

Drug use during the « lycée years »

Results of the 2015 ESPAD survey in France

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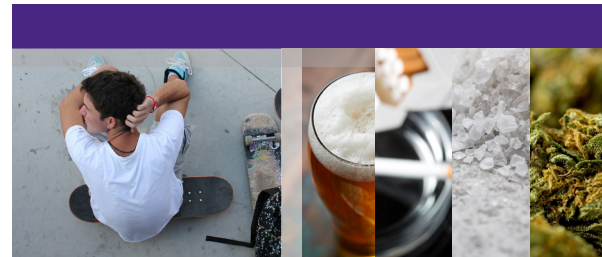
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Since 1999, the quadrennial ESPAD¹ survey conducted among 16-year-old teenagers attending school in the majority of European countries has included French students and enables comparison of psychoactive substance use, primarily alcohol, tobacco and cannabis. Since 2011 in France, the survey has been extended to all teenagers attending *lycée*, i.e. the last three years of secondary education², thus providing an opportunity to observe the diffusion of psychoactive substance use among teenagers through school. In this way, it supplements the data from the HBSC (Health Behaviour in School-aged Children) survey conducted among *collège* pupils (lower secondary school for children aged 11 to 15³). In 2015, 6,642 *lycée* students were therefore interviewed in mainland France⁴.

These initial results for mainland France generally provide appreciable insights into tobacco and alcohol use among *lycée* students since 2011, with daily tobacco use falling by more than 24% and a reduction of more than 30% in regular alcohol use. However, no changes were observed in regular cannabis use (7.7%) between 2011 and 2015, despite a slight reduction in lifetime use (at least one instance of use). Differences, sometimes striking, in use are observed between the main types of school (whether vocational or general), with smokers observed more



frequently among students in the vocational sector (33.4% vs. 23.2% on average). Lastly, as an extension to the ESCAPAD [1] and HBSC [2] surveys in 2014, this analysis also provided an opportunity to determine shisha and e-cigarette use among teenagers.

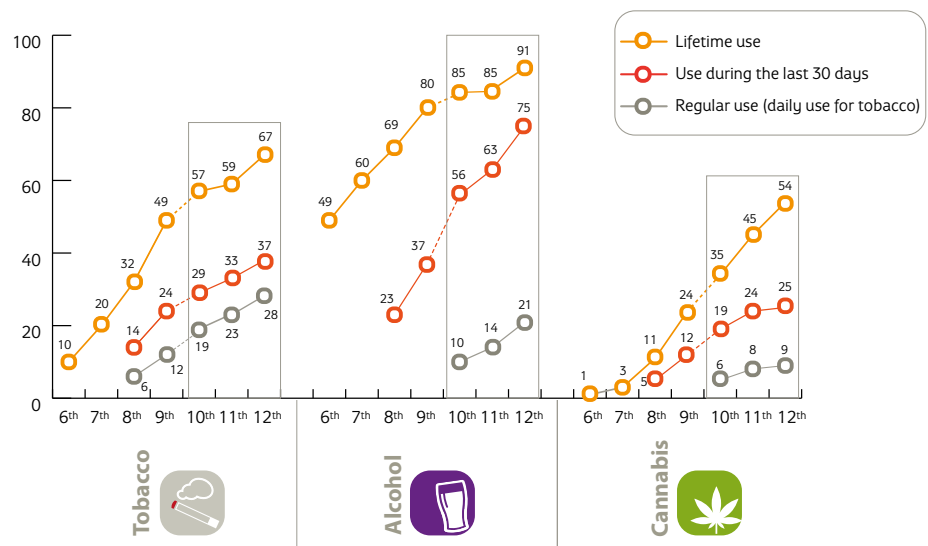
1. European School Project on Alcohol and other Drugs: <http://www.emcdda.europa.eu/about/partners/espada>

2. The "lycée years" correspond to the last three years of secondary school, from "seconde" to "terminale", which would be the equivalent of years 12 and 13 of Sixth Form College in the UK and grade 10 through to grade 12 of High School in the United States. Vocational secondary schools provide an essentially non-academic syllabus for young people intending to work in manual or clerical jobs.

3. "Collège years", would be the equivalent of Secondary school in the UK or grade 6 through to grade 9 of Junior High School in the United States.

4. 2,852 pupils from French overseas departments were included in the sample for the first time (the results for the latter will be published at a later date).

