

**Leeds Institute of  
Health Sciences**

FACULTY OF MEDICINE AND HEALTH



**UNIVERSITY OF LEEDS**

**Unitcheck and Sixth Form Students:** Understanding young peoples' alcohol related behavior and perceived social norms

Bewick, B.M., Mulhern, B. and Hill, A.J.

**NHS**  
**Leeds**



Authors: Bewick, B.M., Mulhern, B. and Hill, A.J.

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Contact Address: Academic Unit of Psychiatry and Behavioural Sciences  
Leeds Institute of Health Sciences  
University of Leeds  
Charles Thackrah Building  
101 Clarendon Road  
Leeds  
LS2 9LJ

[b.m.bewick@leeds.ac.uk](mailto:b.m.bewick@leeds.ac.uk)

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## 1. EXECUTIVE SUMMARY

### 1.1. BACKGROUND

Alcohol can have a devastating effect on the lives of young people. The UK government has highlighted the need to minimise the alcohol related harm amongst this population (Department of Health, 2007). Within public health there is increasing interest in the ability of social norms marketing to moderate the drinking behaviour of individuals yet the feasibility of using such an approach within a Leeds school age population has yet to be explored.

### 1.2. AIM

To investigate the level of alcohol consumption and related behaviours within Leeds Sixth Form students. In addition, to investigate the feasibility and potential effectiveness of using Unitcheck (a web-based personalised feedback and social norms intervention) within this population.

### 1.3. METHOD

In total 870 students from 20 Leeds Sixth Form Schools and Colleges participated in the baseline survey. Thirteen schools took part in the evaluation of Unitcheck (control participants n=403, intervention participants n=407).

### 1.4. RESULTS

- The majority of students reported having their first drink in their early teens.
- Approximately 60% of those surveyed reported drinking on less than one occasions per week
- Approximately 50% of students did not drink last week. A further 7% reported drinking within the weekly guidelines for 15-18 year olds. A sizeable minority reported consuming high levels of alcohol last week with 16% and 6% drinking hazardous and harmful amounts respectively.
- Approximately 40% of students reported consuming alcohol last week at a level that would be considered binge drinking.
- Approximately 1 in 4 students who have consumed alcohol in the past reported feeling drunk 1 or 2 days per week over the last year.

- The four most common negative consequences as a result of drinking were: feeling ill, having a hangover, vomiting and being unable to remember what happened.
- Approximately 1 in 3 students who currently drink buy alcohol at least once a week. The average weekly amount of money spent on alcohol was £13.70 with approximately 70% spending more than £10 per week.
- Students overestimate how many other Sixth Form students are drinking alcohol. That is, they believe more students are drinking more often than was reported. Students' estimations of how many students had experienced negative consequences of alcohol were more accurate than their perceptions of the level of drinking.
- Within the Unitcheck evaluation there was a significant effect of condition on units consumed during the last week with a larger decrease over time being observed amongst students in the intervention condition.

## 1.5. CONCLUSION

Although a sizeable minority of Sixth Form students report problematic drinking behavior many students are reporting levels of consumption that suggest a more measured approach to alcohol. While the level of problematic use (e.g. hazardous/harmful weekly consumption, binge drinking) and associated consequences are of concern it appears that students are overestimating the prevalence of such behavior within their age group. The reduction in units per week amongst students assigned to access Unitcheck suggests that an intervention addressing these misperceptions may be one way of moderating problematic behavior while at the same time providing positive reinforcement for students whose behavior is desirable. Future work should look to increase the level of engagement with web-based interventions, investigate how to increase these modest gains by targeting and personalization, and investigate the feasibility of implementing such an approach outside of a formal research trial.



## 2. INTRODUCTION

The alcohol consumption of those aged 16-18 is of current concern. Teenage drinking has been linked with increased physical health problems, lower levels of academic achievement, anti-social behaviour and illegal activity (Fergusson, Lynskey and Horwood, 1996). While age specific data is not currently available it has been estimated that underage drinking in Leeds accounts for some of the 275 million pounds the city spends as a result of alcohol misuse every year (Goodall and Lawrance, 2007). Indeed, it has been suggested that young people (i.e. 15-24 years) contribute a high proportion of the social and financial costs associated with alcohol use/misuse (Anderson, 2006).

The UK government has highlighted the need to minimise the alcohol related harm amongst young people (Department of Health, 2007). Suggested strategies include: stopping unsupervised consumption in public places; producing clearer health information regarding the recommended guidelines for young people; and, marketing alcohol in a more responsible way (Department for Children, Schools and Families, 2008).

Alcohol can have a devastating effect on the lives of young people. Research suggests that it can have a negative impact on academic performance, increase the likelihood of being a victim of crime, and is associated with risky sexual behavior (see Newbury-Birch et al., 2009 for a review). Approximately 25% of young male mortality and 10% of young female mortality is due to alcohol (Anderson and Baumberg, 2006). The government has laid out a strategy to minimize alcohol related harm amongst young people. National figures suggest that the proportion of young people drinking alcohol has declined in recent years. However those that are drinking appear to be consuming more often (Department of Health, 2007). A recent review suggested that, although there is some evidence that consumption has declined amongst 16-24 year olds, there has been an increase in consumption amongst very young adolescents (Smith and Foxcroft, 2009)

Within public health there is increasing interest in the ability of the social norms approach to moderate the drinking behaviour of individuals. Social norms approaches offer an alternative to

traditional fear based approaches of health education which have increasingly been viewed as ineffectual (e.g. Foxcroft et al., 2003). In essence, a social norms approach can be applied where there is disparity between the perceived drinking of peers and their actual behavior. The social norms approach aims to reduce these misperception and ultimately moderate behavior (e.g. Perkins and Berkowitz, 1986). Heavy drinkers are more inclined to overestimate the number of other people engaging in heavy drinking behavior (Perkins and Wechsler, 1996; Cmap and McDonnell, 2000). However, there is currently limited evidence detailing young peoples' perceptions of their peers' level of consumption. In addition, although evidence suggests that personalised social norms feedback can moderate the alcohol consumption of University students (Bewick et al, 2008a; Bewick et al, 2008b), the feasibility of using such an approach within a school age population has yet to be explored.

The current project therefore aimed to investigate the level of alcohol consumption and related behaviours within Leeds Sixth Form students. In addition, it aimed to investigate the feasibility and potential effectiveness of using Unitcheck (a web-based personalised feedback and social norms intervention) within this population.



### 3. METHODOLOGY

#### 3.1. PROJECT OVERVIEW

The project consisted on four main phases: (1) Recruitment of schools and participants (including Student Champion training); (2) Completion of a baseline survey by students; (3) Random allocation to either the control or intervention condition with intervention participants gaining access to Unitcheck; (4) Completion of a post-intervention survey by students (see Figure 1).

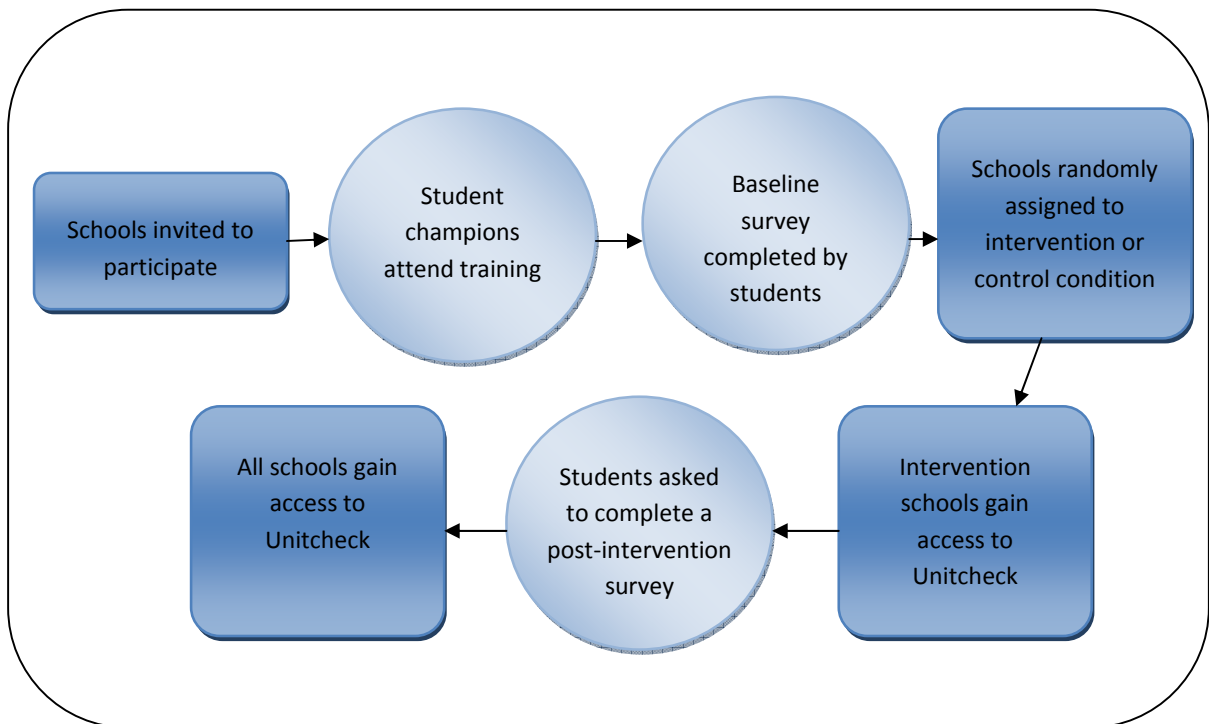


Figure 1: Project phases

The baseline survey was open for eight weeks (October-November, 2008). During March and April, 2009 all participants were asked to complete a post-intervention survey. This second survey was an abridged version of the initial survey and was open to participants for six weeks.

## 3.2. RECRUITMENT

All Sixth Form schools and colleges in the Leeds City Council area were invited to take part in the Sixth Form Unitcheck project. Of the 34 schools in the Leeds area 20 initially indicated they would like to take part. Nineteen school staff were actively involved in the project.

