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A natural experiment

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A natural experiment: Assessment of Danish high school students' alcohol drinking patterns from 2014–2019 after the introduction of a common alcohol policy.

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Abstract

Aim: In this study, using national survey data from 2014 and 2019 we test the hypothesis that students at schools who introduced a common alcohol policy in 2017 drank less than students at schools without a common policy.

Method: We used survey data from 41 high schools that participated in The Danish National Youth Study in 2014 and 2019. We perceived the introduction of a common high school alcohol policy in 2017 among local groups of high schools as a natural experiment and assessed it using difference-in-difference analyses. We assessed drinking patterns from 2014 and 2019 among students at schools with and without a common alcohol policy combined and stratified by gender in negative binomial regression and logistic regression models. Drinking patterns were measured as average weekly alcohol use, average alcohol intake at last school party, proportion of non-drinkers and frequent binge drinkers.

Results: Drinking patterns were similar among students in schools with and without a common alcohol policy. For example, among students at schools with a common alcohol policy the average alcohol intake at last school party among drinkers was 8.7 units in 2014 and 8.5 units in 2019, whereas average alcohol intake among students at schools without a common alcohol policy was 8.8 units in 2014 and 8.9 units in 2019 ($p=0.413$).

Conclusion: No statistically significant effects were observed following the introduction of a common alcohol policy on students' drinking patterns, and alcohol consumption among high school students was stable and remained high in 2014 and 2019.

Key words: youth drinking, high school alcohol policies, natural experiment, drinking patterns.

Introduction

Denmark has one of the highest prevalences of drunkenness among adolescents aged 15–16 years in European countries (1). High alcohol consumption in adolescence is associated with higher risk of injuries, violence, criminal activity, poor health and risky sexual behaviour (2). Moreover, alcohol consumption is estimated to be the leading risk factor for disability-adjusted life years among 15–24-year-olds, worldwide (3). In 2019, approximately 30 % of Danish high school students reported that they had been binge drinking four or more times within the last 30 days, and 20 % indicated drinking above the Danish Health Authority's high risk drinking limits for adults (14 units for women and 21 units for men)(4, 5).

Schools are an important arena for preventive initiatives, and school alcohol policies may be a key component of health promotion in schools (6). Within recent years, most Danish high schools have adopted alcohol policies to reduce and prevent excessive drinking among students. However, the content of the policies are relatively liberal (7). Drinking alcohol is permitted for students at Danish high schools and is common at social activities such as high school parties, school cafés and study trips (8).

From studies of effective school drug policies (tobacco, alcohol and other drugs), we know that more comprehensive and strictly enforced school policies are associated with less smoking, whereas results on alcohol and other drugs are less clear (6, 9). In most countries, alcohol is not allowed in connection with school time and events in secondary education, and the school alcohol policy typically contains descriptions of sanctions if the ban is not obeyed (6, 10, 11). It is therefore difficult to transfer international results on effective school alcohol policies to a Danish context. More knowledge is needed to conclude whether more restrictive and comprehensive alcohol policies are associated with less drinking among students.

In 2017, a group of neighbouring high schools united to introduce a common alcohol policy aiming to decrease alcohol consumption among their students. This union of schools took place in three areas of Denmark (13 high schools in Zealand, all of Funen's 11 high schools and 6 high schools in the old Ringkøbing County), amounting to 30 schools (app. 20 % of all Danish high schools). The decision to introduce a common alcohol policy instead of a school-specific local policy was motivated by a fear of introducing a more restrictive alcohol policy than neighbouring schools, as this was perceived to result in a decrease in students applying for admission as compared to neighbouring high schools. The common policies aimed at decreasing high school students' drinking by limiting availability of alcohol at the school, for example, by prohibiting alcohol use on introduction trips, not allowing alcohol with a high alcohol percentage (stronger than 5% pure alcohol) to be sold at regular school parties, denying entrance of drunk students to school parties and limiting the number of school events where alcohol was sold. The introduction of the policy was not guided by evidence or theory but was a local initiative among the high

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schools. The introduction of the common alcohol policy could theoretically decrease alcohol intake among the students if it succeeded in limiting the availability of alcohol at the participating schools, as the literature has showed that availability of alcohol is important for how much young people drink (12-14). In addition, an alcohol policy is not merely a list of rules but can be used to form the school culture and social norms of drinking (6). By uniting on a common alcohol policy, school heads may also have felt more committed to implementing and enforcing the policy than at schools with local alcohol control policies.

