

A study of the alcohol prevention programme *Talking About Alcohol* in order to measure the programme's effects on alcohol consumption among Year 9 students

This report has been prepared on commission by the school initiative *Talking About Alcohol* by a group comprising research consultants Tina Fernandes (research company YouGov) and Peter Falkenäng (research company Rochambeau) under the leadership of the Project Manager Per Hazelius (Kunskapskraft & Media) and in collaboration with partners such as Martin Stafström, a researcher at the Faculty of Medicine, Division of Social Medicine and Global Health at Lund University.

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Summary

The 2010 study conducted by the Swedish Council for Information on Alcohol and Other Drugs (CAN) on alcohol consumption among school students shows that 58 per cent of boys and 65 per cent of girls in Year 9 in Sweden drink alcohol. Young people in Sweden intensively consume alcohol more often than young people in other European countries (ESPAD 2007). It was in view of this background that *Talking About Alcohol* 2006 was initiated by the Swedish Spirits and Wine Suppliers Association (SSWS).

Talking About Alcohol comprises materials that build on classroom exercises using discussion-based teaching for social and emotional learning. The objective of the school materials is to encourage young people not to consume alcohol, and to encourage the young people who nevertheless choose to consume alcohol to drink less and to adopt a healthy approach to alcohol consumption.

The purpose of this study is to examine the extent to which *Talking About Alcohol* can influence young people not to consume alcohol and to encourage the young people who consume alcohol to drink less and develop a healthier attitude to alcohol.

The study is based on systematic and structured observations, in this case in the form of questionnaires with closed and open response options. The study was conducted in two separate surveys, approximately five months apart. The first survey (benchmark measurement) was conducted in January 2010. The second survey (follow-up measurement) was conducted at the end of May/early June. The study involved six intervention classes and six control groups. The results have been calculated at significance levels of 90%, 95% and 99%.

With this study, we have been able to show that *Talking About Alcohol* works well as alcohol prevention school materials. Over time, the intervention group displays greater awareness and a healthier attitude to alcohol use than the control group, significantly less frequent alcohol consumption, and a clearly smaller degree of risky behaviour and intoxication.

1. Introduction

Historically, young people in Sweden have been major consumers of alcohol. According to the Swedish Council for Information on Alcohol and Other Drugs (CAN), 2010, the trend is that young people's total consumption of alcohol has fallen in recent years. This is primarily due to the decrease in consumption among boys. The most recent CAN measurement (2010) shows that 58 per cent of boys and 65 per cent of girls in Year 9 in Sweden drink alcohol. In a comparison with other European countries, it has been shown that young people in Sweden have greater intensive consumption of alcohol (ESPAD 2007). The intensive consumption of alcohol among young people in Sweden indicates a certain risky behaviour.

It is on the basis of these circumstances that the Swedish Spirits and Wine Suppliers Association initiated the educational materials *Talking About Alcohol* (see www.prataomalkohol.se) and has funded this project since 2006. The basic layout, content and administration are provided by the education company Kunskapskraft & Media. The material, which is free to secondary and upper secondary schools, has been developed by the Swedish Spirits and Wine Suppliers Association in collaboration with experts in the field, including teachers, authors of educational materials and school staff.

The educational materials, *Talking About Alcohol*, have been produced with the aim of facilitating and inspiring alcohol prevention initiatives in schools. The material is based on classroom exercises using discussion-based teaching for social and emotional learning. The objective of the school materials is to encourage young people not to consume alcohol, and to encourage the young people who nevertheless choose to consume alcohol to drink less and to adopt a healthy approach. This is to be attained through dialogue and reflection on knowledge about the effects, risks and consequences of alcohol, and about laws and why they are in place.

The teaching materials are suitable for teaching in Years 7-9 and in upper secondary schools. Today, the material is spread throughout Sweden, and is used in over 75% of all Swedish secondary and upper secondary schools. During its four-year existence, it is estimated that around 5,000 teachers and 250,000 students have used the material.

The study was carried out in the spring term, when holidays and events such as Easter, Walpurgis Night and end-of-term celebrations took place. This meant that the young people were coming into contact more frequently with alcohol during this period than they normally would have. It should also be added that the respondent group was about to leave Year 9, which means an even greater risk of increased alcohol consumption and risky behaviour.

2. Purpose

The purpose of this study is to examine the extent to which *Talking About Alcohol* fulfils the objectives of getting young people not to consume alcohol and to encourage the young people who consume alcohol to drink less and develop a healthy attitude to alcohol consumption.

3. Method

This quantitative study aims to give a clear picture of the quantitative variation. The study is based on systematic and structured observations, in this case in the form of questionnaires with closed and open response options. The study was conducted in two separate surveys, approximately five months apart. The first occasion (benchmark measurement) took place in January 2010. The second measurement (follow-up measurement) was held at the end of May/early June. The same questions were asked in both the follow-up measurement and the benchmark measurement. For a more detailed review of the measurements and data collection, we refer to the chapter about the selection of survey groups, "Selection".

The survey questions (see the questionnaire in Appendix 2) and analysis of the results were prepared and compiled by research consultants Tina Fernandes (research company YouGov) and Peter Falkenäng (research company Rochambeau), in collaboration with Per Hazelius (Kunskapskraft & Media) and with support from psychology researcher Nikolaus Koutakis at Örebro University and health researcher Martin Stafström at Lund University.

3.1 Validity and reliability

The study was conducted in groups among Year 9 students in Sweden on the basis of real circumstances for schools and teachers. A representative sample was selected from the

defined population. This sample group had not undergone any interventions to alter the usual school situation.

Significance calculations were carried out using the Students' T-tests. T-tests are calculated on figures observed over time through the column proportions method, which are then used to create tables and the statistical T-tests. The column proportions method is used because the survey was carried out in groups.

The significance was calculated at 90%, 95% and 99% levels. Differences between groups are shown with an arrow in the diagrams. Small deviations in % values that are not shown do not automatically mean that any real change has occurred, but instead that the value lies within the margin of error.

The respondents were not given any incentives (remuneration) for their participation.

3.2 Selection

The intervention groups were selected at random from a list of the teachers that had previously ordered the school materials *Talking About Alcohol*. In those cases where teachers on the list were unable to participate, selection was forwarded to another teacher at the same school. The selection of intervention groups was also based on the teacher not having yet used the school materials and not having undergone any previous intervention via *Talking About Alcohol*, which means there was no pre-awareness of the material.

Control groups were then randomly matched on the basis of the intervention groups' criteria for geographical and social background. In addition to social and geographical aspects, matching between intervention and control groups also observed "spill over" effects, to ensure that two groups from the same school were not compared.

The benchmark measurement involved 21 classes, none of which had at that time used the teaching materials. Eleven classes were scheduled to use the material (on the assumption that one class may drop out) during the spring, and ten classes were scheduled to be control groups.

After the follow-up measurement, consideration was taken to which classes according to plan had completed the educational programme and classes that had not fulfilled the requirement for the survey were filtered away (intervention groups that had not completed the programme with the students to the right extent, classes that did not submit completed questionnaires, classes that were subjected to other significant interventions, or too few responses on which to base any conclusions).

After these classes had been removed, six intervention classes and six control groups remained. Figures and analyses in the report show comparisons between the intervention classes (combined) and the control groups (combined) and also the difference for each group of classes over time.

The names in the report for different groups for analysis are as follows:

Intervention Group Round 1:	Benchmark measurement for the classes who later went through the educational materials (A1, B1, D1, E1, G1, J1)
Intervention Group Round 2:	Follow-up measurement of the classes who went through the educational materials (A1, B1, D1, E1, G1, J1)
Control Group Round 1	Benchmark measurement for the control groups/classes (A2, B2, D2, G2, H2, J2)
Control Group Round 2	Follow-up measurement of the control groups/classes (A2, B2, D2, G2, H2, J2)

3.2.1 Overview of the intervention and control groups

The intervention and control groups have a geographic dispersion from Kungsbacka and Aneby in the south to Stockholm in the north. The majority of the selected participants thus reside in metropolitan areas. The school classes participating in the survey are representative of average Swedish schools in terms of gender and ethnicity.

The following overview of the intervention and control groups shows that the dates for the second measurement range from 24 May to 10 June. It also shows that the groups have a relatively even distribution in terms of size. More detailed information about the work of the intervention groups is reported in the results of the teacher survey ("Fidelity check"), which was completed by supervising teachers at the same time the students completed the second survey (please see the results and teacher survey in Appendix 3).

Below is an overview of basic data on the intervention and control groups.

Matched pairs	
Intervention groups	Control groups
<p>Group A1 City: Sigtuna Date questionnaire was completed: 26 May 2010 Total class size: 28 students Group size: 25 students (first measurement) 20 students (second)</p>	<p>Group A2 City: Sollentuna Date questionnaire was completed: 31 May 2010 Total class size: 30 students Group size: 25 students (first measurement) 21 students (second)</p>
<p>Group B1 City: Märsta Date questionnaire was completed: 31 May 2010 Total class size: 23 students Group size: 19 students (first measurement) 20 students (second)</p>	<p>Group B2 City: Märsta Date questionnaire was completed: 3 June 2010 Total class size: 20 students Group size: 15 students (first measurement) 16 students (second)</p>
<p>Group D1 City: Stockholm inner city Date questionnaire was completed: 26 May 2010 Total class size: 24 students Group size: 24 students (first measurement) 21 students (second)</p>	<p>Group D2 City: Stockholm inner city Date questionnaire was completed: 31 May 2010 Total class size: 27 students Group size: 25 students (first measurement) 20 students (second)</p>
<p>Group E1 City: Haninge Date questionnaire was completed: 10 June 2010 Total class size: 22 students Group size: 21 students (first measurement) 19 students (second measurement)</p>	<p>Group H2 City: Vallentuna Date questionnaire was completed: 3 June 2010 Total class size: 26 students Group size: 19 students (first measurement) 16 students (second)</p>
<p>Group G1 City: Aneby Date questionnaire was completed: 24 May 2010 Total class size: 28 students Group size: 22 students (first measurement) 21 students (second measurement)</p>	<p>Group G2 City: Gislaved Date questionnaire was completed: 28 May 2010 Total class size: 22 students Group size: 21 students (first measurement) 19 students (second measurement)</p>
<p>Grupp J1 City: Kungsbacka Date questionnaire was completed: 2 June 2010 Total class size: 28 students Group size: 22 students (first measurement) 22 students (second measurement)</p>	<p>Grupp J2 City: Kungsbacka Date questionnaire was completed: 1 June 2010 Total class size: 24 students Group size: 19 students (first measurement) 19 students (second measurement)</p>

3.3 Data collection and data processing

The field periods for the survey were in January 2010 and the end of May/beginning of June 2010. The survey was conducted via postal questionnaires that were then handed out by teachers during lessons and completed individually by the students. The teachers responsible for each intervention and control group received the questionnaires by mail for both the benchmark measurement and the follow-up measurement. Kunskapskraft & Media was responsible for the administration of mailings.