In order to publicise the project key contacts at each of the schools (including head teachers, staff members and Student Champions) were asked to promote and distribute a link to the online initial survey within their school/college. A link to the survey was also placed on the Leeds Learning Network.

### 3.2.1. DEMOGRAPHICS OF PARTICIPATING SCHOOLS

The 20 schools came from 15 council wards. They covered a range of economic backgrounds. The wards contained a varying percentage of Super Output Areas (SOAs) in the worst 20% nationally with a quarter of participating schools coming from wards that had between 51 and 100 percent of SOAs in the worst 20%. Forty percent of participating schools came from wards that had no SOAs in the worst 20% (see Table 1).

Table 1: The number of schools and participants by the percentage of SOAs in the worst 20%.

<b>Percentage of SOAs in worst 20%</b>	<b>Number of schools participating</b>	<b>Number of participants</b>
0	8	453
1-25	6	204
26-50	1	33
51-75	3	176
76-100	2	4

### 3.2.2. STUDENT CHAMPIONS

Prior to the Unitcheck project being launched, Jan Brown (from Education Leeds) asked students how they thought the project could best be promoted within schools. The students were clear

that a student-led approach would be beneficial and that key students in each school should lead the promotional work. As a result of this consultation schools were asked to identify one/two students to become their schools' Unitcheck Student Champion. The Heads of Sixth Form managed the selection of the Student Champions for their school. Although the strategy for promoting the project differed between schools they commonly included paper posters, reminders on digital displays, email and text messages, and school assembly announcements. In addition school staff posted messages on websites, assisted with email and text mailouts. An announcement was also placed in the Leeds Learning Network. Throughout the recruitment period Champions and key school staff were kept informed of the response rate from their school.

Training was provided to ensure the Champions understood their role. In total, 34 Student Champions from 16 schools attended the Unitcheck Champion training morning. Three other Student Champions (from 2 additional schools) were unable to attend the event but met with project staff during a school visit. The training morning provided students with general alcohol education along with information on how they could facilitate their school's engagement with the Unitcheck project.

From the feedback received all participants reported that the session was interesting, they learnt something from the session, and that resources were useful. Over 70% reported that activities were useful, session leaders were helpful and knowledgeable, and the time allowed for the training session was about right. Fifty percent of participants agreed they would like more training days like this. The overall rating of the day was good to excellent. Here's what some students had to say:

*"I enjoyed the session so much and learnt a lot. I think more people should have been allowed to go from each Sixth Form, since it was so interesting and a lot of other students could learn a lot from that day."*

*"The morning was very good and informative. More sessions like that would be useful."*

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### 3.2.3. INCENTIVES

As an incentive each school that participated in the survey had the chance to go into a prize draw to win a voucher to purchase something for their Sixth Form Common Room. First prize was a voucher for £150, second prize £100 and third prize £50. The number of times a school was entered into the draw depended on their response rate.

### 3.3. PROJECT PARTICIPANTS

The initial survey was completed by 870 students from 20 schools. This number represents 18% of the eligible student population of the 20 schools who registered interest.

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#### 3.3.1. DEMOGRAPHICS OF PARTICIPANTS

Of the 870 students 50% were female and the mean age was 16.6 years. The majority (82%) were Caucasian and 9% were from an Asian background. Two thirds (66%) were in Year 12, 33% Year 13.

### 3.4. SURVEY CONTENT

The Unitchek baseline survey included questions about frequency of alcohol consumption, units of alcohol consumed last week and over a typical week, context and consequences of drinking, and perceived social norms. Alcohol consumption was measured using a retrospective diary approach with participants individuating the number, type and size of drinks consumed; these data were converted into units (1 unit=8 mg of ethanol). Frequency questions were taken from the AUDIT (Babor et al., 2001). Context and consequences questions were adapted from the Office of National Statistics General Household Survey and the Young Adult Alcohol Consequences Questionnaire (YAACQ, Read et al., 2006) week. The survey also included questions investigating young peoples' perceptions of how much they perceived their peers to drink.

### 3.5. INTERVENTION

The Unitcheck website provides personalised feedback on alcohol consumption and social norms information. The online personalised feedback consisted of three main sections:

1. *Feedback on level of alcohol consumption:* Statements indicated the number of alcohol units the survey participant consumed per week and per occasion along with the associated level of health risk. Statements were standardised for each risk level and age and gave advice about whether personal alcohol consumption should be reduced. The number of alcohol free days was also indicated alongside information stating the advised number of alcohol free days.
2. *Personalised statements* were presented that indicated to participants the percentage of students who report drinking less alcohol than them. The level of alcohol consumption by Sixth Form students was derived from data collected during the initial survey. Information was also provided about the negative effects of alcohol intake reported by students.
3. *Generic information:* This section provided standard advice on calculating units, the general health risks of high levels of consumption and outlined sensible drinking guidelines for adults. At the time of the project the UK government guidelines for those under 18 years stated that young people should refrain from drinking alcohol. All feedback offered was provided within this context with under 18's being advised that the official advice was for them not to drink. Contact details of both local and national support services were provided.

### 3.6. EVALUATION OF UNITCHECK

Schools with a participation rate of less than 10% were excluded from the evaluation of Unitcheck. In total 810 students from 13 schools were invited to participate in the evaluation. This number represents 23% of the eligible student population of the 13 schools represented.

Five of the 13 schools (n=407 students) included in the evaluation were randomly selected and allocated to the intervention condition. The remaining 6 schools (n=403 students) were allocated

to the control condition. Participants in the intervention condition were invited to visit the Unitcheck website during December, 2008 through to March, 2009 (16 weeks). During this time 114 intervention participants visited the website and received personalised feedback. During March and April, 2009 (six weeks) all evaluation participants were asked to complete a post-intervention survey. This survey was a brief version of the initial survey and was completed by 143 students.

### 3.7. UNITS AND ASSOCIATED GUIDELINES

Within the current report drinks consumed were converted into units of alcohol. Throughout this report the UK government recommended guidelines have been used to classify weekly and daily drinking behaviour according to levels of health risk. The following guidelines were followed:

- Males over 18 years should consume no more than 4 units per day and no more than 21 units per week. Daily consumption of 8 or more units is considered binge drinking. Weekly consumption levels of 21-50 units are considered hazardous. Weekly consumption levels of 50 units and above are considered harmful. At least two alcohol free days per week are recommended.
  
- Females over 18 years should consume no more than 3 units per day and no more than 14 units per week. Daily consumption of 6 or more units is considered binge drinking. Weekly consumption levels of 14-35 units are considered hazardous. Weekly consumption levels of 35 units and above are considered harmful. At least two alcohol free days per week are recommended.
  
- Ideally those under 18 should not drink alcohol at all. If 15-18 year olds do drink they should not drink more than once a week and should never consume more than the daily adult limits (Department for Children, Schools and Families, 2009). It is advised that children under 15 years of age should never consume alcohol. While these new guidelines have been used throughout the report they were not available when the

intervention was delivered and therefore did not form part of the advice offered to Sixth Form students.

### 3.8. DATA ANALYSIS

The responses, where relevant, of all 870 students are included in sections 4-7 of this report. Throughout it is stipulated where the results presented include responses only from those students who consume alcohol. Section 8 includes only those 810 students who were included in the trial.

All data analysis was carried out using SPSS version 14. The data for units per week and units per occasion were positively skewed and the dataset was transformed before analysis was conducted. The means and standard deviations reported in the text and tables are based on the untransformed data.

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#### 3.8.1. UNITCHECK EVALUATION ANALYSIS

The formal evaluation analysis was carried out on the basis of treatment allocation with the last known value brought forward. This means that all evaluation participants are included in the analysis irrespective of whether or not they received the intervention and/or completed the post-intervention survey.

### 3.9. ETHICAL APPROVAL

Ethical approval for the current project was granted by the Leeds University Institute of Health Sciences Research Ethics committee.



## 4. DRINKING BEHAVIOUR AND RISK LEVEL

### 4.1. PAST AND CURRENT DRINKING

Approximately 88% of the young people surveyed indicated that they have in the past consumed a whole alcoholic drink (i.e. not just a sip). The mean age of having a 'first drink' was 12.81 years. The majority of the group (61%) first consumed alcohol between the age of 12 and 14 years (see Figure 2).

Approximately 60% of those surveyed reported drinking less than once a week (see Table 2). A significantly higher percentage of males (43%) than females (33%) reported drinking at least weekly ( $\chi^2=9.36$ ,  $p<0.01$ ).

#### Key points:

- The majority of young people report having their first whole alcoholic drink in their early teens.
- 60% of students report drinking less than once a week.
- Of those who have consumed alcohol in the past, approximately 6% do not currently drink at all.

Table 2: Students' reported frequency of drinking alcohol

	Male n=340 n (%)	Female n=501 n (%)	Total n=841* n %
Never consumed alcohol	43 (13)	51 (10)	94 (11)
No longer consume alcohol	10 (3)	18 (4)	28 (3)
Once a month or less	87 (26)	158 (32)	245 (29)
About once a fortnight	51 (15)	108 (22)	159 (19)
Once or twice a week	144 (42)	159 (32)	303 (36)
Daily or almost daily	5 (1)	7 (1)	12 (1)

\* only includes those participants who gave their gender

Of those students who have consumed alcohol in the past approximately 15% did not consume alcohol during the last 30 days. Fifty percent reported drinking at least once a week during this period (see Figure 3). For those who have drunk alcohol in the past the average number of

drinking days over the last month was 4.71. Males reported drinking on significantly more days than females (Mean 5.39 vs 4.23 drinking days respectively;  $t=3.40$ ,  $df=522.86$ ,  $p < 0.01$ ).