In this study, using national survey data from 2014 and 2019 we test the hypothesis that students at schools who introduced a common alcohol policy in 2017 drank less than students at schools without the common policy did. In addition, we investigated students' knowledge of the policy and perceived enforcement of the policy as an expression of implementation.

Methods

Data material

We used data from the Danish National Youth Study 2014 and 2019 (15, 16). The Danish National Youth Study 2014 included questions on health, health behaviour, and mental health as well as drinking patterns among young people in upper secondary education in Denmark. All general high schools were invited to participate (N=137), and 119 schools (87%) agreed to participate in the Danish National Youth study 2014. At participating schools, 74,674 general high school students (85%) completed a questionnaire in the period September 2014 to December 2014. The Danish National Youth Study 2019 was an independent follow-up to the 2014 survey. All schools in Denmark offering high school examinations, including general high school (n=150), were invited to participate in the Danish National Youth study 2019, and 50 general high schools agreed to participate (33%). At participating schools, 20,287 general high school students participated (73%). In 2019, the most common reasons given by schools that declined the invitation to participate was lack of time and resources, participation in other surveys, and insecurity about schools' legal foundation to participate under the new EU general data protection regulation that was introduced in May 2018. Data collection for the Danish National Youth Study 2019 took place from January 2019 to April 2019. Both surveys included measurements of drinking patterns, of which many were identical or comparable. In cooperation with Statistics Denmark, we have established a linked research database. In the linked research database, data is stored and participants in both surveys were linked to relevant national registers by their personal identification number (CPR). Participants younger than 15 years, older than 25 years or with missing CPR data were excluded (N=3,421). There was an overlap of 41 high schools that participated in both the Danish National Youth Study 2014 (n=20,077) and in 2019 (n=16,605).

Ethics

There is no formal institution for ethical assessment and approval of questionnaire-based population studies in Denmark. Both data collections were approved by Data Protection Agencies: in 2014 by the Danish Data Protection Agency (J. No. 2013-54-0526), and in 2019 by the Research Ethics Committee of the University of Southern Denmark (J.no. 10.130)), who also approved the linking of data to the registers and ensured that all local confidentiality and privacy requirements were met (15, 16). At the beginning of both surveys, participants were asked to read and accept an informed consent form that clearly expressed that participation was voluntary and that individual data would be kept confidential and that their data would be used only for research.

Measures

Common alcohol policy

Among the 41 schools taking part in both 2014 and 2019, 13 schools introduced a common alcohol policy (four high schools in Region Zealand and the Capital Region of Denmark, seven high schools in Funen (Region of Southern Denmark) and two high schools in the old Ringkøbing County (Central Denmark Region)), and 28 high schools did not have a common alcohol policy. The wording of the common alcohol policy was similar in all three regions except for small differences and will be assessed as one common policy in this study (for further information see supplementary Table 1). Schools were classified as having a common alcohol policy/no common alcohol policy. Schools that did not have a common alcohol policy could still have a local alcohol policy.

Drinking patterns included four measures:

Average weekly alcohol use

In both surveys, students who drank alcohol were asked how many alcoholic drinks (one drink=12 grams of pure alcohol) they normally drank each day of the week. An average *weekly alcohol use* score was calculated by summing the number of alcoholic drinks consumed on each day of the week.

Average alcohol intake at last school party

In both surveys, students who had attended a high school party were asked how many alcoholic drinks they had consumed at the latest party (including drinking at pre-parties and after-parties). In the 2014 survey, participants could answer 0, 1–2, 3–5, 6–9, 10–12, 13–15, 16–19, 20 or more. In the 2019 survey, students could answer using a drop-down menu from 0 to 20 or more drinks. The 2019 answers were coded to match the 2014 categories, and for both years the mid-point value for each category was taken (For example 0, 1.5, 4, 7.5, 11, 14, 17.5), and the highest value was coded as 20. Non-drinkers were coded as missing.

Non-drinkers

In the 2014 survey, students were asked how often they drank alcohol on weekdays and at weekends. Those who answered that they never drank alcohol on weekdays or at the weekend were defined as non-drinkers. In the 2019 survey, students were asked how often they drank alcohol, and those who answered 'never' were defined as non-drinkers.

Frequent binge drinking

Students who reported drinking alcohol were asked how often within the last 30 days they had consumed five or more alcoholic drinks on the same occasion. In the 2014 survey, students could answer using a drop-down menu with options ranging from 0 to 20 or more times, whereas in the 2019 survey students could answer never, one time, 2–3 times, 4–6 times, 6–9 times and 10 or more times. *Frequent binge drinking* was defined as binge drinking four or more times within the last 30 days. This cut-off point was chosen to distinguish students with a more extreme binge drinking pattern from the ‘normal’ drinking culture among Danish adolescents (1, 5, 17).

