

ADDRESSING ALCOHOL HARM IN ADOLESCENTS

Technical Report 1: Methods and
overview of findings

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Addressing Alcohol Harm in Adolescents

Technical report 1. Methods and overview of findings

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Introduction

Why is this project needed?

Alcohol is a significant contributor to health loss and health inequity in Aotearoa New Zealand, and hazardous drinking often begins in adolescence. The Youth19 survey found that more than one in five (22%) of secondary students overall, and 42% in the 17+ age group, reported binge drinking in the previous month.¹

Social concerns about alcohol harm are currently high, and questions of how to address it are being debated in the political arena. In 2021 then Minister of Justice, Kris Faafoi, announced a review of the Sale & Supply of Alcohol Act, to be completed in the current parliamentary term. At the time of writing, it is understood proposed law changes (now being led by Minister of Justice Kiritapu Allen) will be announced in late 2022. Additionally, in June 2022 the Sale and Supply of Alcohol (Harm Minimisation) Amendment Bill, a private members' bill by Chloe Swarbrick, was introduced to the house and is expected to have its first reading in Sept-Oct 2022. There are also two claims lodged with the Waitangi Tribunal about the failure of the Crown to protect Māori from alcohol harm.

In this context of active debate about alcohol harm and how to address it, up to date data on alcohol use and alcohol harm among adolescents is vital. It is needed to inform evidence-based policy and community action on alcohol harm.

The prevalence of hazardous drinking is lower among adolescents (many of whom do not drink at all) than in older age groups.² However young people who do drink are particularly vulnerable to alcohol harms.³ Furthermore, patterns of drinking established in adolescence can have lifelong impacts, as can alcohol-related harms experienced at this life stage (e.g. sexual assault, impact on school work, impact on brain development).³⁻⁵ Therefore, alcohol-related harm in adolescents is particularly concerning, and evidence-based action is needed to protect young people from such harm. Māori and Pacific populations have a youthful population structure, meaning that efforts to protect and support young people are particularly important for improving the overall wellbeing of Māori and Pacific peoples and eliminating inequities.

About the project

'Addressing alcohol harm in adolescents' is a research and advocacy project, undertaken as partnership between the Adolescent Health Research Group (the team behind the Youth2000 survey series) and Alcohol Healthwatch. The project began in January 2022, funded by a nib foundation Health Smart Grant. Additional financial support from the Health Promotion Agency/Te Hiringa Hauora was received in June 2022, enabling us to expand the scope of the project. The project's goals are:

1. Add to the evidence base about adolescent drinking and alcohol-related harm in Aotearoa New Zealand
2. Inform evidence-based policy and community-level action to reduce hazardous drinking and eliminate disparities in alcohol harm among young people
3. Build community health literacy around alcohol harm and how to reduce it effectively.

About this report

This report presents findings about adolescent alcohol use and experience of alcohol harm in the secondary school population overall, and the methods used to reach those findings. This report sits

behind a series of four factsheets and is for those who want more detail than is available in the factsheets, and/or who want to scrutinise the methods behind the key findings.

- Factsheet 1: Drinking patterns among secondary school students
- Factsheet 2: Risk and protective factors for alcohol use among secondary students
- Factsheet 3: Alcohol harm among secondary school students
- Factsheet 4: Sources of alcohol among secondary school students

The second phase of the project focuses on three priority populations at greater risk of alcohol harm during adolescence: Māori, Pacific and Rainbow youth. The outputs will be a factsheet for each priority population and a second technical report.

A series of four webinars (Sept 2022 – Feb 2023) is planned to disseminate the key findings and promote evidence-based policy and community action to address adolescent alcohol harm.

All of the project outputs (including webinar recordings) will be published on the Youth19 website (www.youth19.ac.nz) and the Alcohol Healthwatch website (www.ahw.org.nz).

Methods

The findings in this report are based on data from the 2007, 2012 and 2019 waves of the Youth 2000 survey series (also known as Youth07, Youth12 and Youth19). More detailed information about the methods for these surveys is available elsewhere⁶⁻⁹ and is summarised briefly below.

Ethics. Each survey wave was approved by the University of Auckland Human Participants Ethics Committee, Reference Numbers 2005/414 (2007), 2011/206 (2012) and 2018/023450 (2019).

Sampling methods. The sampling frame was secondary school students. All waves used a two-stage clustered sampling design with randomly selected schools and, within these, randomly selected students. In 2001, 2007 and 2012, one-third of NZ's secondary schools were selected and in each participating school of >150 students, 20% of the roll was invited to participate. In schools with fewer students, 30 students were randomly selected. The last wave (2019) sampled schools from three regions (Auckland, Tai Tokerau and Waikato), an area that includes 47% of NZ's secondary school population. In each region 50% of schools were randomly sampled and 30% of students on their roll were invited to participate. In 2019, all kura kaupapa Māori (Māori immersion schools) from the three regions were also invited, with all kura students asked to participate. In all waves, in participating schools, parents and caregivers were given information about the survey and could opt for their child to be excluded. Non-excluded students were randomly selected from school rolls and gave their own written consent at the start of the survey. Participation was anonymous.

Response rates. School response rates were 84% (2007), 73% (2012) and 57% (2019). Student response rates were 74%, 68% and 60% respectively. The number of participating schools and students in each wave is provided in Table 1, along with participant characteristics.

Survey design and administration. The self-report questionnaires were delivered via digital devices using M-CASI technology (text on screen and read aloud with headphones for privacy in English or Māori) during school time. The branching questionnaire design minimised exposure to irrelevant questions. The questionnaires covered demographics, identity, and key health and wellbeing indicators. (The full Youth19 questionnaire is available here: <https://bit.ly/3MGdD39>). The survey items used in the current research project are detailed in Appendix 1. Unless otherwise stated, the wording of survey questions and response options has been consistent over the three survey waves (2007, 2012, 2019) enabling comparison over time.

Geocoding. While the survey was being administered, a research assistant asked each student to enter the address of the place they usually live into a custom web app that resolved and saved their census meshblock number without storing their specific address. Each student's meshblock was stored in a database against their unique survey 'login' and later coupled with their survey responses. Meshblock data was used to determine NZ Deprivation Index decile, and urban/small town/rural designation.

Measures. Indicators of alcohol use were i) lifetime use of alcohol (i.e. ever/never had more than a few sips), ii) current use of alcohol (i.e. students who continued to drink at the time of the survey), iii) frequency of alcohol use, iv) prevalence and frequency of binge drinking (5+ drinks/session) in the past month, v) quantity consumed on a typical drinking occasion, vi) sources of alcohol, and vii) experiences of alcohol harm. The survey questions and details about derivation of measures are provided in Appendix 1. Appendix 1 also details demographic variables and risk and protective factors, and their measurement.

Table 1: Survey respondent numbers and characteristics, unweighted

	2007		2012		2019	
	N	%	N	%	N	%
Total schools	96	-	91	-	49	-
Total students	9,098	100.0	8,487	100.0	7,721	100.0
Gender[#]						
Female	4,187	46.0	4,618	54.4	4,179	54.6
Male	4,911	54.0	3,869	45.6	3,472	45.4
Age						
13 years or under	1,859	20.4	1,838	21.7	1,402	18.2
14	2,100	23.1	1,895	22.3	1,745	22.6
15	1,973	21.7	1,755	20.7	1,698	22.0
16	1,743	19.2	1,578	18.6	1,474	19.1
17 years or over	1,423	15.6	1,421	16.7	1,401	18.2
Ethnicity*						
Māori	1,702	18.7	1,697	20.0	1,528	19.8
Pacific	924	10.2	1,200	14.1	945	12.3
Asian	1,126	12.4	1,049	12.4	1,776	23.0
Other**	549	6.0	523	6.2	389	5.1
Pākehā & other European	4,797	52.7	4,018	47.3	3,070	39.8

2019 was the first survey in which students were able to report a gender other than male or female. A total of 63 students did not report a male or female gender in 2019.

* Ethnicity is categorised using the NZ census ethnicity prioritisation method.

** 'Other' ethnicity includes Middle Eastern, Latin American, African, and other ethnicities and unknown ethnicity.

Weighting and national estimates. Analysis was conducted using R. Data were initially weighted using inverse probability of selection (IPS) weights [calculated for each student as: (total number of schools ÷ schools that participated) × (total number of eligible students in the student's school ÷ students from that school that participated)]. Generalised raking was used to correct for non-response and to calibrate the results of each survey wave to the national secondary school population in terms of school decile, student age, gender, and ethnicity. Further details about

weighting and calibration are available elsewhere.⁷ All of the findings presented in this report are national estimates.

Analysis. We calculated percentages and 95% confidence intervals for the estimated national prevalence of each outcome. For trend analyses (comparing outcomes for 2007, 2012 and 2019) to ensure comparability with previous years, the 2019 data excluded kura kaupapa Māori, and findings were calibrated to the national secondary school population for each survey year (see detail on weighting above). Statistically significant differences were calculated at the 95% confidence level (0.05). When differences are described as ‘statistically significant’ it means we can be fairly sure these are ‘real’ difference, not due to chance. When differences are described as ‘not statistically significant’, it means there may or may not be ‘real’ differences between groups; observed differences may be due to chance.

Based on the 2012 survey’s 9-items about alcohol harm (e.g. got injured, had unprotected sex, had unwanted sex, performance at school affected etc), we derived a total harm score (range 0-27). For each type of harm a score of 1 was given if the harm was experienced more than a year ago, 2 if the harm had been experienced once or twice in the past year, and 3 if it had been experienced 3 or more times the past year. This aggregate measure enabled us to investigate differences in average alcohol harm score in different demographic groups, and to explore the relationship between patterns of alcohol use and alcohol-related harm, as reported by young people. Note that the associations between alcohol use and harm presented on p17-19 are unadjusted for covariates.

In the absence of self-reported alcohol harm data for 2019, we categorised participants into four ‘risk of alcohol harm’ categories, based on self-reported patterns of alcohol use. The categories were: non-drinker, small risk, high risk, very high risk. The term ‘small risk’ was used to differentiate from official ‘lower risk drinking guidelines’ and reflects that fact that no level of alcohol use is completely free from risk. Appendix B provides a flow chart of the categorisation process. Non-drinkers were defined as those who had never drunk alcohol (more than a few sips) or who reported that they did not drink any more. The criteria for the remaining groups are detailed in Table 2 and Appendix B. Criteria were based on expert input from advisory group members and 2012 findings about the relationship between drinking patterns and harm. For example, in both age groups we found no difference in average harm score between those who reported no alcohol use in the last month and those who reported alcohol use on one occasion (see Fig 11). Therefore, once a month or less was considered a low-risk frequency for both age groups. For typical quantity and frequency of binge drinking, criteria differed for those aged under 16 and those aged 16 and over, reflecting the fact that younger people experienced greater harm at the same level of consumption in 2012 (see Figs12 & 13).

Table 2: Criteria for categorisation into risk of alcohol harm groups.

	Small risk of harm		High risk of harm		Very high risk of harm	
	<16 yrs	16+ yrs	<16 yrs	16+ yrs	<16 yrs	16+ yrs
Frequency	Once in last 4 weeks or less	Once in last 4 weeks or less	2-3 times a month	2-3 times a month to once a week	Once a week or more often	Several times a week/most days
Typical quantity	1 drink	1-2 drinks	2-4 drinks	3-9 drinks	5+ drinks	10+ drinks
Binge drinking in past 4 weeks	None	None	Once	1-3 times	More than once	Weekly or more often

As detailed in Appendix B, current drinkers were categorised as ‘very high risk’ if they met at least one criterion for that category. The remaining drinkers were then assessed for the ‘high risk’ category. Those who did not meet any of the ‘high risk’ criteria were classified as ‘small risk’.

We used multinomial regression to investigate the relationship between risky drinking and selected risk and protective factors in 2019. The outcome of interest was ‘risk of alcohol harm’ group, with non-drinkers as the reference group. All models were adjusted for age, gender and NZ Deprivation Index band (low, med, high), and results were expressed as Odds Ratios and 95% Confidence Intervals.

