. The Forum is due to reconsider voluntary uptake versus mandatory regulation of alcohol pregnancy warning labelling in late 2017. Evaluation reports and progress updates are available on foodregulation.gov.au.

Research on consumer awareness and understanding

In 2016 HPA commissioned Colmar Brunton to conduct an online survey of consumers so that there would be some New Zealand-based consumer research to take into account when the pregnancy warning label issue is reconsidered in 2017. The report of the research findings, *Consumer Awareness and Understanding of Alcohol Pregnancy Warning Labels* (Rout & Hannan, 2016), was published on HPA's website – hpa.org.nz – in October 2016.

The purpose of the research was to assess the effectiveness of current alcohol pregnancy warning labels, focusing on:

- consumer recall and awareness of the labelling on alcohol products
- reading and comprehension, or what consumers understand from current pregnancy warning labels.

An online survey was carried out in June 2016 with 1,488 consumers, including 387 women aged 18 to 34 years (young women) and 388 women with children under 15 years (women with children).

The following three pregnancy warning labels were tested:

- The 'pregnant lady' pictogram (an image of a pregnant woman holding a wine glass placed in a circle with a diagonal line through it) – a common, internationally used pictogram.

- 'IT IS SAFEST NOT TO DRINK WHILE PREGNANT' – DrinkWise Australia's labelling text that is commonly used in New Zealand.
- 'Don't drink pregnant' – alternative text that is sometimes used on Australian labels in conjunction with the pictogram.

The research findings, outlined below, were summarised using the criteria that the research literature recommends for assessing the effectiveness of warning labels.

Attention to and recall of message

- Few consumers (5%) recalled pregnancy warning labels without prompting, but with visual prompting more than four in ten consumers (44%) recalled at least one of the three alcohol pregnancy labels tested.
- Young women (67%) and women with children (51%) had the highest recall (of at least one of the three labels tested).

Reading and comprehension, and judgements of the product's risk and hazards

- The pictogram was reported as the most effective method of conveying the intended messages.
- However, consumers wanted a clearer link between drinking while pregnant and harm to the unborn child. This was considered to be best achieved through the addition of text.
- Most consumers (97%) associated the colour red with a warning.

Behavioural compliance with the message

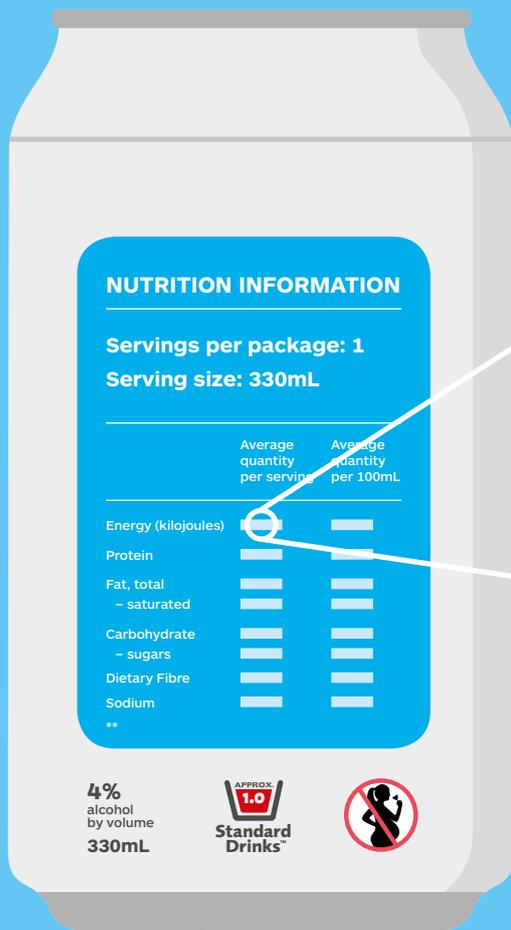
- Participants viewed the pictogram as the most effective warning label for prompting desired behaviours (eg, not drinking while pregnant and prompting people to talk about the risks).
- Further analysis found that young women had fairly similar views of the effectiveness of each of the three labels in prompting discussion about the risks. Women with children tended to view the alternative text as less effective than the other two labels.
- The DrinkWise text has the most potential for misinterpretation.

This research highlights the important role of pregnancy health warnings on alcoholic beverage labels in raising awareness of the risks and harms of drinking alcohol while pregnant or when planning a pregnancy. Overall, those who recalled the labels had a clear understanding of what they meant and many participants were prompted by the labels to consider the risks of drinking while pregnant and, for some, to discuss these risks with family and friends.

If you would like to read more, the full research report can be downloaded from HPA's website at hpa.org.nz/research-library.

Reference

Rout, J., & Hannan, T. (2016). *Consumer awareness and understanding of alcohol pregnancy warning labels*. Retrieved from <http://www.hpa.org.nz/sites/default/files/Consumer%20awareness%20alcohol%20pregnancy%20warning%20label%20report%20FINAL.pdf>.



315kJ*

* The Concise New Zealand Food Composition Tables, 12th Edition 2016.

** Alcohol is included in the energy (kJ) calculation but it is not required on the Nutrition Information Panel.

Consumer information

The energy content of alcoholic beverages

Many people are unaware of the energy content (ie, kilojoules (kJ) or calories) of alcoholic beverages. Alcohol is broken down and used by the body to provide energy. Each gram of alcohol has an average energy value of 29.3kJ (or 7 calories). This is more energy per gram than protein (16.7kJ/g) or carbohydrate (16.7kJ/g) but less than fat (37.7kJ/g) (National Health and Medical Research Council & Ministry of Health, 2016). One standard drink of an alcohol beverage (containing 10g of pure alcohol) has an energy content of 293kJ (or 70 calories) or more, depending on the amount of carbohydrate/sugar and fat in the beverage and in any mixers, such as soft drinks.

Consumer information labelling requirements

The Australia and New Zealand Food Standards Code requires that beverages that contain more than 0.5% alcohol by volume must display the alcohol content on the label. Labels must also state the number of standard drinks in the package. A 'standard drink' is specified as the amount of beverage that contains 10g of alcohol at 20°C (Food Standards Australia New Zealand, 2014).

