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Alcohol, tobacco and cannabis use among French school students in 2018

Monitoring the first uses of psychoactive substances among adolescents by school grade [1, 2] gives the opportunity to analyse the time frame of experimentation of use. It also helps implementing preventative measures and public health policies by identifying when and where to intervene and identifying "pivotal" grades where experimenting starts or increases. To this end, the French research teams implementing the two major international school surveys Health Behaviour in School-aged Children (HBSC)1 and European School Project on Alcohol and other Drugs (ESPAD)2 developed, as part of a partnership formed in 2008, the EnCLASS project (Enquête nationale en collège et en lycée chez les adolescents sur la santé et les substances [National health and substances survey among adolescents in middle and high school]). In 2018, these two surveys were carried out simultaneously for the first time in France, using a unified methodological framework. More than 20,000 middle school and high school students, representing 11 to 18-year-old adolescents attending secondary school in metropolitan France, were invited to answer an online questionnaire in class on their well-being and health behaviour, including

their use of psychoactive substances. This

scheme, which is unprecedented in Europe,

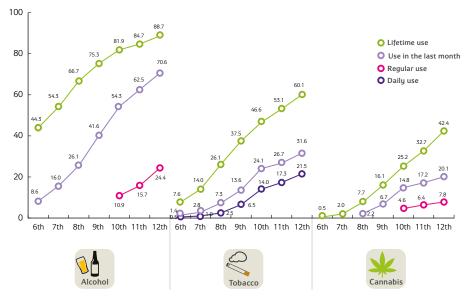
First results of the EnCLASS survey taken by 20,000 middle and high school students aged 11 to 18

makes it possible to measure this use among all students from Grade 6 to 12³.

This issue of Tendances presents the prevalence of experimentation and use of the three most widely used substances during adolescence: alcohol, tobacco and cannabis, by school grade. This snapshot of their use is supplemented by analyses that are specifically focused on high school students: how they access to tobacco and alcohol, their use of e-cigarettes and their experimentation with illegal substances other than cannabis.

- 1. https://www.ofdt.fr/enquetes-et-dispositifs/hbsc/
- 2. https://www.ofdt.fr/enquetes-et-dispositifs/espad/
- $3.\ ln$ France, students are sampled by grade instead of age because French adolescents can repeat one or several grades. Thus, students are sampled from grades 6 to 9 for HBSC and grades 10 to 12 for ESPAD.

Figure 1. Alcohol, tobacco and cannabis use according to level of education in 2018 (in %)



Main indicators used: Lifetime use: use of the substance at least once in a lifetime / Current use or use in the last year: use at least once in the year prior to the survey / Use in the last month: use at least once in the 30 days prior to the survey / Regular use: use 10 times or more in the last 30 days / Daily use: when a substance is used every day.

Note: Increases in use from one grade to another are always statistically significant except for lifetime use of alcohol and monthly and regular the statistical statistical significant except for lifetime use of alcohol and monthly and regular the statistical statistitobacco and cannabis use between Grade 10 and 11 and Grade 11 and 12. These uses increase overall and in a statistically significant way

■ "Années collège⁴": spreading of legal substances

With six in ten middle school students reporting to have drunk at least one alcoholic beverage in their life (60.0%), alcohol is the first psychoactive substance adolescents experiment with (Table 1). While the number of students found to be experimenting in Grade 6 (44.3%) clearly indicates that this initiation to alcohol begins in primary school, this consumption takes on a whole other level at middle school. Indeed, in Grade 9, three-quarters of adolescents had already experimented with alcohol (75.3%). However, less than one in ten middle school students reported that they had been drunk (9.3%).