Finally, we investigated the relationship between source of alcohol and risky drinking (i.e. ‘high risk’ or ‘very high risk’ drinking pattern). Because the question about source of alcohol was only relevant to drinkers, non-drinkers were excluded from this analysis and the ‘small risk of harm’ group was the reference group.

Limitations

Methodological limitations must be borne in mind when interpreting these findings. School and student response rates have decreased over time, increasing the possibility of selection bias. Those absent from school or choosing not to participate may have higher levels of alcohol use than those who took part in the survey, leading to underestimates of alcohol use. The 2019 survey was regional, rather than national. National estimates were calculated for all survey waves to allow comparison over time, but comparisons between 2019 and earlier waves could be biased by regional differences over and above demographic differences (e.g. differences in drinking culture). It is important to note that associations between risk and protective factors and alcohol outcomes may or may not be causal – causality cannot be determined in cross-sectional surveys of this nature. Data on experience of alcohol harm was not collected in the 2019 survey, so the alcohol harm findings presented here are the most recent available (2012), but somewhat dated. Similarly the 2019 findings are the most recent available on alcohol use in secondary school students, yet because of the changes the Covid19 pandemic has wrought, drinking patterns may have changed since 2019. A further limitation of the alcohol harm findings is that they are based on self-report and focus on immediate and tangible consequences of drinking. There are other important harms associated with alcohol use that may be imperceptible to young people and not picked up in the study, e.g. there is evidence that adolescent alcohol use can contribute to depression and suicidality and put people at greater risk of developing alcohol dependence in adulthood.^{10 11} Such ‘invisible’ impacts of alcohol use are not identified in this study. Findings about alcohol use and alcohol harm in secondary school students is not generalisable to adolescents who have left or been excluded from school. Previous research shows that young people in alternative education have much higher levels of substance use than those in the mainstream school system.¹² Therefore our school-based findings almost certainly underestimate alcohol use and related harm in 13-18 year olds overall. Further research is needed to better understand drinking patterns and alcohol harm in adolescents outside the school setting.

Findings

Non-drinking

The proportion of secondary school students who have never drunk alcohol (not more than a few sips) increased from 26% in 2007 to 45% in 2019. Non-drinking has increased in both boys and girls, with no statistically significant gender differences. As shown in Figure 1, the proportion of non-drinkers was similar across school deciles in 2007. Changes between 2007 and 2012 were even across deciles. Changes between 2012 and 2019 were less even, however differences between decile groupings did not reach statistical significance in 2019.

Figure 1: Proportion of secondary students who have never drunk alcohol, by school decile, 2007-2019

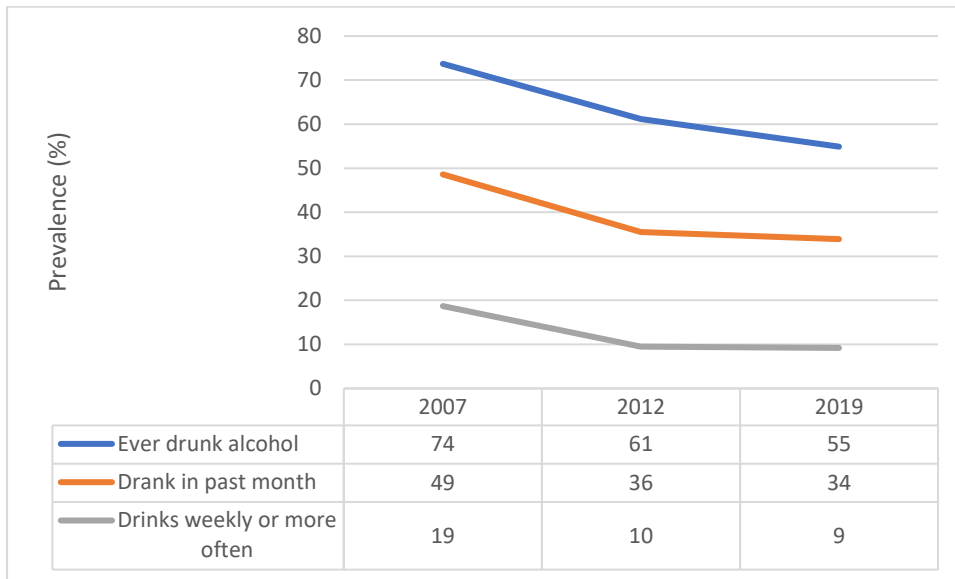


Prevalence and frequency of alcohol use

Drinking prevalence has declined markedly among adolescents in recent years. The proportion of secondary students who have ever drunk alcohol (more than a few sips) declined from 74% in 2007 to 55% in 2019 (Fig 2).

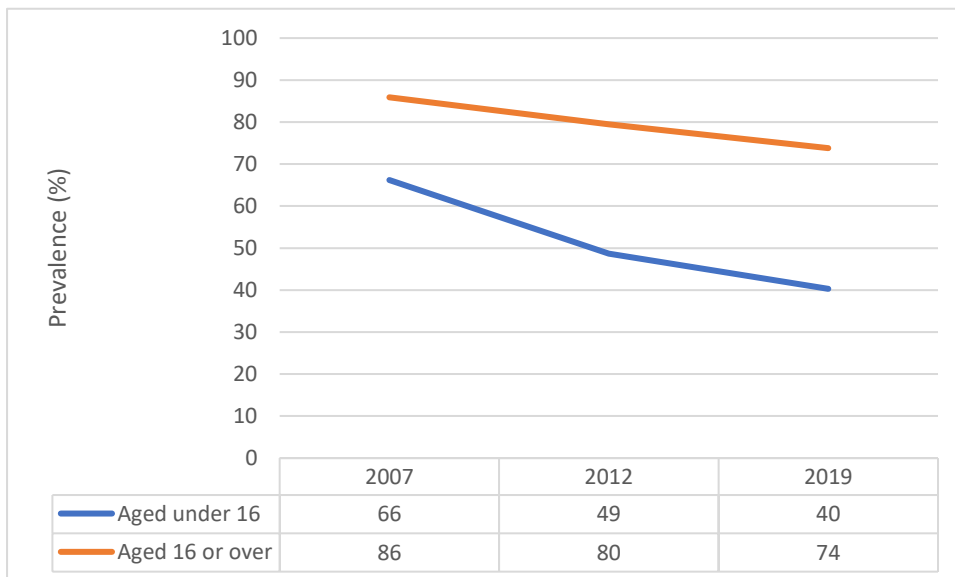
The proportion who drank in the past month and who drank weekly or more often has also declined (Fig 2), although most of the decline occurred between 2007 and 2012. (Changes between 2012 and 2019 did not reach statistical significance). This suggests that adolescents are drinking less frequently than they were in 2007. In 2019, about a third of students (34%) reported drinking alcohol in the past month, and less than one in ten drank weekly or more often. The frequency of alcohol use did not differ significantly by neighbourhood deprivation, school decile or gender.

Figure 2: Population prevalence of alcohol use in NZ secondary school students - ever, past month, and weekly or more often, 2007-2019



Prevalence of drinking has declined to a greater extent in younger students compared with older students (Fig 3). This suggests a delay in drinking uptake. Delayed uptake is good news from a harm-reduction perspective because of greater risk of harm at younger ages.¹³ However, it is concerning that in the most recent survey, 55% of secondary students overall and 40% aged under 16 had drunk alcohol.

Figure 3: Prevalence of ever drinking alcohol, by age group

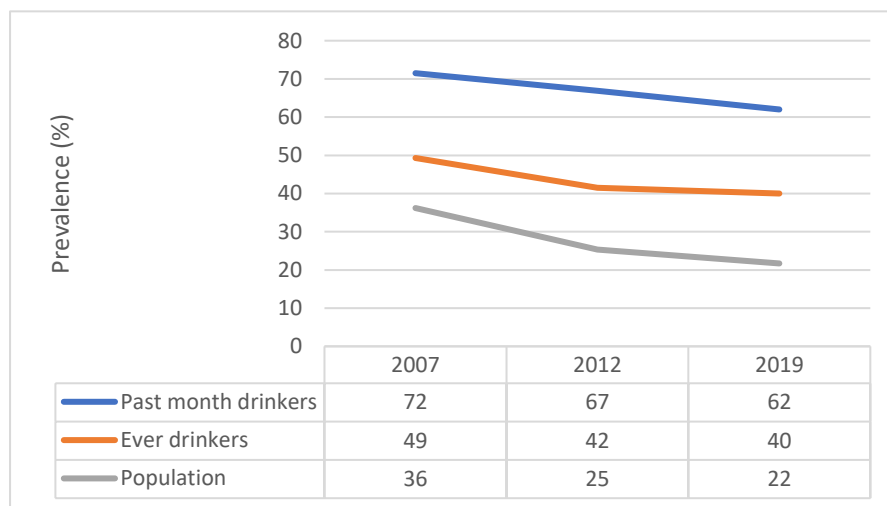


In 2019, prevalence of ever drinking did not differ significantly by neighbourhood deprivation quintile, school decile, or gender.

Binge drinking

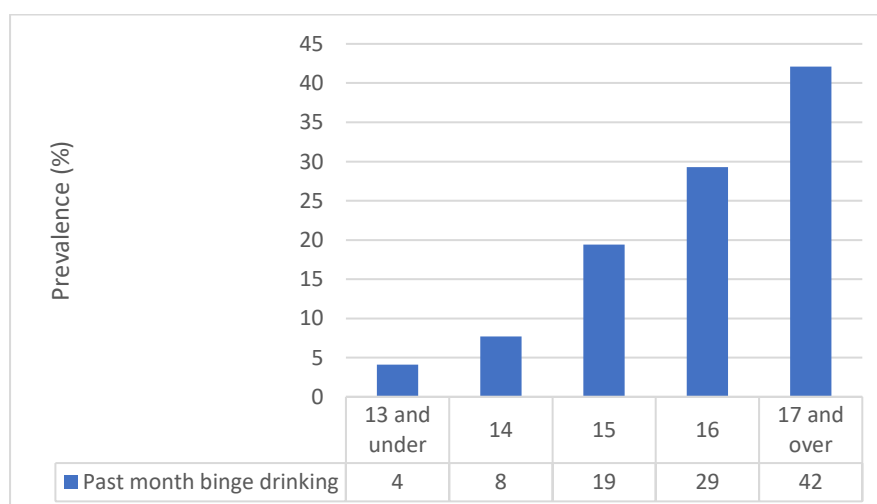
Binge drinking is defined as drinking 5 or more drinks in a session. The proportion of secondary school students who engaged in binge drinking in the past month fell markedly between 2007 and 2019 from 36% to 22% (Fig 4). This is partly because fewer were drinking alcohol at all. Among ever drinkers and past month drinkers, the decline in past month binge drinking was more modest (from 49% to 40%, and from 72% to 62% respectively, with most of the decline occurring in the 2007-2012 period). Well over half of past month drinkers engaged in past month binge drinking in 2019 (62%). This suggests that binge drinking remains the dominant drinking style in this age group.

Figure 4: Prevalence of past month binge drinking in the secondary school population, ever drinkers and past month drinkers, 2007 - 2019.



Prevalence of binge drinking in secondary students increases sharply with age. In 2019, only 4% of those aged 13 and under reported past month binge drinking, compared with 42% of those aged 17 and over (Fig 5). The gender difference in prevalence of past month binge drinking in 2019 was not statistically significant (males, 23%; females 21%).