Alcoholic beverages, unlike non-alcoholic beverages, are usually not required, however, to display ingredients lists or nutrition information on labels. If a claim about energy content, carbohydrate content or gluten content is made about an alcoholic beverage, then nutrition information must be provided on its label, including energy but not alcohol. All other health claims and nutrition content claims are prohibited on alcoholic beverages (and other foods) that contain more than 1.15% alcohol by volume (Food Standards Australia New Zealand, 2014). Some New Zealand alcohol producers, mainly beer producers, do provide nutrition information, including energy content, on labels or on their websites. This information is provided either voluntarily or as a requirement because a claim has been made.

Internationally, a number of public health and consumer organisations are calling for the mandatory labelling of ingredients lists and nutrition information, especially the labelling of energy value, on alcoholic beverages as part of a comprehensive strategy to provide information and educate consumers about alcohol (European Commission, 2017; Royal Society for Public Health, 2014). The Australia and New Zealand Ministerial Forum on Food Regulation is at the early stages of considering energy labelling of alcohol beverages. Progress updates are available on foodregulation.gov.au.

Consumer opinion about having energy content information on alcoholic beverages

There is limited research about consumer awareness and knowledge of the energy content of alcoholic beverages and also whether having this information would lead to behaviour change. To help fill the knowledge gap, the Health Promotion Agency included a new question in its 2016 Health and Lifestyles Survey (HLS) to investigate whether New Zealand adults (18+ years) think that having energy content information on alcohol beverages would influence how and what they drink.

Survey sample

HLS is a biennial monitor of health behaviours and attitudes of New Zealanders aged 15 years and over. It is conducted nationwide through face-to-face interviews and was first carried out in 2008. The 2016 HLS consisted of a sample of 3,854 New Zealanders. All analyses in this article used a restricted base (n=2,666) of respondents aged 18 years or over who reported drinking alcohol in the past year.

Analysis results

Survey participants were asked whether they agreed or disagreed with the following statement:

Having nutrition information about energy content (that is, calories or kilojoules) on alcoholic beverages would influence how much I drink, or what I choose to drink.

Respondents were not provided with information about the energy content of alcoholic drinks before being asked the question about energy content labelling; nor were they asked what they knew about the nutritional content of alcoholic drinks.

Overall, one-third (34%) of respondents agreed that energy content information on alcohol beverages would influence how much they drink, or what they choose to drink, while 13% were neutral and 51% disagreed.

Out of those who agreed that energy content information on alcoholic beverages would influence how much they drink, or what they choose to drink:

- females (39%) were significantly more likely than males (28%) to report that energy content information on alcoholic beverages would influence how much they drink, or what they choose to drink (see infographic)
- agreement did not vary by ethnicity or by drinking frequency
- those aged 15 to 54 years (36%) were significantly more likely to report that energy content information on alcoholic beverages would influence how much they drink, or what they choose to drink, than those aged 55 years and over (28%) (see infographic).

Further analysis explored whether reported use of nutrition information labels on food and non-alcoholic drinks was associated with agreement that energy content information on alcoholic beverages would influence how much and what alcohol they bought or consumed. A question in the 2016 HLS asked respondents if they used nutrition labels on food and non-alcoholic drinks. It was found that:

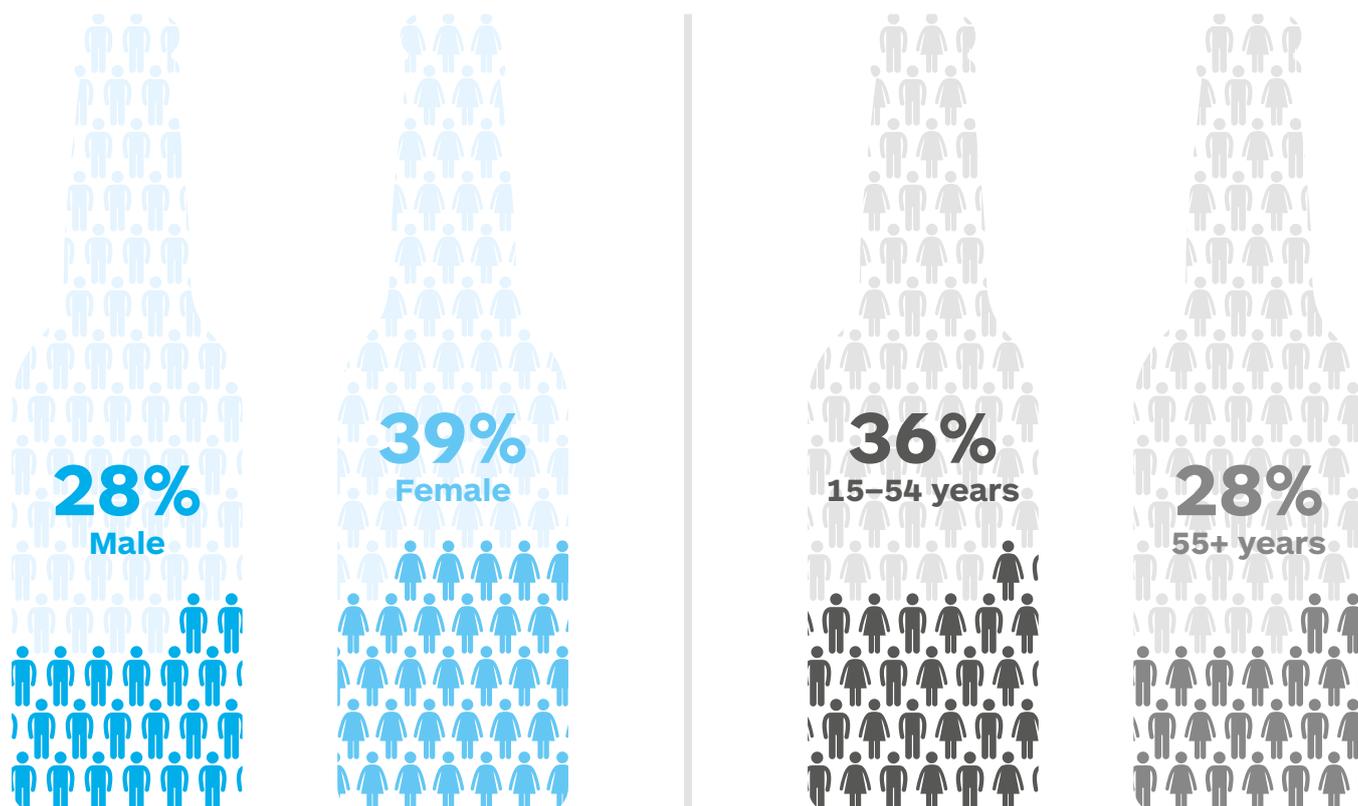
- respondents who reported using nutrition labels on food and non-alcoholic drinks to inform their purchasing choices (47%) were significantly more likely to agree that having energy content information on alcoholic beverages would influence how much they drink, or what they choose to drink, than those who did not report using nutrition labels on food (32%).