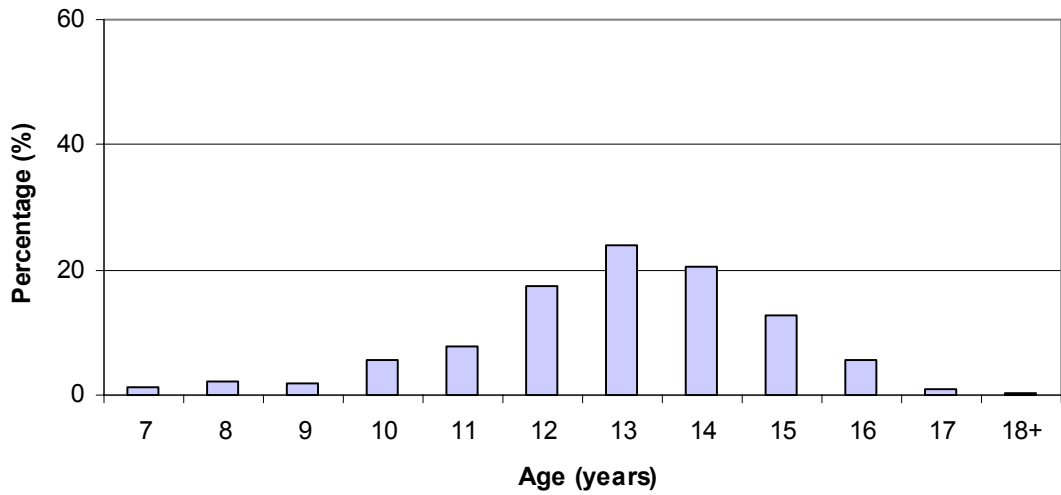


Figure 2: Age of first whole alcoholic drink

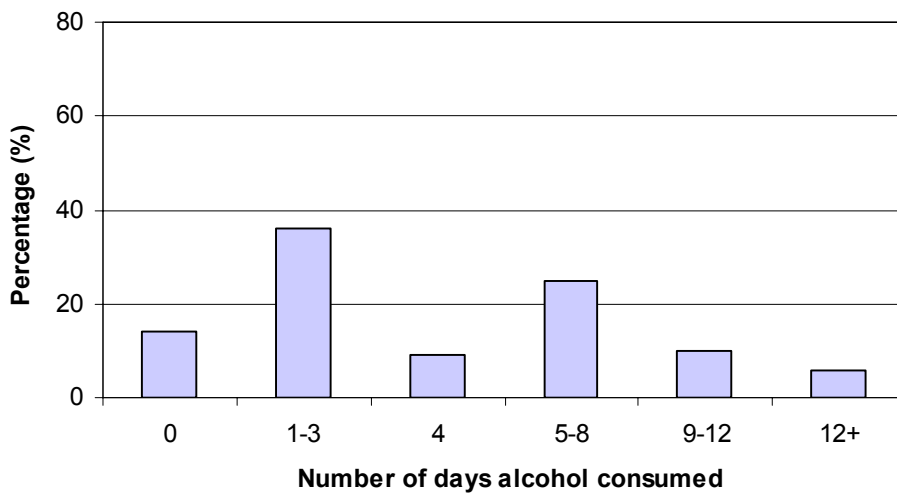


Figure 3: The number of days that alcohol was reportedly consumed over the last 30 days for students who are current consumers of alcohol.

Approximately 50% of students reported drinking within the weekly guidelines for 15-18 year olds; (see Figure 4). A minority reported consuming high levels of alcohol last week with 16% and 6% drinking hazardous and harmful amounts respectively. Males reported consuming significantly more units last week ( $F(1,834)=14.79, p < 0.01$ ); average units per occasion last week ( $F(1,834)=12.11, p<0.01$ ); number of drinking episodes last week ( $F(1,834)=9.63, p<0.01$ ); and, number of binge episodes last week ( $F(1, 834)=7.28, p<0.01$ ; see Table 3).

Table 3: Average reported alcohol consumed during the last week

	Male n≈340 Mean (SD)	Female n≈500 Mean (SD)	Overall n≈840 Mean (SD)
Average units per week	15.61 (27.22)	8.09 (14.41)	11.13 (20.88)
Average units per occasion	7.03 ( 9.70)	4.30 ( 6.44)	5.40 ( 8.03)
Average number drinking episodes	1.22 ( 1.55)	0.93 ( 1.24)	1.05 ( 1.38)
Average number binge episodes	0.68 ( 1.11)	0.50 ( 0.88)	0.57 ( 0.99)

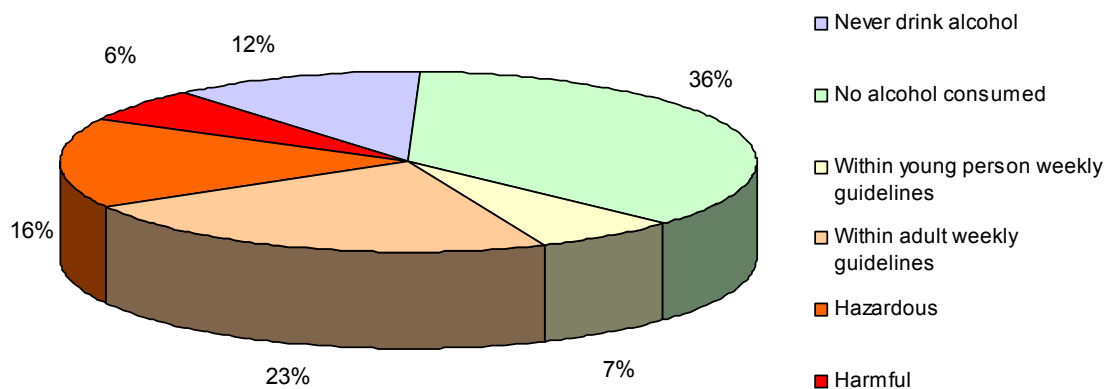


Figure 4: Level of alcohol consumption over the last week

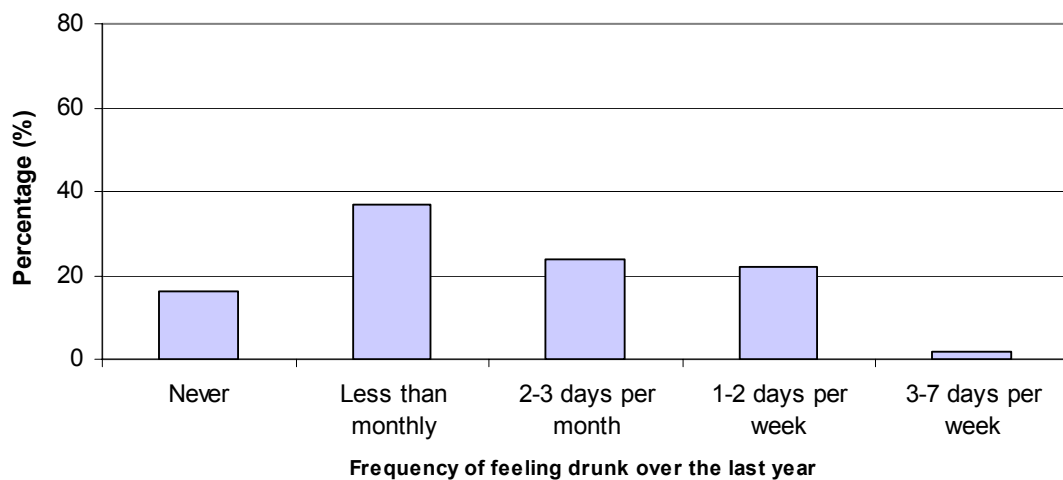


Figure 5: Reported frequency of feeling drunk during the last year for those students who are current consumers of alcohol

Approximately 1 in 4 young people who have consumed alcohol in the past reported feeling drunk 1 or 2 days per week over the last year. More than half reported feeling drunk less than once a month over the last year (see Figure 5).

The reported frequency of feeling drunk over the last year increased with consumption levels (see Figure 6). Less than 10% of those drinking within the weekly guidelines for young people reported feeling drunk at least once a week. In contrast, approximately 75% of those drinking at harmful adult weekly levels reported feeling drunk at least once a week.

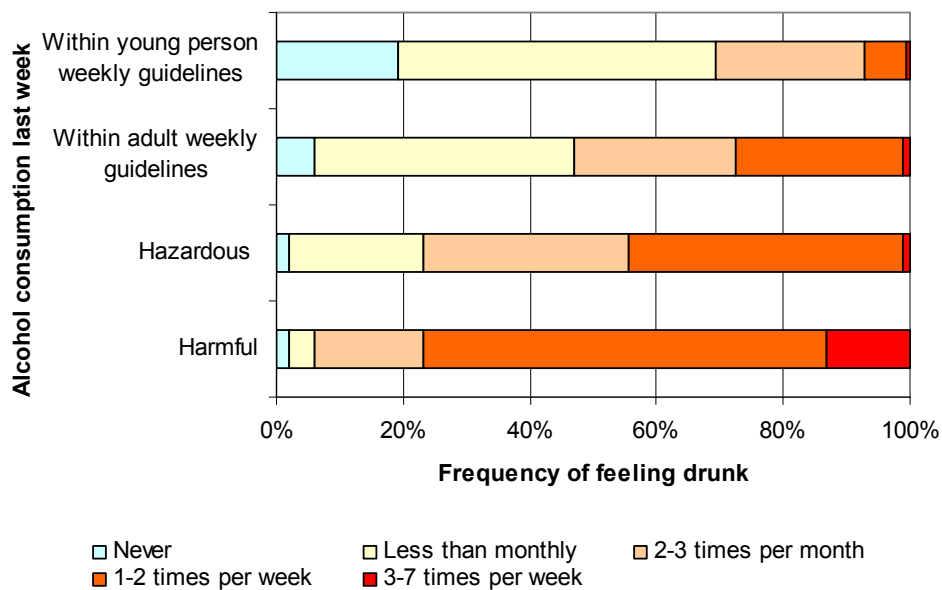


Figure 6: Reported frequency of feeling drunk during the last year for students who are current consumers of alcohol by level of alcohol consumption

#### Key points:

- Approximately 50% of young people sampled drink within the weekly guidelines for young people.
- Approximately 22% reported drinking at hazardous or harmful adult levels.
- Males report drinking significantly more units than females.
- Last week 40% of students binge drank.