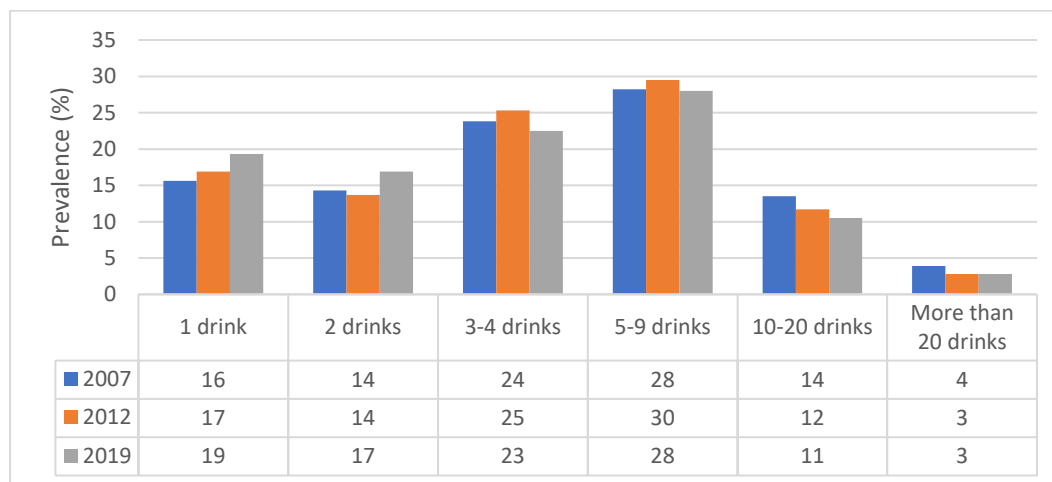
Figure 5: Prevalence of past month binge drinking by age, 2019



Quantity of alcohol consumed

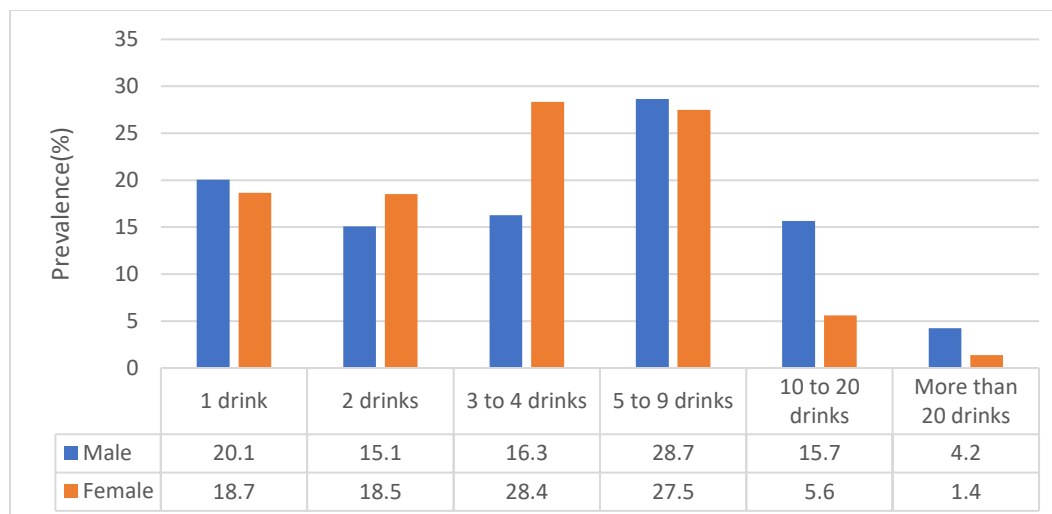
Current drinkers were asked how much they drank on a typical occasion. The majority reported drinking more than the recommended adult limit (2 standard drinks per day for females and 3 for males) in all survey years (Fig 6). There was a slight shift away from heavy drinking and towards lighter drinking over the 2007 – 2019 period, however binge drinking (5+ drinks) remained extremely common. We found 42% of current drinkers reported drinking 5+ drinks on a typical occasion in 2019, down slightly from 46% in 2007. Extreme binge drinking was also concerningly common, with 14% of current drinkers in 2019 reporting typically drinking 10 or more drinks per session, down slightly from 18% in 2007. The proportion typically having just one or two drinks increased from 30% to 36% over the same period.

Figure 6: Quantity of alcohol consumed on a typical occasion among current drinkers, secondary school students, 2007-2019



Analysis by gender (Fig 7) shows that in 2019 prevalence of light drinking (1-2 drinks) was similar in boys and girls, as was binge drinking at the 5-9 drink level. However, girls were less likely to report drinking at extreme binge drinking levels (10+ drinks), and more likely to have 3-4 drinks on a typical drinking occasion.

Figure 7: Quantity of alcohol consumed on a typical occasion by gender, 2019



Sources of alcohol

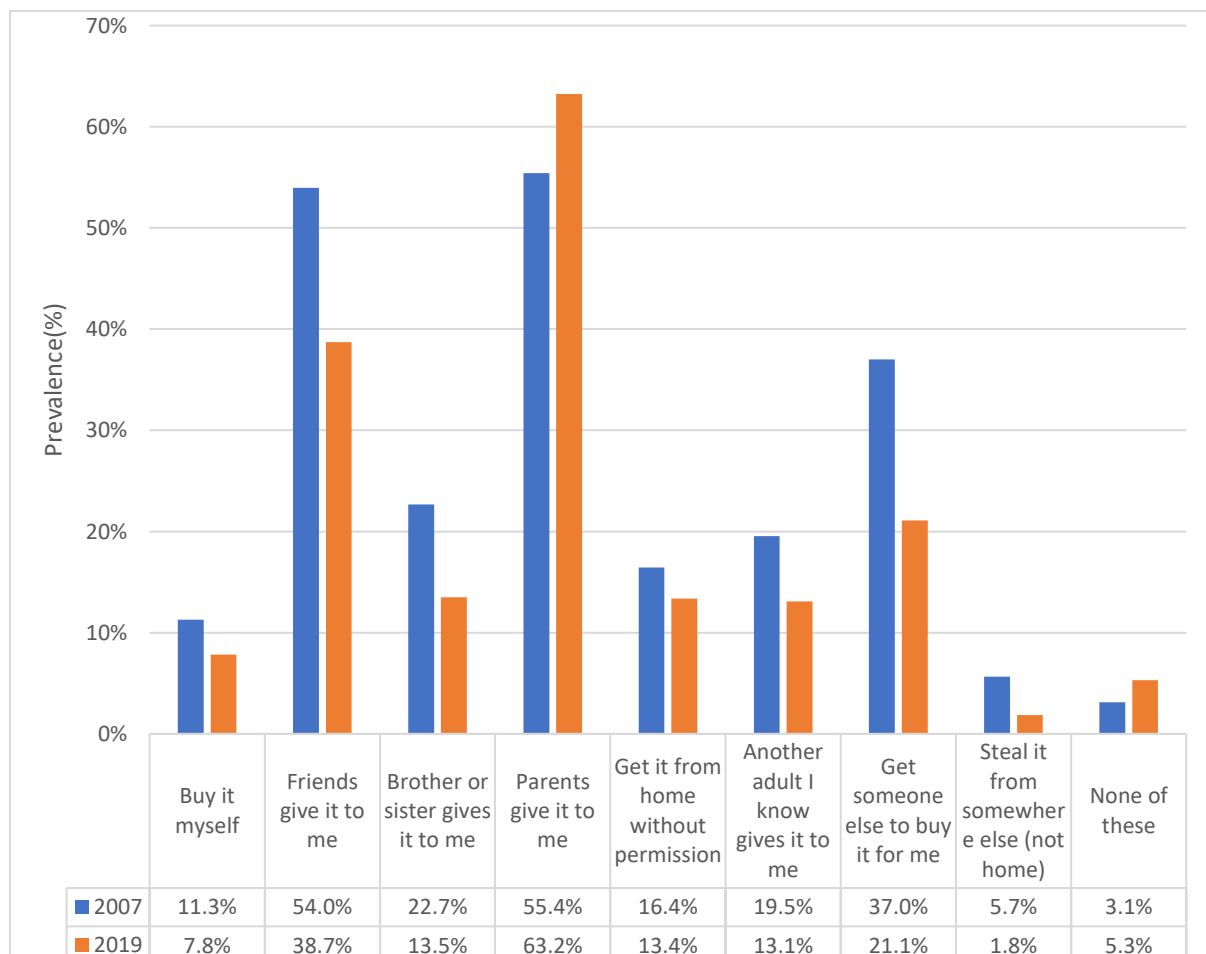
Students who reported ever drinking alcohol were asked how they got usually got it and the findings are presented in Figure 8, and in Appendix C. Students could choose as many responses as were relevant (therefore percentages do not add up to 100%). The question was asked in a different way in 2012, so Figure 8 shows only 2007 and 2019 findings. Because those aged 18 and over can legally buy alcohol, this analysis was restricted to those aged under 18 years.

Parents were the most common source of alcohol in both years, with 55% and 62% of drinkers (in 2007 and 2019 respectively) reporting that their parents gave them alcohol. It is important to note that the number of students who drank alcohol (the denominator) decreased markedly between 2007 and 2019, so although the *proportion* of students reporting their parents gave them alcohol increased, the actual *number* of parents supplying alcohol decreased between 2007 and 2019.

Other common sources of alcohol were ‘friends give it to me’ and ‘get someone else to buy it for me’ (39% and 21% respectively in 2019).

In 2019, about half (53%) of ever drinkers reported getting alcohol from only one source. Of those reporting only one source, half reported that their sole source of alcohol was their parents. A quarter (25%) reported two sources, 15% reported 3 sources, and the remaining 7% reported 4 or more sources. Of those reporting multiple sources, parents were typically one of the sources.

Figure 8: Proportion of secondary school drinkers who got alcohol from specific sources, 2007 and 2019. Analysis restricted to those aged under 18 years.



Mixing alcohol with other drugs

Current drinkers were asked, “During the past 12 months, when you drank alcohol did you use any of these substances at the same time?” This question was asked for the first time in 2019. Co-use was common with 41% reporting e-cigarettes use, 30% reporting cannabis use and 23% reporting cigarette use sometimes, most of the time or every time they drank alcohol.

Table 3: Co-use of other substances when drinking alcohol, current drinkers, 2019

	Sometimes	Most of the time	Every time	Total
E-cigarettes	23%	10%	7%	41%
Cigarettes	15%	5%	3%	23%
Cannabis	21%	5%	3%	30%
Other drugs	9%	1.3%	0.5%	11%

For context, the Youth19 study showed alcohol was the most commonly used substance in secondary students in 2019, followed by e-cigarettes, then cannabis, then cigarettes. Prevalence of weekly or more frequent use was 9% for alcohol, 8% for e-cigarettes, 4% for cannabis and 3% for cigarettes.¹ Use of other drugs (such as P, ecstasy, LSD, huffing, or synthetics) was uncommon with less than 4% in the secondary school population reporting ever using any other drugs in their lifetime.¹