Knowledge and perceived enforcement of the alcohol policy

To examine implementation of the alcohol policy, we included data on students’ knowledge of the alcohol policy and perceived enforcement of the policy from the 2019 survey. In the 2019 survey, students were asked if they knew whether their school had an alcohol policy, with the following response categories: “No, my school does not have an alcohol policy”; “Yes, my school has an alcohol policy, but I don’t know the content”; “Yes, my school has an alcohol policy, and I know the content”; and “I don’t know if my school has an alcohol policy”. To measure enforcement of the policy, students were asked to what extent they agreed with the following statements: 1) “Students who show up visibly drunk at school parties are denied entry or sent home”; 2) “Invitations to school parties encourage drinking”; 3) “Nobody drinks on introduction trips”; 4) “Nobody drinks on study trips”; 6) “Alcohol is sold at most school events”. Students’ answers were dichotomized into strongly agree/agree versus neither agree nor disagree/disagree/strongly disagree/or don’t know.

Other variables

Information about participants’ gender (boy/girl), age and immigration status (Danish/ Immigrant/ Descendant) was retrieved from the Danish Civil registration system (18). Participants in both surveys were asked to report their school year (1st, 2nd, 3rd). Region (North Denmark/ Central Denmark/Southern Denmark/Zealand/Capital) was coded based on the school’s address. Information on mother and father’s highest educational level attained was retrieved through linkage with the Population’s Education Register (19) and based on information from the year prior to the survey (2013 and 2018). Parental educational level was categorized into basic education (primary school), medium education (high school or vocational training), and long education (higher education 1–2 years, higher education 3–4 years, and higher education <4 years), based on the parent who had the highest level of education.

Statistical analysis

All statistical analyses and data processing were performed in STATA 16. We perceived the introduction of a common alcohol policy as a natural experiment and assumed that the differences in drinking patterns between students at schools with a common alcohol policy and schools without a common alcohol policy would have remained constant from 2014 to 2019 if the policy had not been introduced (parallel trend assumption) (20). To assess the effect of introducing a common alcohol policy, we conducted difference-in-difference analyses by including an interaction term between year and whether or not the school had introduced a common alcohol policy in the negative binomial regression models and logistic regression models. We used negative binomial regression to analyse differences in average weekly alcohol use and average alcohol intake at last school party among students at schools with or without a common alcohol policy. Both measures were over-dispersed and did not have an excessive number of zeros, and therefore a negative binomial regression was performed instead of a Poisson regression or a zero-inflated binomial regression. We calculated p-values for prevalence ratios (PR). Logistic regression was used to analyse differences in odds of non-drinking and frequent binge drinking between students at schools with or without a common alcohol policy. We calculated p-values for odds ratios (OR). All analyses were adjusted for age, school year, region, immigration status, and parents' highest educational level to account for differences between students at schools with or without a common alcohol policy. Clustering of students in schools were accounted for by including a VCE statement that specifies that the standard errors allow for intragroup correlation, relaxing the usual assumption that the observations are independent. To investigate possible gender differences, we present all results stratified by gender and combined. To examine implementation of the alcohol policy, we compared the proportion of students who were familiar with the content of the alcohol policy and agreed that the policy was enforced at schools with or without a common alcohol policy in 2019.

Sensitivity analyses

As there were three geographically independent alcohol policies, we also analysed differences in drinking patterns for each of the three policies in each of the three regions (Capital Region and Region Zealand / Region of Southern Denmark /Central Denmark region) separately. The 2019 data was collected approximately 6 months later than the 2014 data, which could have affected the drinking levels reported, as students' alcohol consumption generally increases with age and time spent in high school (21).

Therefore, we made a sensitivity analysis restricting the analysis to 2nd and 3rd year students to examine if the tendencies were the same among students that have spent more than one year in high school. We also tested whether results were the same if we restricted the data to students 20 years of age or younger.