How the data was analysed

The data presented above is weighted. This means that the reported percentages are adjusted to account for each respondent's probability of selection, as well as population benchmarks to ensure that no population groups are under- or over-represented in estimates from the survey.

Differences between sub-groups (eg, gender, age, ethnicity) were tested using logistic regression. In the text, differences between sub-groups are said to be 'significant' when p -value < 0.05.

Proportion of respondents agreeing that ‘having nutrition information about energy content on alcoholic beverages would influence how much they drink, or what they choose to drink’, by gender and by age*



* 2016 Health and Lifestyles Survey.

Responses to the question about having energy labelling on alcoholic beverages were sorted into four groups: ‘agree’, ‘neutral’, ‘disagree’ and ‘don’t know/refused’. The *agree* group comprised those who responded with ‘agree’ or ‘strongly agree’. The *neutral* group comprised those who responded with ‘neither agree nor disagree’.

References

European Commission. (2017). *Report from the Commission to the European Parliament and the Council regarding the mandatory labelling of the list of ingredients and the nutrition declaration of alcoholic beverages*. Retrieved from http://ec.europa.eu/food/sites/food/files/safety/docs/fs_labelling-nutrition_legis_alcohol-report_en.pdf.

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National Health and Medical Research Council, & New Zealand Ministry of Health. (2016). *Nutrient reference values for Australia and New Zealand*. Retrieved from www.nrv.gov.au/dietary-energy.

Royal Society for Public Health. (2014). *Increasing awareness of ‘invisible’ calories from alcohol*. Retrieved from <https://www.rsph.org.uk/our-work/campaigns/alcohol-calorie-labelling-.html>.



Parental supply of alcohol to under-18s

What parents and caregivers think

The Health Promotion Agency's (HPA's) overall advice for parents is that "not drinking alcohol is the safest option for children and young people under 18 years". Some parents or legal guardians do choose, however, to supply their teenagers with alcohol. The Youth'12 Survey of New Zealand secondary school students found that students who drank alcohol reported that their usual source of alcohol included their parents (60%), their friends (44%) or someone else who bought the alcohol for them (30%) (Clark et al., 2013).

There is limited New Zealand research investigating the reasons parents choose to supply or not supply alcohol, parents' attitudes and approaches to their teenagers' alcohol use, and things that can be done to reduce parental supply. To help fill this knowledge gap, HPA commissioned UMR Research Limited to undertake qualitative research with parents and caregivers of teenagers under 18 years. The research is also being used to inform national and community-based initiatives.

The report of the findings from this research, *Parental supply of alcohol to under-18s*, was published on HPA's website – hpa.org.nz – in March 2017.

Forty-eight people participated in a series of interviews, including Māori, Pacific and general population parents/grandparents/caregivers of teenagers under 18 years. They were from a range of geographic locations and socio-economic status households and included people who did and who did not supply alcohol to their teenagers.

Some of the key findings from the research (UMR Research Limited, 2016) are summarised below. The findings are restricted to the views and experiences of those who participated (which may not be representative of the wider population).

Parental attitudes, beliefs and behaviours

- Attitudes to supplying alcohol to teenagers under 18 were on a continuum, with two extremes – from being comfortable supplying in most situations when the teenager was approaching the legal purchasing age (16 to 17 years) to not being comfortable in any situation until the teenager was 18 years old. Between these extremes there was a group of parents who were relatively comfortable supplying alcohol to teenagers under 18 years in specific situations and with some conditions attached.

- For some parents, all of the following conditions would need to be met and for others just some of the conditions would suffice. These conditions were that:
 - » parents were monitoring and supervising (ie, a controlled situation)
 - » drinking was with family/whānau and trusted adults
 - » drinking alcohol was part of a special occasion.
- The main reasons why those who were *not comfortable* supplying alcohol in most circumstances did not do so were that:
 - » their own personal experiences of alcohol-related harm had impacted on them in such a way that they reinforced a 'no alcohol till 18 years' policy with their teenagers
 - » they were keen to support the legal age of 18 years for purchasing alcohol and believed this law set a legal precedent for them to follow
 - » they considered any teenager younger than 14 years too young
 - » a few held strong religious beliefs, in relation to alcohol.
- The main reasons why those who were *comfortable* supplying alcohol in most circumstances did so were that:
 - » it was an opportunity to prepare teenagers approaching 18 years on how to treat alcohol and to experience alcohol in a supportive and safe environment with parents on hand
 - » it gave parents the opportunity to model good behaviour with alcohol
 - » their own personal experiences of restrictive policies on alcohol when they were teenagers influenced them to seek a more moderate approach to drinking for those under 18 years.

Parental attitudes to teenage parties

- Checking out a party (ie, where it was being held, who was going, whether there would be alcohol, adult supervision, safety issues) was seen as crucial to deciding whether to allow a teenager to attend.
- Active adult supervision and being a good host were seen as essential.
- Parents felt disappointed and sad rather than angry if their teenagers were found drinking alcohol without their permission or knowledge.
- The majority of parents, across all age groups, considered it was not realistic to expect teenagers under 18 to be alcohol free until 18 years. There were a few parents who managed to maintain this in their homes but they were a minority. The major barrier to changing this stance was that parents sincerely believed they were taking the appropriate actions in introducing alcohol to their 16 to 17-year-olds in preparation for the legal age of purchase.

Strategies to shift parental attitudes

- Parents suggested ways they could be supported to have better attitudes to supplying alcohol to teenagers under 18 years, including:
 - » encouraging parents and the community to support and back up parents' decision making around alcohol
 - » providing various forms of parenting education to support parents to be more effective in their parenting
 - » reinforcing key messages and behaviours through schools
 - » supporting school counsellors to address improved alcohol-related behaviours for both teenagers and their parents.