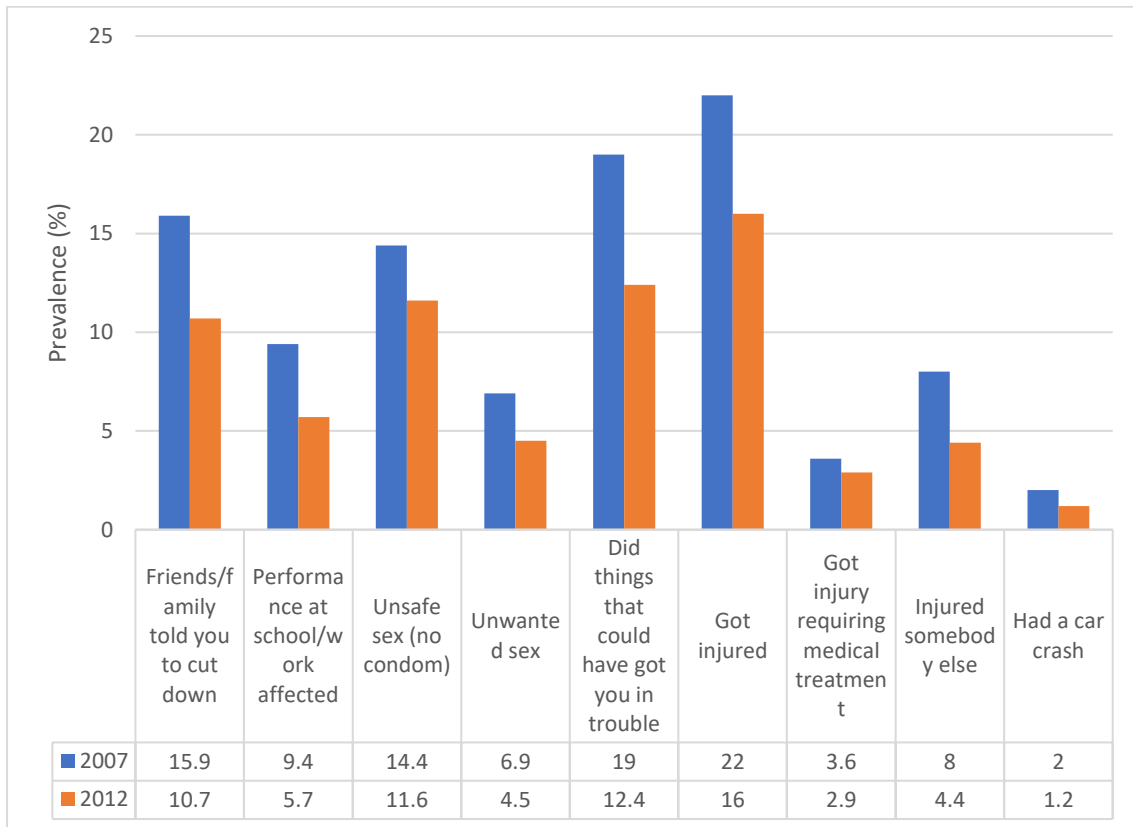
Experience of alcohol harm

This section focuses on adolescent’s reported experiences of negative consequences of alcohol use. It is important to note that some forms of alcohol harm happen gradually and may go unnoticed by the user e.g. alcohol use can lead to depression¹⁴ and increased risk of some cancers.¹⁵ Heavy alcohol use also puts people at greater risk of suicide,^{16 17} which is a leading cause of death in Aotearoa among young people. Because of these ‘hidden’ alcohol harms, self-reported alcohol harm does not give the full picture. However, understanding young people’s perceptions about the consequences of alcohol use in their own lives is important.

Due to a change in question wording and a survey branching error, data on alcohol harm is not available for 2019, so this analysis is based on 2007 and 2012 data. As shown in Figure 9, injuries and doing something that could get a person in serious trouble (e.g. stealing) were the harms most commonly reported in 2007 and 2012, and unsafe sex (no condom) was also relatively common.

The major decline in frequency of alcohol use between 2007 and 2012 was accompanied by a decrease in alcohol harm in every category. These findings clearly show that a reduction in alcohol use is associated with a reduction in alcohol-related harm.

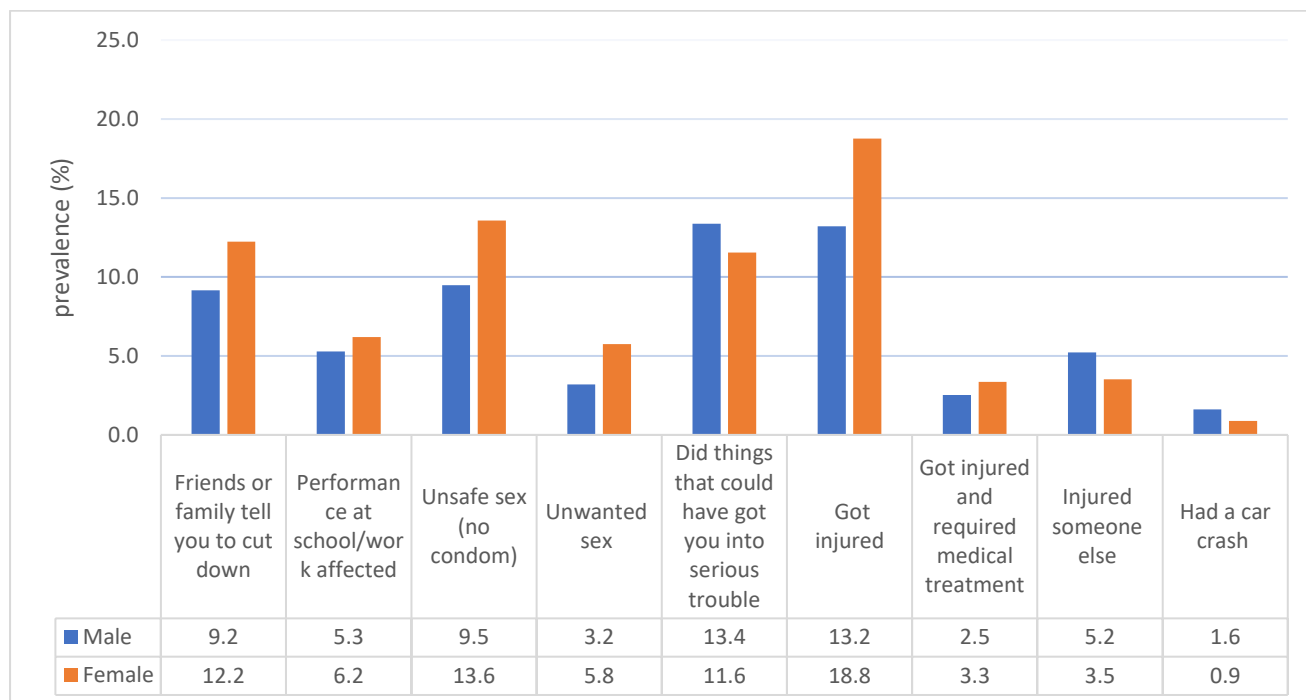
Figure 9: Prevalence of specific types of past year alcohol harm, as reported by current drinkers, 2007 & 2012.



Gender differences

Although girls were less likely than boys to consume alcohol at very high levels, they reported higher prevalence of several types of alcohol harm: “Friends/family tell you to cut down”, “unsafe sex”, “unwanted sex” and “injuries”. Boys were more likely than girls to report that they “Injured someone else” (Fig 10). (Other differences did not reach statistical significance at the 95% confidence level). Gender differences may reflect both biological sex differences¹⁸ and socio-cultural gender norms.

Figure 10: Prevalence of specific types of past year alcohol harm by gender, as reported by current drinkers, 2012.



Drunk driving was assessed in a separate question. In 2019, about 5% of those who had driven a car in the past 12 months reported driving when they had been drinking alcohol.

Relationship between drinking patterns and experience of alcohol harm

The relationship between drinking patterns and experience of alcohol harm is explored below, using 2012 data, and looking at younger (<16 years) and older (16+ years) adolescents separately. To do this we created a total harm score (range 0-27) by aggregating the nine specific types of harm above (see methods section or Appendix 1 for details). A higher score means greater reported harm.

As shown in Figure 11, drinking more than once a month was associated with increased risk of harm, with greater frequency associated with greater average harm. Differences between age groups (under 16, and 16 and over) did not reach statistical significance.

Figure 11: Average Alcohol harm score by frequency of drinking and age group, 2012

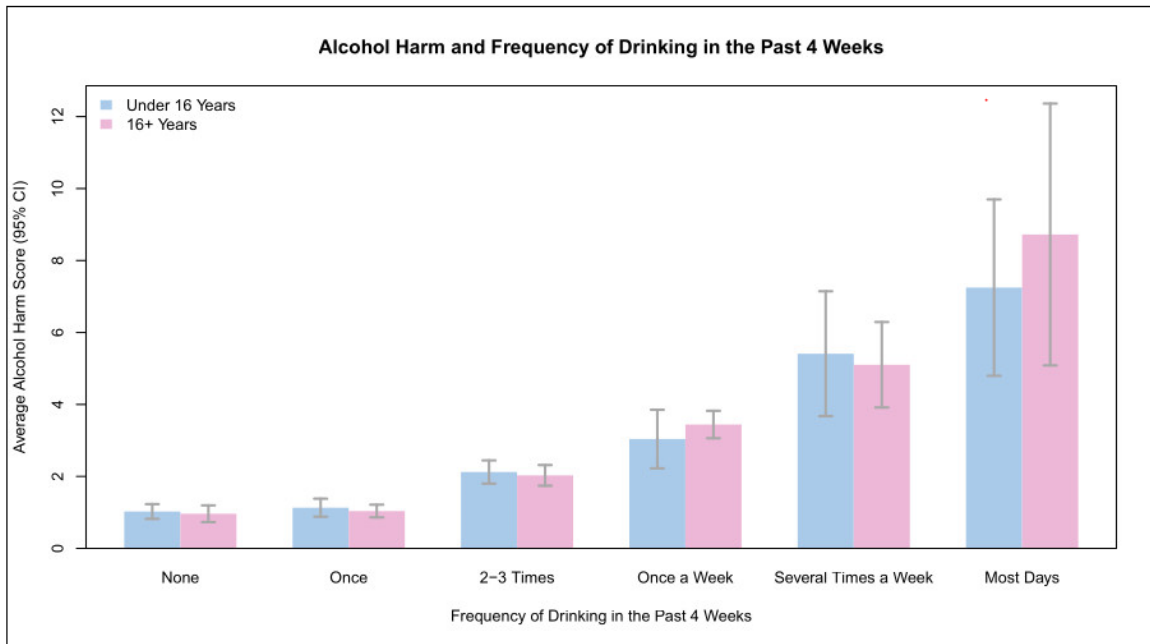
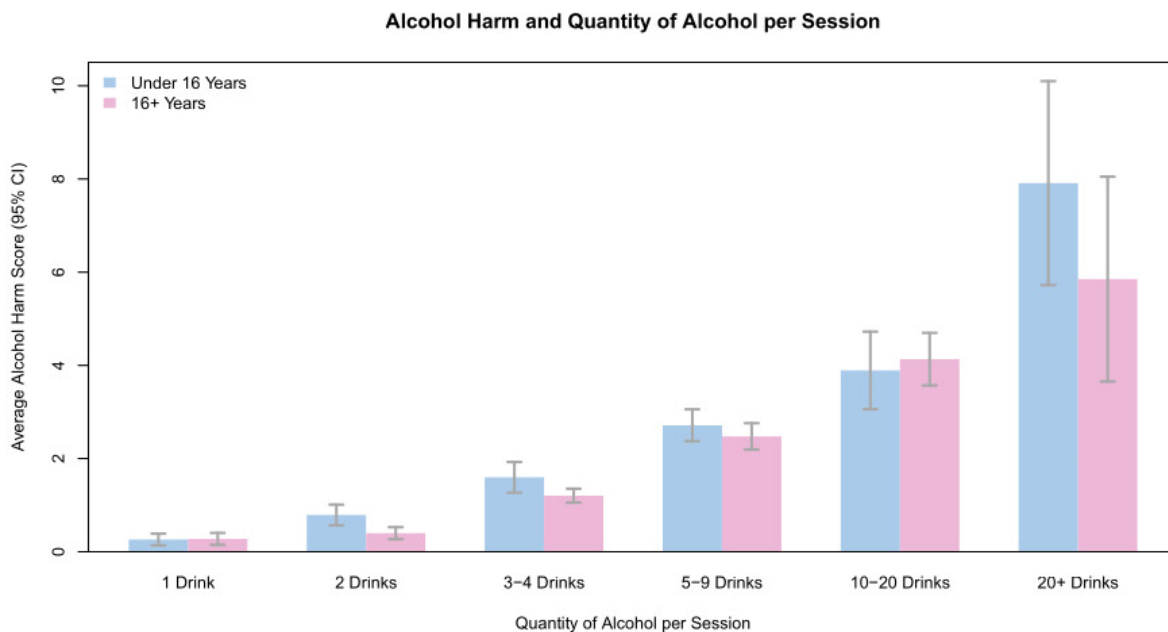