Results

Students at schools with a common alcohol policy had similar baseline characteristics as students at schools without a common alcohol policy (Table 1). The only exception was the regional distribution, where a larger proportion of schools with a common alcohol policy, compared to schools without a common alcohol policy, were located in region of Southern Denmark (46% vs. 14%) and Region Zealand (15% vs. 10%), and a lower proportion of schools with a common alcohol policy compared to at schools without a common alcohol policy were located in North Denmark region (0% vs. 11%), Central Denmark region (7% vs. 23%) and Capital region of Denmark (32% vs. 42%). Students at schools that did not participate in 2019 were not markedly different from students at schools that participated in both years, either at schools with or without a common alcohol policy, except for regional distribution (supplementary Table 2).

Table 2 shows the effect of introducing a common alcohol policy on drinking patterns among boys and girls at the 41 high schools participating in both years. Overall, the average weekly alcohol intake and average alcohol intake at school parties and the prevalence of non-drinkers and frequent binge-drinkers did not change substantially from 2014 to 2019. Drinking patterns were similar among students at schools with or without a common alcohol policy in both years, with no significant interaction between common alcohol policy and survey year adjusted for age, school year, region, immigration status, and parents' highest educational level. For example, the average alcohol intake at last school party among drinkers was 8.7 units in 2014 and 8.5 units in 2019 among students at schools with a common alcohol policy, whereas average alcohol intake at last school party was 8.8 units in 2014 and 8.9 units in 2019 among students at schools without a common alcohol policy ($p=0.413$). Crude estimates showed similar results. The separate results for each of the three regions were similar to the results found in the main analysis (data not shown). The only exception was higher odds of non-drinking in 2019 among students at schools with a common alcohol policy in the Capital region of Denmark and Region Zealand compared to those students at schools without a common alcohol policy. Also restricting the analysis to students in 2nd and 3rd year or students younger than 21 years of age showed similar results as the main analysis (data not shown).

In Table 3, implementation of the alcohol policy is assessed. A higher proportion of students at schools with a common alcohol policy knew their school had an alcohol policy in 2019 and were familiar with the content of the policy (55%) compared to students at schools without a common alcohol policy (37%). A higher proportion of students at schools with a common alcohol policy compared to students at schools without a common alcohol policy agreed that students who are visibly drunk at school parties were refused entry or sent home (41% vs. 30%) and that nobody drinks on introduction trips (among 1st year students) (38% vs. 33%) or study trips (8% vs. 6%). Whereas a lower proportion of students at schools with a common

alcohol policy agreed that invitations to parties encourage drinking (48% vs. 53%) and that alcohol is sold at most school events (50% vs. 56%) compared to students at schools without a common alcohol policy.

Accepted version

Discussion

In this natural experiment, we observed no statistically significant effect of the introduction of a common alcohol policy in 2017 on high school students' drinking patterns from 2014 to 2019. Alcohol consumption among Danish high school students was high in both 2014 and 2019.

The implementation of a school alcohol policy can have effects on both drinking at the school and general alcohol use (normative effect)(10). We therefore looked at both drinking at school parties as well as average weekly alcohol intake, binge-drinking frequency and the proportion of non-drinkers. The school alcohol policy could be expected to show the largest effects on drinking at school parties. However, we found no statistically significant decrease in average alcohol intake at last school party nor average weekly alcohol intake or binge-drinking frequency among students at schools with a common alcohol policy compared to students at school without a common alcohol policy.

In intervention research, null findings are often discussed as a result of either implementation failure or theory failure (22, 23). The introduction of the common alcohol control policy was not based on theory per se. However, theoretically we suggest that the school alcohol control policy can, if it is implemented and enforced, influence students' drinking, if it decreases the availability of alcohol at the school or changes the norms on what is acceptable. Previous research has suggested that students' knowledge of the policy and perception of enforcement are very important factors for the effectiveness of school alcohol policies on students' alcohol use (7, 10, 24). The results of this study show that a larger proportion of students at schools that had introduced a common alcohol policy were familiar with the content of their schools' alcohol policy and believed it to be enforced, compared to students at schools without a common alcohol policy. This suggests that the common alcohol policy was implemented and enforced to some degree. The common alcohol policy was introduced in 2017, so the schools had had two years to implement the policy before the data collection in 2019, however, implementation and change of norms may demand a longer follow-up time to be reflected in changed behaviour in relation to drinking patterns.

We do not have information on whether schools without a common alcohol policy, who served as control group, have implemented a local alcohol policy before or during the same period as the common alcohol policy was introduced. If many schools have introduced new strict alcohol policies, this could dilute possible effects of the common alcohol policy. However, we do not see an overall decline in high school students' drinking patterns from 2014 to 2019. We therefore do not interpret the lack of statistically significant effects as a result of contamination of the intervention (common alcohol policy) to the control group (23).