- Some parents also thought it would not hurt to remind parents and teenagers of the damage that alcohol can do, as well as the legal ramifications and consequences.
- For Māori, there was strong support for parenting education that included alcohol strategies. This could be facilitated through local schools and perhaps wānanga.
- Pacific parents also advocated parenting education including alcohol strategies and facilitated through local Pacific churches and community groups.

If you would like to read more, the full research report with other findings and a selection of parents' comments, such as the following quote, can be downloaded from HPA's website at hpa.org.nz/research-library.

It is how my husband and I view alcohol I guess. We place no value on it at all in our home and we instil that into our kids as much as we can. So I guess it is not something that we want them to do at all, acknowledging though that they are free to make decisions for themselves. But I guess because of the impact it has had on our whānau and how destructive it has been.

(Research participant, Māori female)

References

Clark, T.C., Fleming, T., Bullen, P., Denny, S., Crengle, S., Dyson, B. ...Utter, J. (2013). *Youth'12 overview: The health and wellbeing of New Zealand secondary school students in 2012*. Auckland: The University of Auckland.

UMR Research Limited. (2016). *Parental supply of alcohol to under-18s*. Wellington: Health Promotion Agency.

Long-term health effects of drinking alcohol*

Whole of body

- existing health conditions made worse, such as mental illness and diabetes
- death from injury or disease

Mouth, throat and voicebox

- cancer

Lungs

- inflammation, usually from infections

Breasts

- cancer (in women)

Liver

- swelling and pain
- alcoholic liver disease, such as cirrhosis
- cancer

Blood and immune system

- changes in red and white blood cells
- anaemia
- less ability to fight off infections

Skin and fat

- yellowing of skin and spider veins
- potential weight gain

Bones and muscles

- weakness
- muscle wasting

Mental health and addiction

- mood disorders, such as depression and anxiety
- alcohol dependence

Brain and nervous system

- brain damage
- memory loss
- disrupted sleep
- stroke (bleeding on the brain)
- nerve damage

Heart and circulation

- cardiovascular disease
- high blood pressure

Stomach and food pipe

- inflamed lining and bleeding
- cancer of the food pipe

Pancreas

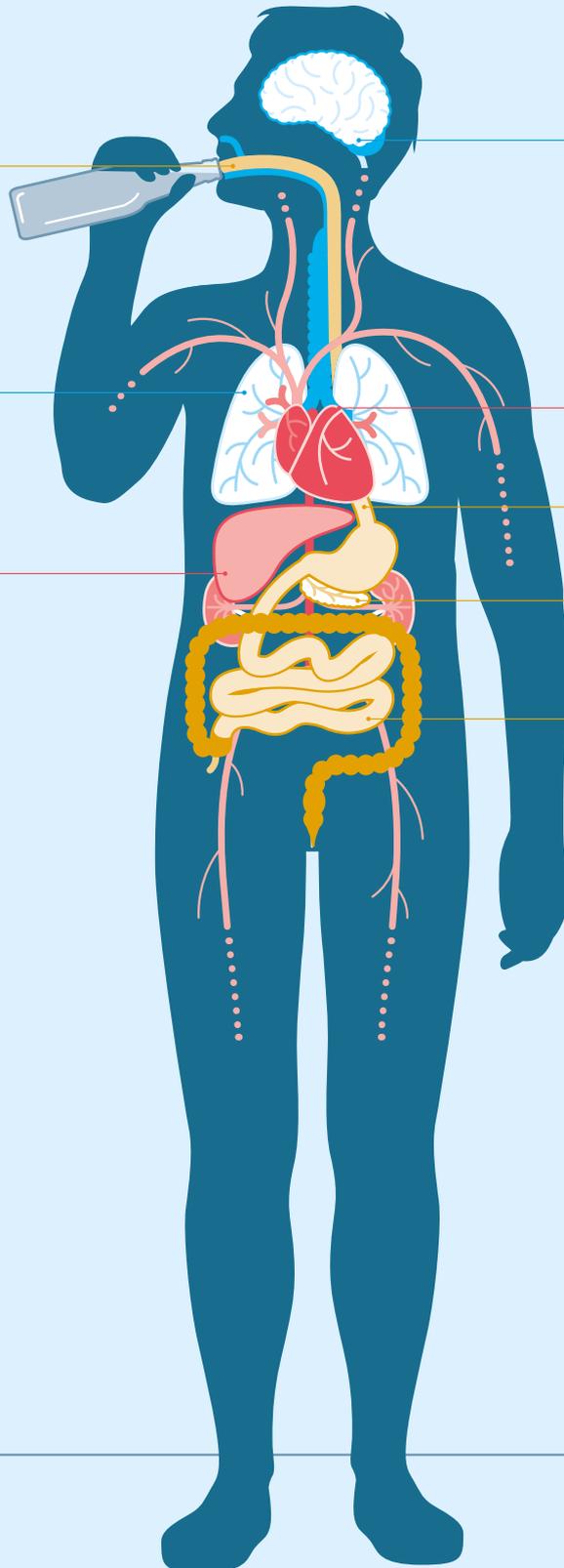
- inflammation and damage
- pancreatitis

Intestines

- inflamed lining
- cancer

Sex organs

- impotence and loss of sex drive
- wasting of testicles
- reduced fertility (both sexes)



* Risk of developing these health effects varies depending on the amount and frequency of alcohol consumed and individual factors.

For more information, go to alcohol.org.nz

Hazardous and risky drinking

Differences among past-year drinkers

How much alcohol people consume often changes over time and can also vary by age, gender, ethnicity and other factors. This article focuses on hazardous and risky drinking patterns of past-year drinkers (people who consumed alcohol within the past 12 months). It uses data from the Ministry of Health's New Zealand Health Survey (NZHS). NZHS is a national household survey that regularly provides a range of drinking prevalence information about people aged 15 years and over. The information in this article is sourced from the Ministry of Health's online interactive web tool showing key results from the 2006/07 to 2015/16 surveys.

Drinking prevalence

In New Zealand, the overall prevalence of drinking alcohol (within the previous 12 months) declined from 84% in 2006/07 to 80% in 2015/16. During this same period, drinking prevalence reduced as a whole among:

- 15 to 34-year-olds and 55 to 64-year-olds
- Māori men
- New Zealand European men and women.