The number of students using tobacco is significantly lower in middle school, although one in five middle school students (21.2%) reported that they had already smoked. Lifetime use of cigarettes is still low at the beginning of middle school, but the number of students experimenting tobacco increases significantly between Grade 7 and 8, going from 14.0% to 26.1%. As with lifetime use of alcohol, the «middle school years» seem to mainly be a phase where young adolescents are introduced to the substance, with only 2.6% of middle school students reporting that they smoke daily. However, 6.5% of students in Grade 9 said they smoke daily. Cannabis use starts later, with no significant experimentation in middle school. This only starts to take off in Grade 8, with 7.7% of adolescents claiming to experiment with this drug. For the three substances studied, boys experiment more than girls.

2014-2018 trends

Lifetime drunkenness among middle school students is significantly lower than it was in 2014 (date of the last HBSC survey), when 13.4% of school students were affected (Table 1). Lifetime use of tobacco has also significantly decreased from the level recorded in 2014 (27.8%). Similarly, daily tobacco use, an infrequent behaviour among middle school students in Grade 8 and 9, dropped from 5.6% to 2.5% for students in Grade 8 and from 12.3% to 6.5% for students in Grade 9. Cannabis use also appears to be decreasing (-3.1 points compared to 2014).

"Années lycée⁵": uses taking root

Moving from Grade 9 (last grade of middle school) to Grade 10 (first grade of high school) is characterised by pursuing experimenting. As is true for middle school, alcohol is the most commonly used substance among high school students (85.0%), considerably more than tobacco (Table 2). But, above all, reported drunkenness increases significantly between middle school and high school, going from less than one in ten middle school students (9.3%) to half of high school students (49.5%).

Table 1. Lifetime use of tobacco, alcohol and cannabis as well as first drunkenness, by gender, among middle school students in 2014 and 2018 (%)

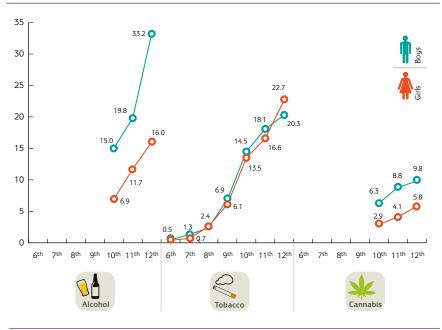
Substance	Together	Together		Boys		Girls
	2014	2018		2018		2018
Alcohol	64.4	60.0	*	63.6	>	56.3
Drunkenness	13.4	9.3	4	10.5	>	8.0
Tobacco	27.8	21.2	4	23.5	>	18.8
Cannabis	9.8	6.7	7	7.8	>	5.5

=: statistically insignificant difference between girls and boys; >: boys use substances more than girls;

→: statistically insignificant difference between 2015 and 2018; \(\mathbf{\sigma}\): uses decrease or \(\mathbf{\sigma}\) increase between 2014 and 2018 (*) After the questions for the HBSC and ESPAD 2018 surveys were standardised, the comparability of this indicator was not sufficient between 2014 and 2018 to statistically point to any potential developments.

Sources: HBSC 2014 and EnCLASS 2018

Figure 2. Regular alcohol, tobacco and cannabis use according to level of education and by gender in 2018 (%)



Source: EnCLASS 2018

The increase in alcohol drinking in high school is illustrated by the regular consumption of alcoholic beverages⁶, with the figure doubling between Grade 10 and 12, from 10.9% to 24.4%. The same is true for heavy episodic drinking (HED) (i.e. drinking at least 5 glasses of alcohol on the same occasion in the past 30 days), which is becoming significantly more frequent and increased from the first (36.4%) to last year of high school

The prevalence of tobacco smoking appears to be increasing in high schools (53.0% of high school students reported that they had experimented with tobacco), with daily smoking rates increasing from 6.5% in Grade 9 to 14.0% in Grade 10 and then to 21.5% among students in Grade 12. Finally, the «high school years» are prime for the increase in cannabis use, as one third of adolescents (33.1%) reported they had smoked cannabis at least once in their lifetime, rising from 16.0% in Grade 9 to 25.2% in Grade 10 and going up to 42.4% in Grade 12. Compared to regular alcohol consumption, regular

cannabis use remains relatively limited, increasing slightly from 5.4% to 6.8% between Grade 10 and Grade 12.

