

Evidence for Excellence in Education

Report

Evaluation of the Alcohol Education Trust's *Talk about Alcohol* Intervention: Longer-Term Follow up

National Foundation for Educational Research (NFER)

Evaluation of the Alcohol Education Trust's *Talk about Alcohol* Intervention: Longer-Term Follow up

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Executive summary

The Alcohol Education Trust (AET) provides evidence–based and peer-reviewed resources for teachers, young people aged 11-18 and their parents. Their Talk about Alcohol intervention aims to:

- delay the age at which teenagers start drinking
- help ensure that if they choose to drink, they do so responsibly
- reduce the prevalence of drinking to get drunk and the antisocial consequences of drunkenness.

Talk about Alcohol gives teachers free printed and online tools to encourage students to make informed decisions and to help them reduce risk concerning alcohol consumption. It takes an early intervention and harm minimisation approach, aiming to build resilience using rehearsal strategies and role-play. The intervention was piloted in ten schools across the UK before roll out. The intervention includes: a 100-page teacher workbook of lesson plans which are fully-supported online; the <u>www.alcoholeducationtrust.org</u> website with areas for teachers, students and their parents; information booklets for parents and young people; an opportunity to host a '*talkaboutalcohol*' parents event in school; and resources set out by subject and year group for teachers via the website.

This summary reports the findings from a long-term evaluation of the Talk about Alcohol intervention. The focus is on the fourth student survey in a series (carried out two years after students received their last intervention sessions).

A rigorous and independent evaluation

The National Foundation for Educational Research has investigated the impact of the Talk about Alcohol intervention. The study, which commenced in 2011, has compared change in outcomes for an intervention group (which used the intervention) and a statistically matched comparison group over four time points, using a self-completion student survey. Students were age 12-13 (Year 8) at the time of the first (baseline) survey and 15-16 (Year 11) at the point of the fourth survey carried out in January- March 2015. As a minimum requirement for the evaluation, intervention schools were asked to deliver four sessions from the teacher workbook, and spend an hour looking at the intervention website, when students were age 12-13 in Year 8 (between the baseline and second survey). They were then asked to deliver two further sessions when students were age 13-14 in Year 9 (prior to the third survey). At the time of the fourth survey (at age 15-16 in Year 11), students were in a pressured GCSE examination year, so schools were not required to deliver any additional sessions. Therefore, the fourth survey was administered two years after the students had had their last intervention sessions. Statistical multilevel modelling was carried out to analyse the survey data, as it provides robust comparisons between the intervention and comparison groups, allowing for any differences among them that are not related to the intervention.

Table A summarises the main research questions addressed by the fourth survey and the key findings (more detail is given below).

Table A: Aims and key findings

Intervention aims to have an impact on	Research question	Key finding	Comparison versus intervention students in whole sample (% at age 15-16/Year 11)	Percentage difference between the comparison and intervention students at age 15- 16/Year 11
onset of drinking/ ever had a whole alcoholic drink?	Is the proportion of students in the intervention group who had ever had a whole alcoholic drink still significantly lower than that in the comparison group when students are age 15-16?	There is evidence of an association between the intervention and a delay in the age at which some teenagers start to drink. Students in the intervention group were still significantly less likely to have ever had a drink by the time they were age 15-16.	Intervention schools: 64% ever had a drink Comparison schools: 79% ever had a drink	 15% less students in the intervention group had ever had a whole alcoholic drink After multilevel modelling, intervention group had significantly lower odds than comparison group of ever having had a drink; odds became lower at each survey time point
knowledge of alcohol and its effect	Does the significant difference in knowledge still exist between the intervention and comparison groups once students are age 15-16?	Knowledge scores had increased for both groups. Knowledge amongst the comparison group had caught up with the intervention group (there was no significant difference between them at age 15-16).	Intervention schools: Average score (0-9) of 5.3 Comparison schools: Average score (0-9) of 5.5	No significance difference in knowledge between the comparison and intervention schools After multilevel modelling, no significant difference at final follow up
frequent drinking (a whole drink once a month or more)	Is there a significant difference in how regularly students in each group drink alcohol, now students are age 15-16 and at an age when young people are	The increase in the proportion of frequent drinkers was less among the intervention group, although the difference between	Intervention schools: 29%	8% less students in intervention group drank once a month or more

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	more likely to drink alcohol more frequently?	groups was not statistically significant.	Comparison schools: 37%	However, when just including students currently drinking in multilevel modelling this was not statistically significant
drinking to get drunk/experiencing binge drinking	Is there a difference in the proportion of students who have ever been drunk/experienced binge drinking now that they are age 15-16 and evidently more likely to engage in this kind of behaviour?	Overall, fewer students in the intervention group than in the comparison group had ever been drunk or experienced binge drinking, which is likely to be because more students in the comparison group had ever drunk alcohol. When restricting analysis to those who had ever had an alcoholic drink, there was no statistically significant difference between the groups in prevalence of drinking to get drunk.	Intervention schools: 33% Comparison schools: 44%	 11% less students in intervention group drinking to get drunk or binge drinking However, when just including students currently drinking in multilevel modelling this was not statistically significant

Table B:	Number of participants at each survey time point				
	Intervention		Con	nparison	
	N of	N of	N of	N of	Timing
	schools	students	schools	students	
Baseline (age 12-13)	16	2142	17	2268	(Year 8) November 2011- January 2012
Second survey (age 12-13)	16	2203	17	2095	(Year 8) May 2012-June 2012
Third survey (age 13-14)	15	2015	15	1904	(Year 9) May 2013-July 2013
Fourth survey (age 15-16)	8	900	10	1146	(Year 11) January–March 2015

Table B shows that there was attrition at the fourth survey. While the number of schools and students responding was lower than previously predicted necessary to detect a difference between groups, the difference in onset of drinking was found to be *relatively large* in previous rounds of the survey and, therefore, the numbers were sufficient to be confident in our ability to detect whether this difference was sustained.

Reasons for attrition are likely to be because the focus was on Year 11, which is a pressured GCSE examination year in schools. Earlier positive feedback from teachers about the intervention suggests that drop-out was not likely to be due to the programme itself. A more detailed summary of the key findings from the fourth survey is given below.

The context of drinking behaviour

The findings should be considered within the overall context of the attitudes of the young people across the whole the sample (towards school and their life in general) and their current drinking behaviour. The majority of the sample said their health was good (83 per cent in each group) and that life was going well (85 per cent of the intervention group; 83 per cent of the comparison group). Most enjoyed learning (74 per cent and 77 per cent respectively) and liked going to school (68 per cent and 71 per cent).

By the fourth survey, when students were age 15-16, the proportion who had ever had a whole alcoholic drink had increased from 41 per cent to 64 per cent of the intervention group and from 43 per cent to 79 per cent of the comparison group (see Table C).

	Baseline Age 12-13 Intervention	Baseline Age 12-13 Comparison	Survey 4 Age 15-16 Intervention	Survey 4 Age 15-16 Comparison
	%	%	%	%
Yes	41	43	64	79
No	57	55	35	21
No response	2	2	2	1
N =	2142	2268	900	1146

Table C: Have you ever had a whole alcoholic drink - more than just a sip/taste?

A single response question.

Due to rounding, percentages may not sum to 100.

Source: NFER surveys November 2011-January 2012 and January to March 2015

Across *all* students in the sample at age 15-16, 29 per cent of the intervention group and 37 per cent of the comparison group drank frequently (one a month or more); see Table D.

How often do you usually have an alcoholic	Baseline Age 12-13 Intervention	Baseline Age 12-13 Comparison	Survey 4 Age 15-16 Intervention	Survey 4 Age 15-16 Comparison
drink?	%	%	%	%
Only a few times a year/ special occasions	29	32	30	38
Once a month or more <i>(frequently)</i>	7	8	29	37
l never drink alcohol now	5	4	5	3
Never had a drink	57	55	35	21
No response	2	2	1	1
N =	2142	2268	900	1146

Table D: How often do you usually drink alcohol? (Among the whole sample)

A single response question.

Due to rounding, percentages may not sum to 100.

Source: NFER surveys November 2011-January 2012 and January to March 2015

Restricting analysis to those who had ever drunk alcohol, there was no significant difference between the groups; similar percentages drank once a month or more (46 per cent of the intervention group and 47 per cent of the comparison group).

The following diagram summarises the proportions of students in the intervention and comparison groups who had ever had an alcoholic drink at age 15-16 and who said they still sometimes drank.

Intervention group



The most common reason for drinking remained the same over time i.e. because it was a special occasion or celebration. But, students were more likely to report drinking because they find it relaxing and sociable (63 per cent and 66 per cent) and because it is fun (53 per cent of both groups) now that they were age 15-16.

As before, only small proportions (between three and five per cent) of students in both groups reported negative reasons for drinking, such as being bored, feeling pressured, or because they were trying to impress others. This does not suggest risky behaviour, although just under a quarter of students in both groups (23 per cent and 24 per cent) reported that they drink because they like to get drunk, which is risky behaviour (this was a noticeable increase from previous surveys).

The most common experiences when drinking alcohol were still feeling relaxed and outgoing (48 per cent of all intervention students and 65 per cent of all comparison students) and forgetting about problems for a while (34 per cent and 49 per cent). There were noticeable increases in the proportions of students who had experienced some negative consequences of drinking alcohol. For example, 25 per cent of the intervention group compared with 32 per cent of the comparison group had ever had a hangover. Eighteen per cent compared with 24 per cent respectively had ever got sick, while 17 per cent compared with 21 per cent had ever done something they regretted. The proportions of students across the whole sample having these experiences were greater in the comparison group (possibly because more young people in the comparison group drank alcohol overall).

Impact on delaying the age at which teenagers start to drink

There was evidence of an association between the Talk about Alcohol intervention and a delay in the age at which some teenagers start to dink. Students in the intervention group were still significantly less likely to have ever had a drink by the time they were age 15-16 (see Table C above). **Multilevel modeling showed that the odds of students in the intervention group having had a drink were lower at each survey time point, compared with the odds for students in the comparison group (including at age 15-16).**

Students with greater numbers of siblings, who had a poor relationship with their father, and who lived with someone who usually drank alcohol in the home were more likely to have ever had a whole alcoholic drink.

Impact on knowledge of alcohol and its effects

Knowledge scores increased for both groups at each survey time point. While students in the intervention group had previously scored significantly higher than those in the comparison group, there was no statistically significant difference when students were age 15-16 (an average score of 5.56 for comparison students compared with 5.3 for intervention students in a test with nine questions and a score of 0-9). This could be because intervention schools had not been expected to deliver Talk about Alcohol lessons in the two years prior to the most recent survey (they had done so when students were in Years 8 and 9). Comparison schools could have been delivering lessons on alcohol more recently, resulting in knowledge catching up.

Impact on responsible drinking – frequent drinking and getting drunk

As shown in Table D, The proportion of students who drank frequently (once a month or more) had increased in both groups over time. The trend remained the same as in previous surveys – the increase was less among the intervention group although the difference between groups was not statistically significant once multilevel modelling had been carried out. Being male, having negative reasons for drinking, if parents let their child drink, and if a student lives with someone who usually drinks in the home, were associated with increased likelihood of being a frequent drinker. Any alcohol intervention should take these issues into consideration.

There was an increase in the proportion of *all* students in both groups who had ever been drunk or experienced binge drinking, although to a lesser extent among the intervention group (from 16 per cent of the whole intervention group at baseline to 33 per cent at the fourth survey, compared with from 20 per cent to 44 per cent for the comparison group). This is likely to be because students in the comparison group were more likely to have drunk alcohol at all than those in the intervention group. Restricting analysis to students who had ever had an alcoholic drink, there was less difference between the groups. Half (50 per cent) of the intervention group had ever been drunk/experienced binge drinking, compared with 55 per cent of the comparison group. There was no significant difference between the groups when multilevel modelling was carried out. Having negative experiences when drinking, and if their parents do not know they drink, increased the likelihood of a student ever having been drunk.

Conclusions

The Talk about Alcohol intervention continues to be effective in delaying the age at which teenagers start to drink – this is evidence of a consistent effect of this early intervention programme. It is interesting to note that the reasons for drinking changed now students were age 15-16; they were more likely than before to mention finding it sociable and fun to drink. Therefore, messages about responsible drinking are important at this age.

The findings highlight the influence of the family on the likelihood of drinking. This emphasises the importance of the AET information for parents, which aims to support them in making decisions about their own alcohol consumption, acting as role models for their children, setting boundaries and knowing where their children are and who they are with. Note that the evaluation has not explored the impact of information for parents

Although there was no significant difference in knowledge of alcohol between the groups, students in the intervention group were less likely to have ever had a drink. This could suggest that knowledge alone does not necessarily have an impact on behaviour, which supports the broader harm minimisation aim of the intervention, to help young people build resilience and understand how to manage risk. It could also suggest that the earlier higher knowledge scores among the intervention group influenced a sustained behaviour change.

The fact that the intervention group had not been asked to deliver any Talk about Alcohol sessions in the two years prior to the most recent survey *could* have restricted the impact on frequent drinking from becoming significant. With more intervention, might this group go on to drink significantly less often as adults?

Key messages for school leaders and teachers

- The impact on delaying the onset of drinking is evidence that the Talk about Alcohol intervention is effective as an early intervention programme.
- The evidence suggests the value in a harm minimisation approach and in re-visiting alcohol education at different stages for example, via early intervention *before* they begin drinking (the average age of first drink is 13), before young people begin to drink more frequently (around age 15), and as they approach adulthood.
- Giving young people the facts about alcohol is not the only factor likely to influence behaviour helping young people to develop resilience, rehearsal strategies, and self-management skills to manage risk is also important. Messages about *responsible drinking* are important at this age.
- The evidence highlights the influence of the family in drinking behaviour schools should consider how to engage parents in alcohol education programmes.

Key messages for policy-makers

- There is evidence of impact of the Talk about Alcohol intervention, particularly in delaying the age at which teenagers start to drink. The materials can clearly support policy priorities concerning alcohol.
- The evidence suggests that knowledge alone is not likely to be sufficient to change behaviour and identifies that a broader skills-based approach is 'what works' this information will support Public Health England in understanding how to address its priority to reduce harmful drinking and alcohol-related hospital admissions.

1 Introduction

Between November 2011 and July 2013, the Alcohol Education Trust (AET) commissioned the National Foundation for Educational Research (NFER) to conduct a series of three student surveys in England, to assess the impact of the Talk about Alcohol intervention on young people over the short and medium term. The study compared change in outcomes of interest for an intervention group (which used the intervention) and statistically matched comparison group over three time points (a 'before and after approach'). Students were age 12-13 (Year 8) at the time of the baseline and first follow-up surveys and age 13-14 (Year 9) at the time of the third survey at least 16 months after baseline. Approximately 4,000 students were surveyed at each time point. The key findings from the study were as follows¹:

- Onset of drinking (have you ever had an alcoholic drink?): there was evidence of statistically significant impact on the age at which teenagers start to drink – significantly fewer students in the intervention group than in the comparison had ever had an alcoholic drink by the time of the third survey.
- Knowledge of alcohol and its effects: there was significant association between the Talk about Alcohol intervention and increased knowledge of alcohol and its effects – while knowledge scores increased for students in both groups, there was a *significantly greater increase* for students in the intervention group.
- Frequent drinking (defined as once a month or more): although levels of frequency of drinking and binge drinking were lower among intervention schools, there was no evidence of a *statistically significant difference* in frequency of drinking (amongst those who drank alcohol) or in terms of prevalence of drinking to get drunk at this stage. These are arguably longer-term impacts that may be achieved when students are older and more likely to drink alcohol more frequently, as levels of frequent and binge drinking at this stage were low.
- Being drunk/experiencing binge drinking: around a tenth of students in both groups (across the whole sample, including those who had ever had an alcoholic drink) had ever been drunk or experienced binge drinking. Because of small numbers and because there was little difference between groups, multilevel modelling was not carried out to explore this further at this stage.