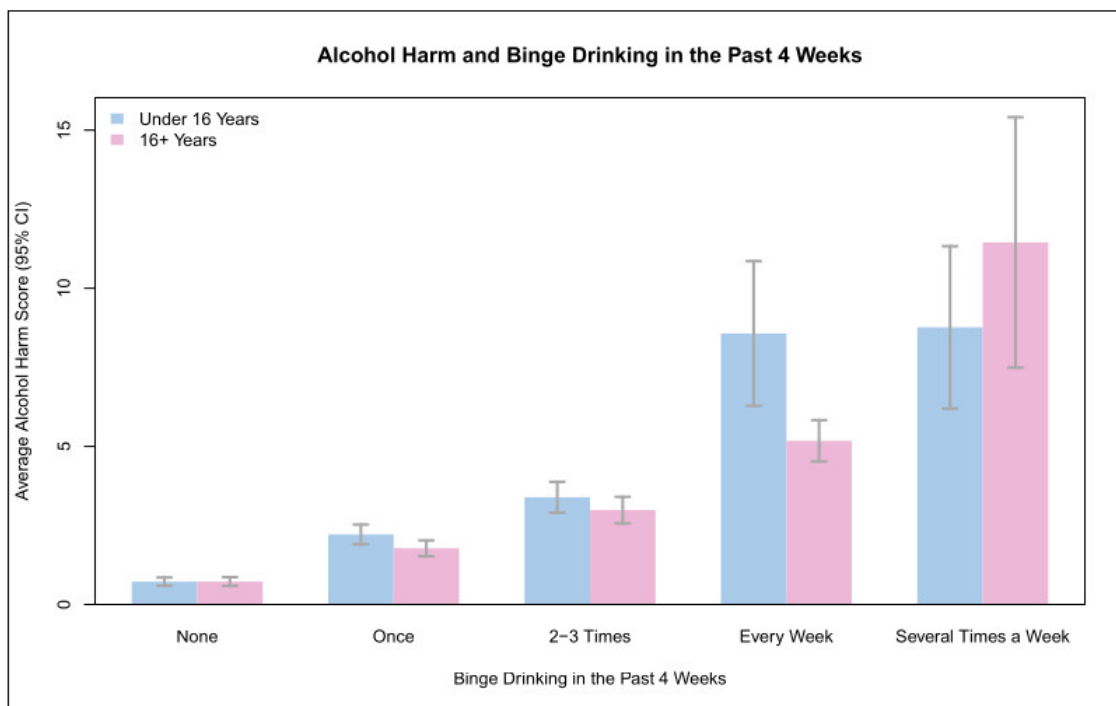
Figure 12 shows that, at the same level of consumption, younger adolescents generally experienced more harm than older adolescents, although differences between age groups were sometimes within the margin of error. For both groups, average harm increased markedly with quantity consumed.

Figure 12: Average Alcohol harm score by quantity typically consumed and age group, 2012



We found a very strong relationship between frequency of binge drinking and self-reported alcohol harm (Fig 13). Among students who engaged in binge drinking every week, harm was significantly greater in younger compared to older adolescents. At other frequencies of binge drinking, the differences between age groups were within the margin of error.

Figure 13: Average alcohol harm score by frequency of binge drinking and age group, 2012



Demographic differences in self-reported alcohol harm

Average harm scores for current drinkers by demographic variables (gender, age, deprivation, ethnic group) are detailed in Table 4. Differences by age and gender were within the margin of error, although there was a trend towards alcohol harm increasing with age. Students living in high deprivation neighbourhoods had markedly higher alcohol harm scores (on average) than those in medium and low deprivation neighbourhoods. Māori and Pacific students also reported elevated levels of harm relative to European and Asian students. It is notable that Pacific students were less likely to drink alcohol than European students, but those who did drink were at higher risk of harm.

Table 4: Mean alcohol harm score among current drinkers, by demographic factors, 2012

		Mean alcohol harm score	95% Confidence interval
Gender	Male	1.8	1.6 - 2.0
	Female	2.0	1.8 - 2.1
Age	13 or under	1.6	1.2 - 1.9
	14	1.7	1.4 - 2.0
	15	1.7	1.4 - 2.0
	16	2.0	1.7 - 2.3

	17 or over	2.0	1.8 - 2.3
NZDep	1-3 (Low deprivation)	1.6	1.4 - 1.8
	4-7	1.7	1.5 - 1.9
	8-10 (High deprivation)	2.6	2.3 - 2.9
Ethnic group	Māori	2.6	2.3 - 2.9
	Pacific	2.8	2.3 - 3.3
	Asian	1.3	0.9 - 1.6
	European	1.6	1.4 - 1.7
	Other	2.0	1.5 - 2.4

Risk of alcohol harm in 2019

We used what we learned about the relationship between patterns of use and alcohol harm (above) to derive risk of harm categories for 2019, based on alcohol use patterns. The criteria for the four harm categories (non-drinker, small risk, high risk, very high risk) and findings for younger (under 16 years) and older (16 years and over) students are provided below.

The majority of younger students (68%) were non-drinkers. The other 32% reported current alcohol use, with 9% at small risk, 12% at high-risk and 11% at very high risk of alcohol harm, based on frequency and/or quantity consumed.

Table 5: Proportion of younger adolescents (<16 years) in each risk of alcohol harm category, 2019

	Non-drinker	Small risk of harm	High-risk of harm	Very high-risk of harm
Frequency	Has never drunk Or doesn't drink anymore	Once in last 4 weeks or less	2-3 times a month	Once a week or more often
Typical quantity	N/A	1 drink	2-4 drinks	5 or more drinks
Frequency of binge drinking	N/A	Not in past 4 weeks	Once in past 4 weeks	More than once in past 4 weeks
N= 4422	3146	317	462	497
Weighted proportion	68%	9%	12%	11%

Note: Current drinkers were categorised as 'very high risk' if they met at least one criterion for that category. The remaining drinkers were then assessed for the 'high risk' category, with those who did not meet any of the 'high risk' criteria classified as 'small risk'.

As shown in Table 6, the majority of older students (67%) were current drinkers, but one in three reported they did not drink at the time of the survey. About 11% in this age group drank moderately and were at small risk of harm, whereas 42% were at high risk of harm, and 14% at very high risk of harm.

Table 6: Proportion of older adolescents (16+ years) in each risk of alcohol harm category, 2019

	Non-drinker	Small risk of harm	High-risk of harm	Very high-risk of harm
Frequency	Has never drunk Or doesn't drink anymore	Once in last 4 weeks or less	2-3 times in past four weeks to once a week	Several times a week/most days
Typical quantity	N/A	1-2 drinks	3-9 drinks	10 or more drinks
Frequency of binge drinking	N/A	Not in past 4 weeks	1-3 times in past 4 weeks	Weekly or more often
N=2 703	1087	281	999	336
Weighted Proportion	33%	11%	42%	14%

Note: Current drinkers were categorised as 'very high risk' if they met at least one criterion for that category. The remaining drinkers were then assessed for the 'high risk' category, with those who did not meet any of the 'high risk' criteria classified as 'small risk'.

In secondary students overall (Table 7), 53% were non-drinkers at the time of the survey, 10% had a drinking pattern associated with a small risk of harm, 25% were at high risk of harm, and 12% were at very high risk of harm.

Table 7: Proportion of secondary students in each risk of alcohol harm category, by gender, age and deprivation, 2019

		Non-drinker	Small risk of harm	High-risk of harm	Very high-risk of harm
Total		53%	10%	25%	12%
Gender	Male	53.5%	8.9%	21.7%	15.8%
	Female	52.0%	10.7%	28.2%	9.1%
Age	13 or under	84.7%	5.6%	5.4%	4.3%
	14	70.9%	11.0%	10.0%	8.1%
	15	50.5%	9.6%	19.3%	20.7%
	16	38.1%	12.7%	38.7%	10.5%
	17 or over	29.2%	9.6%	44.9%	16.3%

NZDep	1-3 (Low deprivation)	51.1%	9.9%	27.8%	11.3%
	4-7	53.4%	11.4%	24.5%	10.7%
	8-10 (High deprivation)	55.4%	8.3%	20.8%	15.4%

Risk and Protective Factors for risky drinking

All of the risk and protective factors we explored were significantly associated with risky drinking (Table 8). Family/whānau factors that protected against risky drinking included high levels of parental monitoring, good family relationships and enough quality time with family. Students reporting these factors were less likely to drink in a high-risk or very high-risk manner than those who lacked these family attributes. In the school setting, individuals who reported that teachers cared about them were much less likely to engage in high-risk or very high-risk drinking. Feeling safe at school was also protective against very high-risk drinking. The relationship between protective factors and risky drinking is presented graphically in Figure 14.

Of the risk factors we examined, experience of sexual abuse was the most strongly associated with high-risk and very high-risk drinking (Table 8). The odds of drinking at high-risk levels (as opposed to being a non-drinker) were 2.79 times higher in students with experience of sexual abuse compared to students without such experience. The odds of drinking at very high-risk levels were 3.16 times higher. Involvement with Oranga Tamariki and witnessing or experiencing family violence were also associated with very high-risk drinking. These findings suggest that trauma may be an underlying cause of risky drinking and alcohol harm in this age group. The relationship between risk factors and risky drinking is presented graphically in Figure 15.

Table 8: Associations (presented as Odds Ratios) between risk and protective factors and risk of alcohol harm categories, 2019

		Weighted prevalence	Small risk	High risk	Very high risk
			Adjusted OR (95% CI)	Adjusted OR (95% CI)	Adjusted OR (95% CI)
PROTECTIVE FACTORS					
Parental monitoring	High (ref)	91.2%	1.00	1.00	1.00
	Low	8.8%	0.93 (0.50, 1.72)	1.91 (1.27, 2.87)	2.92 (1.77, 4.80)
Good family relationships	Yes (ref)	76.8%	1.00	1.00	1.00
	No	23.2%	1.15 (0.85, 1.56)	1.62 (1.28, 2.04)	1.85 (1.49, 2.30)

Enough quality time with family	Yes (ref)	90.4%	1.00	1.00	1.00
	No	9.6%	1.52 (1.04, 2.23)	2.22 (1.62, 3.04)	2.42 (1.73, 3.39)
Feel safe at home	Yes (ref)	92.8%	1.00	1.00	1.00
	No	7.2%	1.34 (0.85, 2.13)	1.91 (1.17, 3.11)	2.57 (1.73, 3.80)
Teachers at school care	Yes (ref)	79.1%	1.00	1.00	1.00
	No	20.9%	1.13 (0.88, 1.45)	1.94 (1.50, 2.51)	2.72 (2.06, 3.59)
Feel safe at school	Yes (ref)	87.1%	1.00	1.00	1.00
	No	12.9%	1.45 (0.92, 2.29)	1.36 (0.90, 2.05)	1.75 (1.15, 2.68)
Feel safe in neighbourhood	Yes (ref)	58.8%	1.00	1.00	1.00
	No	41.2%	1.15 (0.87, 1.52)	1.03 (0.77, 1.37)	1.33 (1.08, 1.64)
RISK FACTORS					
Adults hit or hurt you at home	Yes (ref)	10.0%	1.04 (0.73, 1.48)	1.27 (0.86, 1.88)	1.75 (1.23, 2.50)
	No	90.0%	1.00	1.00	1.00
Witnessed violence to another child at home	Yes (ref)	7.7%	1.23 (0.83, 1.81)	0.88 (0.60, 1.28)	1.93 (1.14, 3.26)
	No	92.3%	1.00	1.00	1.00
Witnessed violence between adults at home	Yes (ref)	6.1%	1.01 (0.55, 1.89)	1.21 (0.48, 3.04)	2.21 (1.45, 3.37)
	No	93.9%	1.00	1.00	1.00
Past or present OT / CYFS involvement	Yes (ref)	9.0%	1.19 (0.66, 2.17)	1.44 (0.65, 3.16)	2.42 (1.30, 4.52)
	No	91.0%	1.00	1.00	1.00
Experience of sexual abuse or coercion	Yes (ref)	18.0%	1.50 (1.06, 2.12)	2.79 (1.89, 4.13)	3.16 (2.17, 4.61)
	No	82.0%	1.00	1.00	1.00
Parents worry about money for food	Yes (ref)	12.0%	0.75 (0.46, 1.22)	0.87 (0.62, 1.20)	1.34 (1.01, 1.77)
	No	88.0%	1.00	1.00	1.00

All models are adjusted for age, gender, and NZDep band (low, med, high). Bold indicates statistical significance at 95% confidence level.