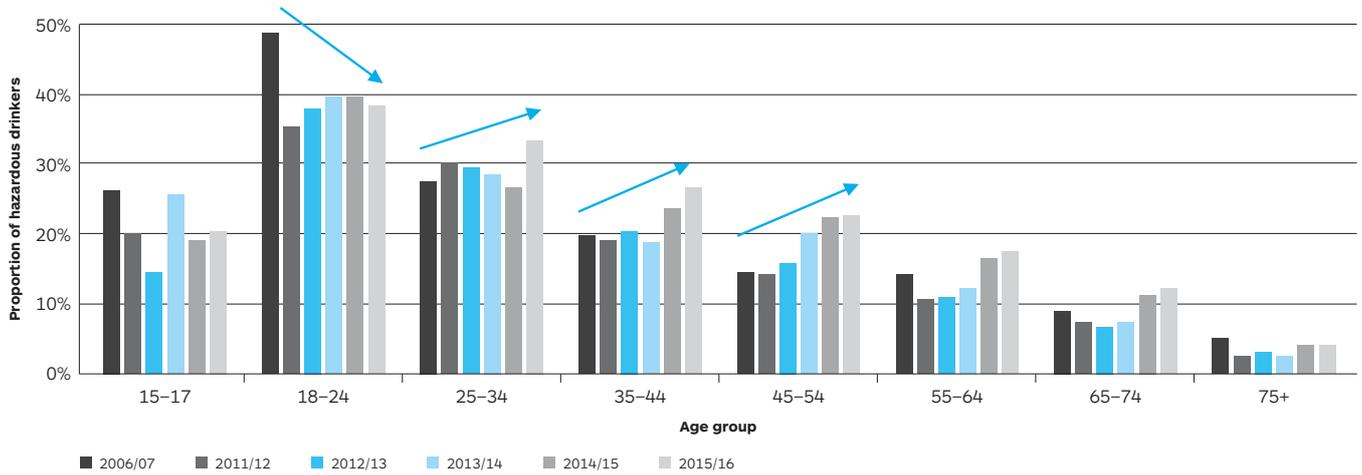
This trend is largest in young people aged 15 to 17 years, where 75% consumed alcohol in 2006/07 compared with 57% in 2015/16.

In 2015/16, men (84%) were more likely to drink alcohol within the past year than women (76%), and people living in the least socio-economically deprived areas (86%) were more likely to drink alcohol in the past year than those living in the most deprived areas (70%). Pacific people and Asian people were less likely to drink alcohol than non-Pacific or non-Asian people.

Hazardous drinking

Hazardous drinking refers to an established pattern of drinking alcohol that carries a risk of harming the drinker's physical or mental health or having harmful social effects on the drinker or others. In the NZHS, hazardous drinking is measured using a 10-item questionnaire, called the Alcohol Use Disorders Identification Test (AUDIT), which asks about alcohol consumption, signs of alcohol dependence, and experience of adverse consequences after drinking. People who score 8 or more on the AUDIT are defined as hazardous drinkers (Ministry of Health, 2015).

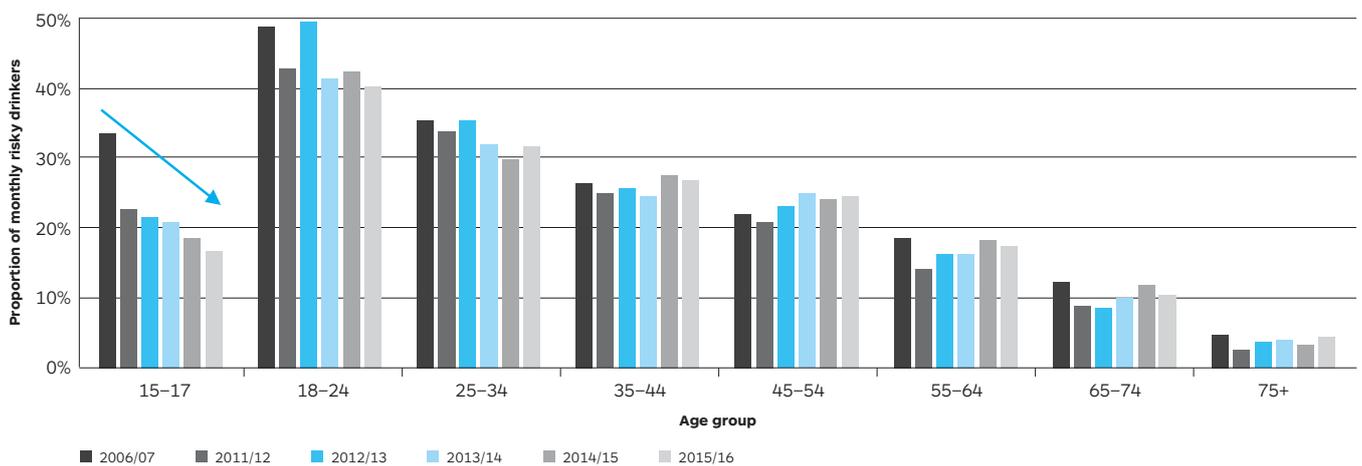
Figure 1: Hazardous drinking rate, by age group over time, for past-year drinkers*



Source: New Zealand Health Survey.

* Statistically significant changes between 2006/07 and 2015/16 are indicated by arrows for each age group.

Figure 2: Monthly risky drinking rate (consuming six or more drinks of alcohol on a single occasion at least monthly), by age group over time, for past-year drinkers*



Source: New Zealand Health Survey.

* Statistically significant changes between 2006/07 and 2015/16 are indicated by arrows for each age group.

Overall, there has been an increase in the rate of hazardous drinking by past-year drinkers (from 22% in 2006/07 to 24% in 2015/16). During this period, hazardous drinking rates for past-year drinkers increased for:

- women, in particular Māori women and New Zealand European women
- 25 to 54-year-olds
- New Zealand European men.

Although the hazardous drinking rates for past-year drinkers aged 18 to 24 years reduced (from 49% to 38%), this age group still had the highest rate of hazardous drinking overall. Figure 1 illustrates changes over time for hazardous drinking by age group.

Risky drinking

Risky drinking refers to drinking a large amount of alcohol on a single drinking occasion. For this article it is defined as consuming six or more drinks of alcohol on a single occasion at least monthly. The information presented is from past-year drinkers and is based on the number of drinks consumed.