Figure 1 - Tobacco, alcohol and cannabis use according to level of education among *collège* pupils in 2014 and *lycée* students in 2015 (%)



Source: HBSC 2014, ESPAD 2015

■ **Wide diffusion of psychoactive substances... although alcohol and tobacco in decline**

The dynamics in terms of diffusion during the school years vary considerably from one substance to another. First, tobacco and alcohol uses are observed from entry into the first year of secondary school, strongly increasing throughout *collège*, while lifetime use of cannabis, starting in the third year [2], develops during the "lycée years". The *lycée* years are thus characterised more by intensified, repeat and sometimes long-term use. At the end of the final year of *lycée*, daily cigarette use and regular use (i.e. at least ten times a month) of alcoholic beverages or cannabis concern 28%, 21% and 9% of students, respectively (Figure 1).

Lifetime use of cigarettes and alcohol markedly declining

In 2015, six out of ten *lycée* students (60.9%) claimed to have already smoked a cigarette in their life, girls more often than boys (62.1% versus 59.4%; Table 1). Although lifetime use of tobacco increases between finishing *collège* and starting *lycée*, this stabilises between the first and second year of *lycée*, before rising again in the final year (59.4% vs. 67.0%). Between 2011 and 2015, there was a noteworthy decline in the lifetime use of cigarettes (a ten percentage point drop) among all *lycée* students, regardless of study level or type of school (Figure 2). Nevertheless, cigarette use still primarily concerns students in vocational schools (66.2% vs. 58.4% in the general schools), which was already the case during the previous round of surveys [3].

The *lycée* years are not a decisive phase in the lifetime use of alcoholic beverages since, although a large majority of *lycée* students (86.6%) claim to have

drunk alcohol at some point in their life, this lifetime use already concerned 80% of pupils in the final year of *collège*. On the whole, *lycée* students show a lesser degree of lifetime use in 2015 compared to 2011 (86.6% vs. 92.9%). Although girls and boys report comparable rates, alcohol use seems to be slightly lower among students in vocational schools (83.6% versus 88.0% in general schools).

Downward trend in lifetime use of shisha

While one in two *lycée* students in 2015 claimed to have already tried shisha (47.8%), this practice nonetheless shows a marked downward trend compared to 2011 (60.0%). Female *lycée* students are less likely to try it compared to their male counterparts (44.7% vs. 51.0%), in contrast to cigarettes. Shisha use develops continuously between *collège* and *lycée* but diffusion is particularly striking between the first and second year of *lycée*, when lifetime use increases from 40% to 50% of students.

7% of *lycée* students have smoked shisha without ever having smoked cigarettes. This proportion has remained stable since 2011. Shisha is mainly used with "moassel", a traditional substance which is a blend of tobacco, sugar or honey and fruit flavourings in paste form. Since this involves tobacco use, like for cigarettes, overall lifetime use of tobacco should therefore correspond to seven out of ten students in 2015, whether for cigarettes or shisha. The maintained proportion of exclusive lifetime users of shisha at the same time as the decline in lifetime users of cigarettes suggests that there is no switch between these two types of tobacco use.

e-cigarettes, the subject of curiosity

Due to the popularity of e-cigarettes observed among the adult population

for several years [4, 5], the latest surveys among the adolescent population have included this issue. In 2014, half the 17-year-olds had tried them [1]. A year later, the 2015 ESPAD survey showed that this level of lifetime use had not increased. One in three *lycée* students (35.1%), in fact, claimed to have smoked an e-cigarette at least once in their life in 2015, girls less often compared to boys (38.8% vs. 31.4%), and only 4% had done so without prior cigarette use. However, among those having "vaped" in the past year, six out of ten students (61.3%) had smoked at least one cigarette in the past month whereas 45% of vapers smoked daily. This confirms the close relationship between tobacco and e-cigarette use with teenage years, already suggested by the ESCAPAD and HBSC surveys [2]. In contrast to the findings observed for shisha use, lifetime use of e-cigarettes did not increase between the first and third year of *lycée*, and tends to predominantly concern younger students. This confirms the idea that their use is driven by their novel appeal. Lastly, *lycée* students still tend to prefer tobacco cigarettes to e-cigarettes.