#### 4.2. DRINKING PER OCCASION

The number of units consumed was highest on Friday and Saturday nights (see Table 4). Males drank significantly more units on each day of the week compared to females ( $p < 0.05$ ). The majority of the group (58%) did not consume at binge levels over the course of the previous week

(see Figure 7). About 5% reported binge drinking more than twice a week (therefore drinking on at least one school/college night).

Table 4: Drinking on each day of the week

Day	Last week consumption		
	Total units	Total drinks	Units per drink
Mon	0.64 (3.56)	0.27 (1.43)	2.48 (1.09)
Tue	0.50 (3.22)	0.20 (1.24)	2.33 (0.66)
Wed	0.50 (2.84)	0.22 (1.22)	2.31 (0.82)
Thurs	0.68 (3.72)	0.31 (1.68)	2.27 (0.70)
Fri	4.98 (9.21)	2.43 (4.57)	2.32 (1.34)
Sat	4.90 (8.71)	2.27 (4.07)	2.31 (1.14)
Sun	1.03 (4.18)	0.45 (1.77)	2.40 (0.91)

Based on last weeks' drinking diary less than 1 in 10 Sixth Form students were drinking at binge levels during school nights. On non-school nights (i.e. Friday and Saturday) the number of young people binge drinking rose to approximately 3 out of 10 students.

The most frequently reported type of drink consumed was spirits (by 43% of those who drank alcohol). Other drinks consumed were lager (36%), wine (33%), alcopops (33%), cider (26%) and beer (13%).

Approximately 80% of the units consumed by males came from lager, beer or cider (see Figure 8). Lager, beer and cider accounted for 37% of the units consumed by females. Females reported a more even spread of types of drinks consumed although wine accounted for the greatest proportion of units consumed (26%).

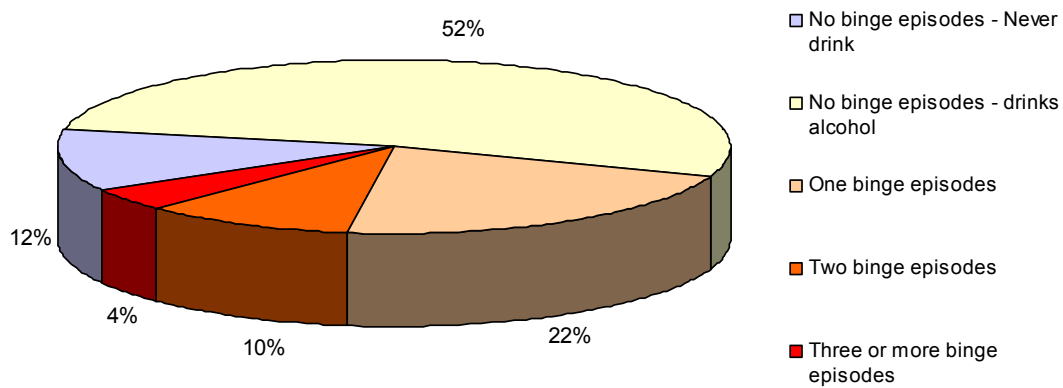


Figure 7: Number of adult binge drinking episodes (i.e. 6 or more units for females/ 8 or more units for males) reported in the last week

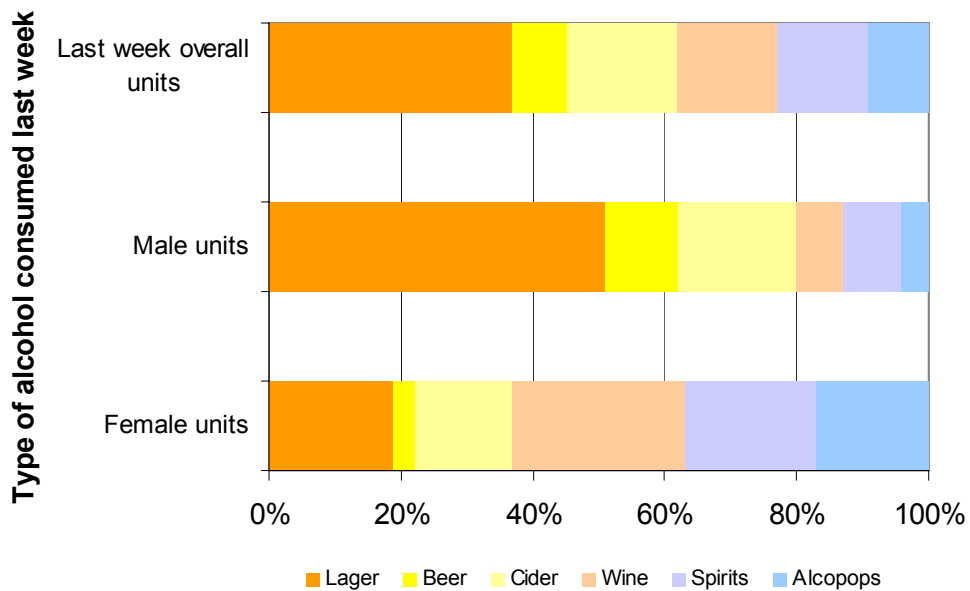


Figure 8: Type of drink consumed last week as a proportion of total units consumed last week



## 5. CONSEQUENCES OF DRINKING

### Key Points

- Those drinking at higher levels are more likely to have experienced negative behavioural consequences as a result of their drinking
- Those drinking at higher levels are more likely to report that alcohol is negatively affecting their studies and their finances.

The four most common negative consequences related to drinking reported by young people were feeling ill (71%), having a hangover (71%), vomiting (57%) and being unable to remember what happened (56%) (see Figure 9). All of these are related to the physiological effects of drinking at high levels. There was a high prevalence of consequences related to potentially violent behaviours such as arguments (47%) and property damage (36%). Approximately one in ten students who currently drink alcohol reported having skipped school and/or been in trouble with the police. About 15% had taken part in risky sexual practice. Sixty-eight percent of those who reported having unprotected sex also reported having sex when they usually wouldn't.

Those drinking at hazardous or harmful levels were four times as likely to have had a fight or have skipped school, three times as likely to have driven over the limit, been hospitalized because of their drinking, been in trouble with the police, or had sex when they ordinarily wouldn't. They were also twice as likely to have had unprotected sex (see Figure 10).

Those who reported drinking above the drinking guidelines for 15-17 year olds were significantly more likely to report alcohol as having a negative effect on their studies, finances, physical health and mental health (all  $p < 0.01$ ) than their within guidelines peers (see Figure 11).

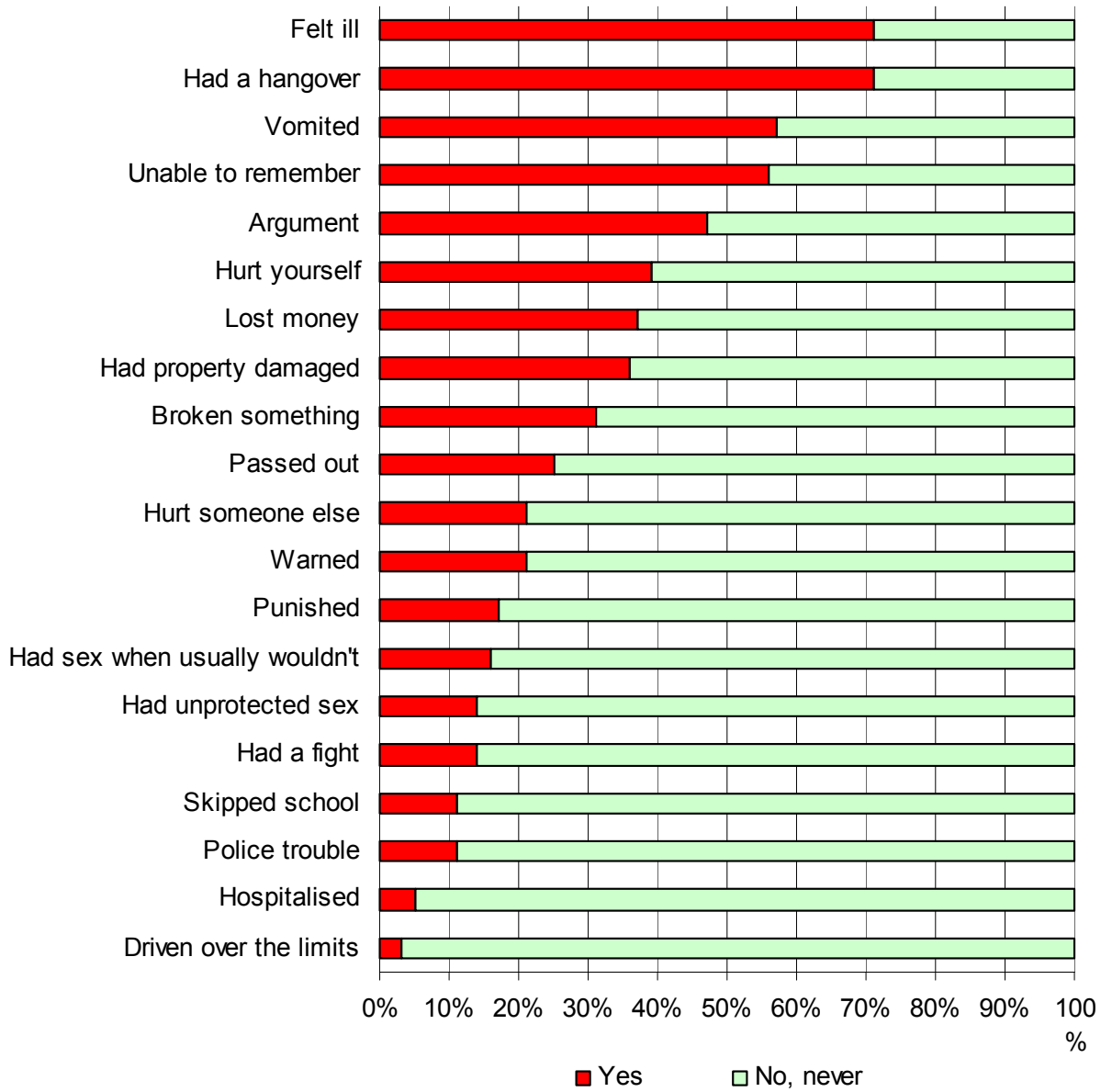


Figure 9: Reported lifetime experience of alcohol related consequences for students who currently drink alcohol