After the students filled in the questionnaires, the teacher(s) responsible for the benchmark and follow-up measurements returned the questionnaires in pre-addressed return envelopes.

YouGov was responsible for inputting the data from the questionnaires and compiling the results in tables and graphs. They also commented on and summarised the results from a survey perspective. Individual forms were reviewed manually to identify those cases in which the questionnaire was completed irresponsibly, i.e. every box was checked or pages were filled with scribbles, or instances in which the student had written that they were lying throughout the questionnaire.

4. Results and conclusions

With this study, we have been able to demonstrate that *Talking About Alcohol* can positively influence the behaviour and attitudes of Year 9 students during the actual survey period. In all, the survey shows positive – albeit not always strong – effects of the teaching materials in several respects. *Talking About Alcohol* seems primarily to have influenced alcohol consumption and risky behaviour during the recent past, more than knowledge and attitudes about risks and consequences. Due to the nature of the survey, it is not possible to comment on results over a longer period of time.

Below is an overview of the most important results from the survey. These results can also be viewed in the form of compiled figures (YouGov 2010) in Appendix 1:

4.1 Knowledge about the risks and consequences of alcohol (Figure 1)

The survey contains a question focusing solely on the participants' knowledge concerning the risks and consequences of alcohol. This question shows that *Talking About Alcohol* has not significantly influenced the intervention group in terms of level of knowledge about the risks and consequences of alcohol. There is no evidence of increased knowledge in the control group either.

4.2 Tried alcohol (Figure 2)

Talking About Alcohol aims to encourage young people to choose to abstain from alcohol. The percentage of students who have tried alcohol, however, has risen slightly in both the intervention group and the control group.

4.3 Reasons for drinking alcohol (Figure 3)

The control group shows a significant increase in drinking alcohol “to test their limits” and an increased tendency to drink in order to have “more fun at parties.” The intervention group, on the other hand, shows a significant increase in drinking alcohol in order to “not feel left out” and because of “curiosity”.

4.4 Experience of being intoxicated (Figure 4)

There is an increasing trend (based on a 90% significance level) in the control group of students reporting that they have been intoxicated at some time. The trend towards increase is also evident in the intervention group, but is not as clear as in the control group.

4.5 Number of times alcohol was consumed (Figure 5)

Looking at the reported alcohol consumption during different periods of time over the recent past (1 year, 3 months and 1 month), it is clear that *Talking About Alcohol* has had a dampening effect. The intervention group is seen to have consumed alcohol more frequently than the control group throughout the year. However, consumption rates have gradually declined in the intervention group and this group drank less than the control group over the past month. The results therefore indicate a positive trend for the intervention group.

4.6 Number of instances of intoxication while drinking alcohol (Figure 6)

This question was answered by students without any specified response options. Unfortunately, this question did not work entirely well, and participants did not always fill in both “consumed alcohol” and “intoxicated”. The previous results (Figure 5) show the total and average number of times alcohol was consumed. These are average values for correctly completed forms, i.e. where both “consumed alcohol” and “been intoxicated” were filled in, thus making it possible to determine the proportion of times they had been intoxicated while drinking. The base is therefore approx. 80 persons for both the intervention group and the control group. The average figures in the control group for the past month are not entirely logical and this entire question should therefore be calculated with a slightly larger margin for error.

However, the question shows a trend in which students in the control groups who had been drinking were gradually drinking more often and becoming intoxicated more often when drinking than the students in the intervention group. We therefore can see a positive trend in the intervention group in comparison with the developments in the control group.

4.7 How often intoxication is felt when drinking (Figure 7)

In terms of how often intoxication is felt when drinking, a small but significant shift can be seen in the control group (based on a 95% significance level) from “seldom” becoming intoxicated while drinking to “more often” or “every time”. There is not the same clear increase in frequency in the intervention group, but no decrease either.

4.8 What has happened when alcohol was consumed (Figure 8)

In the control group, we see an increase in risky behaviour among those who had consumed alcohol. This is due to the significant increase in this group (based on a 95% significance level) of participants who had “got a hangover/felt ill” and “felt relaxed” when drinking. There are also tendencies (based on a 90% significance level) for young people in the control group who have been drinking to have had an increase in risky behaviour in terms of incidents such as “hurt themselves”, “been near vandalism/another crime” and “could not function as usual in school”. These negative shifts in the control group are not seen in the intervention group.

4.9 Last time alcohol was consumed (Figure 9)

The young people in the control group who drink show a significant increase (based on a 95% significance level) in having consumed alcohol over the past 1-7 days. The intervention group had not consumed alcohol nearly as frequently as the control group during the same period. These results also show that young people in the control group who had consumed alcohol had higher rates of recent drinking than those in the intervention group.

4.10 Level of intoxication felt the last time alcohol was consumed (Figure 10)

Looking at the degree of intoxication at the most recent time of consumption, we can see a significantly positive shift (based on a 95% significance level) in the intervention group, from “rather” and “very” intoxicated to a medium degree of intoxication. The control group does not show the same positive shift.

4.11 Reasons for not trying alcohol (Figure 11)

Among young people in the intervention group who had not tried alcohol, we see a significant increase (based on a 95% significance level) in the view that you “feel ill” if you drink alcohol. Apart from this, there are no clear differences in comparison with the benchmark measurement for this group. In the control group, there is a significantly higher number (based on a 95% significance level) of those who have not tried alcohol who do not socialise with friends who drink. We also see a trend in the control group, where students to a lesser extent were choosing not to drink because of siblings who do not drink. However, because the bases are small for this particular question, it may be risky to draw any far-reaching conclusions concerning shifts.

5. Discussion and analysis

This survey was conducted during a period of time in which the Year 9 students were finishing their secondary education, which means that they were very likely coming into contact with alcohol at a greater extent than normal during the survey period. Consequently, a decrease in alcohol consumption during this period may be difficult to achieve. The results reflect this, showing an increase in alcohol consumption, risky behaviour and intoxication in the control group. In the intervention group, we do not see any such clear increase.

The survey suggests that *Talking About Alcohol* is a tool that can influence alcohol consumption and the demand for alcohol among Year 9 students. At the same time, an increased awareness of the consequences of alcohol consumption and a healthier approach to alcohol can also be seen in the intervention group.

5.1 Method issues

All of the questionnaire surveys have different types of methodological problems that must be considered when interpreting the results. These include selection errors, non-response (dropout) errors and measurement errors.

In surveys of this type, there may be measurement errors that lead to lower response reliability. Other studies (CAN 2010) have found a reluctance to report sensitive conditions and a tendency for participants to underestimate their alcohol consumption, either consciously or unconsciously. It can certainly not be ruled out that some students in this study may have reported a consumption level that is lower than the actual level (underreporting), but the opposite may also be true, i.e. that students have reported a higher level of consumption than is actually true (overreporting).

Although the form was completed under the same conditions as a written test, it is not always possible to avoid situations in which students are able to see what others have answered. In such cases, some students may have found it tempting to report a higher level of consumption than the actual. Bragging may also come into play here, i.e. that students may brag that they drink more than they actually do. The knowledge that others might potentially have the opportunity to see the responses while they are completing the form may have caused some students to report incorrect consumption behaviours despite the individual and private questionnaire situation.

As concerns methods for filtering away irresponsible responses, it is unclear in what way this has affected the results. The risk that comparability is affected is greatest both for combined variables such as total consumption and for relatively low-frequency variables, such as the young people who had not tried alcohol but wanted to. For combined variables, in which the responses from several questions are combined, a source of error that only has limited influence on each of the ingoing variables can become more significant due to the summation effect. Low-frequency variables, on the other hand, are sensitive because few erroneous observations are needed to affect the results. For this reason, we have chosen not to include such observations in the results and discussion chapter.

This survey has been conducted with group measurements, which means that the Student T-test is applied based on the column proportions method. Given the fact that the survey uses group measurements, it has not been possible to apply the “repeated measures” method. Surveys conducted using group measurements

and based on the column proportions method can show relatively little effect in the identified results. It is also worth pointing out that in measurements such as this using ordinal data, it is sometimes more appropriate to use methods such as the “Mann-Whitney U-test”.

5.1.1 Selection and non-response (dropout) issues

This survey was conducted at the group level (classes) and not at the individual level. The fact that the selection units in the school surveys are classes gives rise to problems (CAN 2010). It means that no individual comparisons can be made. In the survey, it is therefore not possible to compare how specific students responded to questions at the first and second measurements, or whether it was the exactly same students who answered both times. However, because both groups were very similar in both of the survey measurements, a relatively high level of confidence can be felt in the composition of the groups between measurements. The survey was conducted in groups because of school circumstances and conditions.

In surveys conducted at schools, there are customarily two types of non-response or “dropout,” the first consisting of non-participation from an entire class and the second consisting of non-participation from individual students. It would obviously have been preferable to have had a greater degree of participation, but the trends in the study are still sufficiently clear to provide conclusions. In this survey, a number of groups have dropped out for random reasons. With support from the teacher questionnaires and discussions with all dropout groups, we are able to provide all reasons for dropouts of entire groups in Appendix 4.