This report summarises the results from a more recent fourth survey. The AET commissioned NFER to investigate the longer-term impact of the Talk about Alcohol intervention, when the students were at the age when young people are more likely to have ever drunk alcohol and drink more frequently (age 15-16, in Year 11). The fourth survey, carried out in January-March 2015, therefore aimed to determine: whether the proportion of students in the intervention group who had ever had a drink was still significantly lower than that in the comparison group; whether a significant difference in knowledge still existed; and if a significant difference in frequency of

¹ The report was published in October 2013 (Lynch, et al., 2013).

drinking and drinking to get drunk emerged when students were older and more likely to drink alcohol more frequently. This report summarises the results from the longerterm follow-up survey.

1.1 Talk about Alcohol materials

To support alcohol education, the AET provides evidence-based and peer-reviewed resources for teachers, young people age 11-18 and their parents via schools. Their Talk about Alcohol intervention takes an early intervention and harm minimisation approach and gives teachers free printed and online tools to encourage students to make informed decisions and to help them reduce risk concerning alcohol consumption. The intervention was piloted in ten schools across the UK before roll out. It draws on the findings from several studies conducted in the UK and overseas, especially the School Health and Alcohol Harm Reduction Programme (SHAHRP) outreach in Australia (see McBride *et al.*, 2004 and 2006)² and the European Drug Addiction Prevention (EU-dap) trial of Unplugged³ piloted in many EU countries (see, for example, Faggiano *et al.*, 2010).

The free resources, created by teachers and Personal, social and health education (PSHE) specialists, include:

- a 100-page paper and online teacher workbook of stand-alone lesson plans, 'Quick fix' worksheets, information sheets, games and ideas (the purpose of this workbook is to provide adaptable materials to suit the knowledge and experience of students by key topic)
- a 500-page website <u>www.alcoholeducationtrust.org</u> with games, quizzes, and dedicated areas for teachers, students and their parents
- booklets to send home to parents and an opportunity to host a 'talkaboutalcohol' parents talk in school (delivered by the AET specialists free of charge), supported by a dedicated parent website area and by termly newsletters
- resources set out by subject and year group for teachers via the www.alcoholeducationtrust.org website, with 'conversation starter' film clips, links to useful sites and portable resources, which are supported by email and termly newsletters.

² SHAHRP is a harm minimisation study originating in Australia. It combined thirteen harm minimisation classroom lessons, over a two year period, with longitudinal measures of alcohol-related harm to assess change in the study students' alcohol-related experiences. Evaluation showed statistically significant impact on alcohol use, risky alcohol use, and exposure to alcohol-related harms. See the National Drug Research Institute: <u>http://ndri.curtin.edu.au/research/shahrp/index.cfm</u>. Programme replicated in Northern Ireland and evaluated by the University of Liverpool, also showing significant, positive results in raising awareness of alcohol misuse and reducing alcohol-related harm. See: http://informahealthcare.com/doi/abs/10.3109/14659891.2011.615884.

³ EU-Dap programme is a drug prevention programme (lesson plans and student workbook) aimed at 12-14 year olds, used across a number of European countries. Evaluation evidence suggests an impact of the programme on incidents of drunkenness. See: <u>http://www.eudap.net/Home.aspx</u>

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The key aims of the Talk about Alcohol intervention, through building resilience, rehearsal strategies and role-play are to:



Many of the life skills elements of the lesson plans and worksheets cover issues that are relevant to any risk taking and the importance of taking personal responsibility in general.

In order to provide consistency across schools for the evaluation, intervention schools were asked not to use the resources until after the baseline survey, and were given *minimum* requirements in terms of the use of specific sections of the teacher workbook after the baseline survey. The topics covered in these minimum requirements between baseline and first follow-up were for age 12-13 (Year 8):

- assessing students' knowledge of alcohol and its effects: how much do you know about alcohol?
- the decision whether to drink or not
- alcohol units and guidelines
- alcohol and its effects (physical and social)
- an hour on the intervention website.

In the second year of the evaluation (age 13-14/in Year 9), intervention schools were asked to use the following two sections of the teacher workbook prior to the final survey in:

- alcohol and the law
- staying safe and risk-taking.

Students were in Year 11 at the time of the longer-term follow-up survey, which is an important GCSE examination year. Therefore, schools were not *required* to use any additional sections of the workbook, but were *encouraged* to explore elements of the website aimed at Year 11+, which give tips on how young people can stay safe if

they plan to drink alcohol and include information on drinking and driving.⁴ It was also suggested to them that they might find the *Alcohol and You* teenage guide useful⁵ and so they might have discussed it with, or distributed it to, students (although this was not a minimum requirement). Therefore, the fourth survey was administered two years post-intervention.

1.2 Evaluation aims

Specifically, the aims of the follow-up survey of students aged 15-16 were to explore the longer-term impact of the intervention on the main outcomes of interest:

- **Onset of drinking**: is the proportion of students in the intervention group who had ever had a whole alcoholic drink still significantly lower than that in the comparison group?
- Knowledge of alcohol and its effects: does the significant difference in knowledge still exist between the groups once students are in Year 11?
- **Frequent drinking/drinking to get drunk**: is there a significant difference in how regularly students in each group drink alcohol, now students are older and at an age when young people are more likely to drink alcohol more frequently?
- Ever been drunk/experienced binge drinking: is there a difference in the proportion of students who have ever been drunk/experienced binge drinking now that they are age 15-16 and evidently more likely to engage in this kind of behaviour?

1.3 Methodology

To meet the aims of the evaluation, we investigated the distance travelled over time by carrying out a fourth survey of students in both intervention and comparison groups during January-March 2015 (at least three years after the baseline survey carried out November 2011-January 2012).

The self-report survey questionnaire used for every phase of the evaluation was originally designed by alcohol education experts at the AET using a variety of standardised measures/questions that had been adopted in a variety of the case-study contexts, notably in France (*ESPACE -Education, Sensibilisation et Prévention Alcool au Collège avec l'appui de l'Environnement*) and Spain (*Programa Pedagógico 'Adolescencia y Alcohol*). It was then modified by evaluators at the NFER to ensure independence but also to include questions tried and tested in an English context. The survey instrument was then piloted with students age 12-13 (Year 8) in local secondary schools and amended slightly on the basis of discussion with students about how they had interpreted questions. The final instrument consisted of closed questions, where respondents selected a response or entered a number. The use of closed questions that have been piloted maximises the reliability of the survey findings. In order to encourage response from Year 11 students to the

⁴ See <u>http://alcoholeducationtrust.org/Pages/year%2011+.html</u>

⁵ See http://alcoholeducationtrust.org/resources/teen%20guide.pdf

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fourth survey, some questions were removed to shorten its length. All questions which were necessary to repeat previous multilevel modelling analysis were retained in order to compare results over time.

The survey was a self-completion tool administered in a PSHE lesson without conferring. The survey delivery will have taken place at different times during the survey period, rather than occurring simultaneously in each school. This is due to the fact that the education interventions in each school are not set to the same timetable. Students were reassured on the front cover of the survey that their answers would be treated confidentially by the research team to encourage honest response. Questions considered to be particularly sensitive had a 'prefer not to say' option, but only small proportions selected this option.

1.4 The sample

The evaluation sample was originally drawn in 2011 with the aim of providing reliable evidence of any statistically significant impacts of the intervention, in terms of effect size.⁶ We undertook a number of effect size calculations based on our previous studies of this kind in schools in England. As a result, we originally aimed to include 15 intervention schools and 15 comparison schools, with up to 100 students surveyed in each school (1500 in each group).⁷

A list of all schools which had expressed an interest in the AET's materials, but which had not yet received them, were identified as possible intervention schools from which to sample. Once the intervention sample had been selected, these were matched to schools with similar observable characteristics; these acted as a comparison group. These matched comparison schools were selected outside of the group of schools which had expressed an interest in the materials. Before selecting the comparison sample, the following schools were removed from the population:

- schools that were receiving the intervention, including those that were not part of the study
- schools that had ordered AET materials in the past.

The research design recognised the real-world situation in which certain schools had expressed an interest in delivering the AET intervention and a willingness to commit themselves to the requirements of the evaluation. Thus the selection of intervention

⁶ Effect size measures the effectiveness of an intervention, quantifying the size of the average difference between pupils in the intervention and comparison groups in a way that is comparable between different interventions. The effect size is the average difference in scores between the intervention and comparison groups (the effect of the intervention) divided by the standard deviation of scores (a measure of the general spread of scores).

⁷ This sample size would offer a high probability that a small effect size of 0.2 would be detected by the study.

schools was not random. When it is not possible to run a randomised controlled trial, comparing outcomes between intervention and comparison groups yields differences that cannot necessarily be attributed to the intervention itself. Rather, they could be due to systematic differences between the two groups. At the sampling stage, we employed propensity score matching when selecting the comparison schools to minimise these systematic differences based on observable school characteristics. This technique ensures that, on the basis of a set of critical variables (region, percentage of students eligible for free school meals, and urban/rural), comparison schools. It also guarantees that the comparison schools are selected to be representative of the intervention schools for the set of critical variables.

Once selected, representatives from all schools were interviewed in order to identify what alcohol education materials had been used, and if comparison schools referred to the AET's materials, this could be controlled for in the analysis or they could be removed from the comparison sample. None referred to the materials and therefore none were removed.

Table 1 shows the number of schools and students taking part in each group at each time point, including the longer-term follow-up survey which is the main subject of this report (see Appendix A for further details on the profile of the schools).

	Intervention		Comparison		
	N of schools	N of students	N of schools	N of students	Timing
Baseline (age 12-13)	16	2142	17	2268	(Year 8) November 2011- January 2012
Second survey (age 12-13)	16	2203	17	2095	(Year 8) May 2012-June 2012
Third survey (age 13-14)	15	2015	15	1904	(Year 9) May 2013-July 2013
Fourth survey (age 15-16)	8	900	10	1146	(Year 11) January–March 2015

Table 1:Numbers of respondents

Surveys were sent to the same classes at each time point. There was some variation in each responding sample, as some students will have been present or absent at different times. Table 1 shows that there was attrition at the fourth survey. While the number of schools and students responding was lower than previously predicted necessary to detect a difference between groups, the difference in onset of drinking was found to be *relatively large* in previous rounds of the survey and, therefore, the

numbers were sufficient to be confident in our ability to detect whether this difference was sustained.

Reasons for attrition are unknown, but it could be because the focus was on Year 11, which is an important GCSE examination year and schools might have felt unable to give their time to the research. We should consider that it could have been biased drop-out, with schools less interested in the topic area not engaging in the research for the fourth survey. However, attrition was very low at previous survey time points and teachers who were interviewed were positive about the materials (see Lynch *et. al*, 2013), so this suggests that drop-out was unlikely to be because of the topic or the intervention itself.

1.5 Analysis

Simple descriptive analysis was initially carried out and tables of descriptive data, for both groups at all four survey time points, can be found in Appendix B.

Since this evaluation measures the same students at baseline and three follow-ups, and compares an intervention group with a comparison group, simple statistical analysis using cross-tabulations will not tell the whole story. Therefore, we used statistical models (see Appendix C for technical details), to look at changes in outcomes over the four time-points and control for measured differences between intervention and comparison groups. Outcome differences revealed in cross-tabulations would have been considerably more vulnerable to challenge, as they might have been due to something other than the intervention. The model results, by contrast, take account of background factors and are therefore more robust.

Despite employing both propensity score weighting and multilevel modelling, systematic differences will still exist between intervention and comparison groups since they were not assigned randomly. This is why any differences between outcomes across the two groups are treated as associations rather than causal relationships.

Four **main outcomes of interest**, related to the aims of the Talk about Alcohol intervention, were explored using statistical modelling (explained in Appendix C):

- onset of drinking have you ever had an alcoholic drink?
- knowledge of alcohol and its effects
- frequent drinking (defined as once a month or more)
- ever been drunk or experienced binge drinking?

The main aim of this report is to compare outcomes for students three years after the baseline survey⁸ - when students were age 15-16 and more likely to drink alcohol more frequently. At baseline, we were aware from telephone interviews in comparison schools that their students were receiving some lessons on alcohol, but not the Talk about Alcohol sessions. Therefore, it was not the case that students in

⁸ The latest students could have completed the baseline survey was January 2012 and the earliest they could have completed the fourth survey was January 2015.

the comparison schools received no lessons on alcohol, rather that the evaluation was measuring the added value of the Talk about Alcohol lessons in comparison to 'the typical school'. The AET was asked not to distribute materials to the comparison schools, although they could have accessed the website without our knowledge over the duration of the project. The findings should be considered within the context that as *any* young person grows older we might expect an increase in knowledge of alcohol and/or a change in alcohol-related behaviour (see evidence below). Therefore, the evaluation explored any difference in *rates* of change between the intervention and comparison groups.

1.6 Structure of report

Chapter 2 of the report considers the general attitudes of the young people across the whole sample (towards school and their life in general) and their current drinking behaviour, in order to provide context for the findings summarised in other chapters. Chapters 3, 4 and 5 focus on the impact of the Talk about Alcohol intervention on: delaying the age at which teenagers start to drink; knowledge of alcohol and its effects; and on the frequency of drinking, being drunk and binge drinking. Chapter 6 draws conclusions and key messages from the evidence.

2 The context of drinking behaviour

Key Findings

- The proportion of students who had ever had a whole alcoholic drink increased over the course of the four surveys, as students got older.
- By the fourth survey, when students were age 15-16, 64 per cent of the intervention group and 79 per cent of the comparison group had ever had a whole alcoholic drink.
- Among the whole sample, 29 per cent of the intervention group and 37 per cent of the comparison group drank frequently (once a month or more) when they were age 15-16.
- The most common reason for drinking remained the same as previous time points because it was a special occasion or celebration. Only small proportions of students in both groups reported negative reasons for drinking. These findings do not suggest substantial risk-taking among the sample.
- There were noticeable increases in the proportions of students who had experienced a hangover, got sick, or done something they regretted – these increases were evident in both groups but the proportions of students having these experiences were greater in the comparison group (possibly because more young people in the comparison group drank alcohol overall).

Throughout this report, the findings should be considered within the overall context of the attitudes of the young people across the whole the sample (towards school and their life in general) and their current drinking behaviour.

The majority of the sample said their health was good (83 per cent in each group) and that life was going well (85 per cent of the intervention group; 83 per cent of the comparison group). Most enjoyed learning (74 per cent and 77 per cent respectively) and liked going to school (68 per cent and 71 per cent). There were a minority who were *unsure* about how they felt about these things, but only a small minority who were negative.

The proportion of students who had ever had a whole alcoholic drink (more than just a sip/taste) increased over the course of the four surveys, as students got older. As shown in Figure 1, at the time of the baseline survey when they were age 12-13, 41 per cent of the intervention group and 43 per cent of the comparison group had ever had a whole alcoholic drink. By the time of the third survey, when they were 13-14, this had increased to 49 per cent and 63 per cent respectively. By the fourth survey, when they were age 15-16, the proportion of who had ever had a whole alcoholic drink had increased again to 64 per cent of the intervention group and 79 per cent of the comparison group.

As mentioned in Chapter 1, this increase in the proportion of young people who drink alcohol would be expected. This is why a fourth survey at age 15-16 was carried out, to explore the longer-term impact of the intervention once students were around this age. Chapter 3 explores the impact of the intervention on onset of drinking further i.e. whether the proportion of students in the intervention group who had ever had an alcoholic drink was still significantly lower than that in the comparison group once students were age 15-16.

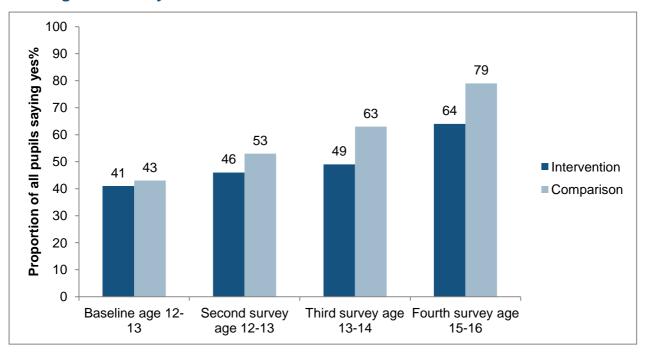


Figure 1 Have you ever had a whole alcoholic drink?