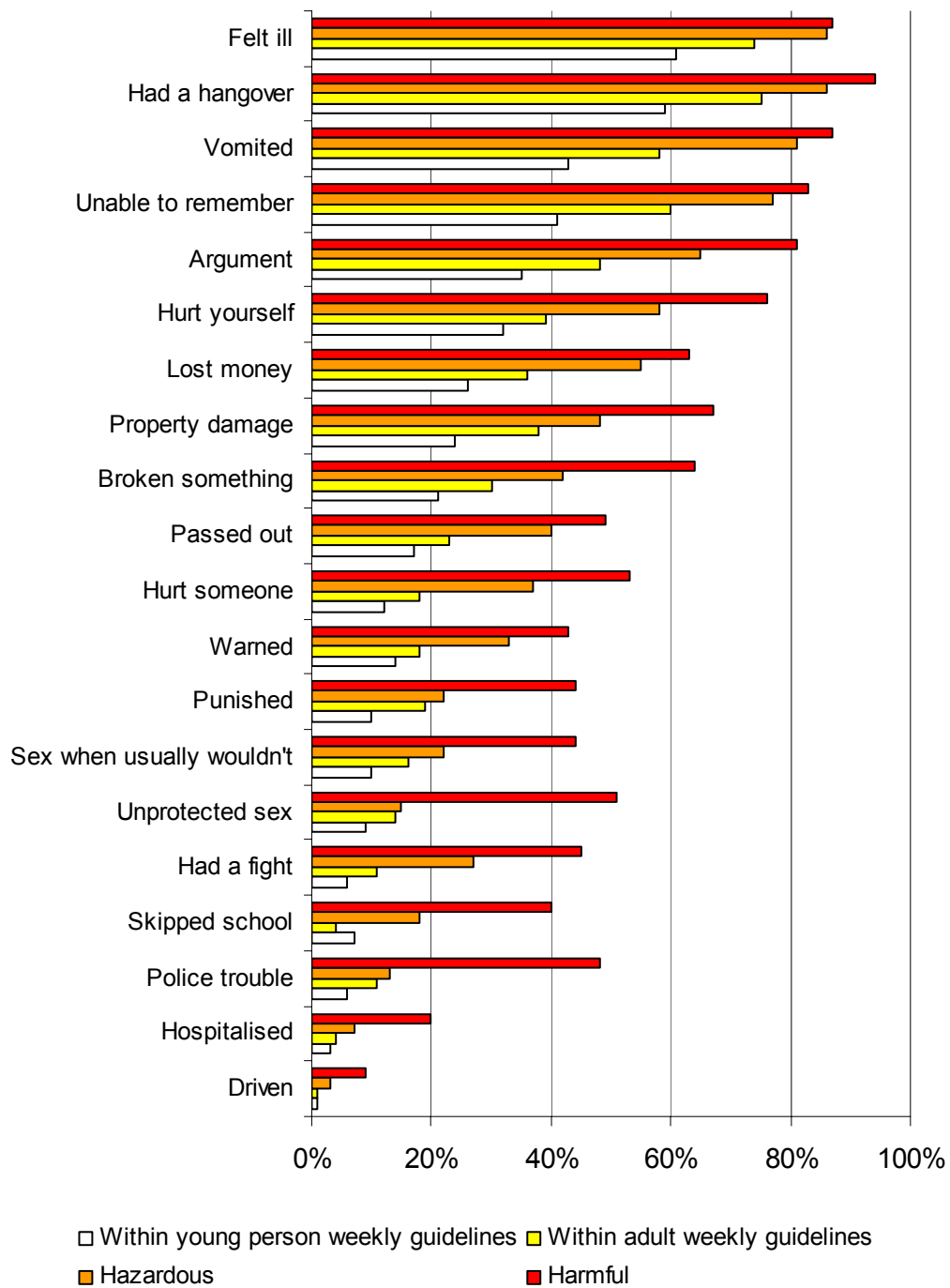


Figure 10: Reported lifetime experience of alcohol related consequences for students who currently drink alcohol by level of alcohol consumed last week

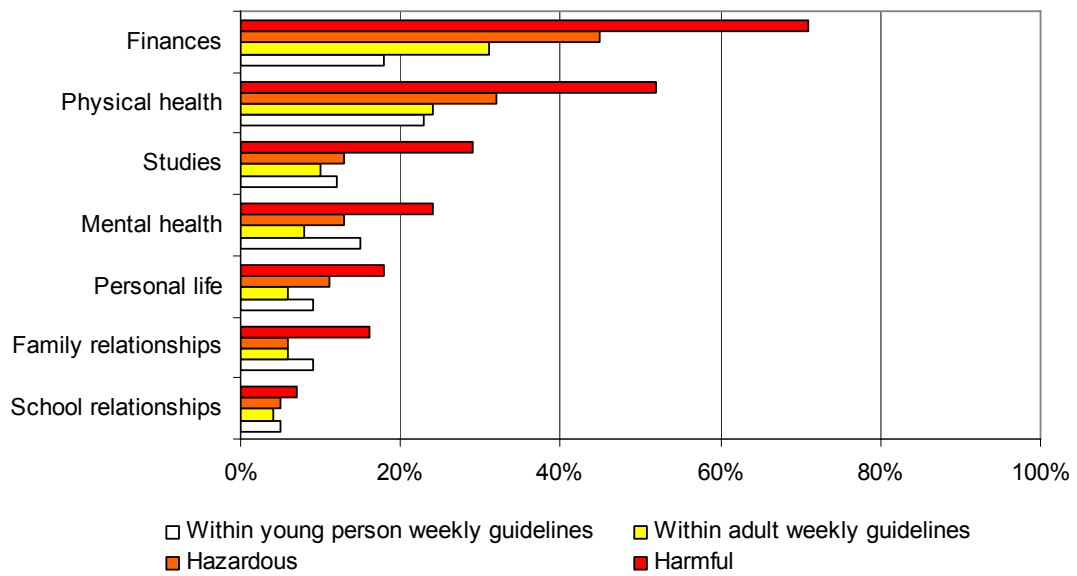


Figure11: Proportion of students who reported negative impact of alcohol on areas of their lives by level of alcohol consumed last week



## 6. HOW, WHERE AND WHEN

### Key points

- Students drinking at higher levels reported acquiring alcohol from a wider range of sources.
- Students drinking at higher levels spent significantly more money on alcohol than those drinking within sensible limits.
- Friends were the most common people students reported drinking with.
- 95% of young people report that their parents know about whether they drink or not.

### 6.1. HOW MUCH DO YOUNG PEOPLE SPEND ON ALCOHOL?

Over the course of a week, the average amount of money spent on alcohol by was £13.70 with approximately 70% reporting spending more than £10 a week.

Significantly more money was spent by those drinking at hazardous (£17.06 per week) or harmful (£23.48 per week) levels in comparison to those drinking within the recommended limits young people (£9.82 per week).

### 6.2. WHERE DO YOUNG PEOPLE GET THEIR ALCOHOL FROM?

Approximately 1 in 3 young people who currently drink buy alcohol at least once a week (see Figure 12). Overall 1 in 4 participants who drink have not bought alcohol themselves. Of those who do buy alcohol 47% have tried to buy alcohol from a shop and 68% have tried to buy alcohol from a licensed venue.

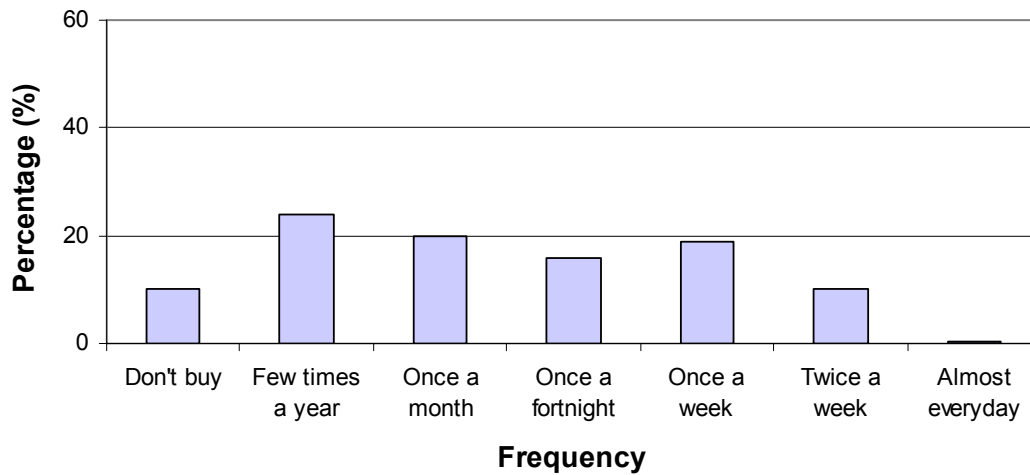


Figure 12: Reported frequency of buying alcohol for those students who currently consume alcohol

Young people who drink reported buying alcohol from a range of sources (see Figure 13). Approximately 50% of students who drink alcohol reported buying alcohol from more than one source. A quarter of participants who drink alcohol reported buying alcohol from both shops/off licences and licensed venues.