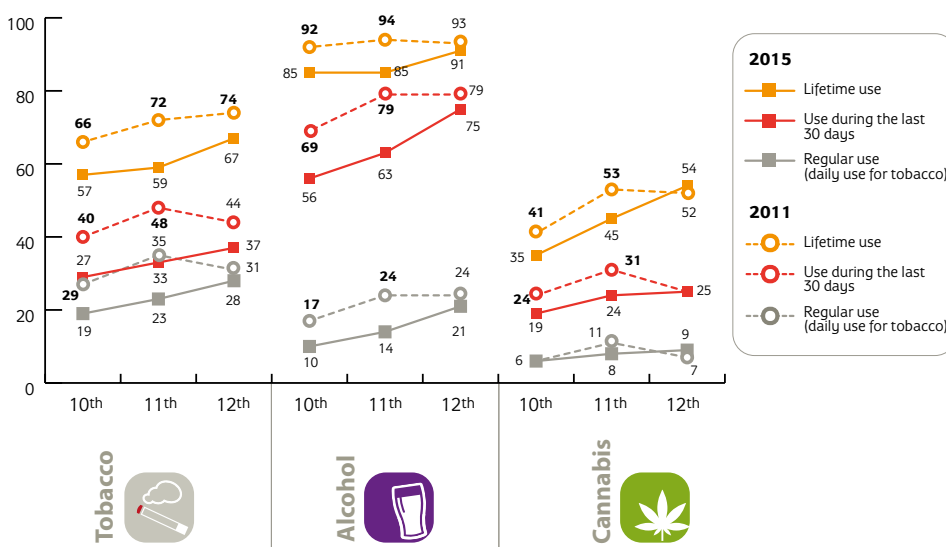
Cannabis diffusion still high

First cannabis use during the *collège* years occurs later than for tobacco and alcohol: in 2014, one in four pupils in the final year of *collège* claimed to have already smoked the substance [2]. This lifetime use greatly increases throughout the *lycée* years, rising by more than 50% between the first and third year of *lycée*. Although a third of students in the first year of *lycée* claim to have smoked cannabis at least once in their life (34.8%), this figure, in fact, reaches 54% at the end of the third year. In total, 44% of *lycée* students had already smoked the substance in 2015, boys to a greater extent than girls (46.4% vs. 41.7%), with 36% having smoked it in the past year. In both cases, cannabis diffusion is lower compared to 2011, when 49% and 41% respectively of *lycée* students answered both questions in the affirmative. In contrast to the findings for tobacco and alcohol, there is no effect arising from vocational or general secondary schools.

Other substances

Illegal drugs other than cannabis include **stimulants** (amphetamines, ecstasy, cocaine and crack), **hallucinogens** (mushrooms, LSD), **heroin** and **GHB**⁵. One in ten *lycée* students (9.2%) claimed to have already taken at least one of these substances, with a significant decline in prevalence compared

Figure 2 - Tobacco, alcohol and cannabis use among *lycée* students according to level of education between 2011 and 2015 (%)



Source: ESPAD 2011 and 2015, OFDT.
2011 values in bold font highlight the statistically significant deviations between 2011 and 2015.

5. The ESPAD survey does not provide any data on popper use, but covers inhalants from a more general perspective

to the 2011 survey (12.6%). This decline was mainly driven by the lower lifetime use of amphetamines and hallucinogenic mushrooms. Furthermore, this lifetime use mainly concerns boys (11.0%) rather than girls (7.5%), and students in the vocational schools (12.4%) rather than general schools (7.7%). Cocaine, hallucinogenic mushrooms and ecstasy are still the main substances mentioned, with levels of lifetime use between 3 and 4%. In 2015, 5% of *lycée* students claimed to have already used new substances which imitate the effects of illegal drugs such as cannabis or ecstasy for instance, whereas 6% were unsure as to whether they had already used these substances. In the majority of cases, this involved a herbal smoking mixture. Questions on these **new psychoactive substances (NPS)** were added to the survey for the first time and are now giving rise to difficulties in terms of determining prevalence based on responses to a self-administered printed questionnaire. Each year in fact, these substances are supplied in a greater variety of forms (in total, more than 222 synthe-

tic substances having been distributed in France have been recorded, including 58 new substances in 2014, and 43 in 2015 [6]), and several names may exist for a given compound at any one time. Moreover, although these can be purchased online, they are sometimes sold on the street under a different name, or indeed using the name of the drug they are attempting to imitate. This reality may largely explain the difficulty young people face when answering this question.

Lifetime use of a **tranquilliser** or **sleeping pill** without a medical prescription is reported by 11% of *lycée* students, concerning young girls more so than boys (13.1% *vs.* 8.3%). No changes are observed between 2011 and 2015, nor differences between types of school.