Figure 14: Proportion in each risk of alcohol harm category, by presence or absence of protective factors

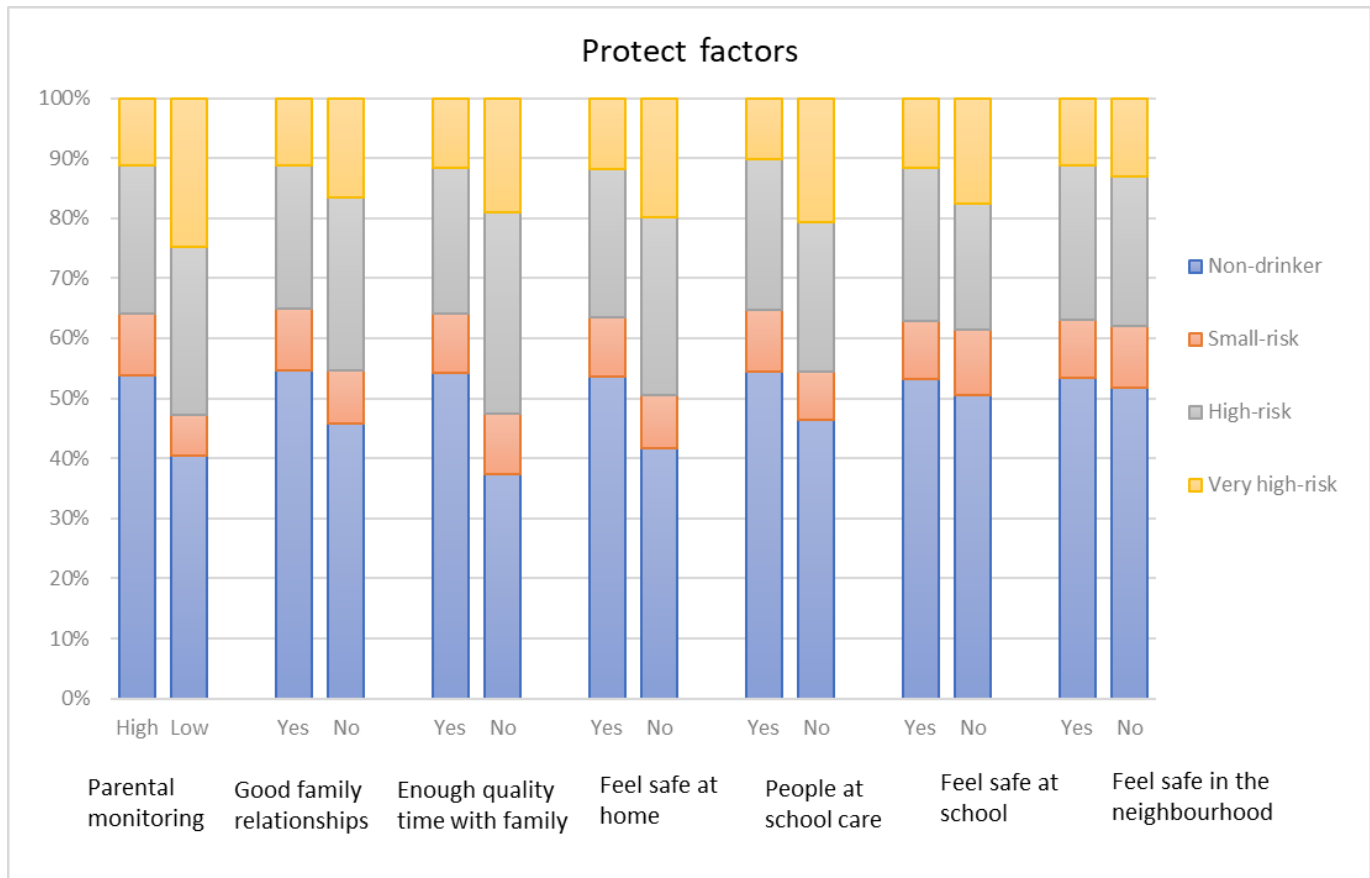
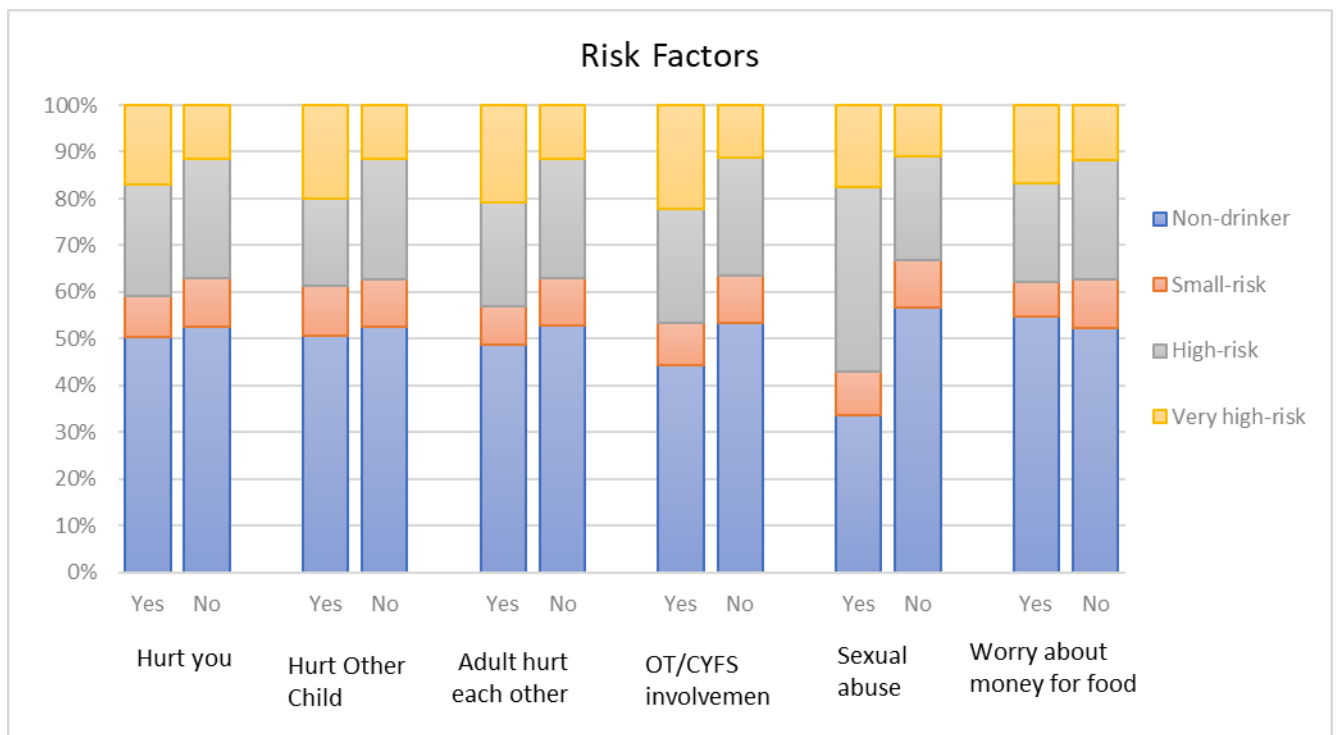


Figure 15: Proportion in each risk of alcohol harm category, by presence or absence of risk factors



Sources of alcohol and risk of harm

As shown in the section on sources of alcohol above, parents are a major source of alcohol for adolescents. But is getting alcohol from parents associated with *risky* drinking?

Using 2019 data, we found a strong relationship between source of alcohol and risk of alcohol harm (Table 9). Those who obtained alcohol from their parents were less likely to have a ‘high risk’ or ‘very high risk’ drinking pattern those who obtained alcohol elsewhere. This may reflect the setting in which alcohol supplied by parents is drunk, e.g. it may more likely to be drunk at family events with close supervision than alcohol obtained from other sources.

The sources most strongly associated with high-risk and very high-risk drinking were ‘I buy it myself’ and ‘I take or steal it from somewhere else (not home)’. Almost all of the students who reported these sources of alcohol were in the high-risk or very high-risk drinking categories. (However, for technical reasons primarily low numbers in the comparison group, odds ratio estimates had extremely wide confidence intervals and are not presented). Getting someone else to buy alcohol was also strongly associated with high-risk and very high-risk drinking and was relatively common (21% reported sourcing alcohol this way) compared to buying it oneself (8%) or stealing it (2%).

Table 9: Associations (presented as Odds Ratios) between source of alcohol and risk of alcohol harm categories, 2019. Analysis restricted to students aged under 18 years of age.

		Weighted prevalence among current drinkers (%)	High risk of alcohol harm	Very high risk of alcohol harm
			Adjusted OR (95% CI)	Adjusted OR (95% CI)
Buy it myself	Yes	8	*inestimable	*inestimable
	No	92	1	1
Friends give it to me	Yes	39	2.82 (2.06, 3.87)	3.44 (2.37, 4.99)
	No	61	1	1
Brother/sister gives it to me	Yes	14	1.55 (1.01, 2.37)	2.42 (1.34, 4.39)
	No	86	1	1
Parents give it to me	Yes	63	0.54 (0.29, 1.00)	0.43 (0.29, 0.63)
	No	37	1	1
Parents are sole source of alcohol	Yes	30	0.35 (0.22, 0.55)	0.16 (0.10, 0.26)
	No	70	1	1
Get it from home without parents’ permission	Yes	13	2.13 (1.00, 4.52)	2.22 (1.39, 3.54)
	No	87	1	1
Another adult gives it to me	Yes	13	1.19 (0.78, 1.84)	1.82 (1.15, 2.88)

	No	87	1	1
I get someone to buy it for me	Yes	21	11.71 (1.01, 26.12)	23.80 (9.95, 56.92)
	No	79	1	1
Take it/steal it (not from home)	Yes	2	*inestimable	*inestimable
	No	98	1	1
None of these	Yes	5	0.87 (0.45, 1.71)	0.64 (0.30, 1.35)
	No	95	1	1

Models were adjusted for age group (<16, 16+), gender and NZDep (high, mid, low)

Peer supply (from friends or siblings) was also associated risky drinking. We compared those who sourced alcohol only from parents with those who were given alcohol by friends or siblings, and found the latter were more than three times as likely to engage in 'high risk' (OR 3.58, 95% CI 2.50, 5.13) and more than 7 times as likely to engage in 'very high risk' drinking (OR 7.41. 95%CI 2.13, 12.74).

These findings should not be interpreted as suggesting that parental supply of alcohol is always unproblematic. Rather, parental supply is common and is associated with both light drinking and heavy drinking (e.g. nearly 60% in the 'high risk' category reported parental supply, and a quarter in the high risk category said parents were their sole source of alcohol). In contrast most other alcohol sources were rarely associated with light drinking, hence odds of being 'high risk' or 'very high risk' were much higher for sources other than parental supply.