The majority of the respondents reside in the Stockholm area, which may mean that this survey is of greater relevance for this specific area of Sweden and for metropolitan areas in general. In today’s media-saturated society, however, behaviours and attitudes spread quickly.

5.1.2 Other aspects that may affect the results

This survey has been conducted with a benchmark measurement in the beginning of January 2010 and a follow-up measurement just before the summer holidays at the end of May/beginning of June. Due to this relatively short time period, it should be pointed out that the results of the survey only apply for the period of time in which the measurements were taken. There is, however, a desire to conduct measurements over a longer period of time to determine whether *Talking About Alcohol* can influence young people over a longer term.

The evaluation of the materials in *Talking About Alcohol* has been conducted based on the actual conditions of the schools, teachers and students. Conducting a study based on these natural conditions of course has its advantages, but these conditions can also have attributes that influence the results. In the intervention classes, some *teachers have shared responsibility* for the survey. This may have affected both the implementation and the effects of the survey, which gives cause for cautiousness in the analysis and results. The intervention groups have in some cases *carried out different exercises and to different extents*, which may also have affected the results. The average instruction time was, however, 298 minutes (see Appendix 3). The intervention groups did not *carry out the exercises* at the same times, but instead the work was flexible and spread out over the entire 2010 spring term.

5.2 Talking About Alcohol as an isolated effect

This survey indicates that the school materials *Talking About Alcohol* influence young people toward a healthier attitude, lower alcohol consumption, lower degrees of intoxication and less risky behaviour when consuming alcohol. It is, however, difficult to isolate the influence of *Talking About Alcohol* in relation to the influence of prevailing social and environmental factors.

Talking About Alcohol seems to have affected awareness about the risks and consequences of alcohol positively over time. In response to the question of why they have consumed alcohol, the young people in the control group show an increasing trend toward the opinion that they “have more fun at parties” if they drink alcohol and a significant increase in drinking alcohol “to test their limits”. The intervention group, on the other hand, uses words such as “curiosity” and that they “don’t want to feel left out” as reasons for drinking alcohol. According to the Swedish National Institute of Public Health (FHI), these are two of the most common reasons young people drink, which is something that is dealt with quite extensively in the *Talking About Alcohol* materials. In view of the survey results, these opinions do not seem to have negatively affected consumption patterns or risky behaviour among students in the intervention group. This can indicate that *Talking About Alcohol* has provided the students with increased knowledge on the actual reasons young people drink, and thereby influenced the intervention group to give these as reasons for alcohol consumption. There is therefore reason to assume that the work with *Talking About Alcohol* has increased awareness among those the intervention group.

The results in Figure 12 show that respondents in the intervention group who had not tried alcohol had a significant increase in the knowledge that they could “feel ill” from alcohol and therefore have not tried alcohol. This knowledge can be related to the work with *Talking About Alcohol*. The same figure also indicates that respondents in the control group who do not drink alcohol seem to socialise less with friends and siblings who do not drink.

The intervention group has a higher proportion of girls than the control group, though only slightly. The societal trend is for girls to drink more than boys. A larger proportion of girls in the intervention group would therefore be likely to affect the results in the intervention group negatively. Yet despite this factor, the intervention group showed more positive results than the control group, which suggests that *Talking About Alcohol* has had a positive effect on the young people.

In comparison with the intervention group, the survey indicates external circumstances that may have increased alcohol consumption, intoxication and risky behaviour in the control group. The control group shows a marginally higher degree of truancy than the intervention group, which can mean that the control group has been influenced toward increased alcohol consumption, intoxication and risky behaviour (Maggs, J. L. 2008). The students in the control group who say that they do not drink alcohol indicate that they have been influenced in this decision to a lesser extent by the fact that their friends do not drink. This indicates that the control group has over time received a decreased positive influence from their surroundings, which in turn may have influenced higher alcohol consumption, intoxication and risky behaviour in comparison with the intervention group.

In order to further attempt to isolate the effects of *Talking About Alcohol*, further analyses of compiled data are required. The intention is to perform such an analysis, but there has not been scope for this in this report.

5.3 No difference indicated in the development between intervention group and control group for young people who have tried alcohol

This survey was conducted during a period of time in which the Year 9 students were finishing their secondary education, which means that they had considerable contact with alcohol during the survey period. As such, a decrease in alcohol consumption during this period could be difficult to achieve; an increase is instead more likely. To find a slight increase in the proportion of students who had tried alcohol among both the intervention group and the control group is therefore only to be expected during the survey period.

5.4 Reasons for drinking alcohol

Talking About Alcohol has been developed primarily to encourage young people to abstain from alcohol and to give them a healthier attitude toward alcohol.

The survey reveals that the control group shows a significant increase in drinking alcohol “to test their limits”, while the intervention group shows a significant increase in drinking alcohol to “not feel left out” and because they are “curious”.

It is difficult to draw any conclusions concerning this result, but it still indicates signs of negative shifts in both groups. The results show that *Talking About Alcohol* may have influenced young people toward an increased curiosity about alcohol, and indicate that it was unsuccessful in getting young people to resist social pressure. It is also possible to explain the results by classic (FHI 2010) reasons as to why young people drink, such as that young people are curious, want to test their limits, seek adventure, want to feel part of a group and like to challenge societal norms.

We know, however, that *Talking About Alcohol* consistently conveys information concerning why young people drink, which can to a certain extent explain the results in the intervention group. The significant increase among the control group in drinking alcohol “to test their limits” can to a certain extent be derived from an increase in risky behaviour. The fact is that the control group also demonstrates a significantly higher degree of risky behaviour, which is reflected in the next section.

5.5 Increase in risky behaviour in the control group

Talking About Alcohol would appear to decrease risky behaviour among young people and improve the attitude toward alcohol over time. The survey shows that the control group in some cases has significantly increased its risky behaviour in comparison with the intervention group. This is illustrated most clearly in the more negative results of the control group in regard to degree of intoxication, number of times they had consumed alcohol over the past month, what happened to them when they drank and how intoxicated they were the last time they drank alcohol.

Delving deeper into these results, we see that the control group becomes intoxicated more often and to a greater degree, feels hung-over more often and has more often experienced things like vandalism/other crimes and hurt themselves in connection with drinking alcohol. If the results for the more frequent alcohol consumption and the higher degree of intoxication are combined, we get an even clearer picture of the control group’s increase in

risky behaviour over time in comparison with the intervention group's healthier approach.

The positive results for the intervention group in terms of risky behaviour reinforce the other positive indications that *Talking About Alcohol* seems to have influenced the young people toward.

5.6 Higher frequency of alcohol consumption in the control group

The survey indicates that the frequency of alcohol consumption in terms of number of occasions of consumption seems to have been influenced by the work with *Talking About Alcohol*. The control group shows a higher frequency of alcohol consumption than the intervention group. Looking back one year prior to the second measurement, however, we see that the intervention group had been drinking more frequently, but then gradually reduced their consumption in comparison with the control group and acquired a healthier attitude. The *Talking About Alcohol* initiatives commenced five to six months before the second measurement, and it is therefore of greatest interest to investigate the changes in alcohol consumption after this time. It can also be expected that the *Talking About Alcohol* initiatives had an increasingly greater influence as the groups carried out more exercises. If we compare the results for alcohol consumption from 1 year, 3 months and 1 month, we see a gradually greater decline in alcohol consumption in the intervention group as compared with the control group. This trend is clear.

In comparison with the intervention group, the control group shows more frequent consumption over the past month. At the same time, the control group also shows a clear shift in frequency of alcohol consumption over the past 1-7 days in comparison with the intervention group (see Figure 9, Appendix 1). There is a greater probability that those who answered that they drank more in the recent past also more frequently are those who consume greater amounts of alcohol. Based on these assumptions, *Talking About Alcohol* has provided the desired effect of a healthier attitude over time.

It is interesting in this context to note that the "recent past" in this instance referred to spring, the end of the school year and graduation. This is customarily a period of high alcohol consumption among young people. The fact that the intervention group seems to have a lower consumption level and a healthier attitude to alcohol during this specific period reinforces *Talking About Alcohol's* positive effects on alcohol consumption and attitude over time.

5.7 Higher degree of intoxication and frequency of intoxication in the control group

Viewed over time, the control group shows a generally higher degree of intoxication and frequency of intoxication in comparison with the intervention group, which in turn shows a significantly healthier attitude.

There is a clear trend towards increase in the number of students in the control group who report to having been intoxicated at some time. The trend towards increase is also evident in the intervention group, but

is not as pronounced as in the control group. The intervention group shows a lower degree of intoxication per instance, while the control group tends to remain at the same level over time. In terms of the frequency of intoxication when drinking, a small but significant shift can be seen in the control group from “seldom” becoming intoxicated when drinking to “more often” or “every time”. There are no clear shifts in the intervention group.

In all, the question concerning risky use, degree of intoxication and frequency of intoxication indicates a more favourable development over time for the intervention group than for the control group. The greater increase in consumption and higher frequency of intoxication in the control group also signifies a negative “compound interest” effect, which means that the influence of *Talking About Alcohol* on the intervention group becomes even more significant.

5.8 Talking About Alcohol as a tool for alcohol prevention in the school

Several results in this study argue in favour of *Talking About Alcohol* as effective school materials in alcohol prevention initiatives. Over time, the intervention group displays greater awareness and a healthier attitude surrounding alcohol use than the control group, significantly less frequent alcohol consumption, and a clearly smaller degree of risky behaviour and intoxication.

6. Further studies

The long-term effect of this study is important and as such, it could be interesting to monitor those who have worked with the instruction materials at a later date. There is also the issue of the specific time period during the spring the instruction materials were used, and to what extent the students “had time” to be influenced during a hectic final term at secondary school and an approaching graduation. It would also be interesting to perform the same evaluation at a later date, yet this time using teachers who had undergone further training in *Talking About Alcohol*.

In order to further attempt to isolate the effects of *Talking About Alcohol*, further analyses of compiled data are required. The intention is to perform such analyses, but there has not been scope for this in this report.