None of the common alcohol policies banned alcohol at the school, so it was still possible for the students to buy alcohol at school parties, and approximately half of the students at both schools with and without a common alcohol policy agreed that invitations to school parties encouraged drinking and that alcohol was sold at most school events. Thus, the common alcohol policy may not have been restrictive enough to decrease availability of alcohol or change norms and thereby decrease students' alcohol consumption. High schools typically host 4–8 school parties per year, and these are often accompanied by private pre-parties involving heavy drinking. Although the national minimum age for purchasing alcohol in retail establishments is 16 years, high school parties are classified as private parties and high schools can, and do, sell alcohol to students younger than 16 years of age (25). The content of the policy might have been too vague to limit availability of alcohol and show statistically significant reductions in students' drinking at schools with a common alcohol policy compared to students at schools without. Using Steckler & Linnan's (2002) term, the *dose delivered* might have been too small (22).

Other societal and community factors that affect alcohol availability and drinking norms include the low purchasing age (16 years) for alcohol in Denmark, low enforcement of legal purchasing age, liberal alcohol norms and low cost of alcohol (8). One could therefore speculate whether even a strict and enforced alcohol policy at high schools might be too small an intervention to have a large impact on Danish high school students' drinking patterns, when other strict alcohol policies supporting the high schools' efforts at a national level is not implemented.

Strengths and limitations

The merits of this study included that it was based on two large national surveys on high school students' drinking. The large data material and repeated measurements of several dimensions of alcohol drinking patterns enable a detailed investigation of possible effects on students' drinking patterns after the introduction of a common alcohol policy. However, certain study limitations need to be considered when interpreting the results. First, we were not able to include all high schools, neither in 2014 nor 2019. Non-response analysis showed that participants in the Danish National Youth Study 2014 and 2019 were more likely to be female, younger, have higher family disposable income, have parents with higher educational level (in 2014) and were less likely to be immigrants or descendants compared to non-responders (15, 16). Participants in the Danish National Youth Study were relatively similar in 2014 and 2019. However, a larger proportion of participants in 2019 were older and from the Capital region and Region of Southern Denmark compared to 2014. Students at schools with and without a common alcohol policy were relatively similar in 2014, except for their regional distribution. To take population differences into account all analyses were adjusted for differences in the population and sensitivity analyses showed similar results. We are therefore confident in the interpretation of the results. Second, all measures of alcohol consumption were self-

reported. Studies among adults have shown that in self-reports of alcohol consumption, levels are underestimated (26), and therefore students' drinking might have been underestimated too. Nevertheless, we do not suspect that the possible reporting bias would be different in the two years or between participants at schools with or without a common alcohol policy, and therefore does not affect the relative differences assessed. Third, we only included two survey waves and were therefore not able to investigate the parallel trend assumption prior to the introduction of the common alcohol policies (27).

Conclusion and Implications

No statistically significant effect was observed for the introduction of a common alcohol policy on high school students' drinking patterns, and alcohol consumption among high school students was stable and remained at a high level in 2014 and 2019. The lack of effect of the common alcohol policy and lack of decline in alcohol consumption over the 5-year period calls for further preventive efforts to reduce alcohol consumption among Danish high school students.

DECLARATIONS

Ethic approval and consent to participate

Ethics approval was not necessary under Danish law as this study did not include human biological material. Data collection and all local confidentiality and privacy requirements were met was approved by the Danish Data Protection Agency (J. No. 2013-54-0526) in 2014 and the Research and Innovation Office at the University of Southern Denmark (ref: 10.314) in 2019. At the beginning of both questionnaires, participants were asked to read and accept a consent form that clearly expressed that participation was voluntary and that individual data would be kept confidential.

Consent for publication

Not Applicable.

Availability of data and material

The datasets generated and analysed during the current study are not publicly available due to sensitivity of the data but are available from the corresponding author on reasonable request.

Competing Interest

Nothing to declare.

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Author contribution

All authors (VP, SHH, RK, JST) designed the study. JST led the data collection of the Danish National Youth Study 2014. VP coordinated the data collection of Danish National Youth Study 2019. VP carried out the data analysis and prepared the first draft of the manuscript. JST contributed to the statistical analyses. All authors contributed to the writing of the manuscript and approved the final manuscript.