Appendix A: Derivation of variables, including survey question wording and response options

Outcome Variable	Survey question & response options	Variable definition
Ever/never drunk alcohol	We would like to now ask some questions about alcohol. By this we mean beer, wine, spirits, pre-mixed drinks. Have you ever drunk alcohol (not counting a few sips)? Response options: Yes/No	Ever = 'Yes' Never = 'No'
Current drinker	During the past 4 weeks, about how often did you drink alcohol? Response options: Not at all - I don't drink alcohol now Not in the last 4 weeks Once in the last 4 weeks Two or three times in the last 4 weeks About once a week Several times a week Most days	Current drinker = ever drunk alcohol (based on the question above) AND gave a response to this question other than 'Not at all – I don't drink now'
Drank in past month	As above	Based on the response 'Once in the last 4 weeks' or more often
Drinks weekly or more often	As above	Based on the response 'About once a week' or more often
Past month binge drinking	In the past 4 weeks, how many times did you have 5 or more alcoholic drinks in one session? Response options: None at all Once in the past 4 weeks Two or three times in the past 4 weeks Every week Several times a week	Based on the response 'Once in the past 4 weeks' or more often
Quantity consumed	How many alcoholic drinks do you usually have in one session? Response options: 1 drink 2 drinks 3 to 4 drinks 5 to 9 drinks 10 to 20 drinks More than 20 drinks	
Source of alcohol	When you drink alcohol how do you usually get it? (You may choose as many as you need) Response options:	

	<p>I buy it myself</p> <p>Friends give it to me</p> <p>My brother or sister gives it to me</p> <p>My parents give it to me</p> <p>I get it from home without my parents' permission</p> <p>Another adult I know gives it to me</p> <p>I get someone else to buy it for me</p> <p>I take or steal it from somewhere else (not home)</p> <p>None of these</p>	
Past year alcohol harm (2007, 2012)	<p>How many times in the last 12 months have you...</p> <ul style="list-style-type: none"> • had friends or family tell you to cut down your alcoholic drinking? • had your performance at school or work affected by your alcohol use? • had unsafe sex (no condom) when you had been drinking alcohol? • had unwanted sex when you had been drinking alcohol? • done things that could have got you into serious trouble (e.g. stealing, etc.) when you had been drinking alcohol? • been injured when you had been drinking alcohol? • been injured and required treatment by a doctor or nurse when you had been drinking alcohol? • injured someone else when you had been drinking alcohol? • had a car crash when you had been drinking alcohol? <p>Response options: Never Not in the last 12 months Once or twice in the last 12 months Three or more times in the last 12 months</p>	<p>For each specific type of harm, past year harm was based on the response 'Once or twice in the last 12 months' OR 'Three or more times in the last 12 months.'</p> <p>Note that 'been injured' and 'been injured and required treatment by a doctor or nurse' were not mutually exclusive categories.</p>
Alcohol harm score (2012)	Based on the 9 items above	<p>Items were scored 0 for 'never', 1 for 'Not in the last 12 months', 2 for 'Once or twice in the last 12 months' and 3 for 'Three or more times in the last 12 months'</p> <p>Scores were added to derive an alcohol harm score (range 0-27)</p>
Risk of alcohol harm (2019)	Alcohol harm data was not available in 2019. Instead, we used data on 1) frequency of alcohol use, 2) quantity consumed, and 3)	<p>Four categories:</p> <ol style="list-style-type: none"> 1) Non-drinker 2) Small risk of harm

	frequency of binge drinking (see survey questions above) to derive risk of alcohol harm.	<p>3) High risk of harm</p> <p>4) Very high risk of harm</p> <p>The criteria for these categories are set out in Table 2 (p10).</p>
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Demographic Variable	Survey question & response options	
Age	How old are you? Response options: Under 12, 12, 13, 14, 15, 16, 17, 18, 19, Over 19 years	Age was grouped in two ways: 13 and under, 14, 15, 16, 17, 18 and over, or binarised (under 16, 16 and over). Note that in 2019 only 25 students were aged under 13 years, and 24 were aged over 18. Over 99% of the sample were aged 13-18 years. About 96% were aged under 18 years.
Gender	(2019) How do you describe yourself? Answer options: I am a boy or a man I am a girl or a woman I identify in another way (2007, 2012) What sex are you? Response options: Male Female	'I identify another way' was treated as 'missing'. (Note that further analyses are underway investigating alcohol use and harm in Rainbow youth, including those who do not identify as male or female).
School decile	N/A	School decile is a school-level measure of the socio-economic position of the student community, relative to other schools in New Zealand. decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities. Deciles are based on Census data on household income, occupational skill level of employed parents, household crowding, percentage of parents with no qualifications, percentage of parents receiving income support benefits. For details of how school deciles are calculated see: https://www.education.govt.nz/school/funding-and-financials/resourcing/operational-funding/school-decile-ratings/
Deprivation (NZ Dep)	N/A	Deprivation is based on the student's home address and corresponding NZ Deprivation Index categorisation for that meshblock. The NZ Deprivation Index is based on 9 Census measures. Further details are available elsewhere. ¹⁹

Ethnicity	<p>Which ethnic group do you belong to? (You may choose as many as you need)</p> <p>167 response options</p>	<p>Respondents were categorised into one of five ethnic groups using the Ministry of Health prioritisation method: Māori> Pacific> Asian> Other> European.</p> <p>Those with multiple ethnicities were assigned to the group with the highest priority, e.g. those identifying as Māori and Pacific were classified Māori, those identifying as Pacific and Asian were classified as Pacific. The European group included NZ European and other European (e.g. French, Croatian).</p>
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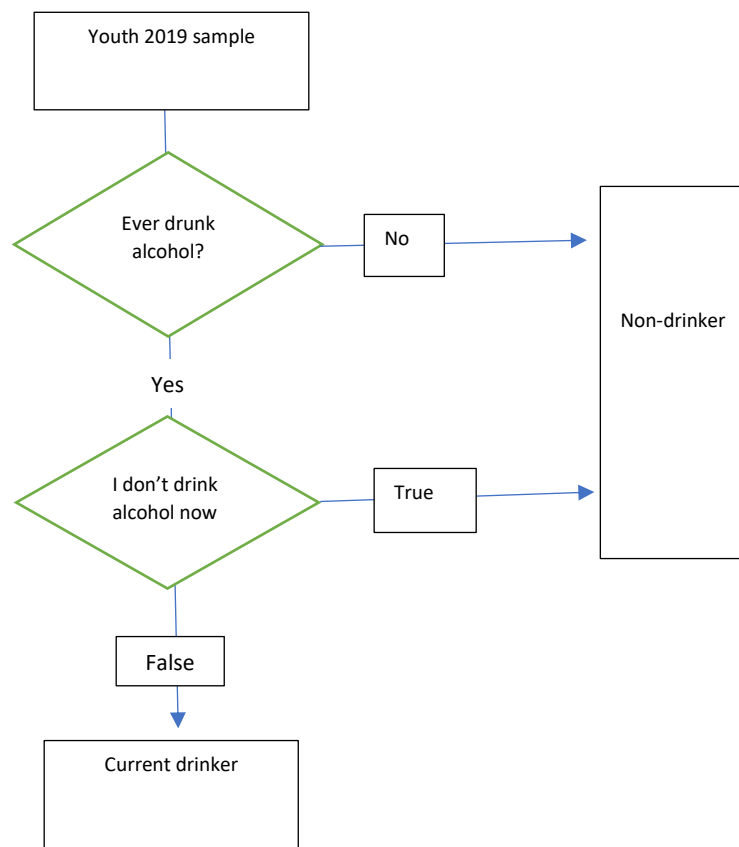
Risk/protective factor	Survey question & response options	
Parental monitoring	<p>Does your family want to know who you are with and where you are?</p> <p>Response options: Always Usually Sometimes Almost never</p>	<p>High = 'Always' or 'Usually' Low = 'Sometimes' or 'Almost never'</p>
Good family relationships	<p>There is someone in family/whānau who I trust to share my feelings with.</p> <p>Response options: Strongly agree Agree Neutral Disagree Strongly disagree</p>	<p>Yes = 'Strongly agree' or 'Agree' No = 'Neutral' 'Disagree' or 'Strongly disagree'</p>
Enough quality time with family	<p>I feel like I get enough quality time with my family/whānau.</p> <p>Response options: Strongly agree Agree Neutral Disagree Strongly disagree</p>	<p>Yes = 'Strongly agree' or 'Agree' No = 'Neutral' 'Disagree' or 'Strongly disagree'</p>
Feel safe at home	<p>Do you feel safe at home, or the place you live?</p> <p>Response options: Yes, all the time Yes, most of the time Sometimes No, mostly not Not at all</p>	<p>Yes = All/most of the time No = Sometimes, No mostly not, or Not at all</p>

Teachers at school care	Do you feel that teachers/tutors care about you? Response options: Yes No Doesn't apply	Yes = Yes No = No/Doesn't apply
Feel safe at school	Do you feel safe in your school/course? Response options: Yes, all the time Yes, most of the time Sometimes No, mostly not Not at all	Yes = All/Most of the time No = Sometimes, No mostly not, Not at all
Feel safe in neighbourhood	Do you feel safe in your neighbourhood? Response options: All the time Sometimes Not often Never	Yes = 1 No = 2,3,4 (Sometimes, not often, never)
Adults hit or hurt you at home	In the last 12 months have adults in your home hit or physically hurt you? Yes No	Yes/No
Witnessed violence to another child at home	In the last 12 months have adults in your home hit or physically hurt a child (other than yourself)? Yes No	Yes/No
Witnessed violence between adults at home	In the last 12 months have adults in your home hit or physically hurt each other? Yes No	Yes/No
Past or present OT/CYFS involvement	Have you ever been involved with Oranga Tamariki (OT) or Child, Youth and Family Services (CYFS)? E.g. someone was worried about your safety or protection. Yes No	Yes/No
Experience of sexual abuse or coercion	Have you ever been touched in a sexual way or made to do sexual things that you didn't want to do? (including sexual abuse or rape)	Yes = Yes or Not sure No = No

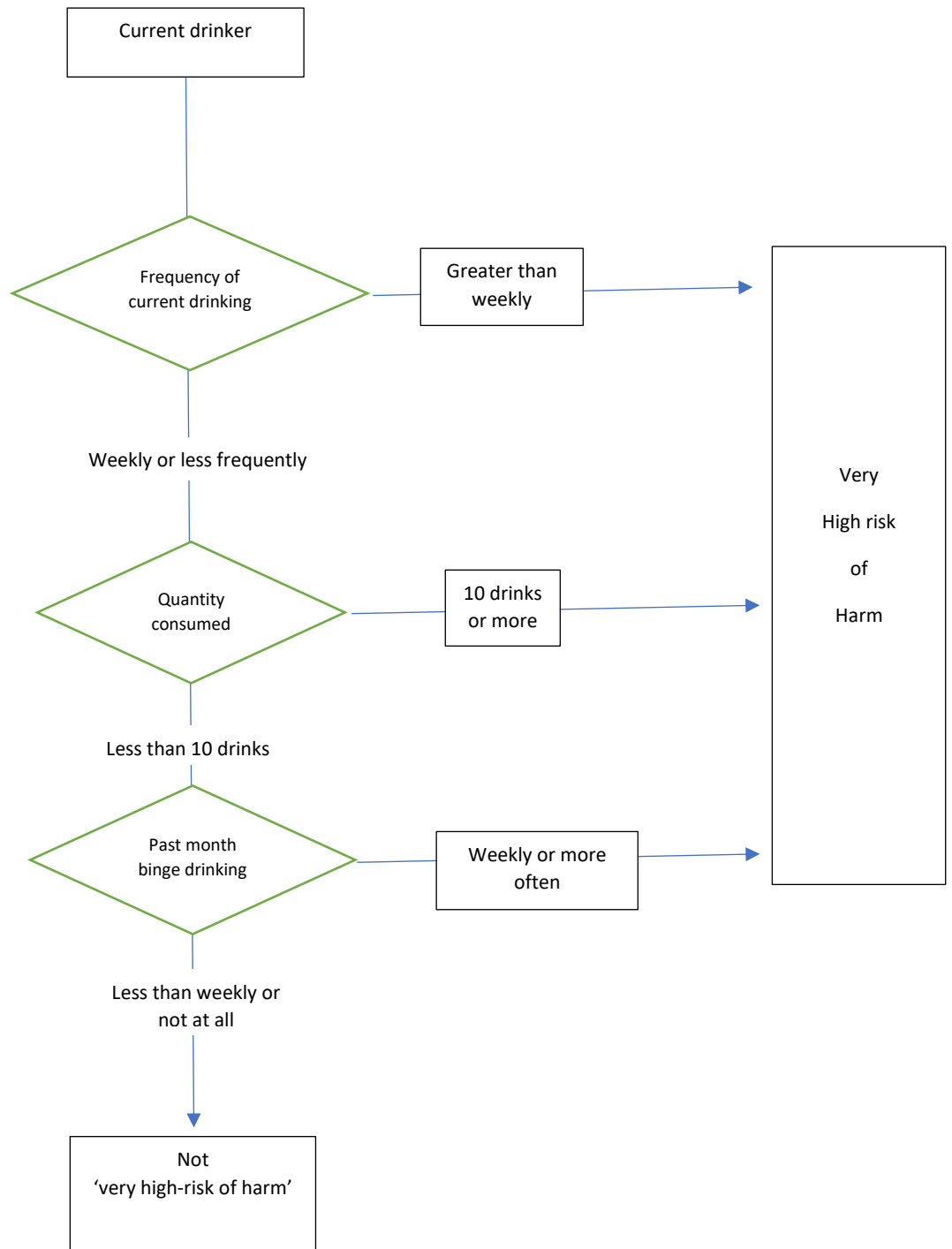
	Yes No Not sure	
Parents worry about money for food	Do your parents, or the people who act as your parents, ever worry about not having enough money to buy food? Never Occasionally Sometimes Often All the time I don't know	Yes = Often, All the time No = Never, Occasionally, Sometimes, I don't know
Youth voice (open text questions)	What do you think are the biggest problems for young people today?	
	What do you think should be changed to support young people in New Zealand better?	