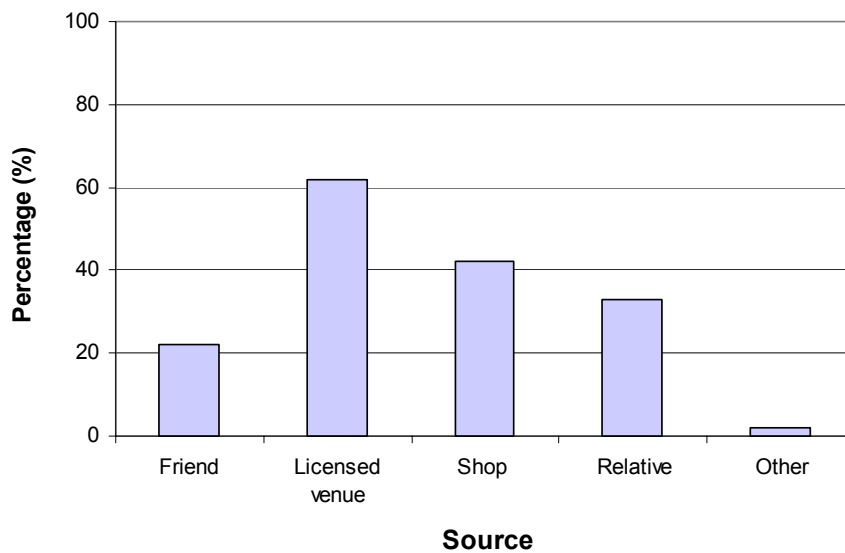


Figure 13: Where students who buy alcohol report purchasing their alcohol from

The majority of students who drink reported having been given alcohol by their parents or friends at some point in their life (see Figure 14). Approximately 15% of students have stolen alcohol from home while more than 60% report taking alcohol from home.

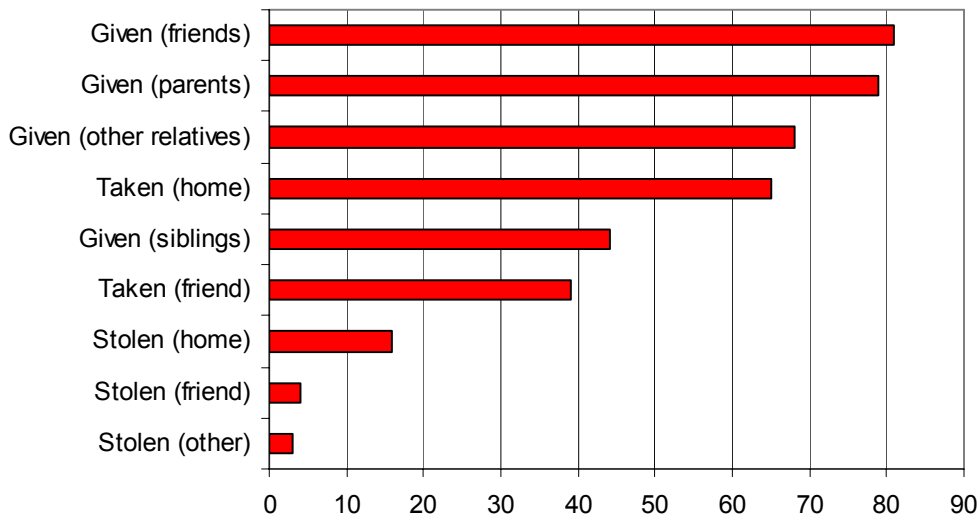


Figure 14: Where students who currently consume alcohol report getting their alcohol from

### 6.3. WHERE AND WHEN DO YOUNG PEOPLE DRINK?

Looking at the month prior to the survey, 77% of those who currently consume alcohol reported drinking when with friends and 73% report drinking at parties. About 50% drank when they fancied it, 42% drank at family celebrations, 31% drank until drunk and 16% drank until relaxed. Eight percent reported that they drank when they were having a problem and 3% drank when they were lonely.

### 6.4. WHO DO YOUNG PEOPLE DRINK WITH?

Three out of 4 of those who currently drink did so with either a male or female friend and 1 in 3 drank with their girlfriend or boyfriend. Drinking with parents was reported by less than half of consumers of alcohol with the numbers lower for drinking with siblings or other relatives.

#### 6.5. DO YOUNG PEOPLE BELIEVE THAT THEIR PARENTS KNOW THAT THEY DRINK?

Of those young people who do drink alcohol 95% indicated that they believed their parents knew that they drank alcohol. This figure was the same for those who do not drink, with 95% reporting that they believe their parents knew that they did not consume alcohol.



## 7. YOUNG PEOPLE'S PERCEPTION OF OTHERS' DRINKING

### 7.1. PERCEPTIONS OF OTHER YOUNG PEOPLE'S DRINKING

All students, regardless of whether or not they consumed alcohol, were asked about their perceptions of other young peoples' drinking.

Approximately 90% of students believed that 'most' or 'all' of the students in their Sixth Form drink alcohol. Just fewer than 90% of students believed that 'most' or 'all' of people of Sixth Form age drink alcohol. Likewise, about 90% of Sixth Form students believed that 'most' or 'all' of those aged 18-24 drink alcohol.

#### Key points:

- Students tend to overestimate how many other students are drinking alcohol.
- In general young peoples' perceptions of their peers' experience of negative consequences are more accurate than their estimations of the level of drinking.
- Those getting drunk are more likely to report that they believe their friends also get drunk at least once a week.

#### 7.1.1. BELIEFS ABOUT THE DRINKING BEHAVIOUR OF FRIENDS

The percentage of students believing that most or all of their friends drink alcohol increased with level of alcohol consumption but was high for both drinkers and non-drinkers (see Figure 15).

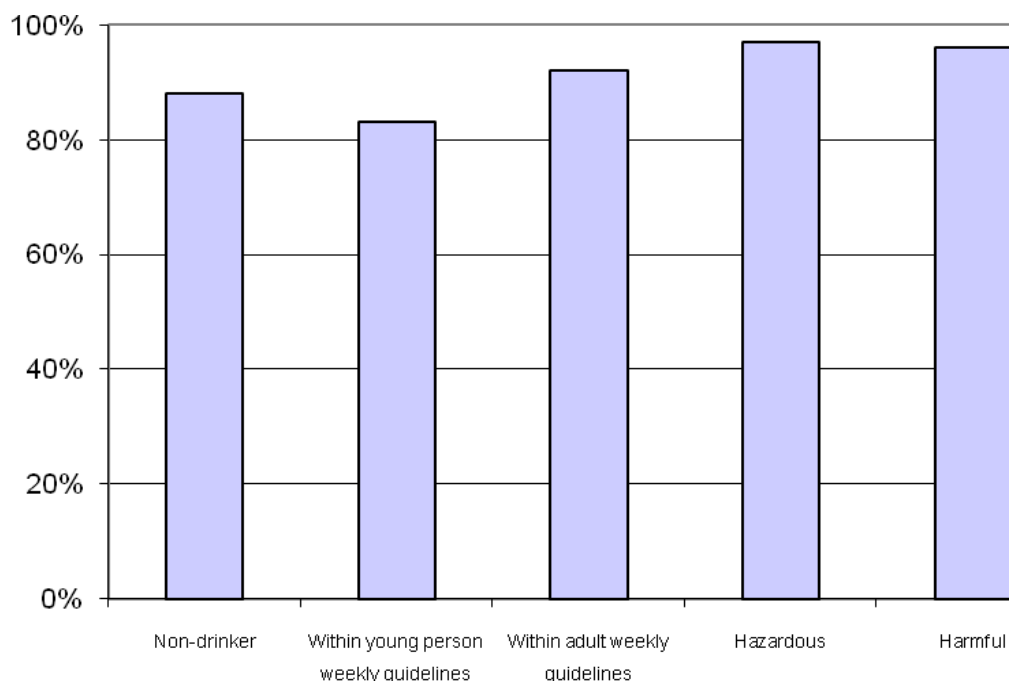


Figure 15: Percentage of students who believe that 'most' or 'all' of their friends consume alcohol.

Approximately 1 in 3 students believed that most of the students in their Sixth Form get drunk at least once a week. Approximately 41% of students believed that most or all of those of Sixth Form age get drunk at least once a week. The reported perceptions of the proportion of friends who get drunk at least once a week was greater for students who also reported getting drunk once a week compared to their peers who reported they did not get drunk. (see Figure 16).

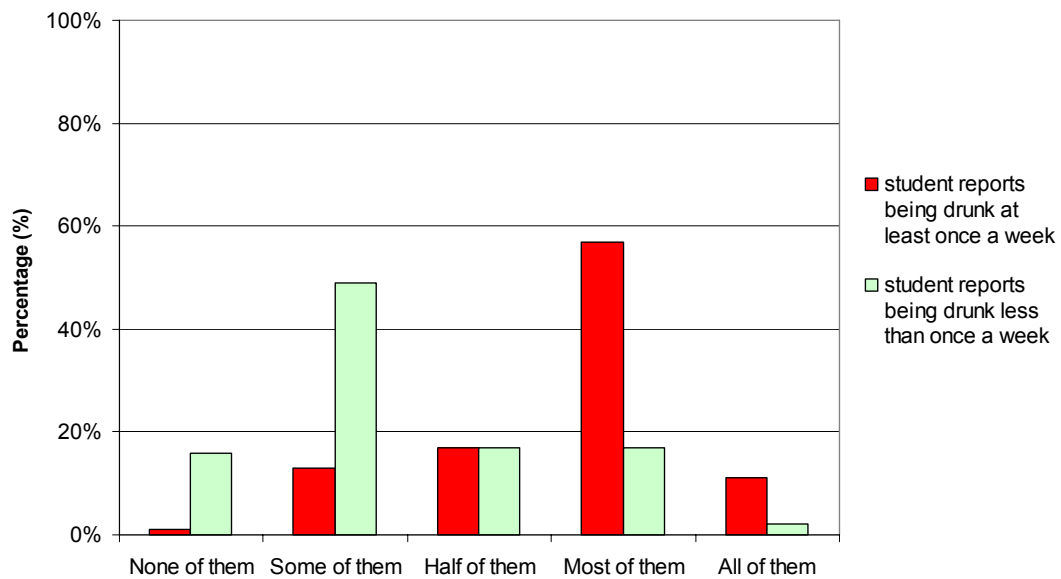


Table 16: Students' perception of the proportion of their friends who get drunk at least once a week

### 7.1.2. STUDENTS' BELIEFS ABOUT THE CONSEQUENCES EXPERIENCED BY THEIR PEERS

Students were asked to imagine ten typical Sixth Form students and predict how many had experienced negative consequences as a result of drinking alcohol. Their perceptions were then compared to the actual numbers who reported experiencing each consequence. On average participants correctly predicted the number experiencing feeling ill, hurting themselves, losing money, and vomiting. Students were less accurate in their predictions of the number of students who had skipped school, been unable to remember the night before, had been involved in a fight, had sex when they ordinarily wouldn't or had unprotected sex. In each case students overestimated the number of individuals who had experienced the relevant consequence (see Figures 17-18).