A single response question

All students were asked this question: Baseline age 12-13 intervention 2142, comparison 2268; second survey age 12-14 intervention 2203, comparison 2095; third survey age 13-14 intervention 2015, comparison 1904; fourth survey age 15-16 intervention 900, comparison 1146.

Source: NFER surveys November 2011-January 2012, May to June 2012, May to June 2013, and January-March 2015

Focussing on the results from the most recent survey only, it was most likely for students who had ever had an alcoholic drink to have *first* done so at age 13-14 (see Figure 2). Across the sample of students who responded to the survey when they were age 15-16, the average age at which they had their first alcoholic drink was age 13. Interestingly, 23 per cent of the intervention group and 21 per cent of the comparison group had had their first alcoholic drink at age 15-16.

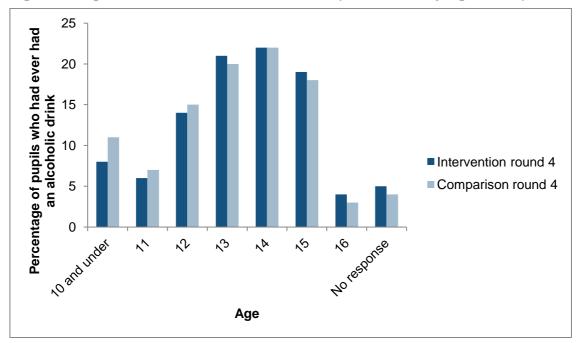


Figure 2: Age of first whole alcoholic drink (fourth survey age 15-16)

A single response quantity question

A filter question – all those who had ever had an alcoholic drink: N= 572 intervention, 901 comparison

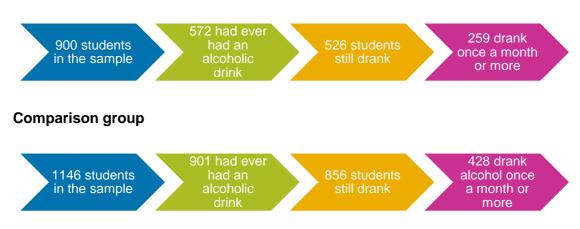
Source: NFER survey January-March 2015 (round 4 survey)

Although it was still most likely for students who drank alcohol to *usually do so* only a few times a year/on special occasions, the proportion usually drinking this irregularly had declined (from 70 per cent of the intervention students and 72 per cent of the comparison students at baseline, to 47 per cent and 48 per cent respectively by the fourth survey). Small proportions of each group drank once a week or more, but this had increased as students got older – from three per cent of the intervention group and five per cent of the comparison group at baseline, to 12 per cent of both groups by the time of the fourth survey.

Further analysis of 'frequent drinking' (see Chapter 5) has been based on students who drank *once a month or more*. The proportions had increased over time from 17 per cent *of those who drank alcohol* in each group at baseline, to 46 per cent and 47 per cent respectively by the time of the fourth survey. As a percentage of the *whole* sample of 15-16 year olds (regardless of whether they had ever had a drink or not at the time of the fourth survey), those drinking frequently (once a month or more) equated to 29 per cent of 900 intervention students and 37 per cent of 1146 comparison students. Among frequent drinkers, they were most likely to drink about once a month, rather than more regularly. As a point of comparison, the 2013 survey of smoking, drinking and drug use among young people aged 11-15 (Fuller and Hawkins, 2014) found that the proportion of all students who drank alcohol once a month or more increased substantially with age and stood at 40 per cent by age 15. The difference in the frequency of drinking between the intervention and comparison groups, and whether this is statistically significant, is explored fully in Chapter 5.

Of the 572 students (64 per cent) in the intervention group who said in the fourth survey that they had ever had an alcoholic drink, 39 of them said they 'never drink alcohol *now*'. From those who answered a question on how frequently they drink, we know that at least 526 of the 900 intervention still sometimes drank (58 per cent of the whole sample). Among the 901 students (79 per cent) of the comparison group who had ever had an alcoholic drink, 36 students no longer drank. From responses to the question on frequency of drinking, we know that at least 856 of the 1146 comparison students still sometimes drank (75 per cent).

The following diagram summarises the proportions of students in the intervention and comparison groups who had ever had an alcoholic drink and who said they still sometimes drank at the time of the fourth survey when they were 15-16 (any statistically significant differences between the groups are discussed in later chapters).



Intervention group

More than three-quarters (78 per cent of the intervention group and 81 per cent of the comparison group) of the students *who still sometimes drank* reported that their parents do not mind them drinking as long as they do not drink too much. Only seven per cent and five per cent respectively reported that their parents did not like them drinking. Smaller proportions reported that their parents let them drink as much as they want (two per cent and three per cent) or that they did not know they drink (five per cent and four per cent). These findings suggest that drinking is usually with parents' or carers' knowledge.

Just over half of *all* students (53 per cent of the intervention group and 58 per cent of the comparison group) said that they lived with someone who usually drank alcohol inside the home.

2.1 Reasons for drinking alcohol

The Talk about Alcohol intervention aims to encourage good personal decisionmaking and help to ensure that if young people choose to drink, they do so responsibly. Hence, the reasons for drinking were explored among students who still sometimes drank alcohol. As shown in Figure 3, the most common reason for

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drinking remained the same as it was at baseline i.e. because it was a special occasion or celebration (with around nine out of ten students strongly agreeing or agreeing with this reason). This does not suggest risky behaviour.

Other reasons had become more prominent now students were older (age 15-16). They were more likely than before to report drinking because they like the taste (70 per cent of the intervention group; 72 per cent of the comparison group), they find it relaxing and sociable (63 per cent and 66 per cent), they like how it makes them feel (40 per cent and 44 per cent), and because it is fun (53 per cent of both groups). As before, only small proportions of students in both groups reported negative reasons for drinking, such as being bored (five per cent of both groups), feeling pressured (three per cent and four per cent), or because they were trying to impress others (three per cent). Again, this does not suggest risky behaviour. However, just under a quarter of students in both groups (23 per cent and 24 per cent) reported that they drink because they like to get drunk, which is risky behaviour (this was a noticeable increase from previous surveys).

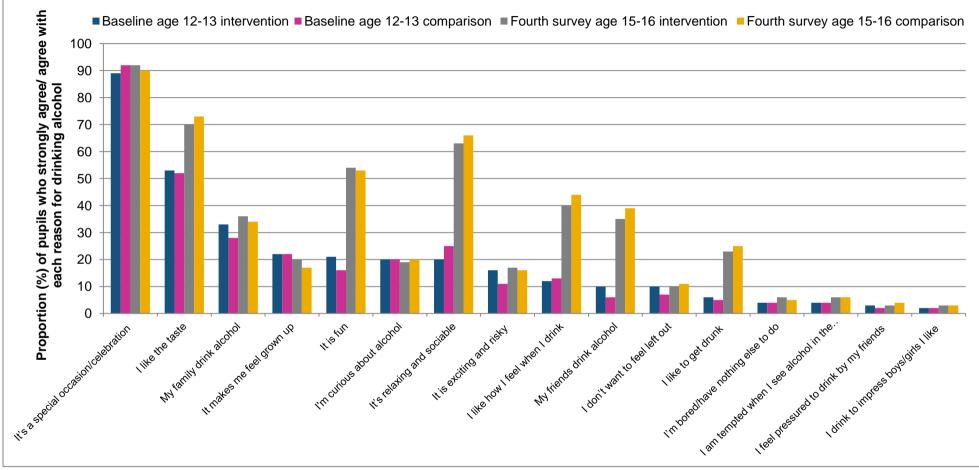


Figure 3 Reasons for drinking among those who still sometimes drink

A series of single response questions.

A filter question: all students who had ever had a whole alcoholic drink and still sometimes drank

N=771 baseline intervention, 526 fourth survey intervention, 874 baseline comparison, 856 fourth survey comparison.

Source: NFER surveys November 2011-January 2012, January-March 201

2.2 Experiences of drinking alcohol

Students who still sometimes drank alcohol were also asked whether they experienced any of a range of different reactions when drinking alcohol (if they still sometimes drank). To reflect young people in general, responses have been calculated as a proportion of the whole sample (including those who have never had a drink and never drank now). As was the case in the previous surveys, the most common experiences were still feeling relaxed and outgoing and forgetting about problems for a while, but proportions reporting these feelings had increased since the last survey. Now students were age 15-16, 48 per cent of all intervention students and 65 per cent of all comparison students reported that they had felt relaxed and outgoing whilst drinking alcohol (compared with 28 per cent and 37 per cent when they were age 13-14). A third (34 per cent) of all intervention students and just under half (49 per cent) of all comparison students said they had forgotten about their problems for a while whilst drinking (compared with 20 per cent and 25 per cent last time – although you could argue that older students have more challenges to deal with in general). These increases probably reflect the increase in the overall proportion of students who drank alcohol (see Chapter 3).

Figure 4 shows the proportion of all students (across the whole sample, not just those who had ever had a drink) who had experienced negative consequences of drinking. The proportions of students across the whole sample having these experiences were greater in the comparison group (possibly because more young people in the comparison group drank alcohol overall). For example, 25 per cent of the intervention group compared with 32 per cent of the comparison group had ever had a hangover. Eighteen per cent compared with 24 per cent respectively had ever got sick, while 17 per cent compared with 21 per cent had ever done something they regretted.

A notable minority (seven per cent of the intervention group and 11 per cent of the comparison group) had tried other drugs or substances, felt like they could not stop drinking, or passed out when drinking alcohol. A smaller minority, yet still notable, had had unplanned sexual contact/activity (six and eight per cent), or had been in trouble with the police (three and four per cent). Note that for any of the negative consequences, particularly low numbers of students reported that they had these experiences 'often'.

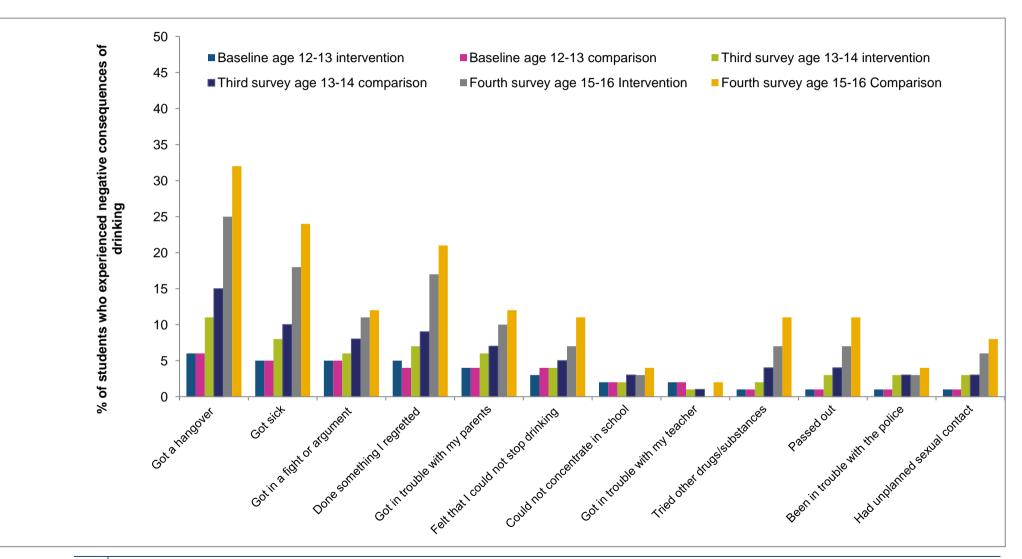


Figure 4: Negative consequences of drinking (among whole sample)

3 Impact on onset of drinking

Key Findings

- The Talk about Alcohol intervention continues to be effective in meeting its aim of delaying the age at which teenagers start to drink. Students in the intervention group were still significantly less likely than those in the comparison group to have ever had an alcoholic drink by the time they were 15-16.
- In fact, the odds of students in the intervention group having had an alcoholic drink have become lower at each survey time point, compared with the odds for students in the comparison group.
- For example, at the time of the third survey, students in the intervention group were approximately half as likely to have started drinking as those in the comparison group, while by the fourth survey they are even less likely.

One of the main aims of the Talk about Alcohol intervention is to delay the age at which teenagers start drinking alcohol (a whole drink). There was evidence from the previous time points of a statistically significant impact of the intervention on the age at which teenagers start to drink – significantly fewer students in the intervention group than in the comparison had ever had an alcoholic drink (a whole drink, more than just a sip/taste) by the time of the third survey when they were 13-14. One of the aims of the fourth survey was to investigate whether this difference remained when students were age 15-16 and more likely to drink alcohol. The findings from the latest survey show that the proportion of students in both groups who had ever had an alcoholic drink continued to increase. This is expected given that research shows that drinking increases with age (Fuller and Hawkins, 2014). Therefore, the impact of the Talk about Alcohol intervention on the onset of drinking has been evaluated by exploring any difference in the *rate* of increase between the intervention and comparison groups.

By the time of the fourth survey, the increase in the proportion of students who started drinking was 13 per cent *less* in the intervention group than in the comparison group (see Figure 5). Between the baseline survey (age 12-13) and the fourth survey (age 15-16) there was a 23 per cent increase in the proportion of students ever having had a drink in the intervention group (from 41 to 64 per cent), compared with a 36 per cent increase in the comparison group (from 43 to 79 per cent).

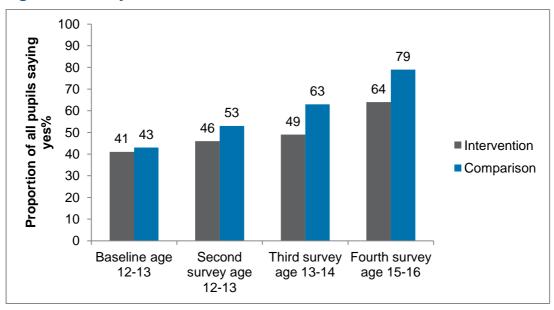


Figure 5: Have you ever had a whole alcoholic drink?

A single response question

All students were asked this question: Baseline age 12-13 intervention 2142, comparison 2268; second survey age 12-14 intervention 2203, comparison 2095; third survey age 13-14 intervention 2015, comparison 1904; fourth survey age 15-16 intervention 900, comparison 1146.

Source: NFER surveys November 2011-January 2012, May to June 2012, May to June 2013, and January-March 2015

As before, multilevel modeling analysis was carried out to explore whether this difference between the groups was statistically significant after taking into account background characteristics and isolating the impact of the intervention. The results confirmed that the statistically significant difference between the intervention and comparison group remained. Students in the intervention group had significantly lower odds of having ever had an alcoholic drink compared with the comparison group. In fact, their odds versus the comparison group have become lower at each survey. For example, at the time of the third survey, students in the intervention group were approximately half as likely to have started drinking as those in the comparison group, while by the fourth survey they are even less likely. This is evidence of positive impact of the intervention.

As in previous surveys, variables associated with **increased odds of ever having** had a drink were:

- having a greater number of siblings
- having a poor relationship with their father
- living with someone who usually drinks in the home.

Variables associated with **decreased odds of ever having had a drink** were as before:

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- being Asian, Black, mixed race or 'other' ethnic origin
- having a positive attitude towards school
- scoring higher on a self-esteem scale
- self-reported receipt of free school meals.

At the time of the last survey, we found that the intervention had a statistically stronger impact on non-white students than on white students. For white and non-white students, those in the intervention group were less likely to have ever had a drink than those in the comparison group, but the least likely group to have ever had a drink were non-white students in the intervention group. We re-ran this model again including data from the fourth survey but this difference no longer existed – overall, students in the intervention group were less likely to have ever had a drink, but the effect is no longer statistically stronger for non-white students.