The differences in the number of boys girls experimenting observed at middle school disappear when it comes to high school. Daily smoking affects both girls and boys, regardless of their school grade. Conversely, regular alcohol consumption or cannabis use is more prevalent among boys (Figure 2). There is a particularly sharp increase in the gap for regular alcohol consumption among students in Grade 12, with the level reported by girls coming to half of the figure reported by boys (16.0 % vs 33.2%).

^{4. &}quot;Années Collège", which includes in France four grades (mean age 13.5 years), would be the equivalent of middle school in the UK or junior high school in the United States.

school (mean age 17.1 years), from "seconde" to "terminale", which would be the equivalent of years 12 and 13 of high school in the UK and grade 10 through to grade 12 of senior high school in the United States. 6. Consumption patterns over the month, whether it was frequent alcohol or cannabis use or heavy episodic drinking (HED), were only asked among high school students. Despite the wide spread of substances used from middle school onwards, there are very few cases of repeated or frequent use. Middle school students are therefore not asked these questions

Table 2. Psychoactive substance use among high school students in 2018 and changes between 2015 and 2018 (%)

Substance	Use	Together	Together		Boys		Girls
		2015	2018		2018		2018
Tobacco	Lifetime use of cigarettes	60.9	53.0	4	52.7	=	53.2
	Use of cigarettes in the last month	32.8	27.3	4	27.0	=	27.7
	Daily use of cigarettes	23.2	17.5	4	17.5	=	17.4
	Lifetime use of chicha	47.8	41.7	4	47.4	>	36.2
E-cigarette	Lifetime use	35.1	52.1	7	57.2	>	47.1
	Use in the last month	10.0	16.6	7	20.1	>	13.2
Alcohol	Lifetime use	86.6	85.0	→	85.4	=	84.5
	Use in the last year	79.2	77.3	→	77.9	=	76.8
	Use in the last month	63.9	62.1	→	64.5	>	59.8
	Regular use (at least 10 times in the month)	14.8	16.7	→	22.3	>	11.3
Drunkenness	Lifetime use	50.5	49.5	→	53.4	>	45.8
Heavy episodic drinking (HED)	in the last month	41.5	43.2	→	48.1	>	38.3
	Repeated (at least 3 times in the month)	16.0	16.8	→	21.0	>	12.7
	Regular (at least 10 times in the month)	2.7	3.7	→	5.2	>	2.2
Cannabis	Lifetime use	44.0	33.1	4	36.3	>	30.0
	Use in the last year	35.9	26.5	4	29.1	>	24.0
	Use in the last month	22.6	17.3	4	19.7	>	14.9
	Regular use (at least 10 times in the month)	7.7	6.2	→	8.2	>	4.2
Other illicit drug	Lifetime use	9.3	8.1	→	8.4	=	7.8

^{=:} statistically insignificant difference between girls and boys; >: boys use substances more than girls;

2015-2018 trends

As observed for middle school students, lifetime tobacco and cannabis use (prevalence) decreased between the last ESPAD survey (2015) and the 2018 survey. Lifetime and daily tobacco use among high school students decreased markedly between 2015 and 2018 (-8 and -5 points respectively). Alcoholrelated behaviour appears stable among high school students (slight decreases observed between 2015 and 2018, not statistically significant). The latest data for 17-year-old adolescents showed slightly decreasing rates [4].