References

- Thomas Hvitfeldt, Isabella Gripe (2009), *Skolelevers drogvanor*, CAN Rapport 118.
- Björn Hillberg, Ulf Guttormsson (2007), *Substance Use Among Students in 35 European Countries*, ESPAD Report (2007).
- Maggs, J. L., Patrick, M. E., & Feinstein, L. (2008). *Childhood and adolescent predictors of alcohol use and problems in adolescence and adulthood in the National Child Development Study*. *Addiction*, 103 Suppl 1, 7-22.
- Swedish National Institute of Public Health (FHI) 2010, www.fhi.se

Appendices

Appendix 1: Results and figures (see next page)

Figures for Evaluation of Teaching Materials *Talking About Alcohol*



(Year 9)

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YouGov

What the world thinks

Figure 1 – Knowledge about the risks and consequences of alcohol

Top box level of respondent agreement in percent



2. What do you know about the risks and consequences of alcohol?

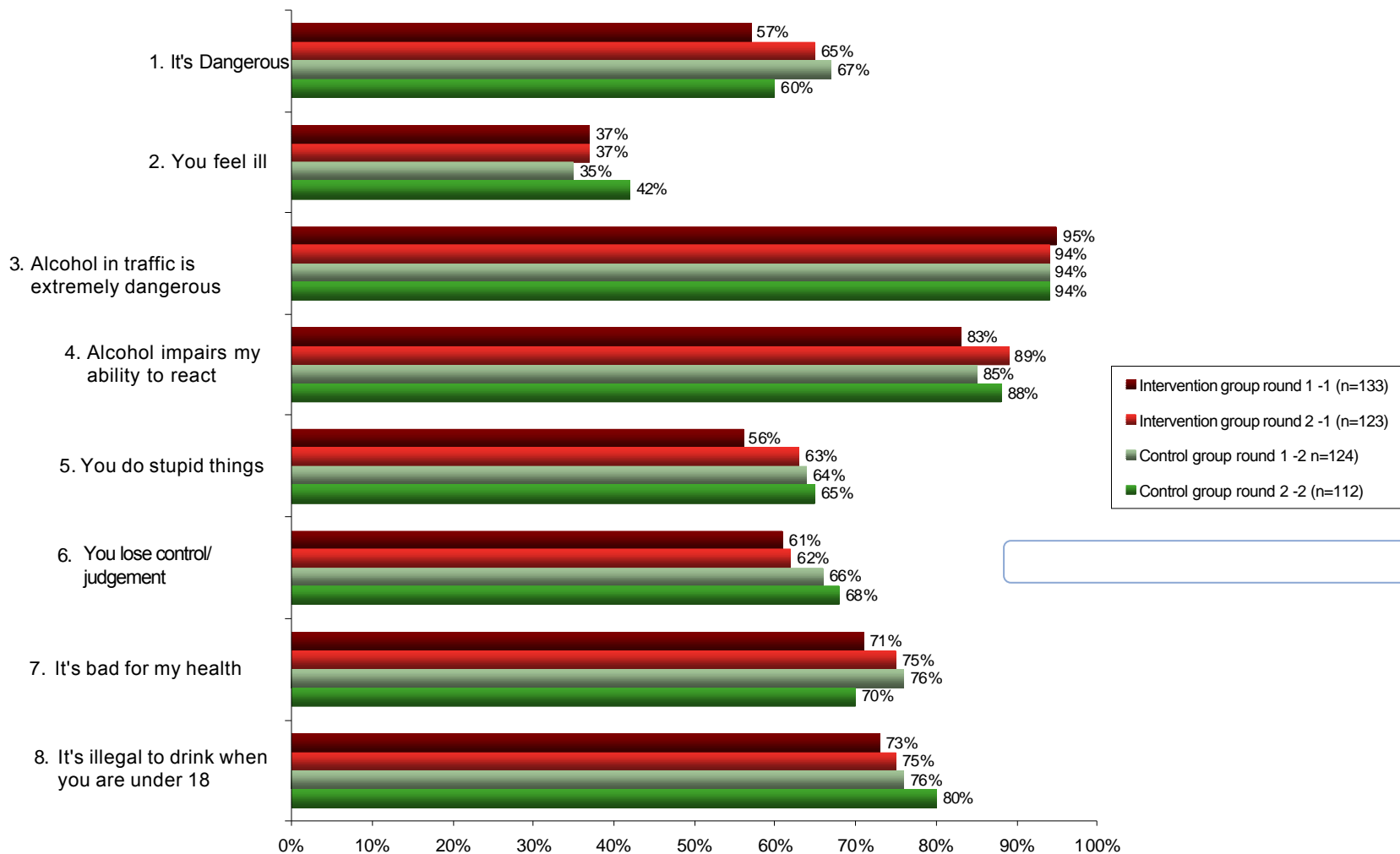


Figure 2 – Having ever tried alcohol