■ Development of regular use during the *lycée* years

Recent cigarette use (at least once in the past 30 days) applies to 33% of teenagers. The *lycée* years have proven to be a period of intensified tobacco smoking, particu-

larly in vocational schools where 33% of students claim to smoke daily, compared to 23% on average. A strong gradient is observed according to level of education: if 19% of *lycée* students smoke every day in the first year, this figure reaches 28% in the third year. Intensive use (more than 10 cigarettes per day) remains limited to less than 5% of *lycée* students; however, students in vocational education are particularly striking, with prevalence almost two times higher than the average (9.1% and 4.9%, respectively).

This intensified tobacco smoking during the *lycée* years is largely related to the highly addictive nature of tobacco which causes use to intensify with duration. This goes hand in hand with the desire for emancipation which develops during the *lycée* years, while there are greater opportunities to smoke, related to a more intense social life (spending time with friends before lessons start, breaks in public areas, more frequent nights out, etc.). In 2015, daily cigarette use reduced by a quarter and intensive use by half, compared to 2011. However, these re-

Table 1 - Psychoactive substance use among *lycée* students in 2015 by gender and type of school (%)

				Gender		Type of school		
		All 2011	All 2015	Boys	Girls	General	Vocational	
		n = 6,048 mean age=17.5	n = 6,642 mean age=17.1	n = 3,321 mean age=17.1	n = 3,321 mean age= 17.1	n = 4,189 mean age=16.9	n = 2,453 mean age=17.4	
Tobacco	Lifetime use ¹	70.4	60.9 *** ↘	59.4	62.3 ns	58.4	66.2 ***	
	Last month: ≥ 1 cigarette	44.0	32.8 *** ↘	31.7	33.8 ns	28.5	41.9 ***	
	Daily: ≥ 1 cigarette/day	30.8	23.2 *** ↘	21.9	24.5 ns	18.4	33.4 ***	
	Intensive: ≥ 10 cigarettes/day	8.3	4.9 *** ↘	4.7	5.0 ns	2.9	9.1 ***	
Shisha	Lifetime use	60.0	47.8 *** ↘	51.0	44.7 ***	45.3	52.9 ***	
	Last month: ≥ 1 time	nd	15.5 na na	18.2	12.9 ***	13.2	20.3 ***	
E-Cigarette	Lifetime use	nd	35.1 na na	38.8	31.4 ***	34.2	36.8 ns	
	Last month: ≥ 1 time	nd	10.0 na na	11.9	8.0 ***	9.5	11.0 ns	
Alcohol	Lifetime use	92.9	86.6 *** ↘	87.6	85.7 ns	88.0	83.6 *	
	Last year: ≥ 1 time	88.6	79.2 *** ↘	81.0	77.5 *	82.1	73.1 ***	
	Last month: ≥ 1 time	75.3	63.9 *** ↘	67.5	60.5 ***	66.1	59.4 *	
	Last month: ≥ 10 times (regular)	21.3	14.8 *** ↘	20.0	9.7 ***	14.2	15.9 ns	
Heavy Episodic Drinking	Last month: ≥ 1 time	52.3	41.5 *** ↘	47.2	35.9 ***	40.5	43.5 ns	
	Last month: ≥ 3 times (repeated)	22.8	16.0 *** ↘	20.4	11.7 ***	14.2	19.8 **	
	Last month: ≥ 10 times (regular)	4.0	2.7 * ↘	4.1	1.5 ***	2.1	4.1 **	
Drunken episodes	Lifetime use	61.4	50.5 *** ↘	55.0	46.1 ***	49.9	51.8 ns	
	Last year: ≥ 1 time	49.4	39.5 *** ↘	44.8	34.4 ***	40.1	38.3 ns	
	Last year: ≥ 3 times (repeated)	24.2	18.2 *** ↘	23.1	13.6 ***	17.7	19.5 ns	
	Last year: ≥ 10 times (regular)	6.7	5.5 ns →	8.5	2.6 ***	4.7	7.4 **	
Cannabis	Lifetime use	48.6	44.0 ** ↘	46.4	41.7 **	43.5	45.2 ns	
	Last year: ≥ 1 time	40.5	35.9 ** ↘	39.6	32.4 ***	36.0	35.8 ns	
	Last month: ≥ 1 time	26.9	22.6 ** ↘	26.6	18.6 ***	22.1	23.5 ns	
	Last month: ≥ 10 times (regular)	8.1	7.7 ns →	10.2	5.2 ***	6.7	9.8 *	
Other illegal drugs ²	Lifetime use	12.6	9.2 *** ↘	11.0	7.5 ***	7.7	12.4 ***	
Tranquilliser or sleeping pill ³	Lifetime use	11.3	10.8 ns →	8.3	13.1 ***	10.8	10.6 ns	

Source: ESPAD 2011 and 2015, OFDT

1. Lifetime use: use at least once in a lifetime / 2. At least one instance of use of one of the following substances: amphetamines, ecstasy, cocaine, crack, hallucinogenic mushrooms, LSD, heroin and GHB / 3. Without a medical prescription / *, **, *** indicate statistically significant differences at a level of 0.05, 0.01 and 0.001, respectively; Rao-Scott Chi² test taking into account the cluster effects (establishment, school year). na: not available / ns: not significant

ductions vary according to the various types of school. Hence, there is a greater decline in daily use in the general education (-29%) than in the vocational education (-17%).