Overall, the proportion of monthly risky drinkers (from past-year drinkers) has decreased over time (from 27% in 2006/07 to 24% in 2015/16). During this same period, risky drinking rates improved for men (from 37% in 2006/07 to 32% in 2015/16) and for 15 to 17-year-olds (from 34% in 2006/07 to 17% in 2015/16). Young adults aged 18 to 24 years have the highest rate of monthly risky drinking (40%) out of all age groups. Figure 2 illustrates changes over time for monthly risky drinking by age group.

The 2015/16 survey shows that some groups are more likely to be monthly risky drinkers than others, specifically:

- men compared with women
- Māori compared with non-Māori and Māori women compared with non-Māori women
- Pacific people compared with non-Pacific people and Pacific men compared with non-Pacific men
- people living in the most socio-economically deprived areas compared with the least socio-economically deprived areas.

Some important information for understanding patterns

The NZHS provides information for hazardous drinking and risky drinking for the total population (which includes non-drinkers aged over 15 years) or for past-year drinkers of alcohol. This article provides information related only to past-year drinkers. Comment is provided only on statistically significant changes.

The NZHS has been run annually since 2011/12. In 2015/16 an improvement was made to the way the survey measures the number of drinks of alcohol consumed. This change is important when comparing the information on the amount of alcohol consumed in relation to hazardous and risky drinking in the 2015/16 survey with that in earlier surveys. Surveys prior to 2015/16 measured the amount of alcohol consumed as 'number of drinks'.

In the 2015/16 survey the amount of alcohol consumed was measured both as the 'number of drinks' and as the 'number of standard drinks'. 'Standard drinks' sets a specific size to the drink being consumed. Respondents reported more 'standard drinks' than 'number of drinks', so measures of hazardous and risky drinking were higher when respondents were asked to report consumption of 'standard drinks'.¹ As this article focuses on changes over time and comparing results between surveys, the previous 'number of drinks' measure is used for the analyses in this article.

All data in this report from the NZHS, including estimates from the 2015/16 survey using the improved standard drinks measure, can be found on the Ministry of Health's online interactive web tool <https://minhealthnz.shinyapps.io/nz-health-survey-2015-16-annual-update/>.

References

- Ministry of Health. (2015). *Alcohol use 2012/13: New Zealand Health Survey*. Retrieved from <http://www.health.govt.nz/publication/alcohol-use-2012-13-new-zealand-health-survey>.
- Ministry of Health. (2016). *Annual update of key results 2015/16: New Zealand Health Survey*. Retrieved from <http://www.health.govt.nz/publication/annual-update-key-results-2015-16-new-zealand-health-survey>.

¹ Using the standard drink measure, 26% of past-year drinkers had a hazardous drinking pattern and 45% of 18 to 24-year-olds in 2015/16. The overall monthly risky drinking rate was 27% and this was 36% in men, 17% in 15 to 17-year-olds and 43% in 18 to 24-year-olds.

Attitudes and behaviour towards alcohol

Auckland regional analysis

In November 2016 the Health Promotion Agency (HPA) published the report Attitudes and Behaviour towards Alcohol Survey 2013/14 to 2015/16: Auckland Regional Analysis. This report provides key results from the analysis of the combined 2013/14, 2014/15 and 2015/16 Attitudes and Behaviour towards Alcohol Survey (ABAS).

ABAS is a nationally representative survey of New Zealanders aged 15 years and over. It collects information on alcohol consumption patterns, alcohol-related behaviour, consequences of consuming alcohol, and attitudes to alcohol use. Combining three years of survey responses has allowed analysis of responses of sub-populations, such as those people living in the Auckland region. Comparisons can then be made with those living in the rest of New Zealand. In total there were 12,206 responses from the three surveys, including 3,969 responses from the Auckland region.

Key findings from the Auckland regional analysis

- Fifty-eight percent of those living in Auckland reported consuming alcohol in the last four weeks, compared with 64% reported by the rest of New Zealand.
- A lower percentage of people living in south/south-east Auckland reported drinking alcohol in the last four weeks (47%) compared with the rest of Auckland (60%).
- One-quarter (25%) of all Aucklanders who consumed alcohol in the last four weeks reported risky drinking behaviour (defined in the ABAS as seven or more drinks on any one occasion), compared with 28% reported by the rest of New Zealand.
- Of those who did drink in the last four weeks, a greater percentage of people who live in south/south-east Auckland (34%) reported risky drinking behaviour compared with the rest of Auckland (22%).
- Drinkers experienced a range of outcomes as a consequence of drinking. Twenty percent of people living in Auckland who had consumed alcohol in the last four weeks reported at least one experience that may be considered harmful as a consequence of drinking alcohol. These harmful experiences included 'spent too much money on alcohol' (10%), 'did something embarrassing that you later regretted'

(4.8%), and 'drove a vehicle while being unsure of how much you were under the influence of alcohol' (4.5%).

- Forty-eight percent of people living in Auckland agreed or strongly agreed that 'The bars/pubs in my community have a good reputation' and 63% agreed or strongly agreed that 'It is easy to get to licensed premises from where I live'. Smaller percentages of people living in south/south-east Auckland (31%) and west Auckland (41%) agreed or strongly agreed with both statements, compared with the rest of Auckland (52% and 50% respectively).
- Thirty-six percent of people living in Auckland agreed or strongly agreed that 'Some licensed premises are too close to public facilities like schools'. This is significantly greater than the rest of New Zealand (31%).
- About one in ten people (11%) living in Auckland reported knowing about local council planning processes for the sale and supply of alcohol – significantly lower than the rest of New Zealand.

Location where alcohol is purchased

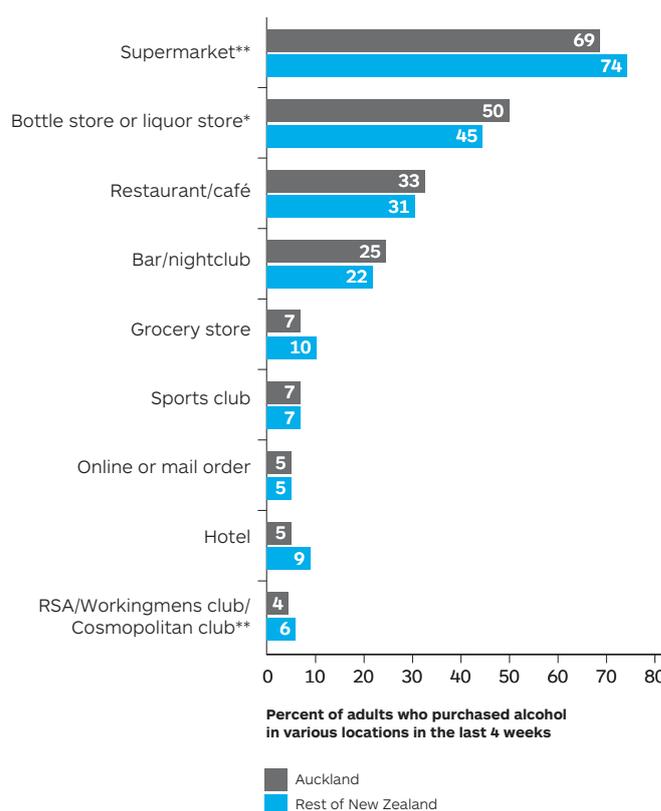
The analysis undertaken for this report found both differences and similarities in the locations where alcohol is purchased in Auckland compared with the rest of the country.