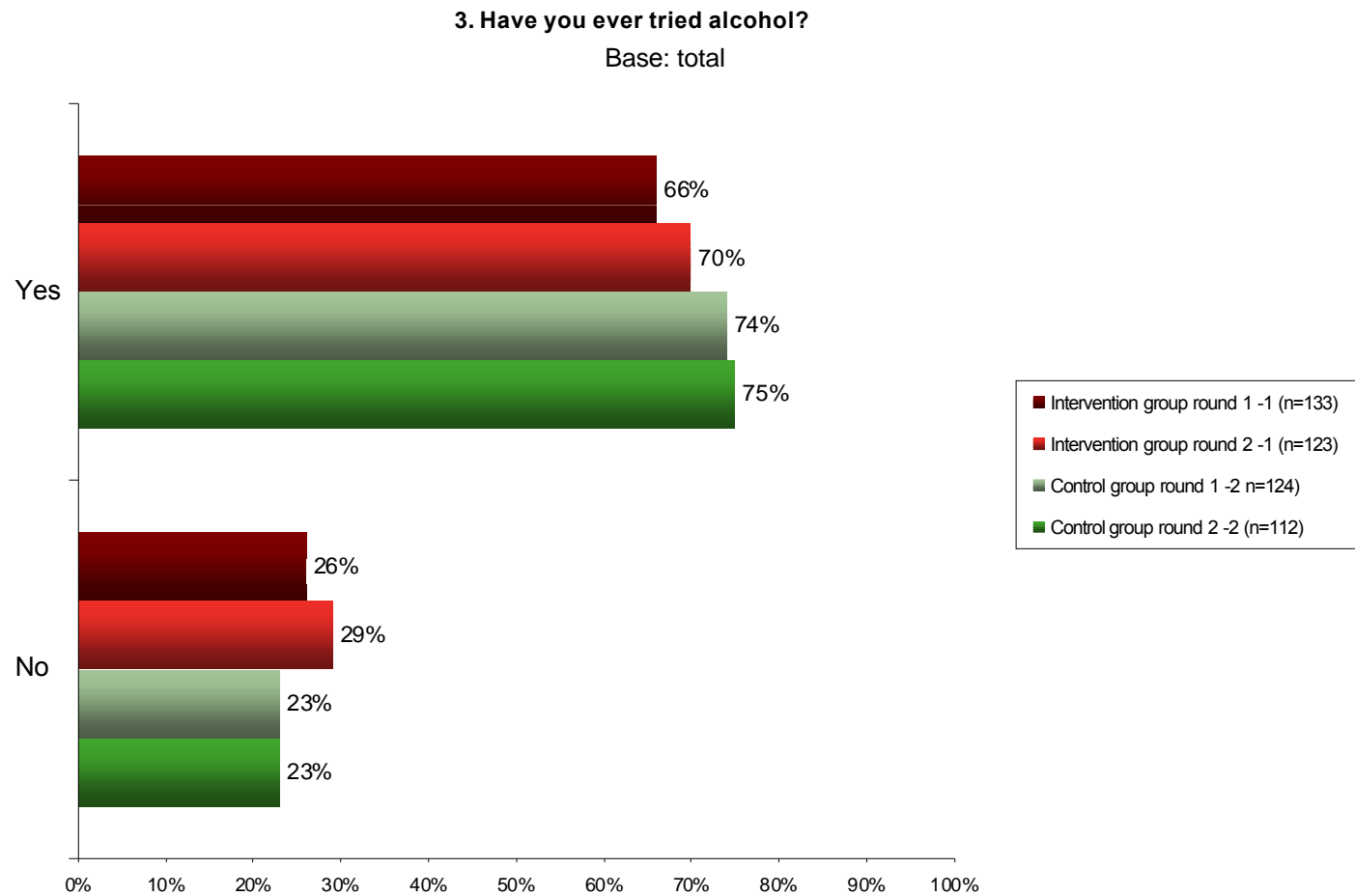


Figure 3 – Reasons for drinking alcohol

4. What are your reasons for drinking alcohol?

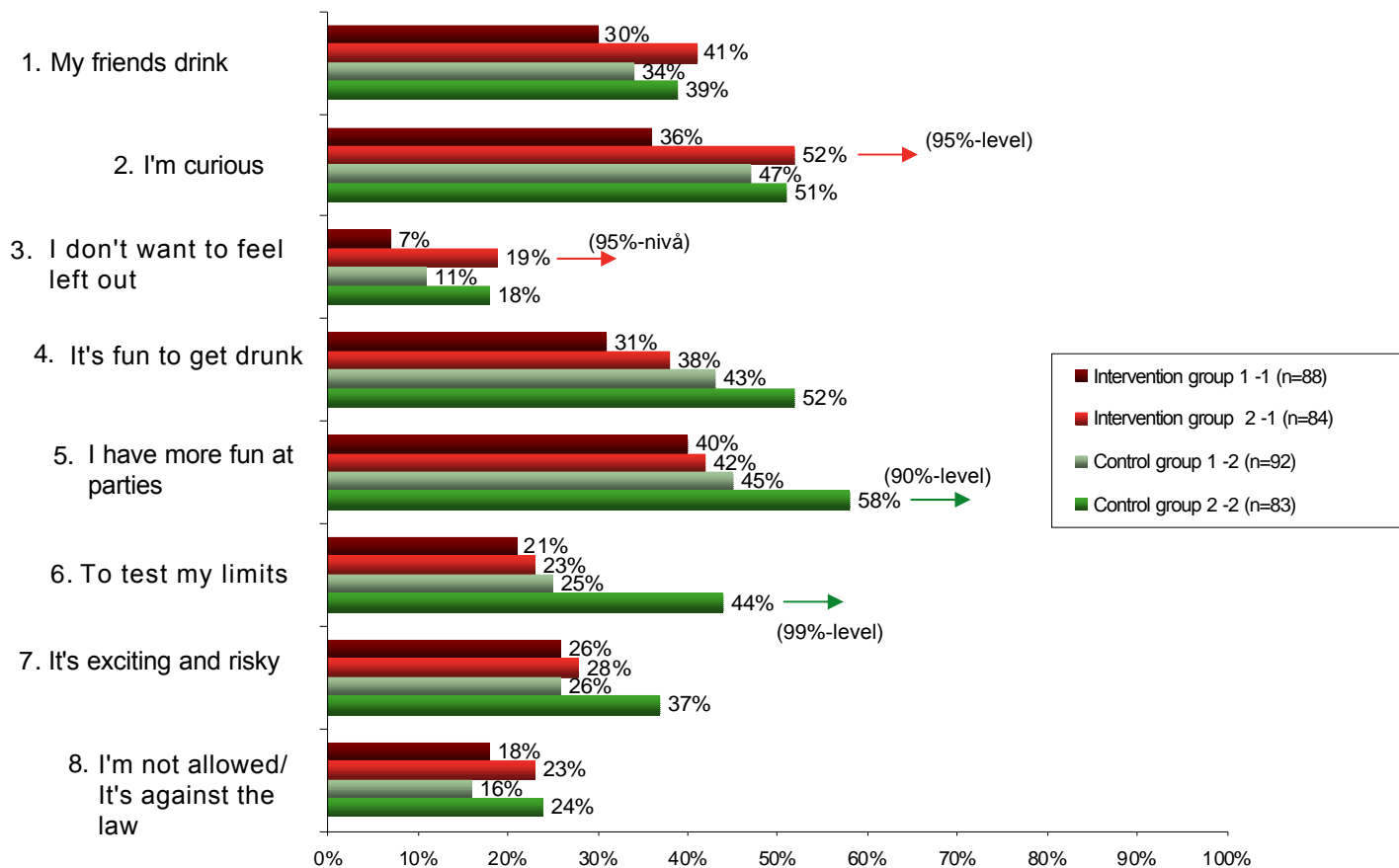


Figure 4 – Experience being intoxicated

5b. Have you ever been intoxicated from drinking alcohol? Base: Have consumed alcohol

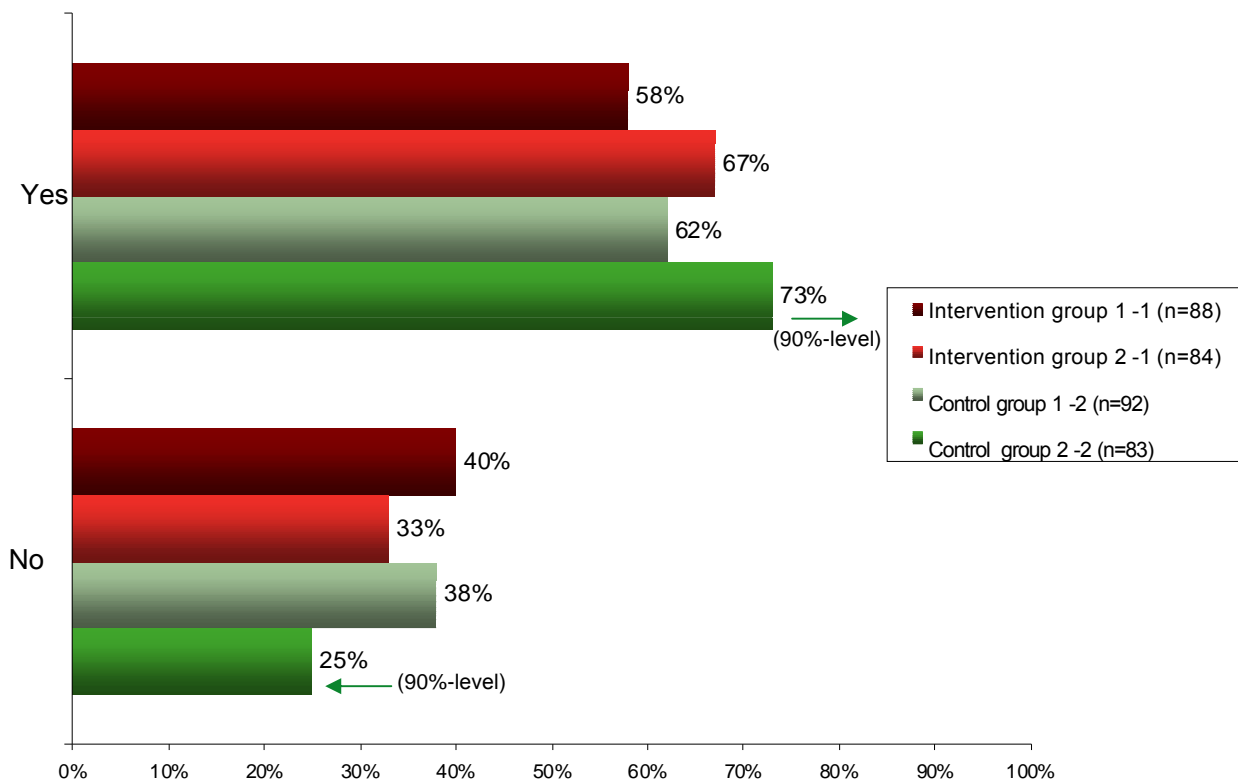
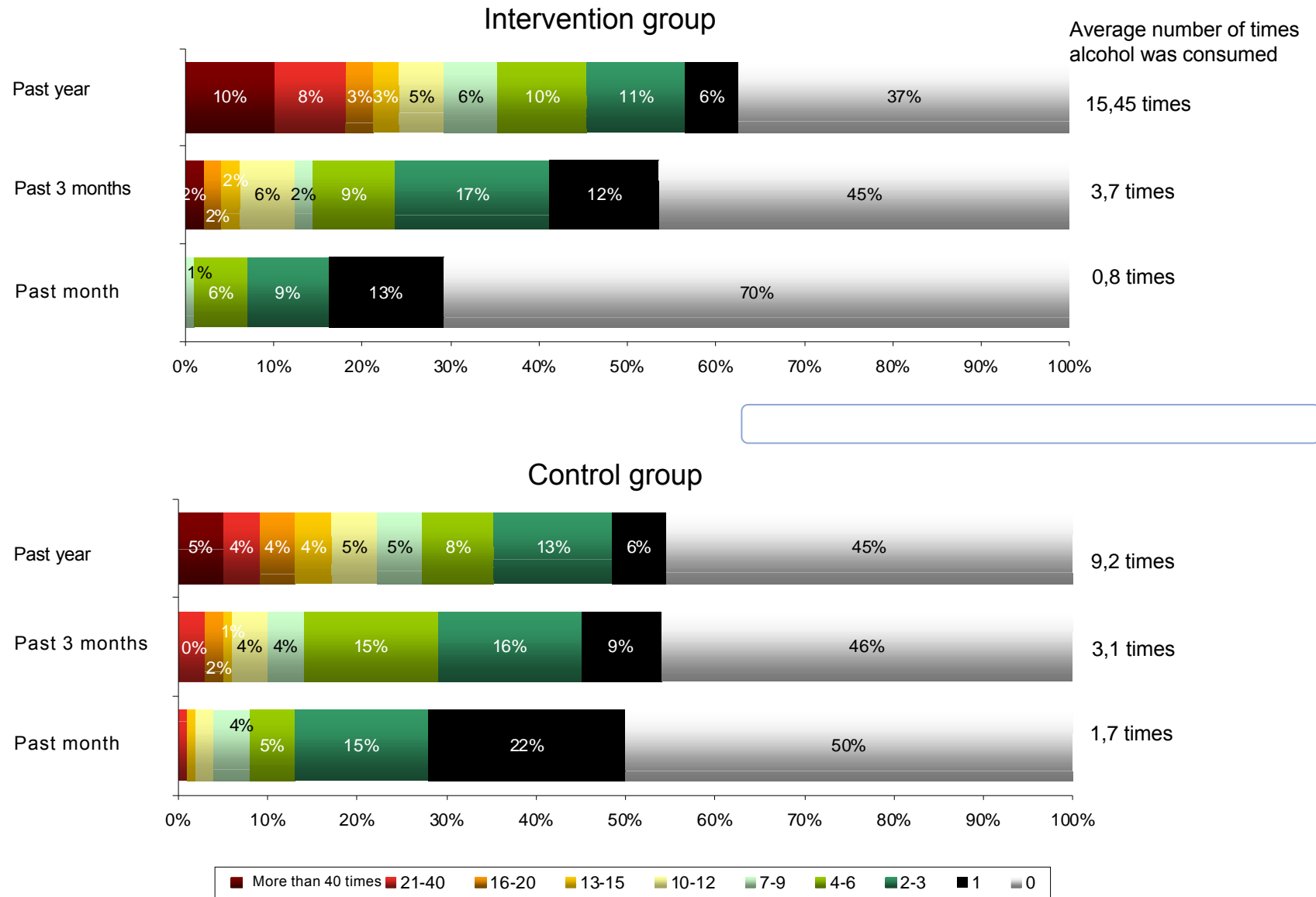




Figure 5 – Number of times alcohol was consumed (Q6 /follow-up measurement, compiled from open responses)



Figur 6 – Number of times alcohol was consumed (Q6 /followup measurement, compiled from open responses)

Intervention group	Average number of times alcohol was consumed	Average number of times intoxicated	Percentage of times intoxicated when drinking
Past 12 months	16,34 times	7,39 times	45%
Past 3 months	3,36 times	1,51 times	45%
Past month	1,58 times	1,32 times	84%
Control group			
Past 12 months	17,00 times	12,7 times	75%
Past 3 months	5,76 times	4,06 times	70%
Past month	2,33 times	2,44 times	100%