With minimal changes in the lifetime use of alcoholic beverages between the first and third year, from 85% to 91%, the *lycée* years represent more a period of diversified and intensified alcohol use rather than experimentation. Hence, between the end of *collège* and the start of *lycée*, last-month use increased by nearly 20 percentage points, concerning half of students in the first year of *lycée* (55.7%). Regular use (more than 10 times in the last month) doubled (from 10% to 21%) between the first and third year of *lycée*.

At *lycée*, alcohol use tends to be more of a male behaviour: 68% of boys drink at least once a month and 20% drink regularly, compared to 60% and 10% of female *lycée* students, respectively. The differences in level between boys and girls did not change between 2011 and 2015. The *lycée* period is also distinguished by the development of excessive alcohol use, with 41% of student reporting at least one instance of heavy episodic drinking (HED) during the month, and 16% at least three HED in the last month. These alcohol-related behaviours are usually observed among males and are more widespread in the vocational school paths, although the differences compared to the general school path are less apparent than for tobacco smoking. Compared to 2011, levels of alcohol use in 2015 all showed a downward trend. Regular alcohol use and repeated HED fell by 7 percentage points, among both boys and girls.

As regards cannabis, the *lycée* years have shown to be both a period of experimentation and intensified use. In 2015, 6% of students in the first year of *lycée* claimed to have smoked the substance at least ten times in the last month, versus 9% in the final year. Boys still used this substance more than girls, regardless of education level. Regular cannabis use was the only stable indicator over the 2011-2015 period (7.7% vs. 8.1%, non-statistically significant difference). The levels of lifetime use, last-year use and last-month use have declined overall, except among final-year students who show stable level of use.

Conclusion

Two trends emerge from examination of these preliminary results. Firstly, a marked decline in use is observed among students in the first and second year of *lycée*. However, according to the second observation, this decline does not continue among students in the final year of *lycée*, whose levels match those reported in 2011. Ultimately, a downward trend in use is generally observed, notably excluding regular cannabis use which has remained stable. The factors for this maintained level of use among older students have yet to be explored, particularly since this could seem paradoxical with regard to the approaching end-of-year exams (part of the survey took place in May and early June). The reduction in the lifetime use of tobacco and alcohol currently observed among *lycée* students reflects the findings reported among *collège* pupils in 2014 [2], confirming the later occurrence of lifetime use. These recent developments in the adolescent population could result from the waning tolerance with regard to tobacco and alcohol use among young people, said to be prompted, in addition to the legislative measures taken to limit access to substances, by changes in adult behaviour in terms of use [7], particularly among new generations of parents more aware of the risks related to tobacco and alcohol use.

Furthermore, the higher levels of tobacco use, measured among students in the vocational education path, should be compared with the findings reported in segments of the adult population having followed the same vocational education, among whom tobacco smoking and alcohol use appear to be more apparent compared to other socio-professional categories [8]. The latter point implies that different educational contexts should be taken into account in prevention action, particularly at *lycée* where teaching contexts can vary considerably according to the main types of school. Lastly, it should be pointed out that this downturn in use among young French people is a trend observed in most of the European countries having taken part in the 2015 ESPAD survey [9].

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Credits

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After data cleansing, the final sample included 6,642 *lycée* students (with 50.6% girls). The data were rectified to offset non-responses and to guarantee representativeness according to gender, age, class, sector (private/public) and school type (vocational or general education). Note that several works have already been published based on the 2015 ESPAD survey data described herein, concerning *lycée* student exposure to alcohol marketing campaigns [10], together with access to and purchasing of cigarettes [11]. These preliminary analyses will be supplemented by new studies notably on gender and online gaming in 2017. It should also be noted that the results obtained for overseas *lycée* students are still undergoing analysis. For more information on the ESPAD survey in France: <http://www.ofdt.fr/enquetes-et-dispositifs/espad/>.

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