Figure 1 shows that, for adults living in Auckland who had purchased alcohol in the last four weeks, supermarkets (69%), bottle or liquor stores (50%), and restaurants/cafés (33%) were the most frequently reported places to purchase alcohol. Supermarkets (74%), bottle or liquor stores (45%), and restaurants/cafés (31%) were also the most frequent places to purchase alcohol reported by those living in the rest of New Zealand. Those living in Auckland reported purchasing alcohol at a bottle or liquor store more frequently than the rest of the New Zealand (45%). They reported purchasing alcohol at a supermarket, grocery store, and hotel less frequently than the rest of New Zealand. Respondents could report multiple locations.

Read the full report

If you would like to read more, the full report – *Attitudes and Behaviour towards Alcohol Survey 2013/14 to 2015/16: Auckland Regional Analysis* – can be downloaded from HPA's website at hpa.org.nz/research-library.

Figure 1: Frequently reported locations for purchasing alcohol in the last four weeks, comparison between Auckland and the rest of New Zealand, 2013/14–2015/16



Source: Combined 2013/14, 2014/15 and 2015/16 ABAS.

* Significant change across survey years for Auckland. For further explanation, see the full research report.

** Significant change across survey years for the rest of New Zealand. For further explanation, see the full research report.



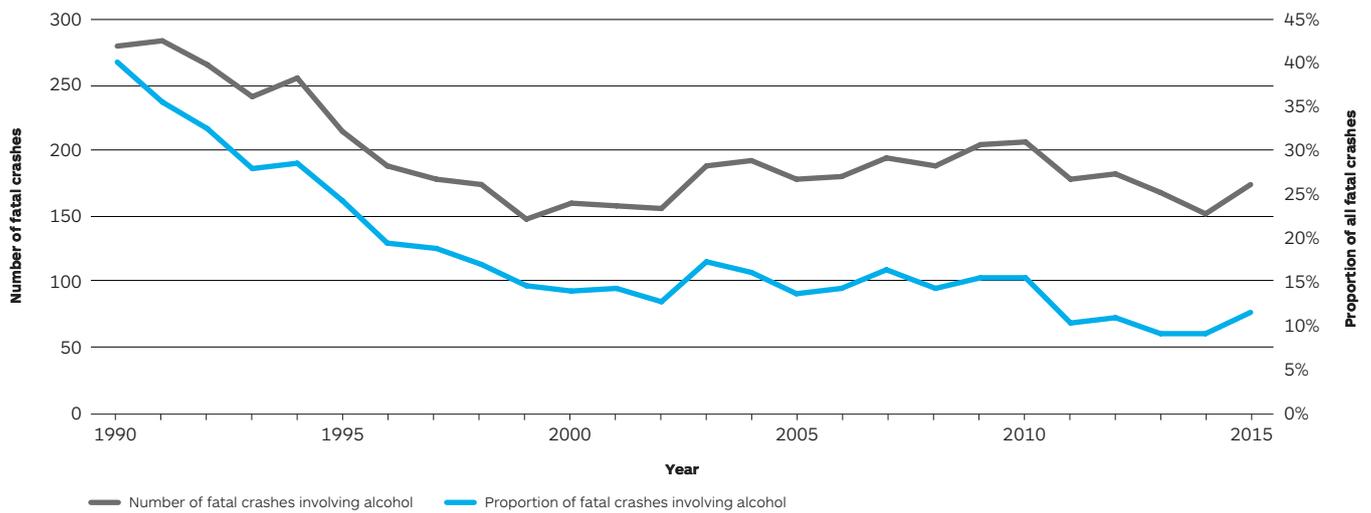
Injuries and death from traffic crashes with alcohol as a contributing factor

Road traffic injuries are one of the top five causes of alcohol-attributable deaths in New Zealand. For 15 to 29-year-old men and women, and for 30 to 44-year-old men, road traffic injuries were the first cause of death due to alcohol (Connor, Kydd, Shield, & Rehm, 2013). People with a high blood alcohol level are more likely to be injured or die in a crash than those who are sober. In comparison with sober drivers, the risk of a fatal traffic crash increases exponentially as the level of alcohol consumed by the driver increases (Ministry of Transport, 2016).

The Land Transport Act 1998 specifies the current legal drink drive limits in New Zealand. For drivers under 20 years of age, the blood alcohol concentration limit is zero. For drivers 20 years and over, the limits are a breath alcohol limit of 250 micrograms (mcg) of alcohol per litre of breath and a blood alcohol concentration limit of 50mg of alcohol per 100ml of blood.