Appendix B: Flow diagram for 'Risk of alcohol harm' categorisation

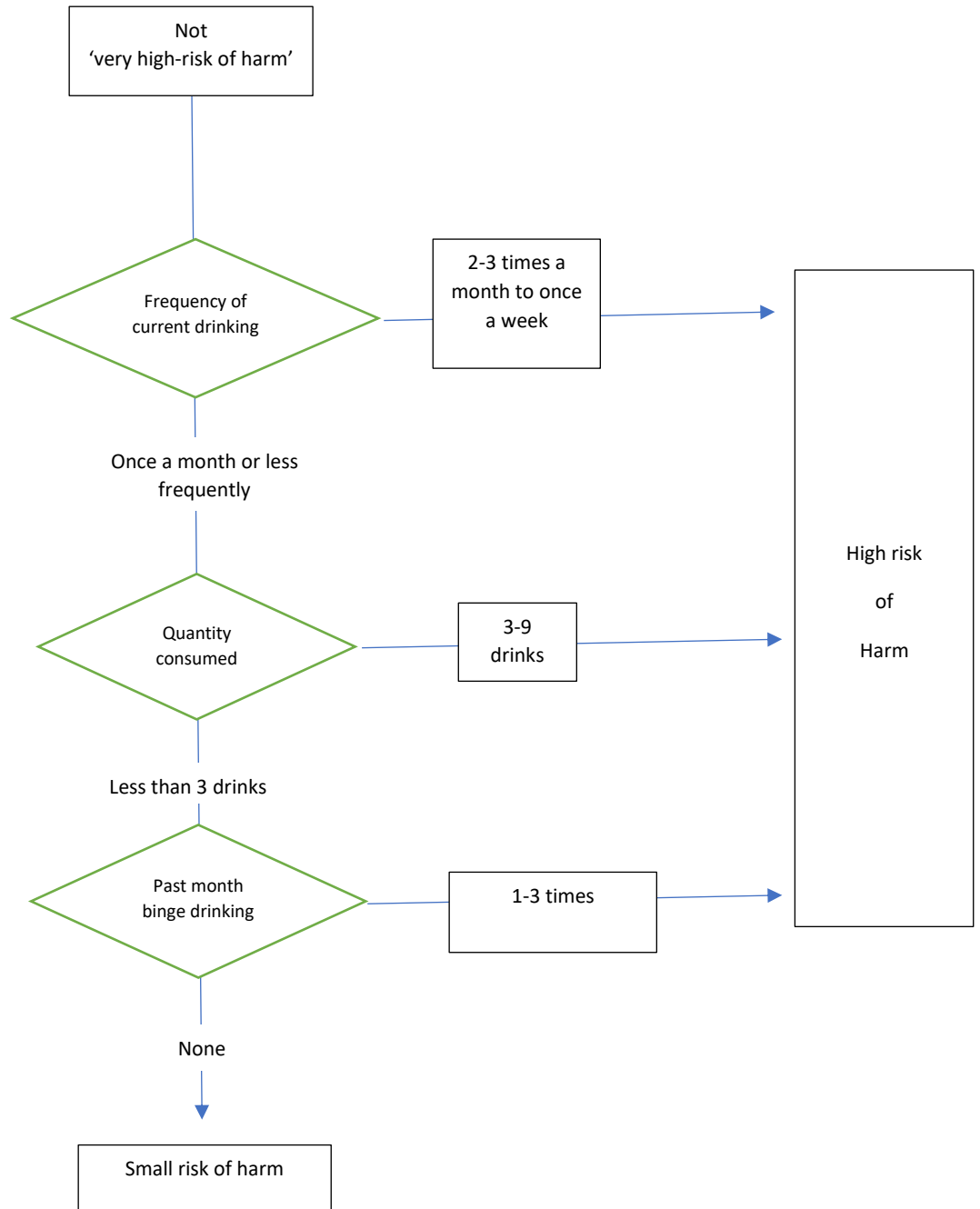
Step 1: Non-drinker categorisation



Step 2: Very high risk of harm categorisation, age 16 and over



Step 3: High risk of harm categorisation, age 16 and over



Appendix C: Data tables

*Prevalence of key alcohol use measures in the New Zealand secondary school population, 2007 – 2019**

	2007	95%CI		2012	95%CI		2019	95%CI	
Ever drunk alcohol	73.7%	72.0%	75.3%	61.2%	59.5%	62.8%	54.9%	53.4%	56.4%
Past month drinking among ever drinkers	66.0%	64.5%	67.4%	58.1%	56.8%	59.5%	61.9%	60.4%	63.5%
Past month drinking in population	48.6%	47.0%	50.3%	35.5%	33.9%	37.1%	33.9%	32.2%	35.7%
Drinking weekly or more often among ever drinkers	25.4%	24.2%	26.6%	15.6%	14.6%	16.6%	16.7%	15.1%	18.3%
Drinking weekly or more often in population	18.7%	17.7%	19.7%	9.5%	8.6%	10.4%	9.2%	7.9%	10.5%
Past month binge drinking in ever drinkers	49.3%	47.9%	50.7%	41.5%	40.0%	43.0%	40.0%	38.3%	41.7%
Past month binge drinking in population	36.2%	34.7%	37.8%	25.3%	23.8%	26.8%	21.7%	20.1%	23.4%
Past month binge drinking in past month drinkers	71.5%	69.9%	73.1%	66.9%	64.5%	69.2%	62.0%	59.2%	64.7%
Typically, 1-2 drinks per session (ever drinkers)	25.6%	24.6%	26.6%	24.9%	23.7%	26.1%	31.1%	29.8%	32.4%
Typically, 3-4 drinks per session (ever drinkers)	20.4%	19.5%	21.3%	20.5%	19.4%	21.8%	19.4%	18.3%	20.4%
Typically, 5-9 drinks per session (ever drinkers)	25.3%	24.1%	26.5%	23.9%	22.6%	25.2%	24.1%	22.8%	25.4%
Typically, 10 or more drinks per session (Ever drinkers)	14.6%	13.7%	15.5%	11.8%	11.0%	12.7%	11.3%	10.3%	12.4%

*Note that, for comparability with previous years, Kura Kaupapa Māori students are not included in trend analyses.

Trends in frequency of alcohol use, 2007-2019*

		2007		2012		2019	
		n (N)	Weighted % (95% CI)	n (N)	Weighted % (95% CI)	n (N)	Weighted % (95% CI)
How often do you drink now?	Not at all	909 (5938)	14.0 (13.1, 15.0)	947 (4662)	18.7 (17.6, 19.9)	540 (3278)	14.0 (12.5, 16.0)
	Not in the past 4 weeks	1182 (5938)	19.9 (18.7, 21.1)	1141 (4662)	23.2 (21.9, 24.4)	788 (3278)	24.1 (22.5, 26.0)
	Once in the last 4 weeks	1035 (5938)	17.7 (16.7, 18.7)	929 (4662)	20.8 (19.7, 22.0)	703 (3278)	21.9 (20.1, 24.0)
	2-3 times in the last 4 weeks	1315 (5938)	23.0 (21.9, 24.1)	947 (4662)	21.7 (20.6, 22.8)	765 (3278)	23.3 (21.8, 25.0)
	Once a week	1001 (5938)	17.6 (16.6, 18.6)	491 (4662)	11.6 (10.3, 12.9)	341 (3278)	12.9 (10.9, 15.0)
	Several times a week	366 (5938)	6.1 (5.3, 6.9)	136 (4662)	3.0 (2.4, 3.6)	90 (3278)	2.8 (2.2, 3.0)
	Most Days	105 (5938)	1.7 (1.3, 2.0)	52 (4662)	1.0 (0.7, 1.2)	36 (3278)	1.0 (0.7, 1.3)

*Note that, for comparability with previous years, Kura Kaupapa Māori students are not included in trend analyses.

Current and past month alcohol use by age, 2019

Age	N	Current alcohol use		Past month alcohol use	
		(n)	Weighted % (95% CI)	(n)	Weighted % (95% CI)
13 and under	1388	186	15.3 (13.5, 17.1)	115	8.6 (7.3, 10.0)
14	1726	404	28.9 (25.6, 32.3)	262	16.0 (13.3, 18.6)
15	1687	678	49.4 (25.6, 32.3)	445	29.6 (26.4, 32.7)
16	1457	756	61.8 (58.4, 65.3)	548	42.1 (38.9, 45.3)
17	1110	705	72.2 (68.9, 75.5)	553	57.2 (52.6, 61.9)
18 and over	283	152	63.9 (56.1, 71.7)	121	48.2 (38.9, 57.4)

Usual sources of alcohol reported by ever drinkers, secondary students, 2007 & 2019

	2007 Ever drinkers, N=5004		2019 Ever drinkers, N=3278	
	n	Weighted % (95% CI)	n	Weighted % (95% CI)
I buy it myself	673	13.8 (12.6, 15.0)	295	11.8 (10.4, 13.0)
I get someone else to buy it for me	1754	36.2 (34.5, 38.0)	554	20.6 (19.0, 22.0)
Friends give it to me	2648	53.7 (52.0, 55.0)	1080	38.6 (35.8, 42.0)
My sibling gives it to me	1129	22.3 (21.1, 24.0)	385	13.5 (12.2, 15.0)
My parents give it to me	2678	54.9 (53.1, 57.0)	1559	61.7 (58.8, 65.0)
I take it from home without permission	830	16.2 (15.1, 17.0)	338	12.7 (11.7, 14.0)
Another adult I know gives it to me	982	19.1 (18.0, 20.0)	331	12.5 (11.1, 14.0)
I steal it from somewhere (not home)	307	5.5 (4.9, 6.0)	53	1.8 (1.4, 2.0)
None of these	164	3.1 (2.7, 4.0)	152	5.1 (4.4, 6.0)

Respondents could choose as many sources as were relevant, so percentages do not add up to 100%

Usual sources of alcohol reported by ever drinkers aged <18 years, 2007 & 2019

	2007		2019	
	Ever drinkers, N=4816		Ever drinkers, N=2505	
	n	Weighted % (95% CI)	n	Weighted % (95% CI)
I buy it myself	542	11.3% (10.0%,12.6%)	195	7.8% (6.4%, 9.2%)
I get someone else to buy it for me	1734	37.0% (35.2, 38.8%)	541	21.1% (19.4%, 22.8%)
Friends give it to me	2585	54.0% (52.4, 55.6%)	1025	38.7% (35.4%, 42.0%)
My sibling gives it to me	1115	22.7% (21.4%, 23.9%)	366	13.5% (12.2%, 14.8%)
My parents give it to me	2625	55.4% (53.6%, 57.3%)	1498	63.2% (60.5%, 66.0%)
I take it from home without permission	815	16.4% (15.3%, 17.6%)	335	13.4% (12.2%, 14.5%)
Another adult I know gives it to me	970	19.5% (18.4%, 20.7%)	323	13.1% (11.5%, 14.7%)
I steal it from somewhere (not home)	304	5.7% (5.0%, 6.3%)	51	1.8% (1.3%, 2.4%)
None of these	161	3.1% (2.7%, 3.6%)	149	5.3% (4.5%, 6.1%)

Respondents could choose as many sources as were relevant, so percentages do not add up to 100%

Since those aged 18 and over can legally buy alcohol, this analysis focuses on minors (<18 years) only

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