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Table 1: Characteristics (from 2014) of students at schools with and without a common alcohol policy, N (%)

	Common alcohol policy	No common alcohol policy
Schools, N	13	28
Students, N (%)	7, 144 (100)	12,933 (100)
Gender, N (%)		
Boys	2,903 (41)	5,194 (40)
Girls	4,241 (59)	7,739 (60)
Mean age, (SD)	17,4 (1.0)	17,3 (1.0)
School year, N (%)		
1 st	2,622 (37)	4,593 (36)
2 nd	2,394 (34)	4,274 (33)
3 rd (4 rd)	2,128 (30)	4,066 (31)
Region, N (%)		
North Denmark Region	0 (0)	1,475 (11)
Central Denmark Region	531 (7)	2,936 (23)
Region of Southern Denmark	3,292 (46)	1,795 (14)
Region Zealand	1,024 (14)	1,351 (10)
Capital region of Denmark	2,297 (32)	5,376 (42)
Parents' highest educational level, N (%)		
Basic education	259 (4)	499 (4)
Medium education	2,171 (30)	4,256 (33)
Long education	4,714 (66)	8,178 (63)
Immigration status, N (%)		
Danish	6,720 (94)	11,988 (93)
Immigrant	109 (2)	286 (2)
Descendant	315 (4)	659 (5)

Table 2: Drinking patterns in 2014 and 2019 among boys and girls at schools with and without a common alcohol policy.

	Total (N _{Schools} =41)		Common alcohol policy (N _{Schools} =13)		No common alcohol policy (N _{Schools} =28)		P-value for interaction between common alcohol policy and survey year [*]
	2014	2019	2014	2019	2014	2019	
Average weekly alcohol use among drinkers, units							
Boys (n=13,554)	14.0	14.9	14.3	14.7	13.8	15.0	0.323
Girls (n=20,573)	9.8	10.1	9.8	9.8	9.8	10.3	0.258
Combined (n=34,127)	11.5	12.0	11.6	11.7	11.4	12.1	0.228
Average alcohol intake at last school party among drinkers, units							
Boys (n=13,254)	10.1	10.0	10.3	9.9	10.0	10.1	0.147
Girls (n=20,143)	7.9	7.9	7.7	7.6	8.0	8.1	0.697
Combined (n=33,397)	8.8	8.7	8.7	8.5	8.8	8.9	0.413
Non-drinkers, %							
Boys (n= 14,628)	7.9%	6.8%	5.7%	5.6%	9.1%	7.4%	0.123
Girls (n=22,180)	7.2%	7.4%	5.7%	6.0%	8.1%	8.2%	0.993
Combined (n=36,808)	7.5%	7.2%	5.7%	5.8%	8.5%	7.8%	0.488
Frequent binge drinking among drinkers, %							
Boys (n=13,632)	39.3%	40.0%	41.5 %	41.4 %	38.0%	39.4 %	0.620
Girls (n=20,505)	27.2%	25.1%	28.6 %	24.7 %	26.4%	25.3 %	0.344
Combined (n=34,137)	32.1%	31.0%	33.8%	31.2%	31.1%	31.0%	0.413

*p-value for prevalence ratios or odds ratios adjusted for age, school year, region, immigration status, and parents' highest educational level.

Table 3: Students' knowledge of the alcohol policy and perceived enforcement of the alcohol policy in 2019 among students at schools with and without a common alcohol policy.

	Common alcohol policy (N_{Schools}=13, N_{students}=5,886)	No common alcohol policy (N_{Schools}=28, N_{students}=11,346)
Knowledge of the policy, N (%)		
No, my school does not have an alcohol policy	34 (1)	167 (1)
Yes, my school has an alcohol policy, but I don't know the content	1,615 (27)	3,252 (29)
Yes, my school has an alcohol policy, and I know the content	3,231 (55)	4,174 (37)
I don't know if my school has an alcohol policy	1,006 (17)	3,753 (33)
	Common alcohol policy (N_{Schools}=13, N_{students}=5,873)	No common alcohol policy (N_{Schools}=28, N_{students}=11,324)
Perceived enforcement of the policy, N (%)*		
Students who strongly agree or agree that students who are visibly drunk at school parties are refused entry or sent home	2,386 (41)	3,412 (30)
Students who strongly agree or agree that invitations to school parties encourage drinking	2,836 (48)	5,968 (53)
Students who strongly agree or agree that nobody drinks on introduction trips*	826 (38)	1,301 (33)
Students who strongly agree or agree that nobody drinks on study trips	451 (8)	726 (6)
Students who strongly agree or agree that alcohol is sold at most school events.	2,905 (50)	6,356 (56)

*Does not amount to 100%

**Among 1st year students

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