Figure 7 – How often intoxication is reached when drinking

7. How often do you feel intoxicated when you drink alcohol?

Base: have consumed alcohol

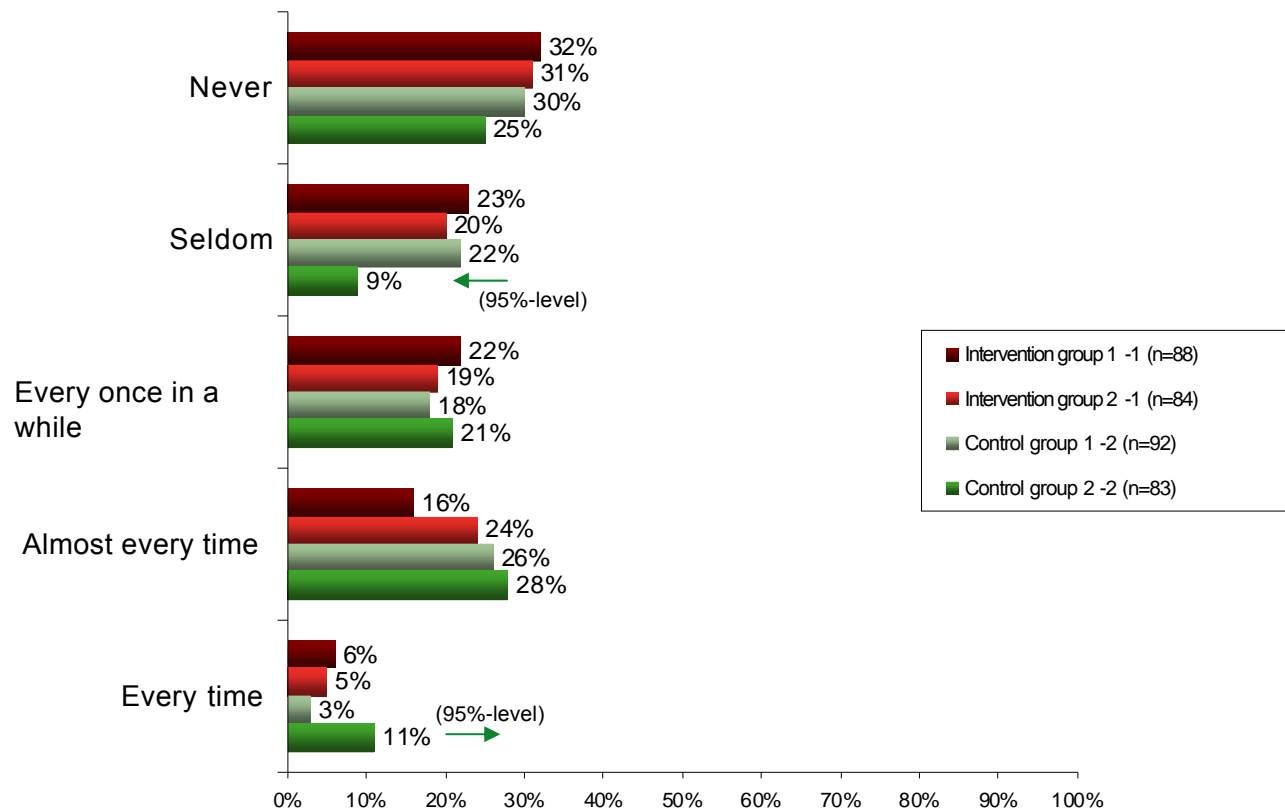


Figure 8 – What has happened when alcohol was consumed

8. Have any of the following happened to you when you drink alcohol?

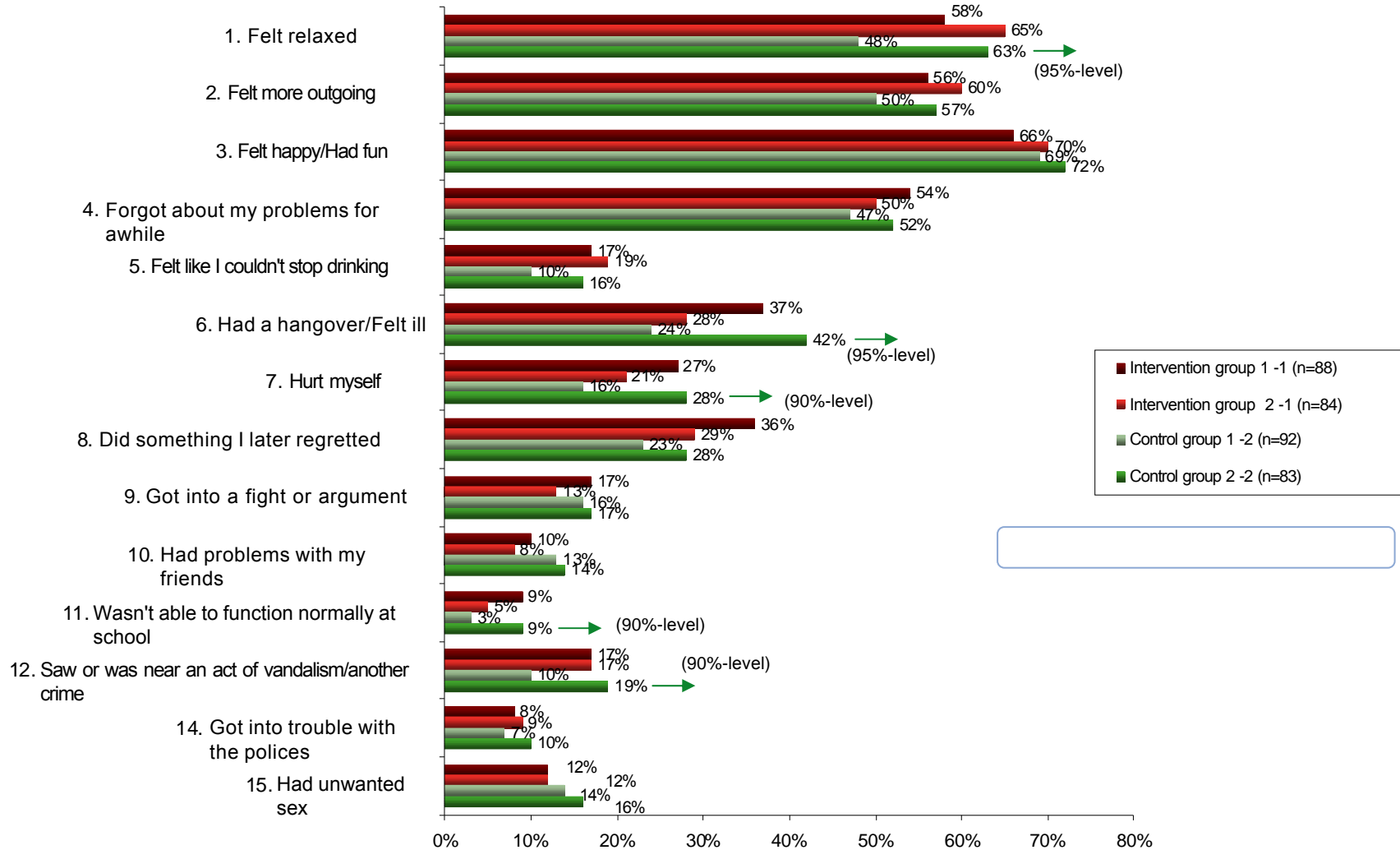


Figure 9 – Last time alcohol was consumed

9. When was the last time you drank alcohol?

Base: Have consumed alcohol

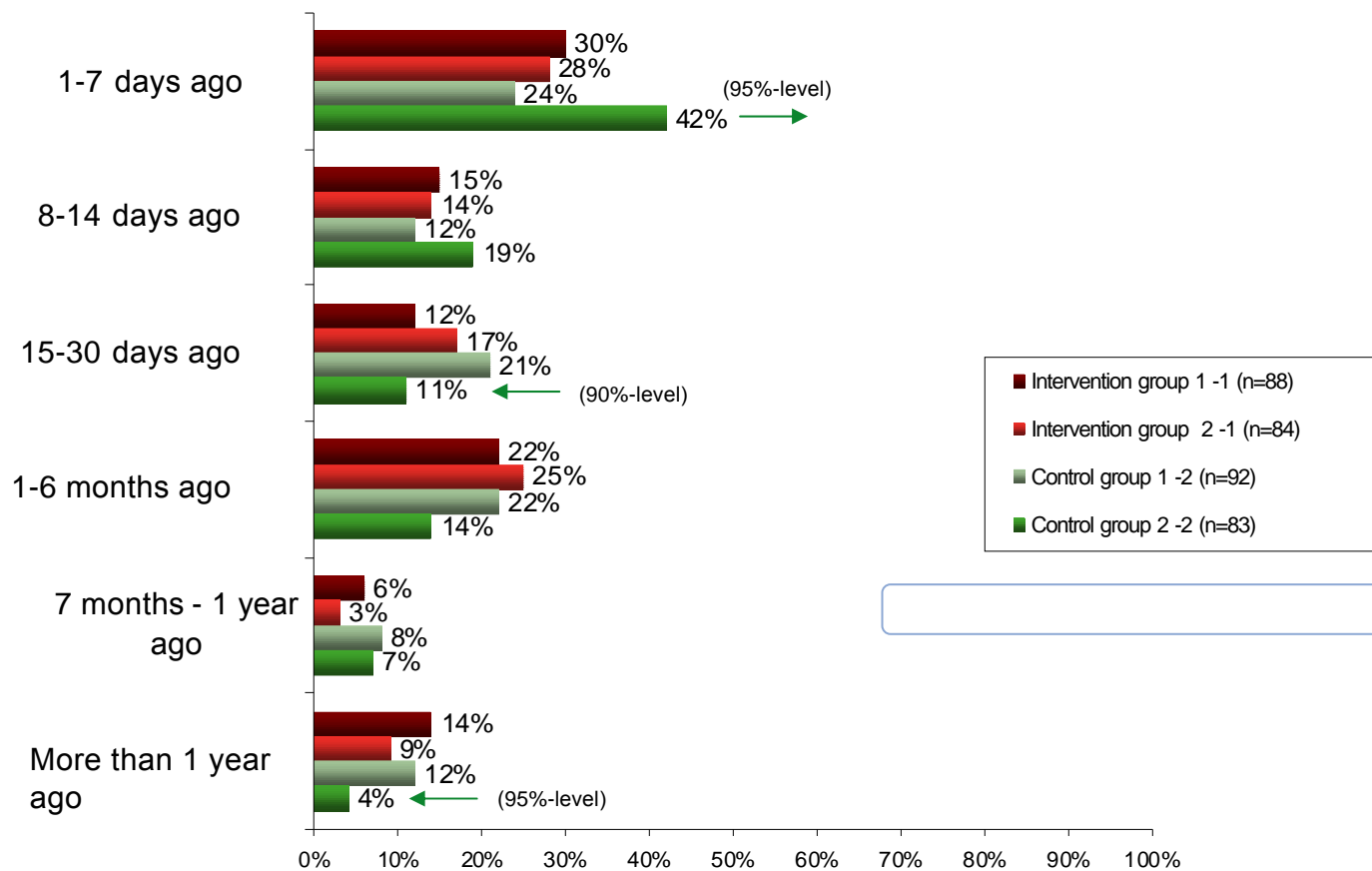


Figure 10 – Level of intoxication felt the last time alcohol was consumed

11. How intoxicated did you feel the last time you drank alcohol

Base: Have consumed alcohol

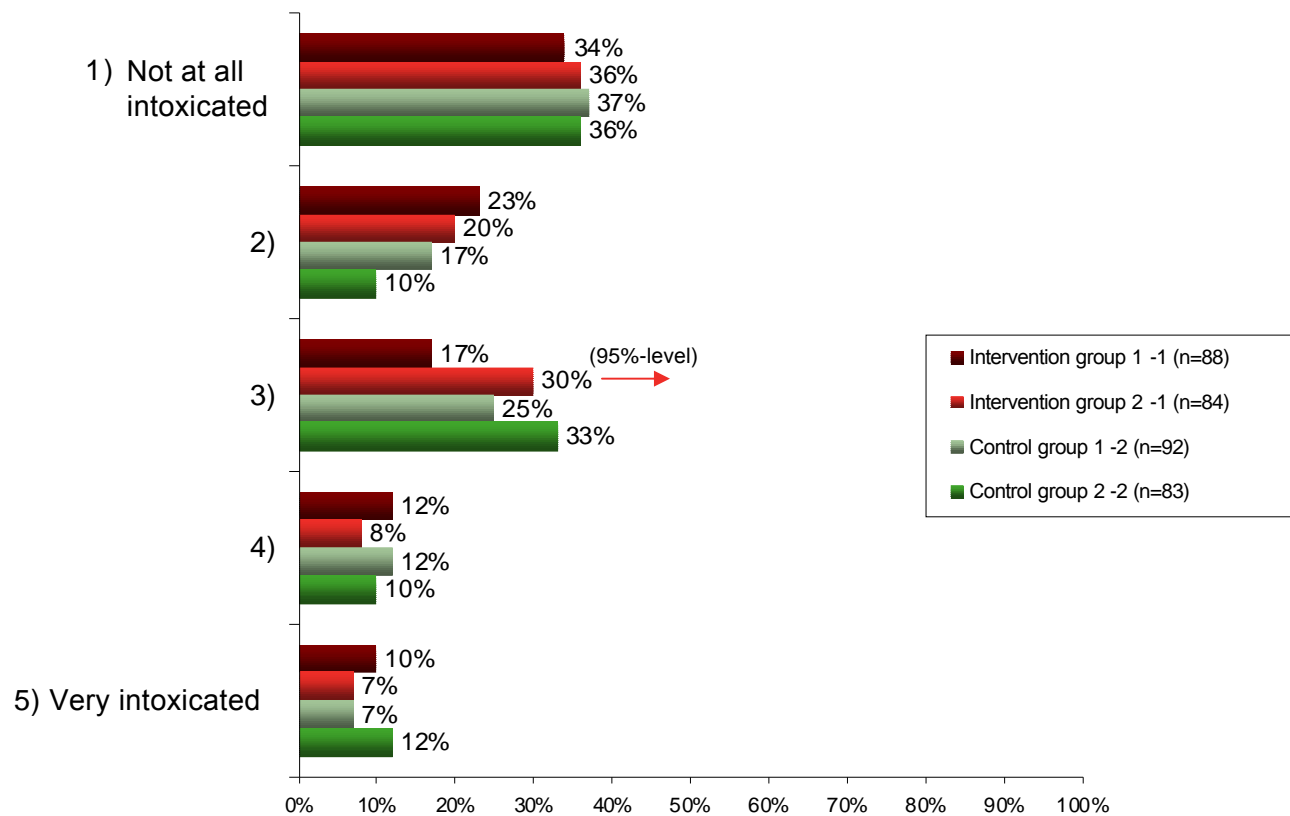


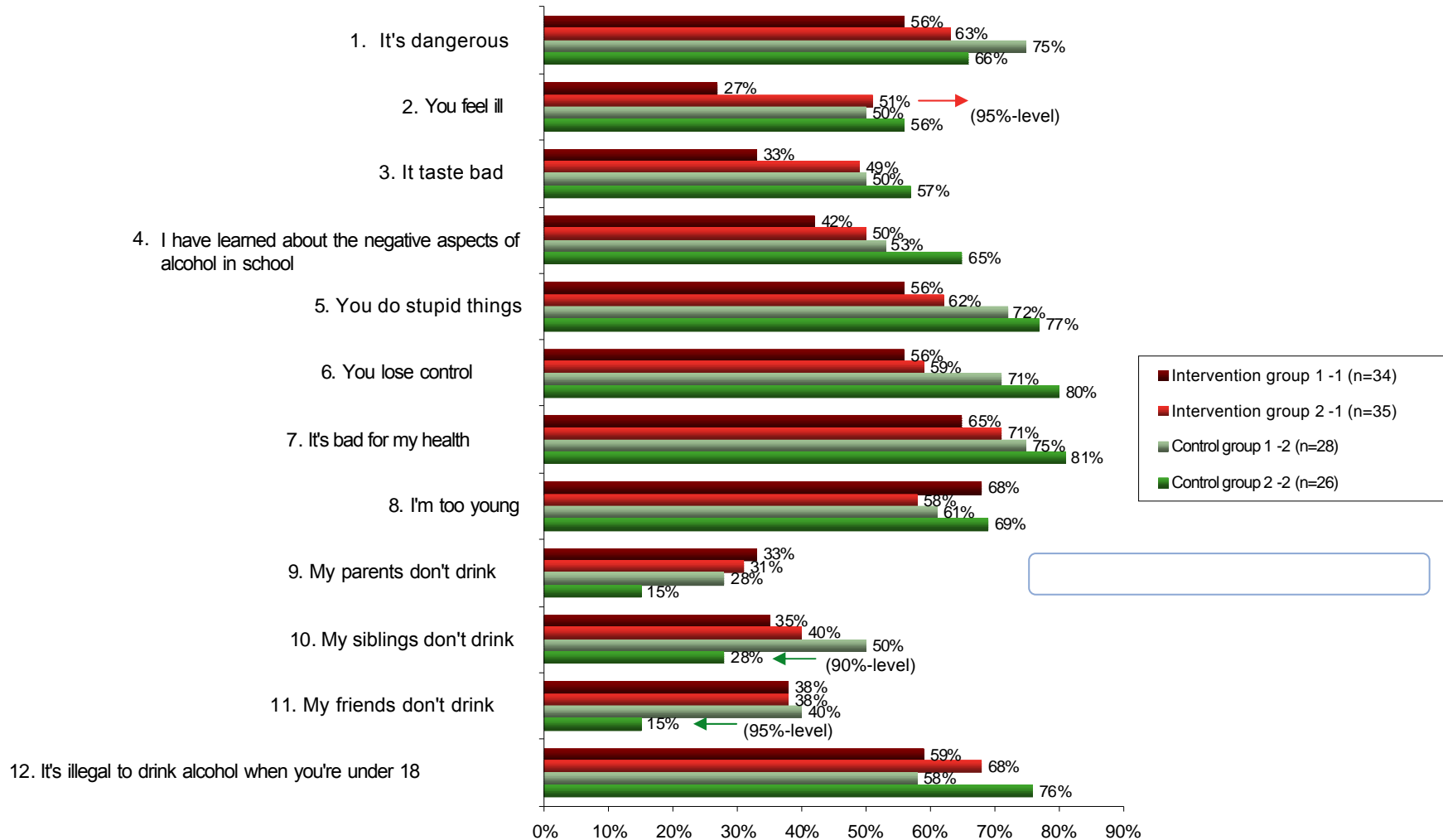
Figure 11 – Reasons for not having tried alcohol

Topbox/level of respondent agreement (in percent)



12. Why is it that you haven't tried alcohol?

Base: Have not consumed alcohol



Appendix 2: Questionnaire (see next page)

CODE:

Hello!

We are currently conducting a study in Year 9 about alcohol. You and your class have been selected to answer some questions. The survey will take about 10 minutes. Your responses are important to us and we ask you to think carefully about each question and respond truthfully. Your responses are anonymous and no one will see what you have answered. Please do not write your name on the questionnaire. When we analyse the results, all responses will only be shown in figures and percentages. Participation in this survey is voluntary and you may decline to participate at any time.

If you have any questions or there is something you don't understand in the questionnaire, ask your teacher for help.

Good luck!

INSTRUCTIONS: The first question deals with your thoughts and reflections about alcohol. Think about the questions carefully and respond as you think and feel – there are no wrong or right answers!

1. What words or statements do you associate with alcohol? Read the following statements and determine to what extent you agree with each statement. Respond by marking an “X” in the box that describes how you feel about each statement.