4 Impact on knowledge of alcohol and its effects

Key findings

- Knowledge scores increased for both groups at each survey time point, including in the most recent survey when students were age 15-16.
- While at previous time points students in the intervention group had scored significantly higher than those in the comparison group, there was no statistically significant difference between the groups when they were 15-16.
- Although there was no difference in knowledge, students in the intervention group were less likely to have ever had a drink. This suggests that knowledge alone does not necessarily have an impact on behaviour and indicates the importance of the elements of the intervention that aim to equip young people with the *skills* to make decisions about alcohol and build resilience. It could also suggest that the earlier higher knowledge scores among the intervention group influenced a sustained behaviour change.

At each survey time point, all students (regardless of whether they had ever had an alcoholic drink) were asked nine 'true or false' questions which tested their knowledge of alcohol and its effects (see Figure 6). To put the results into context, intervention schools had been asked to focus on particular sections of the Talk about Alcohol teacher workbook between baseline and the second survey,⁹ and then other sections before the third survey.¹⁰ They were not required to use any additional sections during the two years prior to the fourth survey, but were *encouraged* to explore pages of the website aimed at students in Year 11+ also advised that they might find the *Alcohol and You* teenage guide useful¹¹ and so might have discussed it with, or distributed it to, students.

As before, some questions proved easier for students to answer and achieved a very high correct response rate. However, others proved more difficult to answer. Students were still over-estimating the proportion of their peers who drank. Only 19 per cent of the intervention group and 15 per cent of the comparison group were

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⁹ The sections focussed on: assessing knowledge of alcohol and its effects; the decision whether to drink or not; alcohol units and guidelines; and alcohol and its effects (physical and social). Schools were also asked to spend at least one hour on the <u>www.talkaboutalcohol.com</u> website.

 ¹⁰ The additional sections focussed on: alcohol and the law; and staying safe and risk taking.
 ¹¹ See <u>http://alcoholeducationtrust.org/resources/teen%20guide.pdf</u>

correct in knowing that more than half of 11-15 year olds will *never* have had an alcoholic drink (most thought this was false or were unsure). More than a third of both groups (38 per cent and 36 per cent) were wrong in thinking that if you drink coffee or water it speeds up the process of the liver breaking down alcohol in the body (only 19 per cent and 27 per cent were correct in saying this is false). Future alcohol education needs to focus on the gaps in knowledge to ensure full coverage. Indeed, understanding social norms about alcohol (that not all peers drink) could help to further delay onset of drinking (see Chapter 3 for more discussion on onset).

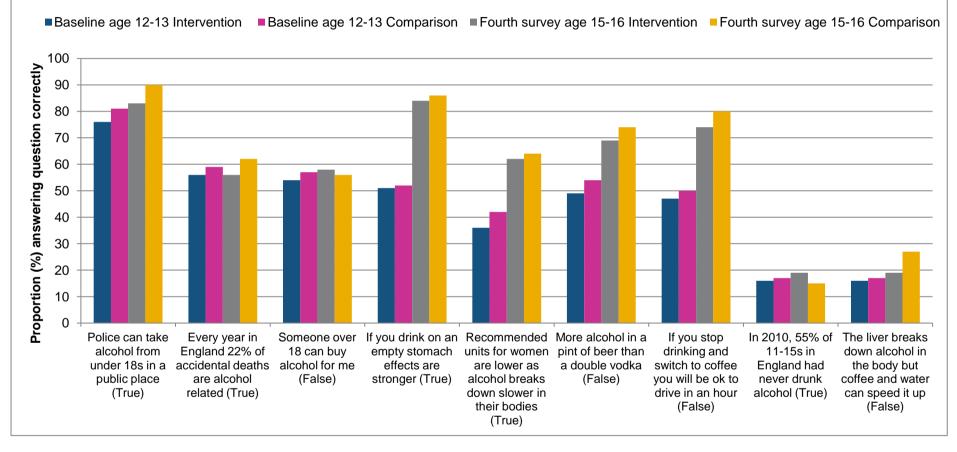


Figure 6: Knowledge of alcohol and its effects (correct answers among all students)

Single response questions

All students were asked this question: Baseline intervention, 2142; Baseline comparison, 2268; fourth survey intervention, 900; fourth survey comparison, 1146

Source: NFER surveys November 2011-January 2012, May to June 2012, May to June 2013, and January-March 2015

To explore knowledge overall, each student was awarded a score of between zero and nine; one point for each correct answer. Figure 7 illustrates the change over time in average knowledge scores for the intervention and comparison groups. The comparison group scored highest at baseline (an average score of 4.37), but at the time of the second and third surveys the intervention group scored significantly higher than the comparison group (although knowledge increased for both groups the increase was greater for the intervention group). This time, when students were 15-16, the comparison group score slightly higher than the intervention group (an average score of 5.56 compared with 5.3), although this was not a significant difference (see below).

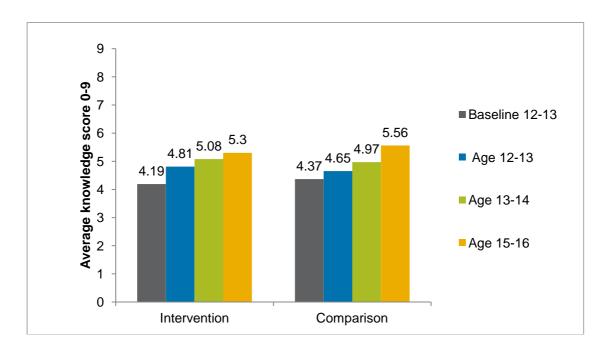


Figure 7: Average knowledge scores (0-9) across all students

A single response question

All students were asked this question: Baseline age 12-13 intervention 2142, comparison 2268; second survey age 12-14 intervention 2203, comparison 2095; third survey age 13-14 intervention 2015, comparison 1904; fourth survey age 15-16 intervention 900, comparison 1146.

Source: NFER surveys November 2011-January 2012, May to June 2012, May to June 2013, and January-March 2015

More sophisticated multilevel modelling analysis was carried out to explore difference in knowledge further, to control for any observable differences between the groups and isolate any impact of the intervention.

The analysis confirmed that the increase in knowledge between baseline and the third survey was significantly greater for students in the intervention group. The *difference* in the increased scores from baseline equated to 0.3 of a point for both round 2 and 3 – which was statistically significant. However, by the fourth survey,

when students were 15-16, although there was still an increase in knowledge for both groups, it was not significantly greater for the intervention group. There was no statistically significant difference between the groups (this means that the increase in knowledge between baseline and the fourth survey for the comparison group was not significantly greater either).

As students were older in both groups, and as the multilevel modelling analysis takes into account and controls for age, maturation is not an explanation. It *could* be because the comparison schools taught lessons on alcohol in the last two years since the third survey, while the intervention group did not meaning their knowledge caught up (minimum requirements for the intervention group were to teach the Talk about Alcohol lessons in Years 8 and 9 only).

Although there was no difference in knowledge, we concluded in Chapter 3 that students in the intervention group were less likely to have ever had a drink. This suggests that knowledge alone does not necessarily have an impact on behaviour. This indicates the importance of the elements of the intervention that aim to equip young people with the *skills* to make decisions about alcohol and manage risk. It could also suggest that the earlier higher knowledge scores among the intervention group influenced a sustained behaviour change.

As in previous surveys, variables associated with higher knowledge scores were:

- having more books in the home (a measure of socio-economic status)
- having a poor relationship with their father
- having a positive attitude towards school
- scoring higher on a self-esteem scale
- living with someone who usually drinks alcohol.

Variables associated with lower knowledge scores were also as found before:

- living in larger households
- attending an academy
- being Asian, Black or 'other' ethnic origin.

5 Impact on frequency of drinking, being drunk and binge drinking

Key Findings

- The proportion of students who drank frequently (once a month or more) had increased in both groups, but less so for the intervention group.
- By age 15-16, 29 per cent of *all* intervention students drank frequently, compared with 37 per cent of the comparison sample (although multilevel modelling did not confirm this as a *statistically significant* difference, the trend in the descriptive data has moved in a positive direction).
- There was an increase in the proportion of *all* students in both groups who had ever been drunk or experienced binge drinking, although to a lesser extent among the intervention group (from 16 per cent at baseline to 33 per cent at the fourth survey, compared with from 20 per cent to 44 per cent for the comparison group). This is likely to be because students in the comparison group were more likely to have drunk alcohol at all than those in the intervention group.
- Restricting analysis to students who had ever had an alcoholic drink, there was no significant difference between the groups (50 per cent of the intervention group who drank alcohol had ever been drunk, compared with 55 per cent in the comparison group).

5.1 Impact on frequency of drinking

At the time of the previous survey (when students were age 13-14), although levels of frequent drinking (drinking once a month or more) were lower among the intervention group which had used the Talk about Alcohol materials, there was no evidence of a *statistically significant difference* from the comparison group. One aim of the fourth survey was to investigate whether a statistically significant difference in frequency of drinking existed once students are age 15-16 and more likely to drink alcohol.

At the time of the fourth survey, 29 per cent of the whole sample of 900 intervention students and 37 per cent of all 1146 comparison students drank frequently (see Figure 8).

Most of these students drank about once a month, rather than more often. Within each group, a similar proportion of students were drinking frequently as were only drinking a few times a year/on special occasions.

The proportion of students drinking frequently had increased for both groups, as would be expected given their age.

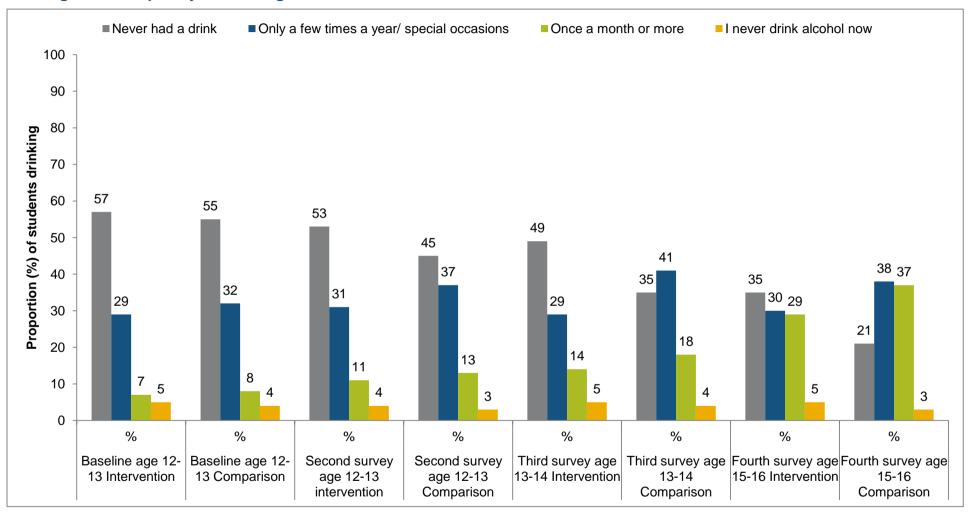


Figure 8: Frequency of drinking

This descriptive data suggests that levels of frequent drinking were still lower among the intervention group than among the comparison group. However, when multilevel modelling was carried out to explore this further, we found that the difference between the groups illustrated in Figure 8 was largely due to differing characteristics between students in each group, rather than being associated with the intervention. There was no statistically significant difference between the two groups once background characteristics were controlled. This should be considered in the context that the intervention schools had been asked to deliver Talk about Alcohol sessions in Years 8 and 9 and at the time of the fourth survey students were in Year 11. What we do not know is whether the schools delivered further sessions on alcohol in Years 10 and/or 11 and whether this would make a difference to the impact.

As before, variables associated with **decreased odds of being a frequent drinker** were:

- attending a school with higher average total point score for 'best 8' GCSEs
- attending a school with higher proportion of students eligible for free school meals
- being Asian, Black or 'other' ethnic origin
- having higher self esteem
- having a positive attitude towards school
- having their first alcoholic drink at an older age
- drinking alcohol for reasons of enjoyment
- having negative experiences when drinking
- if their parents do not like them to drink.

Also as before, variables associated with **increased odds of frequent drinking** were:

- being male
- having negative reasons for drinking
- if their parents let them drink or do not know that they drink
- living with anyone who usually drinks alcohol in the home
- attending a grammar or comprehensive school.

5.2 Impact on being drunk or binge drinking

One of the main aims of the Talk about Alcohol intervention is to reduce the prevalence and acceptability of drinking to get drunk. The materials were designed drawing on evidence-based programmes, such as the EU-Dap programme (referred

to in Chapter 1), which has been found to reduce incidents of drunkenness amongst 12-14 year olds.

Therefore, we explored the proportion of students who had ever been drunk (feeling out of control, having slurred speech or vision, feeling or being sick, and/or not remembering because of how much they have drunk) and experienced binge drinking (consuming several alcoholic drinks soon after each other).

As shown in Table 2, there was an increase in the proportion of *all* students in both groups who had ever been drunk or experienced binge drinking, although to a lesser extent among the intervention group (from nine per cent of the whole intervention group at baseline to 33 per cent at the fourth survey, compared with from ten per cent to 44 per cent for the comparison group). This equates to an 11 per cent difference between the groups at age 15-16. This is likely to be because students in the comparison group were more likely to have ever drunk alcohol at all than those in the intervention group.

In terms of frequency of being drunk, 24 per cent of the whole intervention group had been drunk more than once by age 15-16, compared with 32 per cent of the comparison group. The decrease in the proportion of the sample who had ever had a drink but never been drunk is likely to result from the changing characteristics of the sample due to attrition (more students who had never been drunk did not complete a fourth survey).

Multilevel modelling explored whether, *among those who drank alcohol*, the intervention had an impact on the prevalence of drinking to get drunk. There was no significant difference between the groups.

Variables associated with **decreased odds of ever having been drunk or experienced binge drinking** were:

- attending a school with higher average total point score for 'best 8' GCSEs
- describing ethnic origin as 'Black'
- having a positive attitude towards school
- having their first alcoholic drink at an older age
- drinking alcohol for reasons of enjoyment
- having negative experiences when drinking.

Variables associated with increased odds of ever having been drunk or experienced binge drinking were:

- having negative experiences when drinking
- if their parents do not know they drink.

How many times have you ever been drunk or		Baseline/ age 12-13 Comparison	Survey 2/ age 12-13 Intervention	Survey 2/ age 12-13 Comparison	Survey 3/ age 13-14 Intervention	Survey 3/ age 13-14 Comparison	Survey 4/ age 15-16 Intervention	Survey 4/ age 15-16 Comparison
experienced binge								
drinking?	%	%	%	%	%	%	%	%
Never had an alcoholic drink	57	55	53	45	49	35	35	21
Had ever had an								
alcoholic drink, but	29	31	30	35	30	39	28	29
never been drunk								
If ever been drunk:								
Once	5	5	6	6	6	8	9	12
2-5 times	3	4	5	5	7	9	13	17
6-10 times	1	1	1	1	2	2	4	8
More than ten times	0	0	1	1	1	1	7	7
I don't know	2	1	2	3	3	4	3	6
No response	4	3	3	3	2	3	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 2: Frequency of being drunk/binge drinking (across *whole* sample)

A single response question.

Due to rounding, percentages may not sum to 100. Source: NFER surveys November 2011-January 2012, May to June 2012, May to June 2013, and January to March 2015

6 Conclusions and key messages

This final chapter presents conclusions from the evaluation, focussing on whether the Talk about Alcohol intervention is successful in meeting its aims. Key messages for schools, teachers and policy-makers are then drawn from the conclusions.

Delaying the age at which teenagers drink alcohol

There is evidence of a consistent effect of Talk about Alcohol as an early intervention programme. The intervention continues to be effective in meeting its aim of delaying the age at which teenagers start to drink. In fact, the odds of students in the intervention group having ever had an alcoholic drink, compared with those in the comparison group, were lower at each survey time point and lowest at age 15-16. At the time of the third survey, multilevel modeling showed that students in the intervention group were approximately half as likely to have started drinking as those in the comparison group, while by the fourth survey they are even less likely.