High school students' procurement of tobacco and alcohol

In 2009, the law introduced a ban on selling tobacco and alcohol to minors. However, in 2018, high school students (mainly under 18s) who smoke daily continue to rely mainly on tobacco shops for their supplies. For example, 77.0% of them "almost always" or "often" bought their own cigarettes, while 16.0% reported doing so "rarely" or "sometimes". As for other ways of acquiring tobacco, high school students tend to ask someone to buy cigarettes for them (with 10.0% "often" or "almost always" getting cigarettes this way and 36.7% "rarely" or "sometimes" obtaining their supply like this), or they buy them "on the street

Sharp increase in use of e-cigarettes among high school students

The results of EnCLASS show a significant increase in lifetime use of e-cigarettes, confirming observations made in the adult [3] and adolescent [4] populations. Nearly a third of school students in Grade 7 and 8 tried e-cigarettes in 2018 (32.0%), and more than half of high school students (52.1%, or 57.2% of the boys and 47.1% of the girls). The number of high school students experimenting increased by 17 points compared to 2015. Their monthly use increased from 10.0% to 16.6% in three years. A striking phenomenon, 9.8% of high school students experimented with e-cigarettes without having smoked cigarettes before, compared to only 3.7% in 2015 (this phenomenon concerned 4.9% of middle school students in 2018). Similarly, 5.6% of high school students reported that they had only smoked e-cigarette over the month (7.0% of the boys vs. 4.2% of the girls), compared to 2.7% three years earlier. These results suggest that smoking e-cigarettes is now tending to become increasingly dissociated from tobacco consumption in the adolescent population. Nevertheless, the number of «abstinent» students (who have never smoked tobacco or an e-cigarette) remains stable at 35.7% of high school students.

Of the high school students who reported to have experimented with both tobacco and e-cigarettes (42.6% of the students), 58.3% smoked tobacco before e-cigarettes, compared to 13.4% trying e-cigarettes before tobacco.

Other illegal drugs in high schools

Other illegal drug use by high school students surveyed in EnCLASS include stimulants (amphetamines, cocaine, crack and ecstasy), hallucinogens (mushrooms, LSD), heroin and GHB. Much fewer adolescents use these substances: 8.1% of high school students reported that they had used at least one of these substances in their life, a stable figure compared to 2015. As in previous surveys among high school students, cocaine, ecstasy and hallucinogenic mushrooms are still the main products mentioned, each with lifetime rates ranging from 2% to 4%. It should be noted that the majority of these adolescents (54.7%) only experimented with one product, and generally only did so once or twice.

or from friends" (with 10.0% "often" or "almost always" procuring cigarettes this way and 29.9% "rarely" or "sometimes" obtaining their supply like this). Finally, 21.2% of daily smokers reported that a portion of their cigarettes were "often" or "almost always" offered to them and

49.6% said this occurred "sometimes" or "rarely".

It is just as easy to get alcohol: in the month preceding the survey, 40.6% of high school students who drank bought alcoholic beverages in a shop and 18.6% did so at least three times. Similarly,

^{→:} statistically insignificant difference between 2015 and 2018; 🕽: uses decrease or 🛪 increase between 2015 and 2018 Sources: ESPAD 2015 and EnCLASS 2018

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56.9% drank alcohol in a bar, restaurant or nightclub over the same period, with 26.3% doing so at least three times or more

These violations of the law do not seem to come from a lack of awareness of the legislation. Indeed, the vast majority of high school students know what the legal age is for buying tobacco (71.4%) and alcohol (82.8%). While most smokers do not respect the legislation that they claim to be aware of, their behaviour is mainly a reflection of the fact that their age is not regularly checked by tobacco shops. For example, among high school students who had purchased cigarettes at a tobacco shop before, 55.0% said they had never had to show their ID and 40.7% said they were "rarely" or "sometimes" asked for it. Similarly, 50.7% of adolescents who purchased alcohol during the past month reported that they never had to present their ID in shops and 38.1% said they only "rarely" or "sometimes" had to do so.

■ Conclusion: between constants and differences

For the first time, the EnCLASS survey offers the possibility to quantify psychoactive substance use among 11- to 18-year-old adolescents, simultaneously and comprehensively. By taking middle school and high schools as the framework for observation, EnCLASS makes it possible to provide operational data for policies promoting health. By highlighting, for example, the increase in experimentations from Grade 8 onwards or of daily smoking of tobacco in Grade 10, the survey gives ideas to implement interventions, particularly in schools.