When I think about alcohol, I also think about:

	Agree completely	Agree	Agree to some extent	Do not agree at all	Don't know
1. Parties/Happiness					
2. Accidents					
3. Excitement					
4. Vandalism					
5. Holidays/Celebrations					
6. Fights/Problems					
7. Danger					
8. Intoxication/Drunkenness					
9. Hangovers					
10. Bad taste/Feeling ill					
.					
11. Police					
.					
12. Forgetting problems					
.					
13. Becoming more outgoing/Better self confidence					
.					
14. Doing things you regret					
.					
15. Something else? What? _____					

2. How much do you know about the risks and consequences of alcohol? Read the following statements and determine to what extent you agree with each statement. Respond by marking an “X” in the box that describes how you feel about each statement.

	Agree completely	Agree	Agree to some extent	Do not agree at all	Don't know
1. It's dangerous					
2. You feel ill					
3. Alcohol in traffic is extremely dangerous					
4. Alcohol impairs my ability to react					
5. You do stupid things					
6. You lose control/Judgement					
7. It's bad for my health					
8. It's illegal to drink alcohol when you are under 18.					
9. Something else? What? _____					

3. Have you ever tried alcohol? Alcohol refers here to beer (with an alcohol content of 2.25% or more), wine, strong cider and spirits. Respond by marking an “X” next to Yes or No.

- Yes
- No

INSTRUCTIONS: If you answered Yes in question 3, continue to question 4. If you answered No in question 3, move to question 12.

4. What were your reasons for drinking alcohol? Read the following statements and determine to what extent you agree with each statement. Respond by marking an “X” in the box that describes how you feel about each statement.

I drank alcohol because:

Agree completely Agree Agree to some extent Do not agree at all Don't know

1. My friends drink
2. I'm curious
3. I don't want to feel left out
4. It's fun to get drunk
5. I have more fun at parties
6. To test my limits
7. It's exciting and risky
8. I'm not allowed/It's against the law
9. Something else? What? _____

5 a. How old were you the first time you drank alcohol? Respond by marking an “X” next to the option that best describes your circumstance.

- 10 years old or younger
- 11 years old
- 12 years old
- 13 years old
- 14 years old
- 15 years old
- 16 years old

5 b. Have you ever been intoxicated from drinking alcohol?

- Yes
- No

5 c. How old were you the first time you became intoxicated from drinking alcohol? Respond by marking an “X” next to the option that best describes your circumstance.

- 10 years old or younger
- 11 years old
- 12 years old
- 13 years old
- 14 years old
- 15 years old
- 16 years old
- Have never been intoxicated

6. How much alcohol have you consumed in the recent past? Fill in the number of times you drank alcohol and the number of times you became intoxicated.

	Drank alcohol, number of times	Intoxicated, number of times
a. During the past 12 months...	__ times	__ times
b. During the past 3 months...	__ times	__ times
c. During the past month...	__ times	__ times

7. How often do you feel intoxicated when you drink alcohol? Respond by marking an "X" next to the option that best describes your circumstance.

- Never
- Seldom
- Every once in a while
- Almost every time
- Every time

8. Have any of the following things ever happened to you when you drank alcohol? Read the following statements and determine to what extent each statement corresponds to your experiences. Respond by marking an "X" in the box that describes how you feel about each statement.

	Agree completely	Agree	Agree to some extent	Do not agree at all	Don't know
1. Felt relaxed					
2. Felt more outgoing					
3. Felt happy/Had fun					
4. Forgot about my problems for a while					
5. Felt like I can't stop drinking					
6. Had a hangover/Felt ill					
7. Hurt myself					
8. Did something I later regretted					
9. Got in a fight or argument					
10. Had problems with my friends					
11. Wasn't able to function as usual at school					
12. Saw or was near an act of vandalism/Another crime					
13. Got in a fight or argument					
14. Been involved with the police					
15. Had undesired sex					
16. Something else? What? _____					

9. When was the last time you drank alcohol? Respond by marking an "X" next to the option that best describes your circumstance.

- 1-7 days ago
- 8-14 days ago
- 15-30 days ago
- 1-6 months ago
- 7 months - 1 year ago
- More than 1 year ago

INSTRUCTIONS: Now we would like you to think about the last time you drank alcohol.

10. What and how much did you drink the last time you drank alcohol? Respond by marking an "X" next to what you drank (may be several different drinks). Also write in the number of glasses you drank.

- Medium-strength beer (2.25-3.4%) ___ glass(es)
- Strong beer (3.5% or higher) ___ glass(es)
- Strong cider ___ glass(es)
- Wine ___ glass(es)
- Spirits/drinks containing spirits (hard liquor) ___ glass(es)
- Pre-packaged flavoured alcoholic beverage ("alcopop") ___ glass(es)
- Home-distilled liquor/drinks containing home-distilled liquor ("moonshine") ___ glass(es)
- (Other) ___ glass(es)

11. How intoxicated did you feel the last time you drank alcohol? Answer on a scale of 1-5 (*where 1 is "Not at all intoxicated" and 5 is "Very intoxicated"*)

Very intoxicated

Not at all intoxicated

5

4

3

2

1

INSTRUCTIONS: Once you have answered questions 4-11, you may move on to question 15.

12. Why is it that you haven't tried alcohol? Read the following statements and determine to what extent you agree with each statement. Respond by marking an "X" in the box that describes how you feel about each statement.

I don't drink alcohol because:

Agree completely Agree Agree to some extent Do not agree at all Don't know

1. It's dangerous
2. You feel ill
3. It tastes bad
4. I have learned about the negative aspects of alcohol in school
5. You do stupid things
6. You lose control
7. It's bad for my health
8. I'm too young
9. My parents don't drink
10. My siblings don't drink
11. My friends don't drink
12. It's illegal to drink alcohol when you're under 18.
13. Something else? What? _____

13. Have you ever wanted to try alcohol? Respond by marking an "X" next to the option that best describes your circumstance.

- Yes
- No

INSTRUCTIONS: If you answered Yes in question 13, continue to question 14. If you answered No, move to question 15.

14. Why do you want to try alcohol? Read the following statements and determine to what extent you agree with each statement. Respond by marking an "X" in the box that describes how you feel about each statement.

1. My friends drink
2. I'm curious
3. I don't want to feel left out
4. To feel adult
5. You have more fun at parties
6. To test my limits
7. Something else? What?

Agree completely Agree Agree to some extent Do not agree at all Don't know

Background information

15. Are you a boy or a girl?

- Boy
- Girl

16. How old are you?

- 14 years old
- 15 years old
- 16 years old
- ___ years old (other age)

17. Are you happy at school?

- Yes
- No

18. How many times have you cut class during the autumn term?

- Never
- Once
- 2-5 times
- More than 5 times

19. Are you happy at home?

- Yes
- No

20. Do you drink alcohol with your parents?

- Yes
- No

21. Have your parents ever bought alcohol for you?

- Yes
- No

22. How often do you play sports in your free time?

- Every day
- Several times a week.
- Once a week.
- Less than once a week
- Never

23. Do you have a favourite activity/hobby?

- Yes. It is: _____
- No

Thank you very much for participating in this survey!

Appendix 3: Results of teacher survey - intervention groups

Question	Average results
How important a role do you feel the school plays in alcohol prevention initiatives with young people? (1 = very small role 5 = very important role)	3.75
Number of exercises carried out during the measurement period?	6 exercises (Range: 2-12)
How much instruction time do you estimate has been spent using materials from <i>Talking About Alcohol</i> ?	298 minutes (Range: 120 minutes -600 minutes)
How have you arranged <i>Talking About Alcohol</i> instruction?	7x free-standing lessons and 1x theme day
Estimate how much time you have spent using various approaches in class lessons applying material from <i>Talking About Alcohol</i> (report in percentage).	Emphasis on normal instruction in the classroom to dialogue and reflection in smaller groups or as a class.
Rate on a scale of 1 (low) to 5 (high) student involvement and participation during lessons led by the teacher.	3.28
Rate on a scale of 1 (low) to 5 (high) student involvement and participation during independent work.	3.25
Rate on a scale of 1 (low) to 5 (high) student involvement and participation during group and/or class discussions.	4.1
Rate on a scale of 1 (low) to 5 (high) student involvement and participation during group work and/or project work.	3
Rate on a scale of 1 (very poor) to 5 (very good) your opinion of <i>Talking About Alcohol</i> as school instruction materials.	3.86

Appendix 4: Reporting of non-response from groups (dropouts)

- The intervention group from Älvdalsskolan (Älvdalen) has not submitted questionnaires from the second survey. The reason has not yet been given.
- The control group from Buskoviuskolan (Älvdalen) has submitted questionnaires from the second survey. However, because their comparative group, Älvdalsskolan, has not submitted questionnaires from the second survey, Buskoviuskolan's responses cannot be included in the final compilation.
- The control group from Lyckebykolan (Haninge) has not submitted questionnaires from the second survey because their supervising teacher has been on sick leave.
- The intervention group from Dalsjöskolan (Borås) has submitted responses from the second survey, but because the percentage of responses was too low, they have not been included in the final compilation.
- The control group from Viskaforsskolan (Borås) has submitted questionnaires from the second survey. However, because there were not enough student responses to the second survey submitted by their comparative group at Dalsjöskolan, Viskaforsskolan's responses cannot be included in the final compilation.
- The control group from Kvarnbergsskolan (Huddinge) has not submitted questionnaires from the second survey because their supervising teacher has been on sick leave.
- The intervention group from Centralskolan (Norberg) has submitted responses from the second survey, but because the percentage of responses was too low, they have not been included in the final compilation.
- The control group from Risbroskolan (Fagersta) has submitted questionnaires from the second survey. However, because there were not enough student responses submitted to the second survey by their comparative group at Centralskolan (Norberg), Risbroskolan's responses cannot be included in the final compilation.
- The intervention group from Åsö school (Stockholm) has submitted questionnaires from the second survey. This group was from the start an extra group without a comparative control group. This was also the situation at the time the second survey was conducted. This group has therefore not been included in the final compilation.