The findings highlight the strong influence of the family on the likelihood of drinking – students with greater numbers of siblings, who had a poor relationship with their father, and who lived with someone who usually drank alcohol in the home had an increased likelihood of ever having had a drink. This suggests the importance of the AET information for parents, which aims to support them in making responsible decisions about their own alcohol consumption, acting as role models for their children, setting boundaries and knowing where their children are and who they are with. Note that the evaluation has not explored the impact of information from parents.

Increasing knowledge of alcohol and its effects

The findings indicate that *knowledge* of alcohol and its effects is not necessarily the most important factor in leading to a decision about whether to drink or not. Knowledge scores increased at each survey for both groups, but by age 15-16 the statistically significant association between the intervention and knowledge was not maintained (the intervention group no longer scored significantly higher). Yet students in the intervention group were still less likely to have ever had an alcoholic drink. This suggests the importance of the broader aim of the intervention, to help young people build resilience skills and understand how to manage difficult situations concerning alcohol. A key message here for anyone developing, funding or delivering alcohol education is that the facts should sit within a broader skill-based programme of self management. The findings could also suggest that the earlier higher knowledge scores among the intervention group influenced a sustained behaviour change.

Despite the fact that knowledge did not seem to be the only influence on behaviour, it is important to consider why the intervention group no longer had significantly higher knowledge scores than the comparison group. This could be because at the time of the earlier surveys, when students were age 12-14 in Years 8 and 9, intervention schools were asked to deliver a number of Talk about Alcohol lessons as a minimum

requirement for the evaluation, but were not required to do so in the two years prior to the most recent survey when students were age 15-16 in Year 11 (as this is a pressured GCSE examination year). This current similarity in knowledge score between the groups *could* mean that the intervention schools did not deliver lessons on alcohol more recently, while comparison schools had done so, meaning their knowledge caught up. It is positive to note that knowledge still increased for both groups, but could indicate that, for a significant difference to remain, schools should be encouraged to continue to deliver sessions from the intervention as a 'refresher' to reinforce messages.

Responsible drinking – frequency of drinking and drinking to get drunk

Another aim of the intervention is to help ensure that if young people choose to drink, they do so responsibly. It is interesting to note that the reasons for drinking changed now students were older; they were more likely than before to mention finding it sociable and fun to drink alcohol. Therefore, messages about responsible drinking are important at this age.

Within both groups, the proportion of students drinking alcohol frequently had increased as they got older. By the time they were age 15-16, a similar proportion of students in both groups were drinking frequently as were only drinking a few times a year/on special occasions (while this was not the case previously when drinking was more infrequent). This highlights an important message for any alcohol intervention – that this is a key age at which young people start to drink more regularly (if indeed they drink at all) and could benefit from messages about responsible drinking (or refresher sessions if messages had been given at an earlier age).

In terms of any impact of the intervention, the trend remained the same as in previous surveys. The increase in frequent drinkers was less among the intervention group although the difference between groups was not statistically significant once multilevel modelling had been carried out. Note though that the intervention group had not been asked to deliver any Talk about Alcohol lessons in Years 10 and 11, which *might* have reduced any gap between groups. With more intervention, might this group go on to drink significantly less often in adulthood?

The analysis revealed factors associated with increased likelihood of a student being a frequent drinker: being male; having negative reasons for drinking; and the influence of the family (namely that if their parents let them drink or do not know that they drink, and if they live with anyone who usually drinks alcohol in the home). It would therefore be beneficial for any alcohol intervention to reflect on and take into consideration these issues.

The Talk about Alcohol materials also aim to reduce the prevalence and acceptability of drinking to get drunk. Across the whole sample, although the proportion of students who had ever been drunk was greater in the comparison group, this was likely to be because more students in that group had ever had a drink. When restricting the analysis to those who had ever had an alcoholic drink, there was no significant difference between the groups when multilevel modelling was carried out. Having negative experiences when drinking, and if their parents do not know they drink, increased the likelihood of a student ever having been drunk. The intervention also aims to reduce the antisocial consequences of drinking. There were noticeable increases in the proportions of students who had experienced some negative consequences of drinking at age 15-16 (including having a hangover, getting sick, or doing something they regretted) but the proportions of students having these experiences were greater in the comparison group, suggesting less antisocial behaviour in the intervention group.

The following messages emerge from the above conclusions:

Key messages for school leaders and teachers

- The impact on delaying the onset of drinking is evidence that the Talk about alcohol intervention is effective as an early intervention programme.
- The evidence suggests the value in a harm minimisation approach and in revisiting alcohol education at different key stages for example, via early intervention *before* they begin drinking (the average age of first drink is 13), before young people begin to drink more frequently (around age 15), and as they approach adulthood.
- Giving young people the facts about alcohol is not the only factor likely to influence behaviour helping young people to develop resilience, rehearsal strategies, and self-management skills to manage difficult situations is also important. Messages about *responsible drinking* are important at this age.
- The evidence highlights the influence of the family in drinking behaviour schools should consider how to engage parents in alcohol education programmes.

Key messages for policy-makers

- There is evidence of impact of the Talk about Alcohol intervention, particularly in delaying the age at which teenagers start to drink. The materials can clearly support policy priorities concerning alcohol.
- The evidence suggests that knowledge alone is not sufficient to change behaviour and identifies that a broader skills-based approach is 'what works' – this information will support Public Health England in understanding how to address its priority to reduce harmful drinking and alcohol-related hospital admissions¹².

¹² See:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/366852/PHE_P riorities.pdf

³² Evaluation of the Talk About Alcohol Intervention: Longer-Term Follow-up

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Appendix A Sample information

Table A1 shows the number of schools and students taking part in the intervention and comparison groups at each survey time point

	Interv	ention	Comp	parison	
	N of schools	N of students	N of schools	N of students	Timing
Baseline	16	2142	17	2268	Age 12-13 (Year 8) November 2011-January 2012
Round 2	16	2203	17	2095	Age 12-13 (Year 8) May 2012-June 2012
Round 3	15	2015	15	1904	Age 13-14 (Year 9) May 2013-July 2013
Round 4	8	900	10	1146	Age 15-16 (Year 11) January–March 2015

Table A1: Numbers of respondents

The profile of the sample of schools is illustrated below (the table shows the profile of the schools which responded to the baseline survey, compared with all possible intervention schools and the respondents to the fourth most recent survey).

	The profile of the sample and responding sample of schools		Intervention baseline (participating)		Comparison baseline				fourth survey pating)	Comparison fourth survey	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
	Yorkshire & The Humber					3	3				
	East Midlands					1	1				
Government	West Midlands	4	25	3	18	15	15	4	50	2	20
Office Region	Eastern					1	1				
	London	6	37	3	18	44	44	4	50	3	30
	South East	4	25	7	41	18	18			3	30
	South West	2	13	4	23	17	17			2	20
Total		16	100	17	100	99	100	8	100	10	100
	Infant & Junior (Primary)					1	1				
	Middle deemed Secondary					1	1				
	Secondary Modern	1	6	2	12	7	7			1	10
School type*	Comprehensive to 16	4	25	2	12	23	23	3	37	1	10
	Comprehensive to 18	8	50	8	47	45	45	3	37	5	50
	Grammar	3	19	5	29	12	12	2	25	3	30
	Independent school					2	2				
	Academy					8	8				
Total		16	100	17	100	99	100	10	100	10	100

*Note that the type of school was correct at the time of sampling for the baseline survey in 2011; school type could have changed over the course of the evaluation (for example, some schools might have gained academy status but this will not be reflected in this sample profile).

		Intervention baseline (participatin		Comparison s		All possible intervention schools approached	ntervention schools		n fourth ng)	Comparison fourth survey	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
	Lowest 20%	5	31	7	41	18	19	3	37	5	50
	2nd lowest 20%	6	37	4	23.5	23	24	2	25	3	30
% students eligible for FSM 2009	Middle 20%	4	25	4	23.5	22	23	2	25	1	10
	2nd highest 20%	1	6	2	12	17	18	1	12	1	10
	Highest 20%					16	17				
Total		16	100	17	100	96	100	8	100	10	100
Link on /Dunal	Rural	3	19	4	23	12	12	2	25	1	10
Urban/Rural	Non-rural	13	81	13	76	86	88	6	75	9	90
Total		16	100	17	100	98	100	8	100	10	100

Appendix B Descriptive frequency data

Surveys were sent to the same classes at each of the four time points. There was some variation on each responding sample, as some students will have been present or absent at different times.

	Intervention		Compa	arison	Timing of surveys
	N of schools	N of students	N of schools	N of students	
Survey 1/ Baseline	16	2142	17	2268	Age 12-13 (Year 8) November 2011-January 2012
Survey 2	16	2203	17	2095	Age 12-13 (Year 8) May 2012-June 2012
Survey 3	15	2015	15	1904	Age 13-14 (Year 9) May 2013-July 2013
Survey 4	9	900	10	1146	Age 15-16 (Year 11) January–March 2015

Table 1:Numbers of respondents

Table 2: Gender

Are you	Baseline/age 12-13 Intervention	12-13 Comparison		12-13 Comparison	13-14 Intervention	13-14 Comparison	15-16 Intervention	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
Male	49	50	49	49	50	49	52	42
Female	50	50	51	51	50	51	48	57
No response	1	0	0	0	0	0	0	0
N =	2142	2268	2203	2095	2015	1904	900	1146

A single response question.

Due to rounding, percentages may not sum to 100.

Number of people live with	12-13 Intervention	12-13 Comparison	12-13 Intervention	12-13 Comparison	13-14 Intervention	13-14 Comparison	15-16 Intervention	Comparison
	%	%	%	%	%	%	%	%
1	4	3	4	3	4	4	5	3
2	14	15	15	15	17	15	18	20
3	41	43	41	43	41	42	41	43
4	25	25	25	25	24	24	24	21
5	10	9	9	9	9	9	9	8
6 or more	5	5	6	5	5	4	3	3
No response	1	1	1	1	0	1	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 3: Number of people in household

Due to rounding, percentages may not sum to 100.

Number of siblings	Baseline/age 12-13 Intervention	12-13	12-13	Survey 2/age 12-13 Comparison	13-14	Survey 3/age 13-14 Comparison		15-16
	%	%	%	%	%	%	%	%
0	8	7	8	7	8	7	8	8
1	40	41	39	42	40	40	39	43
2	28	25	28	24	28	25	30	25
3	13	13	13	13	13	13	12	14
4	5	6	5	6	6	6	5	5
5	2	3	3	3	3	4	3	3
6 or more	3	4	3	4	3	4	2	2
No response	1	1	1	1	1	1	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 4: Number of siblings

Due to rounding, percentages may not sum to 100.

Father	12-13	12-13	12-13	12-13	13-14	13-14		
	/0	70	70	70	70	70	70	70
We have a very good relationship	70	69	68	67	66	64	68	63
We have an okay relationship	18	20	20	21	22	23	19	25
We have a poor relationship	3	3	4	4	4	6	5	5
Would rather not answer	6	5	6	5	5	5	6	4
No response	3	2	2	2	2	2	2	2
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 5: Relationship with Father

A single response question.

Due to rounding, percentages may not sum to 100.

Mother	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14		15-16
	%	%	%	%	%	%	%	%
We have a very good relationship	82	83	79	79	80	77	81	77
We have an okay relationship	13	13	15	17	16	17	13	17
We have a poor relationship	1	1	2	1	2	3	3	2
Would rather not answer	2	2	2	2	1	2	2	2
No response	2	1	2	1	1	1	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 6: Relationship with Mother

A single response question.

Due to rounding, percentages may not sum to 100.

Other carers who look after you	12-13	Baseline/age 12-13 Comparison %	12-13	12-13	13-14	13-14	15-16	15-16
We have a very good relationship	24	23	27	23	25	21	21	17
We have an okay relationship	9	9	12	10	10	11	5	5
We have a poor relationship	1	1	1	1	1	2	1	1
Would rather not answer	3	3	2	3	2	3	2	2
No response	62	64	58	63	62	63	71	74
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 7: Relationship with other carers

A single response question.

Due to rounding, percentages may not sum to 100.

Ethnic group	Baseline/age 12-13 Intervention	Baseline/age 12-13 Comparison	Survey 2/age 12-13 Intervention	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
White	65	79	63	77	62	80	62	76
Any other white	5	5	5	6	5	5	5	5
Mixed	6	4	5	4	6	4	6	4
Asian	13	5	13	6	15	5	13	7
Black	7	2	8	3	8	3	9	4
Other	2	1	3	2	3	1	2	1
Unknown	2	2	2	3	2	1	2	2
N =	2142	2268	2203	2095	2015	1904	900	1146

A single response question.

Due to rounding, percentages may not sum to 100.

How many books are there in your home?	12-13	12-13	12-13	12-13	13-14		15-16	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
None	1	2	1	2	1	2	2	2
Very few (1-10 books)	7	7	8	8	9	8	10	7
Enough to fill one shelf (11-50 books)	22	18	22	16	22	18	19	13
Enough to fill one bookcase (51-100)	26	21	24	21	24	20	23	19
Enough to fill two bookcases (101-200)	19	21	19	19	17	19	19	21
Enough to fill three or								
more bookcases (more	24	29	25	32	26	31	26	37
than 200 books)								
Missing	1	1	1	2	1	1	0	0
No response	0	0	0	0	0	0	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 9: Number of books in the home

A single response question.

Due to rounding, percentages may not sum to 100.

Table 10: Free school meals

Do you have free school meals or vouchers for free	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
school meals?	%	%	%	%	%	%	%	%
Yes	10	8	9	8	8	7	8	5
No	84	86	86	86	87	88	89	91
Don't know	4	5	3	4	3	3	3	3
Missing	2	1	1	2	1	1	0	0
No response	0	0	0	0	0	0	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

A single response question.

Due to rounding, percentages may not sum to 100.

Most of the time I like going to school	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
Strongly agree	18	18	19	19	17	17	20	16
Agree	51	56	53	53	55	55	48	55
Not sure	18	14	15	15	14	13	13	14
Disagree	9	9	9	8	10	10	13	11
Strongly disagree	3	3	3	3	3	4	5	3
No response	1	1	1	1	0	1	0	0
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 11 Attitudes towards school....most of the time I like going to school

A single response question.

Due to rounding, percentages may not sum to 100.

l always do my homework/coursework	12-13	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
	%	%	%	%	%	%	%	%
Strongly agree	33	33	32	27	27	24	32	27
Agree	46	44	48	43	48	46	47	48
Not sure	12	14	11	16	14	13	12	11
Disagree	7	7	8	9	10	13	8	11
Strongly disagree	1	2	1	4	1	3	1	2
No response	1	1	1	1	0	1	0	0
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 12: Attitudes towards school... I always do my homework/coursework

A single response question.

Due to rounding, percentages may not sum to 100.

School work is worth doing	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
-	%	%	%	%	%	%	%	%
Strongly agree	40	38	40	35	39	35	42	39
Agree	43	45	46	47	47	47	46	46
Not sure	12	12	10	12	11	12	8	11
Disagree	2	3	2	3	2	3	2	3
Strongly disagree	2	2	1	2	1	2	1	1
No response	1	1	1	1	1	1	0	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 13: Attitudes towards school...school work is worth doing

A single response question.

Due to rounding, percentages may not sum to 100.

I am well behaved in school	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Strongly agree	29	28	30	27	31	26	41	35
Agree	47	49	49	48	50	52	52	54
Not sure	19	18	17	18	15	16	5	9
Disagree	3	3	3	4	3	3	1	2
Strongly disagree	1	1	1	2	1	1	0	0
No response	1	1	1	1	0	1	0	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 14: Attitudes towards school...I am well behaved at school

A single response question.

Due to rounding, percentages may not sum to 100.