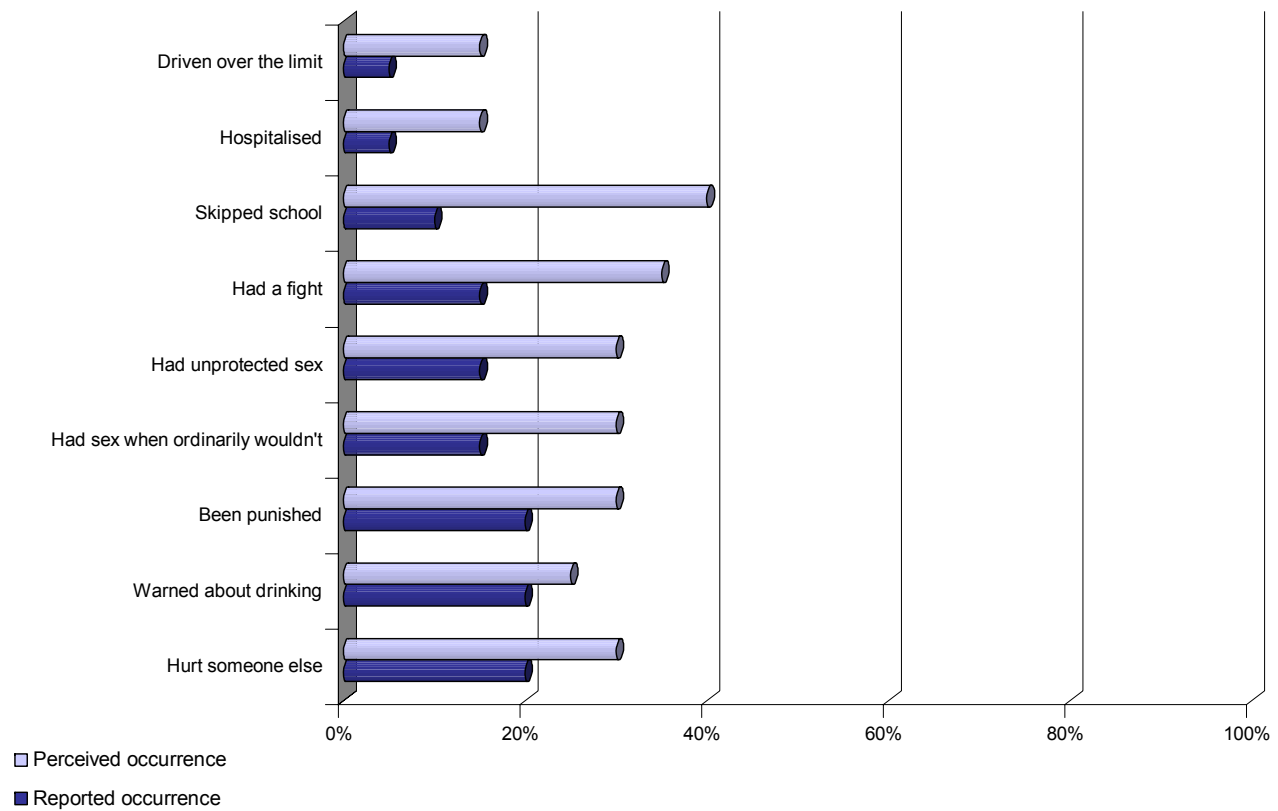


Figure 17: Comparison of the proportion of students who perceived their peers to have experienced negative consequences with the actual proportion of students reporting experiencing the consequence

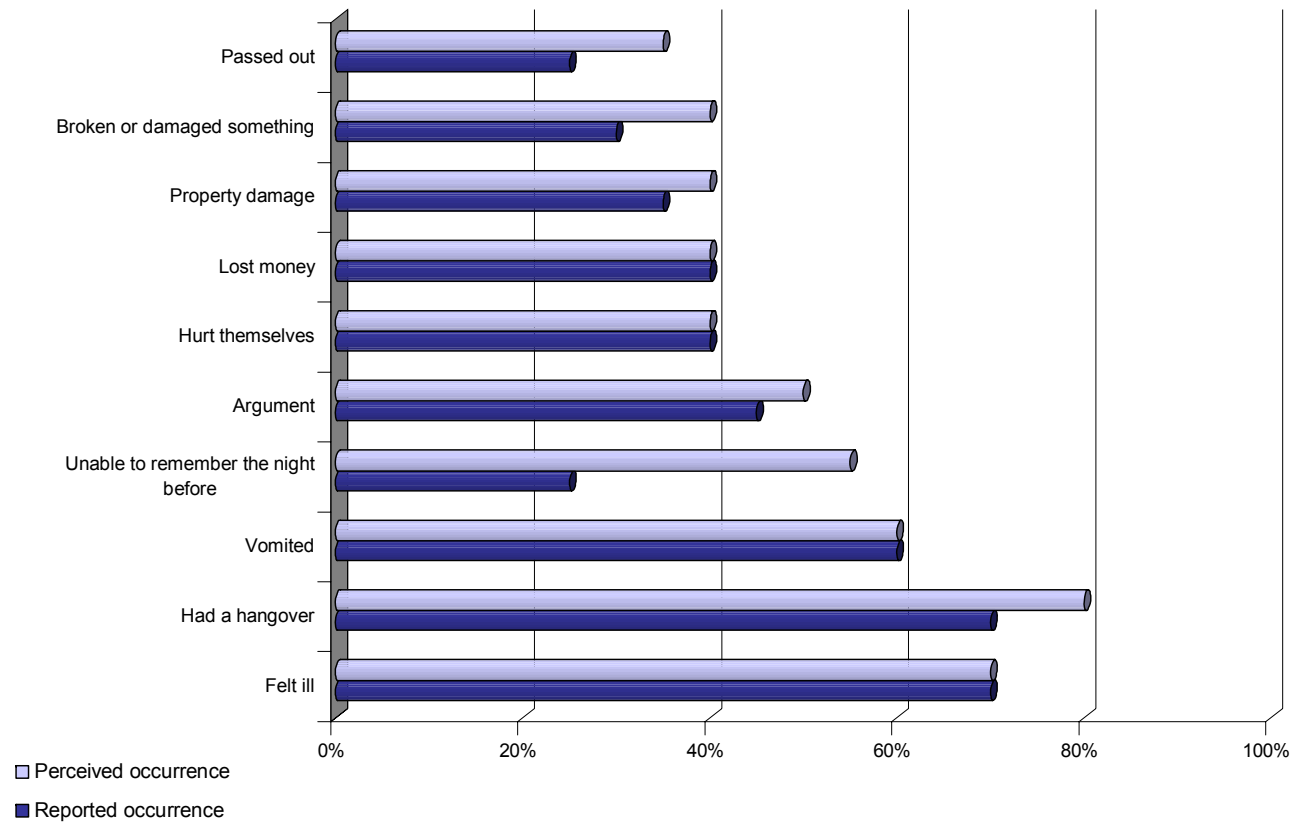


Figure 18: Comparison of the proportion of students who perceive their peers to have experienced negative consequences with the actual proportion of students reporting experiencing the consequence



## 8. UNITCHECK: CHALLENGING YOUNG PEOPLE'S PERCEPTION OF DRINKING

### 8.1. ALCOHOL CONSUMPTION OF UNITCHECK USERS

The frequencies of drinking alcohol reported by those who used Unitcheck were similar to those reported by the overall sample (see Figure 19). No significant differences were found between intervention participants who did and did not visit the Unitcheck site by age of first drink ( $p=0.80$ ), number of drinking occasions in the last thirty days ( $p=0.21$ ), or last week unit total ( $p=0.33$ ).

Approximately 40% of Unitcheck users who currently drink alcohol believed that they may be drinking more than they should but only 16% said they were thinking about drinking less.

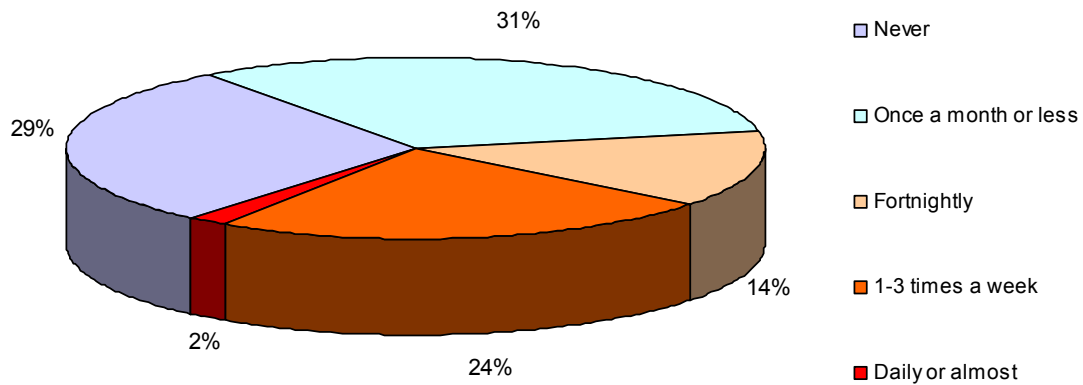


Figure 19: Reported frequency of alcohol consumption amongst Unitcheck users

Students who logged into Unitcheck were asked to complete the CAGE (a screening tool for potential alcohol dependence for adults). For approximately 15% of students who currently consume alcohol their score suggested potential problematic drinking (i.e. CAGE score 2 or more). Those students who consume alcohol were also asked to complete the AUDIT.

Approximately half of students who drink scored 8 or above on AUDIT; a score of 8 or more indicates potentially hazardous drinking (see Table 5).