While adolescence is the main period where alcohol, tobacco and cannabis are experimented with, the timing and progression of substance use vary. Alcohol, which is mainly experimented with during middle school, is still the first substance used during adolescence, followed by tobacco. Cannabis, which begins to take off at the end of middle school, sees its experimentation and use develop and strengthen mainly during high school. It is still the most common illegal product, lifetime use of other illegal substances remaining really low. These results also confirm that there are

still differences in use between boys and girls in middle school [1], but also in high school [2], particularly for alcohol-related behaviour, which remains a predominantly male practice.

EnCLASS data confirms the wide accessibility to the products, despite the fact that it is illegal to sell tobacco and alcohol to minors. Data also shows that entering Grade 10 triggers frequent use of psychoactive substances, with a particularly sharp increase in daily tobacco smoking and monthly cannabis use. Grades 11 and 12 appear to be a period of intensification of use, that could be related to more opportunities to go out, meaning more opportunities for consumptions with peers. There is less control of students in high school (students can go outside between two courses for instance) compared to middle school students.

Despite the raise of substance use throughout adolescence, there has been a general decline in tobacco consumption, continuing the trend that has been underway for several years now in the adolescent population [4]. The fact this waning interest has been sustained shows a profound normative change in the image and representations of tobacco among adolescents [5]. However, the number of adolescents experimenting with and practising vaping, who do not smoke or have never smoked tobacco, is increasing significantly. This development raises questions about the reasons for its use in the adolescent population, which does not seem to come from a desire to quit smoking, as is generally the case in the adult population [6]. Finally, while lifetime use of alcohol is declining among younger students, regular use as well as heavy episodic drinking remain stable and seem to be taking root during "high school years".

This first data on substance use, collected in the same way from Grade 6 to Grade 12, demonstrate the strength and benefits of the EnCLASS survey. On a national level, EnCLASS improves the quality of data made available to researchers and policymakers in the monitoring and development of public policies. On an international level, EnCLASS stimulates scientific cooperation and offers ways towards standardised governance.

The National health and substances survey among adolescents in middle and high school (EnCLASS) is the result of the combination of two international school-based surveys: HBSC and ESPAD.

Implemented since 1982 in France, HBSC (Health Behaviour in School-aged Children) is a survey conducted every four years under the auspices of the European Office of the World Health Organisation (WHO). It addresses many health-related topics, both physical and mental, collected among adolescents aged 11, 13 and 15. In France, since 2010, this random sample has been extended to all middle school grades. The survey is conducted by the OFDT (French Monitoring Centre for Drugs and Drug Addiction) in conjunction with the French Ministry of Education and INSERM (French National Institute for Health and Medical Research).

Carried out since 1999 in France, ESPAD (European School Project on Alcohol and other Drugs), in conjunction with the European Monitoring Centre for Drugs and Drug Addiction, is a European survey conducted every four years among 16-year-old students. In France, since 2011, the sample has been

extended to all adolescents from Grade 10 to their final year of high school. The ESPAD project which took place in the other European countries in 2019, was done a year ahead in France in order to allow EnCLASS to be carried out.

The survey guarantees to represent middle schools on a national and regional level. The sampling was carried out by the Performance and Prospective Studies Department (DEPP) of the French Ministry of National Education, based on a double-level sampling: selection of schools (in the end, 308 middle schools and 206 high schools), from which two classes were selected at random. EnCLASS is an anonymous online survey based on a self-administered questionnaire that questioned 20,577 high school students, representing a final sample of 20,128 students (12,973 middle school students and 7,155 high school students) after data cleaning.

The EnCLASS 2018 survey benefited from an opportunity notice from the National Council for Statistical Information (CNIS $n^{\circ}142$ / H030) and was the subject of a declaration to the French Data Protection Authority (CNIL 2155714 v 0).

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