I enjoy learning	Baseline/age 12-13 Intervention	Baseline/age 12-13 Comparison	12-13	Survey 2/age 12-13 Comparison	Survey 3/age 13-14 Intervention	Survey 3/age 13-14 Comparison	15-16	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
Strongly agree	20	22	19	19	19	17	25	25
Agree	44	46	48	46	50	51	49	52
Not sure	25	22	22	22	22	21	17	16
Disagree	7	7	7	8	6	6	6	6
Strongly disagree	2	2	2	3	2	2	2	1
No response	2	2	2	2	1	2	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 15: Attitudes towards school...I enjoy learning

A single response question.

Due to rounding, percentages may not sum to 100.

The work I do in lessons is a waste of	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
time	%	%	%	%	%	%	%	%
Strongly agree	1	2	1	2	1	2	1	1
Agree	4	4	4	4	4	4	5	6
Not sure	17	15	16	16	18	18	17	16
Disagree	45	44	48	46	50	49	51	53
Strongly disagree	32	33	30	29	27	25	25	23
No response	2	1	1	2	1	2	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 16: Attitudes towards school...the work I do in lessons is a waste of time

A single response question.

Due to rounding, percentages may not sum to 100.

I am often late for school or lessons	Baseline/age 12-13 Intervention	12-13	12-13	Survey 2/age 12-13 Comparison	13-14	13-14	15-16	15-16
	%	%	%	%	%	%	%	%
Strongly agree	1	2	1	2	1	2	2	2
Agree	4	5	5	5	5	5	3	6
Not sure	8	9	8	9	7	8	6	8
Disagree	35	35	34	35	36	36	30	33
Strongly disagree	50	47	50	47	50	47	58	50
No response	2	2	2	2	1	2	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 17: Attitudes towards school...I am often late for school or lessons

A single response question.

Due to rounding, percentages may not sum to 100.

I sometimes skip school or lessons/play truant	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
from school	%	%	%	%	%	%	%	%
Strongly agree	0	0	0	1	0	1	1	0
Agree	1	1	1	1	1	2	1	1
Not sure	3	3	2	3	2	3	2	2
Disagree	14	12	14	13	14	14	12	13
Strongly disagree	80	82	82	81	81	79	84	82
No response	1	1	1	1	1	1	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 18: Attitude towards school...I sometimes skip school or lessons/play truant from school

A single response question.

Due to rounding, percentages may not sum to 100.

My life is going well	Baseline/age 12-13 Intervention	12-13	12-13	Survey 2/age 12-13 Comparison	13-14	Survey 3/age 13-14 Comparison	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Strongly agree	45	45	41	43	37	37	34	29
Agree	41	42	44	42	48	47	51	54
Not sure	10	9	10	10	10	11	12	13
Disagree	3	2	3	2	3	3	2	3
Strongly disagree	1	0	1	1	0	1	1	0
No response	1	1	1	1	0	1	1	0
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 19: Self esteem...my life is going well

A single response question.

Due to rounding, percentages may not sum to 100.

I feel unhappy or depressed	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
	%	%	%	%	%	%	%	%
Strongly agree	1	1	2	2	2	3	2	2
Agree	6	6	6	5	6	8	6	8
Not sure	16	14	15	14	15	15	16	20
Disagree	35	33	34	36	36	35	39	40
Strongly disagree	40	44	41	41	40	38	36	29
No response	2	2	2	2	1	1	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 20: Self esteem...I feel unhappy or depressed

A single response question.

Due to rounding, percentages may not sum to 100.

My health is good	Baseline/age 12-13 Intervention	Baseline/age 12-13 Comparison	12-13	Survey 2/age 12-13 Comparison	13-14	Survey 3/age 13-14 Comparison	Survey 4/age 15-16 Intervention	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
Strongly agree	42	45	40	42	36	37	34	31
Agree	43	42	46	44	47	48	49	52
Not sure	11	9	11	10	13	11	12	13
Disagree	2	1	2	1	3	3	3	3
Strongly disagree	0	0	1	1	0	1	0	1
No response	2	2	1	2	1	1	1	0
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 21: Self esteem...my health is good

A single response question.

Due to rounding, percentages may not sum to 100.

When I'm worried about something, I have people I can talk	Baseline/age 12-13 Intervention	12-13	12-13	12-13		13-14	15-16	15-16
to	%	%	%	%	%	%	%	%
Strongly agree	46	48	45	45	39	39	36	34
Agree	35	33	35	36	42	39	47	45
Not sure	11	11	12	12	12	13	11	14
Disagree	4	3	4	4	4	5	4	5
Strongly disagree	3	2	2	2	2	2	2	2
No response	1	2	2	2	1	1	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 22: Self esteem...when I'm worried about something, I have people I can talk to

A single response question.

Due to rounding, percentages may not sum to 100.

I can't concentrate on what I'm doing	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
-	%	%	%	%	%	%	%	%
Strongly agree	8	7	7	6	6	6	6	6
Agree	15	13	15	14	15	16	15	16
Not sure	19	19	19	19	21	17	19	21
Disagree	37	36	35	38	38	39	39	39
Strongly disagree	20	23	21	21	20	21	20	17
No response	2	2	2	2	1	1	1	0
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 23: Self esteem...I can't concentrate on what I'm doing

A single response question.

Due to rounding, percentages may not sum to 100.

I feel confident in myself	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Strongly agree	25	25	24	23	20	20	21	16
Agree	46	46	45	45	43	43	46	45
Not sure	21	20	18	20	23	21	20	24
Disagree	5	6	8	8	9	11	9	11
Strongly disagree	2	2	3	3	4	5	3	4
No response	2	2	2	2	1	1	1	0
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 24: Self esteem...I feel confident in myself

A single response question.

Due to rounding, percentages may not sum to 100.

Table 25: Ever had a whole alcoholic drink?

Have you ever had an alcoholic drink - more than just a sip/taste?	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
(e.g. a whole drink)	%	%	%	%	%	%	%	%
Yes	41	43	46	53	49	63	64	79
No	57	55	53	45	49	35	35	21
No response	2	2	2	2	1	2	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

A single response question.

Due to rounding, percentages may not sum to 100.

How old were you when you had your	12-13	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
first alcoholic drink?	%	%	%	%	%	%	%	%
0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	1	0	0	0	1
4	1	0	1	1	1	0	0	0
5	2	1	1	1	1	1	0	0
6	1	1	2	1	1	0	1	0
7	3	4	3	2	2	2	1	1
8	3	4	4	4	3	3	0	2
9	8	8	5	5	4	4	0	1
10	18	20	16	16	10	12	6	6
11	28	26	23	22	15	14	6	7
12	28	28	31	29	26	25	14	15
13	3	3	12	13	24	26	21	20
14	0	0	0	0	9	8	22	22
15	0	0	0	0	0	0	19	18
16	0	0	0	0	0	0	4	3

Table 26: How old were you when you had your first alcoholic drink?

18	0	0	0	0	0	0	0	0
No response	4	4	3	5	5	4	5	4
N =	888	984	1006	1104	992	1209	572	901

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink

How often do you usually have an alcoholic drink?	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Every day or almost every day	0	0	0	1	1	0	1	1
About twice a week	1	2	1	2	2	3	3	3
About once a week	2	3	2	3	4	4	8	8
About once every two weeks	5	4	5	6	6	8	13	15
About once a month	9	8	14	11	17	14	21	20
Only a few times a year/ special occasions	70	72	67	68	59	64	47	48
l never drink alcohol now	11	9	9	6	10	7	7	4
No response	2	2	2	1	1	1	1	1
N =	888	984	1006	1104	992	1209	572	901

Table 27: How often do you usually drink alcohol? Among those who had ever had an alcoholic drink

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink

How often do you usually have an	Baseline/age 12- 13 Intervention	Baseline/age 12-13 Comparison	Survey 2/age 12-13 Intervention	Survey 2/age 12-13 Comparison	Survey 3/age 13-14 Intervention	Survey 3/age 13-14 Comparison	Survey 4/age 15-16 Intervention	Survey 4/age 15- 16 Comparison
alcoholic drink?	%	%	%	%	%	%	%	%
Every day or almost every day	0	0	0	1	0	0	0	1
About twice a week	0	1	1	1	1	2	2	2
About once a week	1	1	1	2	2	2	5	6
About once every two weeks	2	2	2	3	3	5	8	12
About once a month	4	4	7	6	8	9	14	16
Only a few times a year/ special occasions	29	32	31	37	29	41	30	38
I never drink alcohol now	5	4	4	3	5	4	5	3
Never had a drink	57	55	53	45	49	35	35	21
No response	2	2	2	2	2	2	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 28: How often do you usually drink alcohol? Among the entire sample (regardless of whether they had ever had an alcoholic drink)

A single response question.

Due to rounding, percentages may not sum to 100.

My friends drink alcohol	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Strongly agree	1	1	2	2	4	2	6	6
Agree	9	5	13	8	16	13	29	33
Not sure	18	13	15	16	17	13	12	10
Disagree	24	25	29	29	36	35	31	29
Strongly disagree	43	50	37	42	25	33	21	19
No response	5	5	3	4	3	3	2	2
N =	771	874	902	1020	882	1114	526	856

Table 29: Reasons for drinking alcohol...my friends drink alcohol

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

My family drink alcohol	Baseline/age 12-13 Intervention	Baseline/age 12-13 Comparison	12-13	12-13	13-14	13-14		15-16
	%	%	%	%	%	%	%	%
Strongly agree	6	5	5	5	4	3	5	4
Agree	27	23	24	26	25	26	31	30
Not sure	19	20	17	14	17	16	12	12
Disagree	22	22	28	27	31	31	33	33
Strongly disagree	21	25	24	25	18	21	18	19
No response	5	5	3	4	3	3	2	2
N =	771	874	902	1020	882	1114	526	856

Table 30: Reasons for drinking alcohol...my family drink alcohol

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

I'm curious about alcohol	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Strongly agree	2	2	3	2	2	3	2	1
Agree	18	18	20	16	17	19	17	19
Not sure	25	22	23	23	22	20	18	17
Disagree	25	22	30	28	36	34	39	38
Strongly disagree	25	31	22	28	19	21	21	22
No response	6	5	3	4	3	4	2	2
N =	771	874	902	1020	882	1114	526	856

Table 31: Reasons for drinking alcohol...I'm curious about alcohol

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

I don't want to feel left out	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Strongly agree	2	1	2	1	1	1	2	2
Agree	8	6	8	7	7	6	8	10
Not sure	12	10	11	10	11	10	7	10
Disagree	29	25	33	33	45	41	46	40
Strongly disagree	45	51	42	45	32	38	36	37
No response	5	6	3	4	3	4	1	2
N =	771	874	902	1020	882	1114	526	856

Table 32: Reasons for drinking alcohol...I don't want to feel left out

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

It is fun	Baseline/age 12-13 Intervention	Baseline/age 12-13 Comparison	Survey 2/age 12-13 Intervention	12-13	13-14	Survey 3/age 13-14 Comparison	Survey 4/age 15-16 Intervention	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
Strongly agree	5	4	5	5	6	8	13	12
Agree	16	12	19	18	27	22	40	41
Not sure	22	22	27	22	27	23	18	20
Disagree	22	22	20	24	22	24	15	14
Strongly disagree	30	36	26	27	16	19	12	12
No response	5	5	3	3	3	3	1	2
N =	771	874	902	1020	882	1114	526	856

Table 33: Reasons for drinking...it is fun

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

It is exciting and risky to drink alcohol	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
·	%	%	%	%	%	%	%	%
Strongly agree	3	3	2	3	2	3	3	4
Agree	13	8	12	8	11	11	13	12
Not sure	15	16	20	18	21	17	17	19
Disagree	28	23	27	30	37	35	38	38
Strongly disagree	36	43	35	37	25	30	26	25
No response	5	6	4	4	3	4	2	2
N =	771	874	902	1020	882	1114	526	856

Table 34: Reasons for drinking...it is exciting and risky to drink alcohol

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

I like the taste of the alcohol I drink	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
	%	%	%	%	%	%	%	%
Strongly agree	11	12	9	14	12	15	15	14
Agree	42	40	50	45	56	51	55	58
Not sure	22	19	18	18	15	15	13	11
Disagree	8	10	9	8	7	9	9	9
Strongly disagree	11	15	11	11	7	7	7	6
No response	5	5	3	4	3	3	1	2
N =	771	874	902	1020	882	1114	526	856

Table 35: Reasons for drinking alcohol...I like the taste of the alcohol I drink

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

l like how I feel when I drink alcohol	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
Strongly agree	3	3	3	5	3	5	10	9
Agree	9	10	14	12	17	20	30	35
Not sure	30	28	32	29	36	31	32	28
Disagree	24	21	24	23	26	23	16	14
Strongly disagree	28	33	24	26	14	19	10	12
No response	6	5	4	5	3	3	1	2
N =	771	874	902	1020	882	1114	526	856

Table 36: Reasons for drinking alcohol...I like how I feel when I drink alcohol

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

It's relaxing and sociable to drink	Baseline/age 12-13 Intervention	12-13	12-13		13-14	13-14	15-16	Survey 4/age 15-16 Comparison
alcohol	%	%	%	%	%	%	%	%
Strongly agree	3	4	3	5	5	6	12	13
Agree	17	21	22	22	33	33	51	53
Not sure	28	24	28	25	27	26	17	17
Disagree	22	17	21	22	19	18	10	8
Strongly disagree	25	29	22	22	13	15	9	8
No response	6	5	3	4	3	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 37: Reasons for drinking alcohol...it's relaxing and sociable to drink alcohol

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

I feel pressured to drink by my friends	12-13	12-13	12-13	Survey 2/age 12-13 Comparison	13-14	13-14	15-16	15-16
	%	%	%	%	%	%	%	%
Strongly agree	1	0	1	1	1	0	1	1
Agree	2	2	2	2	2	2	2	3
Not sure	6	8	9	8	7	7	4	5
Disagree	24	18	25	25	35	28	34	29
Strongly disagree	61	66	60	61	51	60	57	61
No response	6	5	3	5	3	3	2	2
N =	771	874	902	1020	882	1114	526	856

Table 38: Reasons for drinking...I feel pressured to drink by my friends

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

I am tempted when I see alcohol in	Baseline/age 12-13 Intervention	12-13	12-13		13-14	13-14	15-16	
shops/supermarkets	%	%	%	%	%	%	%	%
Strongly agree	1	1	1	2	1	1	2	2
Agree	3	3	2	3	3	4	4	4
Not sure	7	5	10	6	8	7	8	8
Disagree	25	19	26	25	35	29	33	31
Strongly disagree	58	66	57	60	50	55	52	54
No response	6	6	4	5	3	3	1	2
N =	771	874	902	1020	882	1114	526	856

Table 39: Reasons for drinking...I am tempted when I see alcohol in shops/supermarkets

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

It makes me feel more grown up	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Strongly agree	3	4	3	3	2	3	2	2
Agree	19	18	19	19	18	17	18	15
Not sure	19	16	19	15	17	18	13	18
Disagree	25	25	26	26	32	30	33	36
Strongly disagree	29	33	30	32	27	28	32	28
No response	5	4	3	4	4	4	1	2
N =	771	874	902	1020	882	1114	526	856

Table 40: Reasons for drinking...it makes me feel more grown up

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

I drink alcohol to impress girls/boys I	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
like	%	%	%	%	%	%	%	%
Strongly agree	0	0	0	1	0	1	1	1
Agree	2	2	1	1	2	2	2	2
Not sure	8	6	9	7	7	6	5	7
Disagree	28	23	31	26	38	33	37	32
Strongly disagree	57	64	55	59	50	55	54	56
No response	5	5	4	5	4	4	1	2
N =	771	874	902	1020	882	1114	526	856

Table 41: Reasons for drinking...I drink alcohol to impress girls/boys I like

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

l like to get drunk	Baseline/age 12-13 Intervention	Baseline/age 12-13 Comparison	Survey 2/age 12-13 Intervention	12-13	Survey 3/age 13-14 Intervention	13-14	15-16	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
Strongly agree	3	1	2	3	2	2	7	7
Agree	3	4	5	5	7	8	16	17
Not sure	12	10	12	12	17	14	18	18
Disagree	21	17	25	21	30	26	26	25
Strongly disagree	56	63	53	54	40	46	32	31
No response	5	6	4	5	3	4	1	2
N =	771	874	902	1020	882	1114	526	856