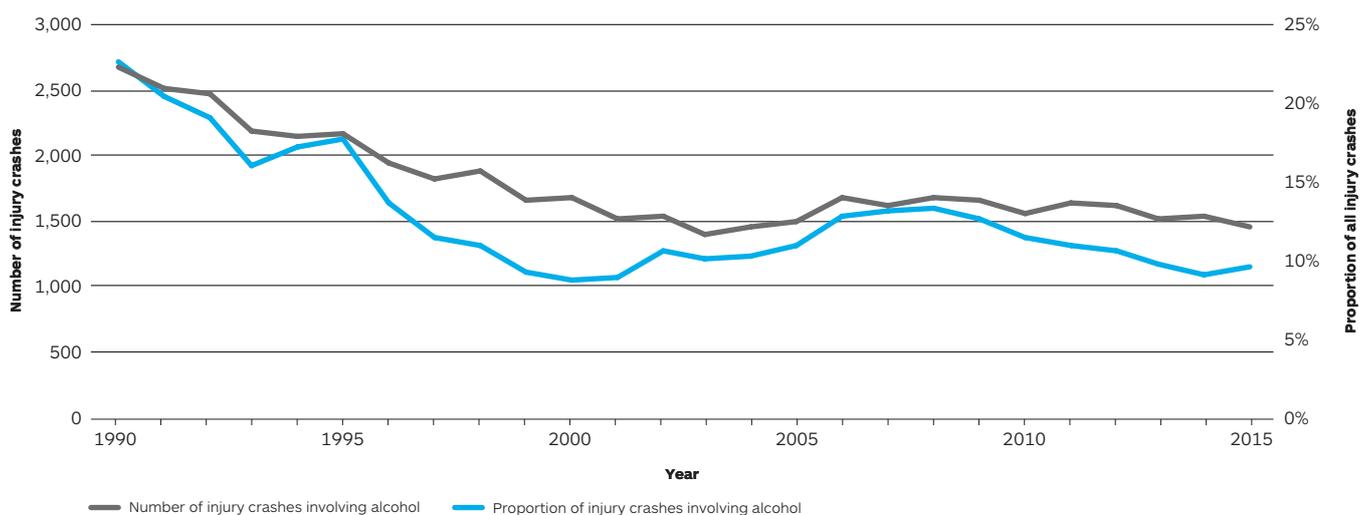
This article uses information sourced from the Ministry of Transport about crashes involving drivers under the influence of alcohol (excluding those only under the influence of other drugs). The Ministry of Transport has published this information, combined with other drugs data, in *Alcohol and Drugs Crash Facts 2016* (Ministry of Transport, 2016).

Figure 1: Number of fatal crashes involving driver alcohol as a contributing factor, and their proportion of all fatal crashes



Source: Ministry of Transport.

Figure 2: Number of injury crashes involving driver alcohol as a contributing factor, and their proportion of all injury crashes



Source: Ministry of Transport.

Crashes and casualties with alcohol as a contributing factor

In crash statistics, alcohol is listed as a 'contributing factor' when a driver's blood or breath alcohol is above the legal limit or when the attending officer suspects that alcohol consumption contributed to the crash. Fatal crashes are those crashes that cause injury that results in death within 30 days of the crash. Injury crashes are crashes where no one involved in the crash dies but someone is injured (Ministry of Transport, 2016).

In 2015 there were 76 fatal crashes and 1,155 injury crashes where driver alcohol was a contributing factor. Overall, 26% of all fatal crashes and 12% of all injury crashes involved driver alcohol. From these crashes, there were 78 deaths (25% of all deaths from crashes) and 1,592 injuries (13% of all injuries from crashes).

Figures 1 and 2 illustrate the changes between 1990 and 2015 in the number of fatal and injury crashes involving alcohol and these as a proportion of all fatal crashes or injury crashes. The number of deaths (fatalities) and

injuries from crashes with driver alcohol as a contributing factor has decreased over time. The proportion of fatal or injury crashes involving alcohol as a contributing factor has also decreased over time.

Alcohol-affected drivers and involvement in fatal crashes

Table 1 provides information on the involvement of drivers affected by alcohol in fatal crashes from 2013 to 2015. It shows that, during this period, 26 male drivers aged 15 to 19 years affected by alcohol were involved in fatal crashes and 36% of all 15 to 19-year-old male drivers involved in fatal crashes were affected by alcohol. Of all drivers involved in fatal crashes, drivers aged 15 to 19 years and 20 to 24 years were the most likely to be affected by alcohol. For drivers older than these age groups, the involvement of alcohol as a contributing factor in fatal crashes tended to decrease. Eighty-five percent of alcohol-affected drivers in fatal crashes were male. Out of all drivers involved in fatal crashes, male drivers (18%) were more likely to be affected by alcohol than female drivers (10%).

Table 1: Drivers affected by alcohol involved in fatal crashes, by age and sex, 2013–2015

Age	Males		Females		Total	
	Number of drivers	Percentage (%) of male drivers	Number of drivers	Percentage (%) of female drivers	Number of drivers	Percentage (%) of drivers
15–19	26	36	2	13	28	32
20–24	40	35	8	25	48	33
25–29	22	23	3	10	25	20
30–34	16	25	2	15	18	23
35–39	21	28	5	29	26	28
40–44	12	17	2	8	14	14
45–49	5	7	1	5	6	6
50–54	10	11	2	7	12	10
55–59	7	9	0	0	7	7
60+	9	5	4	5	13	5
Total	168	18	29	10	197	17

Source: Ministry of Transport.

Table 2: Deaths in crashes where alcohol was a contributing factor, 2013–2015

Casualty age	Drunk drivers	Passengers with drunk drivers	Other road users	Percentage (%) of all deaths in age group
0–14	–	2	1	11
15–19	15	24	4	46
20–24	31	17	5	47
25–29	14	6	3	28
30–39	23	5	3	32
40–49	14	4	4	23
50–59	13	5	6	19
60+	7	–	6	6
Unknown	–	2	–	14
Total	117	65	32	25

Source: Ministry of Transport.

Who dies in crashes involving drunk drivers?

Crashes involving alcohol-affected drivers often harm or kill people other than the impaired driver. Table 2 above shows the number of deaths from crashes involving alcohol-affected drivers from 2013 to 2015. The table provides information on deaths by road user (the alcohol-affected driver, passengers travelling with alcohol-affected drivers, and other road users) by age of the casualty. It also provides the percentage these deaths represent of all deaths from crashes for each age group.

For every 100 alcohol-impaired drivers or riders who died in a road crash, 56 passengers (with the drunk driver) and 27 other road users also died.

Where to find more information and statistics

The Ministry of Transport kindly provided the information in the figures and tables in this article. More information on the involvement of alcohol and other drugs in traffic crashes can be found on the Ministry of Transport website – transport.govt.nz/research/.

References

Connor, J., Kydd, R., Shield, K., & Rehm, J. (2013). *Alcohol-attributable burden of disease and injury in New Zealand: 2004 and 2007*. Wellington: Health Promotion Agency.

Ministry of Transport. (2016). *Alcohol and drugs crash facts 2016*. Retrieved from <http://www.transport.govt.nz/research/crashfacts/alcohol-and-drugs/>.

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