Table 5: Proportion of students using Unitcheck who score within each of the AUDIT categories category

AUDIT score	Definition and advice	n (%)
0 or non-drinker		50 (30%)
1-7	Normal range (adults)	54 (36%)
8-15	Medium range of alcohol problems: Simple advice focused on the reduction of hazardous drinking	35 (23%)
16-19	High level of alcohol problems: Brief counselling and continued monitoring	5 ( 3%)
20+	High level of alcohol problems: Further diagnostic evaluation for alcohol problems	8 ( 5%)

## 8.2. EFFECTIVENESS OF UNITCHECK

Analysis revealed a significant decrease in units consumed in the last week over (F=6.99, df=1,806, p<0.01). There was a main effect of condition on units consumed in the last week (F=5.956, df=1, 806, p=0.02). T-tests showed a significant reduction in units consumed in the last week over time for those receiving the intervention (t=3.43, df=407, p<0.01) but no significant change within the control condition (t=0.18, df=403, p=0.86) (see Table 6).

A significant reduction in units per occasion was also observed over time (F=4.80, df=1,8-6, p=0.03). However there was no significant effect of condition (p=0.05) meaning that this reduction was observed in both the control and the intervention group (see Table 6).

Table 6: Units consumed and per occasion (previous week)

	Control		Intervention		Total	
	n=403		n=407		n=810	
	M	(SD)	M	(SD)	M	(SD)
<i>Units consumed</i>						
Initial survey	10.28	(17.71)	12.17	(23.94)	11.23	(21.08)
Post-intervention survey	10.04	(17.51)	10.61	(21.33)	10.32	(19.51)
<i>Units consumed per occasion</i>						
Initial survey	4.90	(6.90)	5.97	(9.06)	5.44	(8.07)
Post-intervention survey	4.79	(6.71)	5.16	(8.40)	4.97	(7.61)

### 8.3. PARTICIPANT FEEDBACK ABOUT THE INTERVENTION SITE

After viewing their personalised feedback, participants provided feedback on what they thought of the information provided by the site. Approximately 40% of the group agreed that the feedback was useful and that they would recommend the site to a friend (see Figure 20). This level of agreement is lower than that found within the university student population and further work should explore why this proportion of students were unsure of the site's usefulness.

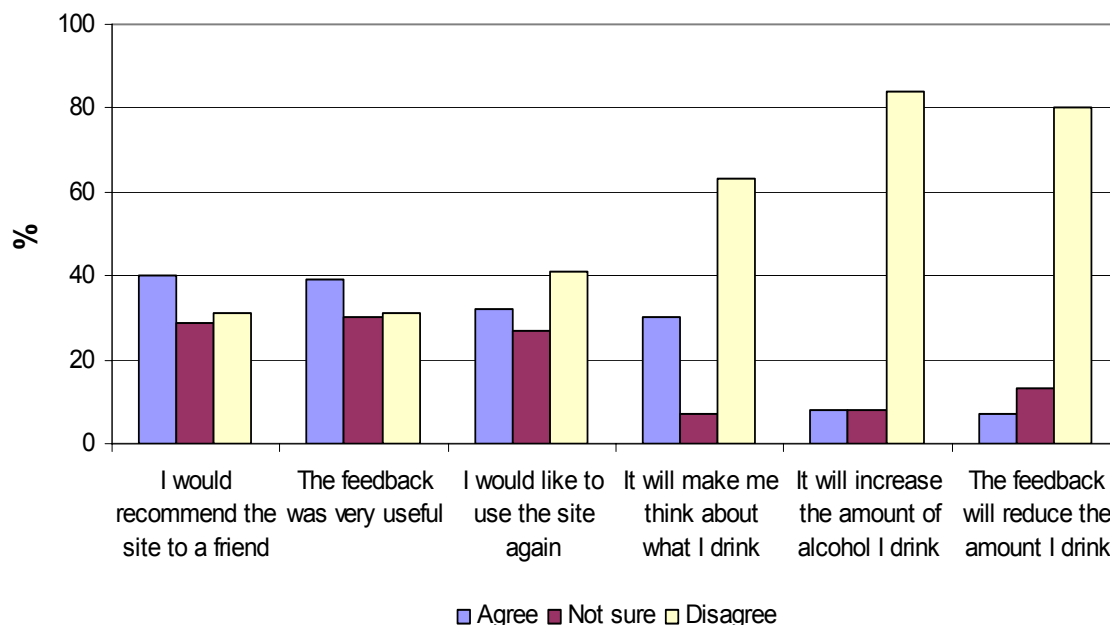


Fig 20: Participant feedback on the Unitcheck site

#### 8.4. LEVEL OF ENGAGEMENT WITH UNITCHECK

All participants from schools that had access to Unitcheck were invited to visit the website. In total 90 students accessed the Unitcheck website and received personalised feedback. Given that 407 students received direct invitations (via email) and the participating schools had a student population of approximately 2100 this level of engagement is disappointing. A number of barriers to students engaging with the website were identified. Firstly students were required to use either the email address they had provided during the baseline survey or their school email address. It appears however that students tried to access the site using alternative email addresses and therefore were denied access to the site. Secondly, to complete the registration process students had to follow a url link within an automated email sent to their account. Without verifying their address they could not gain access to the site. It appears that, due to system security settings, these verification emails were blocked as junk mail and therefore were not seen by some participants. The same is likely to be true for some of the email invitations sent inviting participants to visit the site. Thirdly, some schools experienced technical difficulties with accessing the site – this was despite having the site cleared by the Leeds Learning Network technicians. It is also possible that the low uptake was due to project fatigue. Schools put an enormous effort into getting students to complete the baseline questionnaire and, perhaps

understandably, this level of effort was not sustained during other project phases. Without the continued support and encouragement of Student Champions and school staff it was not possible for the Unitcheck project to maintain a high level of visibility within the school. Given the competing demands on student, it is likely that some students simply forgot to log onto the site. Despite these barriers those students who did access Unitcheck appear to have enjoyed the experience.

While it is clear that the above impacted on the level of engagement during this project the team has since reflected on the process and while some of the challenges faced could be overcome by altering the site or would not have been an issue outside of a controlled trial setting. For example, the need to restrict access for some participants (e.g. controls) would not be necessary outside of a controlled trial and therefore restrictions could be relaxed. Other issues have already been addressed by alterations to the website (e.g. altering the way in which verification of email accounts is carried out by the site).

#### Key points:

- The drinking characteristics of those using Unitcheck were not significantly different to those who did not respond to the invitation to visit the site.
- The feedback provided was found useful by 40% of the group and 40% also indicated that they would use the site again.
- There was a significant effect of condition on units consumed during the last week pre to post with a larger decrease being observed amongst students in the intervention condition.

#### 8.5. FUTURE DIRECTIONS

While the evaluation findings are encouraging, the high attrition rate and low level of engagement with the site mean they should be interpreted with caution. This study does however raise a number of questions which warrant further investigation:

- (1) Could further customization increase Unitcheck's attractiveness and effectiveness within this population? This is an important consideration given that for this project Unitcheck was not customised for Sixth Form students (other than some minor changes to the messages generated). Indeed this study was designed to see if an intervention designed for university students could be used effectively within a younger population. Future work should investigate if further customization

could lead to greater behavior change.

- (2) How could school and student engagement with Unitcheck be increased? Head teachers, staff and students had an important role to play in promoting and sustaining interest in the project. Future work should investigate barriers and enablers to engagement and seek to uncover how best to promote web-based tools within this population.



## 9. CONCLUSION

The results from the current study suggest that nearly 90% of Leeds Sixth Form students have consumed a whole alcohol drink at some time in their lives. This figure is almost identical to that reported by Lightowlers et al (2009) who found that 91% (n≈135) of the 14 to 16 year olds sampled had drunk alcohol. Within the current results the majority of students reported having their first drink in their early teens.

While current government policy suggests that many young people are drinking more than a decade ago (Department of Health, 2007) a recent review reports that consumption amongst 16-24 year olds has recently declined (Smith and Foxcroft, 2009). Our findings tend to support the latter as while the levels of potentially problematic levels of consumption within the current study are cause for concern (e.g. ≈22% drinking at hazardous/harmful weekly levels), the level and frequency of consumption reported is less than suggested by reporting in the popular press. The majority of participants reported drinking less than once a week and half the sample reported drinking within the weekly guidelines for 15-18 year olds.

Although the current results do suggest that many young people are within the weekly guidelines it is of concern that 40% of students reported consuming alcohol at a level that would be considered binge drinking. Twenty five percent of students who have consumed alcohol in the past reported feeling drunk 1 or 2 days per week over the last year. The reported frequency of getting drunk by young people suggests either that retrospective diaries were completed on what students would consider an atypical week and/or students perceptions of 'getting drunk' are not related to the formal definitions of binge drinking – this issue requires further investigation. Given the potential relationship between perceived norms and subsequent behaviour it is concerning that students tend to overestimate the frequency to which their peers 'get drunk'; this overestimation is greatest amongst those students who themselves 'get drunk' more often.

The level of consequences reported by students highlight the potential damage alcohol can do to young people. The four most common negative consequences were feeling ill, having a hangover, vomiting, and being unable to remember what happened. Although smaller in number the percentage of students reporting hurting themselves, engaging in risky sexual behavior, skipping school and getting into trouble with the police was not insignificant. Interestingly, it appears that students are relatively accurate at estimating the proportion of students who have experienced these negative consequences. This suggests that students are aware of some of the risks associated with drinking and the likelihood of their occurrence. At the same time students are overestimating the frequency of consumption. Being aware of risks is an important component of health education. It is also important to be aware that if messages are not carefully framed they can have the effect of normalising a behavior and thereby increasing the disparity between perceived and actual social norm. Consequently, alcohol education should provide the necessary information about the risks associated with drinking alcohol within a context that also addresses the misperceptions of normative behaviour.

The Unitcheck web-based intervention provides personalised feedback on the level of risk associated with an individual's level and pattern of consumption alongside social norms information. The intervention has been effective in reducing levels of consumption within a university student population (Bewick et al., 2008a) and the current results suggest that such an approach can also be effective in reducing consumption in Sixth Form Students. Given the relatively short exposure to the intervention, the high level of attrition and the relatively low level of engagement with the intervention, the finding that a significant decrease was observed is promising. However the results should be interpreted with optimistic caution.



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