Table 42: Reasons for drinking...I like to get drunk

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

I'm bored/have nothing else to do	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
-	%	%	%	%	%	%	%	%
Strongly agree	1	1	0	1	1	2	1	1
Agree	3	3	4	4	4	4	4	4
Not sure	9	6	9	8	8	8	8	9
Disagree	24	21	27	25	37	29	34	33
Strongly disagree	57	63	56	57	46	53	51	51
No response	5	6	4	5	4	4	1	2
N =	771	874	902	1020	882	1114	526	856

Table 43: Reasons for drinking...I'm bored/have nothing else to do

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

It is a special occasion e.g. Christmas, birthday,	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
other celebration	%	%	%	%	%	%	%	%
Strongly agree	45	54	47	54	42	47	46	46
Agree	44	38	45	36	47	43	46	44
Not sure	5	4	4	5	5	4	4	5
Disagree	1	1	1	2	2	2	2	2
Strongly disagree	2	1	1	1	1	1	1	2
No response	3	3	3	2	2	2	1	1
N =	771	874	902	1020	882	1114	526	856

Table 44: Reasons for drinking...it is a special occasion

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Felt relaxed and outgoing	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14		15-16	15-16
	%	%	%	%	%	%	%	%
Often	8	11	16	13	18	20	40	50
Sometimes/at least once	37	39	37	39	45	42	40	37
Never	50	48	44	45	34	35	18	13
No response	5	2	2	4	2	2	2	1
N =	771	874	902	1020	882	1114	526	856

Table 45: Experiences when drinking...felt relaxed and outgoing

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Forgotten about my problems for a while	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
	%	%	%	%	%	%	%	%
Often	10	10	15	13	15	17	30	30
Sometimes/at least once	23	25	25	25	29	26	27	35
Never	62	63	57	59	53	54	41	34
No response	5	3	3	3	2	2	1	1
N =	771	874	902	1020	882	1114	526	856

Table 46: Experiences when drinking...forgotten about my problems for a while

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Felt that I could not stop drinking	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
	%	%	%	%	%	%	%	%
Often	2	2	2	2	2	2	3	3
Sometimes/at least once	6	6	7	6	8	7	7	12
Never	86	89	88	88	87	88	88	84
No response	5	3	3	4	2	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 47: Experiences when drinking...felt that I could not stop drinking

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Got a hangover in the morning	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14		15-16	15-16
	%	%	%	%	%	%	%	%
Often	4	3	3	5	5	5	10	11
Sometimes/at least once	13	14	16	15	21	21	31	31
Never	78	81	78	77	72	71	58	57
No response	5	2	3	4	2	3	1	1
N =	771	874	902	1020	882	1114	526	856

Table 48: Experiences when drinking...got a hangover in the morning

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Tried other drugs/substances	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	15-16	Survey 4/age 15-16 Comparison
	%	%	%	%	%	%	%	%
Often	1	1	0	1	1	1	4	4
Sometimes/at least once	3	2	4	2	5	4	8	11
Never	90	91	93	87	91	85	87	72
No response	6	6	3	10	2	10	2	13
N =	771	874	902	1020	882	1114	526	856

Table 49: Experiences when drinking...tried other drugs/substances

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Got sick	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
	%	%	%	%	%	%	%	%
Often	3	2	3	3	4	3	6	7
Sometimes/at least once	11	10	11	13	14	13	23	25
Never	81	86	83	81	80	81	69	67
No response	5	2	3	4	2	3	1	1
N =	771	874	902	1020	882	1114	526	856

Table 50: Experiences when drinking...got sick

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Done something I regretted	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14		15-16	15-16
	%	%	%	%	%	%	%	%
Often	2	2	3	3	5	4	9	8
Sometimes/at least once	10	7	10	8	10	10	17	20
Never	83	89	85	85	83	83	72	70
No response	6	2	3	4	2	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 51: Experiences when drinking...done something I regretted

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Passed out	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14		15-16
	%	%	%	%	%	%	%	%
Often	1	1	1	1	1	2	3	4
Sometimes/at least once	3	2	3	4	5	4	9	11
Never	91	95	93	91	91	91	86	84
No response	5	2	3	4	2	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 52: Experiences when drinking...passed out

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Could not concentrate in school/ affected my	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	15-16	Survey 4/age 15-16 Comparison
schoolwork	%	%	%	%	%	%	%	%
Often	1	1	0	1	0	1	2	1
Sometimes/at least once	5	2	5	3	4	3	3	4
Never	89	94	92	92	93	93	94	94
No response	5	2	3	4	3	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 53: Experiences when drinking...could not concentrate in school/affected my schoolwork

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Been in trouble with the police	Baseline/age 12-13 Intervention	12-13	12-13		13-14	13-14	15-16	15-16
	%	%	%	%	%	%	%	%
Often	1	1	1	2	1	1	1	1
Sometimes/at least once	2	2	3	3	4	3	3	4
Never	91	95	93	92	92	93	94	93
No response	6	2	3	4	2	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 54: Experiences when drinking...been in trouble with police

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Had unplanned sexual	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	15-16	Survey 4/age 15-16 Comparison
contact/activity	%	%	%	%	%	%	%	%
Often	0	0	1	2	1	1	3	2
Sometimes/at least once	3	2	3	2	5	4	7	9
Never	92	91	93	86	91	85	88	76
No response	5	6	3	9	3	10	2	13
N =	771	874	902	1020	882	1114	526	856

Table 55: Experiences when drinking...had unplanned sexual contact/activity

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Got in trouble with my parents	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14		15-16
	%	%	%	%	%	%	%	%
Often	2	2	2	2	1	2	2	2
Sometimes/at least once	9	8	11	10	12	9	14	14
Never	83	87	84	84	83	85	82	83
No response	6	3	3	4	3	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 56: Experiences when drinking...got in trouble with my parents

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Got in trouble with my teacher	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14		15-16
	%	%	%	%	%	%	%	%
Often	2	1	1	1	1	0	1	1
Sometimes/at least once	2	2	2	1	2	1	1	2
Never	91	95	93	94	94	96	97	96
No response	6	3	3	4	3	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 57: Experiences when drinking...got in trouble with my teacher

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

Been in a fight or argument	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
	%	%	%	%	%	%	%	%
Often	3	3	2	3	3	4	2	3
Sometimes/at least once	11	10	9	10	12	11	14	13
Never	81	85	85	83	83	83	82	83
No response	6	2	4	4	3	3	2	1
N =	771	874	902	1020	882	1114	526	856

Table 58: Experiences when drinking...been in a fight or argument

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

How do your parents/carers feel about you drinking	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
alcohol?	%	%	%	%	%	%	%	%
They don't like me drinking alcohol at all	5	4	5	4	4	5	7	5
They don't mind as long as I don't drink too much	74	77	76	75	76	77	78	81
They let me drink as much as I like	0	1	1	1	1	1	2	3
They don't know I drink	3	2	4	3	4	4	5	4
Don't know	11	14	10	12	11	9	6	6
No response	8	4	3	5	4	3	2	2
N =	771	874	902	1020	882	1114	526	856

Table 59: How do your parents feel about you drinking alcohol?

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink and still drink alcohol now

How many times have you ever been drunk or experienced	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	15-16	Survey 4/age 15-16 Comparison
binge drinking?	%	%	%	%	%	%	%	%
Never	68	71	66	66	61	61	43	37
Once	12	11	13	12	12	12	14	15
2-5 times	8	10	11	9	13	14	20	21
6-10 times	2	1	2	2	4	3	6	10
More than ten times	1	1	1	2	2	2	10	9
I don't know	4	3	4	6	5	6	5	7
No response	6	3	3	4	2	2	2	0
N =	888	984	1006	1104	992	1209	572	901

 Table 60: How many times have you ever been drunk or experienced binge drinking? (among those who have ever had an alcoholic drink)

A single response question.

Due to rounding, percentages may not sum to 100.

A filter question: all those who had ever had a whole alcoholic drink

Table 61: How many times have you ever been drunk or experienced binge drinking? (among whole sample, regardless of
whether they have ever had an alcoholic drink)

How many times have you ever been drunk or experienced binge	Baseline/age 12-13 Intervention	12-13			3/age 13-14	Survey 3/age 13-14 Comparison	15-16	15-16
drinking?	%	%	%	%	%	%	%	%
Never had an alcoholic drink	57	55	53	45	49	35	35	21
Never been drunk	29	31	30	35	30	39	28	29
Once	5	5	6	6	6	8	9	12
2-5 times	3	4	5	5	7	9	13	17
6-10 times	1	1	1	1	2	2	4	8
More than ten times	0	0	1	1	1	1	7	7
I don't know	2	1	2	3	3	4	3	6
No response	4	3	3	3	2	3	1	1
N =	2142	2268	2203	2095	2015	1904	900	1146

A single response question.

Due to rounding, percentages may not sum to 100.

Does anyone you live with usually drink alcohol inside your	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
home?	%	%	%	%	%	%	%	%
Yes	55	57	55	57	54	58	53	58
No	40	32	41	31	42	28	45	27
No response	5	10	4	13	4	13	2	16
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 62: Does anyone you live with usually drink alcohol inside your home?

A single response question.

Due to rounding, percentages may not sum to 100.

Someone over 18 can buy alcohol for me as long as I don't buy it	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14		15-16
myself	%	%	%	%	%	%	%	%
True	22	22	26	26	26	29	26	31
False	54	57	54	53	56	50	58	56
Not sure	19	18	17	17	15	17	14	12
No response	5	3	3	4	3	3	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 63: Knowledge question 1, true or false?

A single response question.

Due to rounding, percentages may not sum to 100.

There is more alcohol in a pint of beer (normal strength)	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
than a double vodka	%	%	%	%	%	%	%	%
True	7	6	6	6	5	6	4	4
False	49	54	58	57	62	64	69	74
Not sure	39	37	33	33	30	27	25	21
No response	5	3	3	4	3	3	2	0
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 64: Knowledge question 2, true or false?

A single response question.

Due to rounding, percentages may not sum to 100.

If you stop drinking alcohol and switch to soft drinks or coffee	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
you will be OK to drive after an hour	%	%	%	%	%	%	%	%
True	15	16	14	12	10	10	5	5
False	47	50	53	56	61	64	74	80
Not sure	33	32	29	28	25	23	19	15
No response	5	3	3	4	3	4	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 65: Knowledge question 3, true or false?

A single response question.

Due to rounding, percentages may not sum to 100.

If you drink on an empty stomach the effects are stronger	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14		15-16	15-16
	%	%	%	%	%	%	%	%
True	51	52	67	61	76	72	84	86
False	4	6	5	4	3	3	2	2
Not sure	40	40	25	30	17	21	12	11
No response	5	3	3	5	3	3	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 66: Knowledge question 4, true or false?

A single response question.

Due to rounding, percentages may not sum to 100.

Table 67: Knowledge question 5, true or false?

Recommended alcohol units for women are lower because alcohol breaks down slower in their bodies and they have less body	12-13 Intervention	12-13 Comparison	12-13 Intervention	12-13 Comparison	13-14 Intervention	13-14 Comparison	Intervention	15-16 Comparison
water than men	%	%	%	%	%	%	%	%
True	36	42	58	49	64	57	62	64
False	9	8	7	8	7	8	7	8
Not sure	50	48	31	37	27	31	29	28
No response	6	3	4	5	3	4	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

A single response question.

Due to rounding, percentages may not sum to 100.

In 2010, 55% of 11 - 15 year olds in England had <i>never</i>	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14		15-16	15-16
drunk alcohol	%	%	%	%	%	%	%	%
True	16	17	21	17	20	16	19	15
False	27	33	28	31	28	36	34	44
Not sure	51	47	47	46	48	44	44	40
No response	6	3	4	5	4	4	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 68: Knowledge question 6, true or false?

A single response question.

Due to rounding, percentages may not sum to 100.

Table 69: Knov	wledge question	n 7, true or false?
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Police can take alcohol from under 18s drinking in a public place e.g. park	Baseline/age 12-13 Intervention	12-13	12-13		13-14	13-14	15-16	15-16
or street	%	%	%	%	%	%	%	%
True	76	81	81	80	82	82	83	90
False	4	3	3	3	3	3	2	1
Not sure	15	13	11	11	12	11	12	8
No response	6	3	5	6	4	4	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

A single response question.

Due to rounding, percentages may not sum to 100.

Every year in England 22% of accidental deaths are	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	Survey 3/age 13-14 Comparison	15-16	15-16
alcohol related	%	%	%	%	%	%	%	%
True	56	59	57	58	54	58	56	62
False	4	5	4	5	5	6	4	6
Not sure	34	33	33	32	37	33	37	32
No response	6	3	5	6	4	4	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

Table 70: Knowledge question 8, true or false?

A single response question.

Due to rounding, percentages may not sum to 100.

Table 71: Knowledge question 9, true or false?

The liver breaks down most of the alcohol in your body, but if you drink coffee or water you can speed up the	Baseline/age 12-13 Intervention	12-13	12-13	12-13	13-14	13-14	Survey 4/age 15-16 Intervention	15-16
process	%	%	%	%	%	%	%	%
True	25	24	31	30	36	32	38	36
False	16	17	20	18	19	21	19	27
Not sure	53	56	44	47	41	43	40	36
No response	6	3	5	5	4	4	2	1
N =	2142	2268	2203	2095	2015	1904	900	1146

A single response question.

Due to rounding, percentages may not sum to 100.

Appendix C Analysis and technical detail

Assembling scales

Three questions in the survey consisted of items that were amenable to the generation of attitude scores. Rather than include all items from each question, the reliability of each scale was explored first using Cronbach's Alpha (a measure of internal consistency). Items whose removal resulted in an increase in reliability for the scale in question were excluded from the final calculation of attitude scores. The following attitude scores were generated:

- attitude to school score
- self esteem score
- how students felt when they drank alcohol (items were scored and each pupil had an average score for their experience of 'negative consequences').

Another question in the survey addressed reasons for drinking and consisted of items that were amenable to factor analysis. Factor analysis is a statistical technique for identifying patterns in responses. The object of factor analysis is to reduce the number of variables required to explain the data from the original large number to a smaller set of underlying 'factors' which can be related to the original variables. In the present study, once the items that constitute each factor were identified, a reliability check was performed on each factor to ensure it was measuring a particular trait well. The following factors described reasons for drinking¹³: 'to join in with others'; 'for enjoyment'; and 'for negative reasons'.

The resulting scales were included in the models described below in an attempt to control for systematic differences between intervention and comparison groups.

Multilevel modelling

Multilevel modelling is a development of a common statistical technique known as 'regression analysis'. This is a technique for finding relationships between variables given the values of one or more related measures. Multi-level modelling takes account of data which is grouped into similar clusters at different levels. For example in the present study, individual students are grouped into schools. Students within a school will be more alike, on average, than students from different schools. Multilevel modelling allows us to take account of this hierarchical structure of the data and produce more reliable results.

Multilevel modelling has been used for the evaluation of AET because:

¹³ The reason 'it's a social occasion/celebration' did not seem to fit with the other factors and so was removed from this factor analysis.

- it was necessary to control for systematic differences between intervention and comparison groups when trying to determine whether the intervention was effective
- students were clustered within schools
- the intervention was administered at the school level
- students' responses to the questionnaire were recorded both before and after the intervention.

Multilevel modelling was run in R and Stata. A set of explanatory variables that might be expected to explain the outcome in each case were included (and are detailed below) and a backwards selection process determined which of the variables were statistically significant.

The **knowledge** model included all students with a valid score on the knowledge variable; a total of 14,293 observations¹⁴. It contained three levels: time, student and school. In addition to the time, group and interaction variables, the following potential confounders were included in the model. Where variables were significant in the model they have been marked with an asterisk:

Male (default=female)

*Number of people live with

*Poor relationship with father (*default=relationship very good/OK*)

Poor relationship with mother (*default=relationship very good/OK*)

Poor relationship with other carers (*default=relationship very good/OK*)

White - other (*default=White - British*)

Mixed (default=White - British)

*Asian (*default=White – British*)

*Black (*default=White – British*)

*Other (*default=White – British*)

*Unknown ethnicity (*default=White – British*)

*Number of books in the home

Pupil receives free school meals

*Attitude towards school

*Self esteem

*Others you live with usually drink in home (*default=...do not usually drink in home*)

No response to 'others drink in home'

Secondary modern school (default=comprehensive to 18)

Comprehensive to 16 (default=comprehensive to 18)

Grammar (default=comprehensive to 18)

¹⁴ Each pupil had four observations if they appeared at baseline and all three follow-ups.

¹¹⁰ Evaluation of the *Talk about Alcohol* Intervention: Longer-Term Follow up

*Academy (*default=comprehensive to 18*) School % students eligible for free school meals School average total (best 8) points score per pupil 2011

Explanatory variables were centred (continuous variables each had a mean of zero) to enable ready interpretation of the intercept term. Table A1 displays the estimated model coefficients, standard errors and t- and p-values from the t-test of each coefficient's individual significance. In addition, the standard deviation for each of the continuous explanatory variables is reported in the last column.

	Coefficient	St. error	t-value	p-value	St. dev.
Intercept	4.344	.089	48.580	.000	N/A
Number of people live with	066	.017	-3.890	.000	1.1
Poor relationship with father	.264	.081	3.240	.001	0.2
Asian	436	.078	-5.610	.000	0.3
Black	330	.098	-3.350	.001	0.2
Other ethnicity	346	.130	-2.650	.008	0.1
Unknown ethnicity	527	.111	-4.760	.000	0.1
Number of books in the home	.099	.013	7.430	.000	1.4
Attitude towards school	.033	.005	6.630	.000	4.0
Self esteem	.015	.006	2.660	.008	3.3
Others you live with usually drink in home	.164	.036	4.520	.000	0.5
Academy	230	.108	-2.140	.033	0.5
Round 2	.303	.049	6.200	.000	N/A
Round 3	.619	.051	12.130	.000	N/A
Round 4	1.072	.061	17.660	.000	N/A
Intervention	040	.115	350	.725	N/A
Intervention * Round 2	.340	.069	4.930	.000	N/A
Intervention * Round 3	.301	.072	4.200	.000	N/A
Intervention *Round 4	.028	.091	.310	.758	N/A

Table A1: Knowledge model coefficients

All coefficients are interpretable in terms of the dependent variable, knowledge points. Source: NFER surveys November 2011-January 2012, May to June 2012, May to June 2013 and January-March 2015

The **onset of drinking model** included all students with a valid response to the question 'have you ever had an alcoholic drink'; a total of 14,432 observations. It was a logistic model containing three levels: time, student and school. As it is a logistic model, the coefficients represent the ratio of log odds of ever having had an alcoholic drink; the exponential of each coefficient yields the odds ratio. In addition to the time, group and interaction variables, the following potential confounders were included in the model. Where variables were significant in the model they have been marked with an asterisk:

Male (*default=female*)

*Number of siblings

*Poor relationship with father (default=relationship very good/OK)

Poor relationship with mother (default=relationship very good/OK)

Poor relationship with other carers (default=relationship very good/OK)

White - other (*default=White - British*)

*Mixed (*default=White – British*)

- *Asian (default=White British)
- *Black (default=White British)
- *Other (default=White British)

*Unknown ethnicity (*default=White – British*)

Number of books in the home

*Pupil receives free school meals

*Attitude towards school

*Self esteem

*Others you live with usually drink in home (*default=...do not usually drink in home*)

- *No response to 'others drink in home'
- Secondary modern school (default=comprehensive to 18)
- Comprehensive to 16 (default=comprehensive to 18)
- Grammar (default=comprehensive to 18)
- Academy (default=comprehensive to 18)
- School % students eligible for free school meals
- School average total (best 8) points score per pupil 2011

Variables were centred (continuous variables each had a mean of zero) to enable ready interpretation of the intercept term. Table A2 displays the estimated model coefficients, standard errors and t- and p-values from the t-test of each coefficient's individual significance. In addition, the standard deviation for each of the continuous explanatory variables is reported in the last column.

	Coefficient	St. error	t-value	p-value	St. dev.
Intercept	930	.212	-4.381	.000	N/A
Number of siblings	.129	.026	4.991	.000	1.4
Poor relationship with father	.288	.132	2.187	.029	0.2
Mixed ethnicity	409	.145	-2.829	.005	0.2
Asian	-1.799	.151	-11.898	.000	0.3
Black	956	.185	-5.176	.000	0.2
Other	696	.209	-3.327	.001	0.1
Unknown ethnicity	-1.132	.176	-6.447	.000	0.1
Pupil receives free school meals	245	.114	-2.156	.031	0.3
Attitude towards school	140	.008	-16.984	.000	4.0
Self esteem	052	.009	-5.560	.000	3.3
Others you live with usually drink in home	.694	.058	11.928	.000	0.5
No response to 'others drink in home'	.433	.129	3.350	.001	0.3
Round 2	.927	.069	13.424	.000	N/A
Round 3	1.616	.075	21.661	.000	N/A
Round 4	3.490	.103	33.949	.000	N/A
Intervention	.099	.299	.330	.744	N/A
Intervention * Round 2	336	.098	-3.425	.001	N/A
Intervention * Round 3	729	.104	-7.019	.000	N/A
Intervention * Round 4	895	.146	-6.143	.000	N/A

Table A2: Onset of drinking model coefficients

All coefficients are interpretable in terms of the ratio of log odds of ever having had an alcoholic drink. Source: NFER surveys November 2011-January 2012, May to June 2012, May to June 2013 and January-March 2015

An additional onset of drinking model was run in order to measure differential comparisons between white and non-white students in the intervention and control groups. In order to do this the individual ethnicity variables were replaced with a 'non-white' dummy variable (the default is white). Backwards selection was re-run and extra interactions included in the model to measure the differential effects. The results of the model are shown in Table A3.

	Coefficient	St. error	t-value	p-value	St. dev.
Intercept	-1.012	.231	-4.377	.000	N/A
Number of siblings	.130	.026	5.069	.000	1.4
Poor relationship with father	.292	.132	2.208	.027	0.2
Non-white	418	.161	-2.599	.009	0.5
Pupil receives free school meals	232	.114	-2.045	.041	0.3
Attitude towards school	141	.008	-17.138	.000	4.0
Self esteem	049	.009	-5.217	.000	3.3
Others you live with usually drink in home	.717	.058	12.322	.000	0.5
No response to 'others drink in home'	.464	.129	3.585	.000	0.3
Round 2	.933	.077	12.086	.000	N/A
Round 3	1.613	.083	19.539	.000	N/A
Round 4	3.650	.121	30.185	.000	N/A
Non-white * Round 2	102	.179	568	.570	N/A
Non-white * Round 3	058	.196	298	.766	N/A
Non-white * Round 4	729	.233	-3.134	.002	N/A
Intervention	.040	.329	.123	.903	N/A
Intervention * Round 2	214	.113	-1.886	.059	N/A
Intervention * Round 3	551	.120	-4.585	.000	N/A
Intervention * Round 4	976	.178	-5.469	.000	N/A
Non-white * Intervention	084	.219	382	.702	N/A
Non-white * Intervention * Round 2	378	.238	-1.588	.112	N/A
Non-white * Intervention * Round 3	552	.253	-2.182	.029	N/A
Non-white * Intervention * Round 4	.345	.315	1.096	.273	N/A

Table A3: Onset of drinking model coefficients

All coefficients are interpretable in terms of the ratio of log odds of ever having had an alcoholic drink. Source: NFER surveys November 2011-January 2012, May to June 2012, May to June 2013 and January-March 2015

The **frequency of drinking model** included only those who had had a drink at baseline and/or any follow-up and who had responded to the question 'How often do you usually have an alcoholic drink?'; a total of 7,620 observations¹⁵. It was a logistic model containing three levels: time, student and school. As it is a logistic model, the coefficients represent the ratio of log odds of being a frequent drinker; the

¹⁵ Each pupil had four observations if they appeared at baseline and all three follow-ups.

exponential of each coefficient yields the odds ratio. In addition to the time, group and interaction variables, the following potential confounders were included in the model. Where variables were significant in the model they have been marked with an asterisk:

*Male (*default=female*)

Number of siblings Poor relationship with father (*default=relationship very good/OK*) Poor relationship with mother (*default=relationship very good/OK*) Poor relationship with other carers (default=relationship very good/OK) White – other (*default=White – British*) Mixed (*default=White – British*) *Asian (*default=White – British*) *Black (*default=White – British*) *Other (*default=White – British*) Unknown ethnicity (default=White - British) Number of books in the home Pupil receives free school meals *Attitude towards school *Self esteem *Age when first had alcoholic drink I drink alcohol to join in (factor) *I drink alcohol because I enjoy it (factor) *I drink alcohol for negative reasons (factor) *Negative consequences of drinking (factor) *Parents/carers do not like me drinking alcohol (default=don't mind as long as not too much) *Parents/carers let me drink as much as I like (default=don't mind as long as not too much) *Parents/carers do not know I drink (default=don't mind as long as not too much) *Others you live with usually drink in home (default=...do not usually drink in home) No response to 'others drink in home' Secondary modern school (*default=comprehensive to 18*) *Comprehensive to 16 (*default=comprehensive to 18*) *Grammar (default=comprehensive to 18) Academy (*default=comprehensive to 18*) *School % students eligible for free school meals *School average total (best 8) points score per pupil 2011

Variables were centred (continuous variables each had a mean of zero) to enable ready interpretation of the intercept term. Table A4 displays the estimated model coefficients, standard errors and t- and p-values from the t-test of each coefficient's

individual significance. In addition, the standard deviation for each of the continuous explanatory variables is reported in the last column.

Table A4. Frequency of drifking	Coeff.	St. error	t-value	p-value	St. dev.
Intercept	-3.360	.141	-23.799	.000	N/A
Male	.313	.094	3.342	.001	0.5
Asian	-1.341	.279	-4.805	.000	0.2
Black	872	.287	-3.036	.002	0.2
Other ethnicity	-1.214	.416	-2.921	.004	0.1
Attitude towards school	064	.010	-6.318	.000	4.2
Self esteem	050	.012	-4.200	.000	3.4
Age when first had alcoholic drink	251	.018	-13.714	.000	2.1
I drink alcohol because I enjoy it	232	.010	-23.093	.000	4.7
I drink alcohol for negative reasons	.137	.014	9.995	.000	3.0
Negative consequences of drinking	133	.011	-11.985	.000	3.3
Parents/carers do not like me drinking alcohol	433	.164	-2.645	.008	0.2
Parents/carers let me drink as much as I like	.691	.316	2.184	.029	0.1
Parents/carers do not know I drink	.345	.169	2.040	.041	0.2
Others you live with usually drink in home	.554	.079	7.011	.000	0.5
Comprehensive to 16	.500	.159	3.141	.004	0.3
Grammar	.819	.216	3.795	.001	0.4
School % students eligible for free school meals	055	.011	-5.087	.000	6.4
School average total (best 8) points score per pupil 2011	012	.003	-4.872	.000	40.7
Round 2	.733	.115	6.382	.000	N/A
Round 3	1.012	.115	8.775	.000	N/A
Round 4	2.482	.135	18.389	.000	N/A
Intervention	.056	.161	.350	.729	N/A
Intervention * Round 2	092	.164	563	.573	N/A
Intervention * Round 3	.171	.163	1.052	.293	N/A
Intervention * Round 4	026	.191	138	.890	N/A

Table A4: Frequency of drinking model coefficients

All coefficients are interpretable in terms of the ratio of log odds of ever having had an alcoholic drink. Source: NFER surveys November 2011-January 2012, May to June 2012 and May to June 2013

Some of the question responses included in this model are about drinking and potentially related to the frequency of drinking outcome. They may also have been influenced by the intervention. The frequency of drinking model was therefore rerun

without these variables included. This did not change the main result i.e. that the interaction term was not significant.

The '**ever been drunk/experienced binge drinking**' model included only those who had had a drink at baseline and/or any follow-up and who had responded to the question 'How many times have you ever been drunk or experienced binge drinking?'; a total of 7,439 observations¹⁶. It was a logistic model containing three levels: time, student and school. As it is a logistic model, the coefficients represent the ratio of log odds of being a frequent drinker; the exponential of each coefficient yields the odds ratio. In addition to the time, group and interaction variables, the following potential confounders were included in the model. Where variables were significant in the model they have been marked with an asterisk:

Male (default=female)

Number of siblings Poor relationship with father (*default=relationship very good/OK*) Poor relationship with mother (*default=relationship very good/OK*) Poor relationship with other carers (default=relationship very good/OK) White – other (*default=White – British*) Mixed (*default=White – British*) Asian (*default=White – British*) *Black (*default=White – British*) Other (*default=White – British*) Unknown ethnicity (*default=White – British*) Number of books in the home Pupil receives free school meals *Attitude towards school Self esteem *Age when first had alcoholic drink I drink alcohol to join in (factor) *I drink alcohol because I enjoy it (factor) *I drink alcohol for negative reasons (factor) *Negative consequences of drinking (factor) Parents/carers do not like me drinking alcohol (default=don't mind as long as not too much) Parents/carers let me drink as much as I like (default=don't mind as long as not too much) *Parents/carers do not know I drink (default=don't mind as long as not too much) Others you live with usually drink in home (default=...do not usually drink in home) *No response to 'others drink in home' Secondary modern school (*default=comprehensive to 18*)

¹⁶ Each pupil had four observations if they appeared at baseline and all three follow-ups.

¹¹⁸ Evaluation of the *Talk about Alcohol* Intervention: Longer-Term Follow up

Comprehensive to 16 (*default=comprehensive to 18*) Grammar (*default=comprehensive to 18*) Academy (*default=comprehensive to 18*) School % students eligible for free school meals *School average total (best 8) points score per pupil 2011

Variables were centred (continuous variables each had a mean of zero) to enable ready interpretation of the intercept term. Table A5 displays the estimated model coefficients, standard errors and t- and p-values from the t-test of each coefficient's individual significance. In addition, the standard deviation for each of the continuous explanatory variables is reported in the last column.

	Coeff.	St. error	t-value	p-value	St. dev.
Intercept	876	.153	-5.737	.000	N/A
Black	677	.319	-2.120	.034	0.2
Attitude towards school	093	.014	-6.838	.000	4.2
Age when first had alcoholic drink	097	.027	-3.654	.000	2.1
I drink alcohol because I enjoy it	234	.016	14.826	.000	4.6
I drink alcohol for negative reasons	.159	.021	7.745	.000	2.9
Negative consequences of drinking	334	.030	10.957	.000	3.3
Parents/carers do not know I drink	.753	.302	2.494	.013	0.2
No response to 'others drink in home'	926	.240	-3.854	.000	0.2
School average total (best 8) points score per pupil 2011	005	.001	-4.083	.000	40.8
Round 2	.060	.201	.297	.766	N/A
Round 3	.351	.193	1.816	.069	N/A
Round 4	1.373	.220	6.255	.000	N/A
Intervention	042	.214	195	.847	N/A
Intervention * Round 2	.208	.288	.722	.470	N/A
Intervention * Round 3	.067	.279	.241	.809	N/A
Intervention * Round 4	227	.308	737	.461	N/A

Table A5: 'Ever been drunk/experienced binge drinking' model coefficients

All coefficients are interpretable in terms of the ratio of log odds of ever having had an alcoholic drink. Source: NFER surveys November 2011-January 2012, May to June 2012 and May to June 2013 NFER provides evidence for excellence through its independence and insights, the breadth of its work, its connections, and a focus on outcomes.

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independent

- insights
- breadth
- connections
- outcomes

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