

Drug use in 17-year-olds: analysis of the ESCAPAD survey

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Issue 100 of "Tendances" takes a look back at 15 years of monitoring of psychoactive substance use in late adolescence.



Set up in 2000 by the French Monitoring Centre for Drugs and Drug Addiction (OFDT) in partnership with the National Service Directorate (DSN), the ESCAPAD survey has made a significant contribution to the monitoring of psychoactive substance use in the general population. By focusing on late adolescence, for the past 15 years it has been providing information on a crucial period for these types of behaviours. In addition, the repeated nature of the survey makes it a useful tool for understanding changing trends in drug-related and addictive behaviours in adolescents.

From 17 to 21 March 2014, the eighth ESCAPAD survey was conducted, with 26,351 French adolescents questioned about their health and their use of psychoactive substances.

Issue 100 of *Tendances* ("Trends") presents the changing trends in the use of psychoactive substances (both legal and illegal) over the past fifteen years in mainland France, incorporating 2014 data on alcoholic beverage, tobacco and cannabis use. It then examines, from a variety of perspectives, new questions concerning the use of e-cigarettes, shisha, the evolution in regular polydrug use and offers an

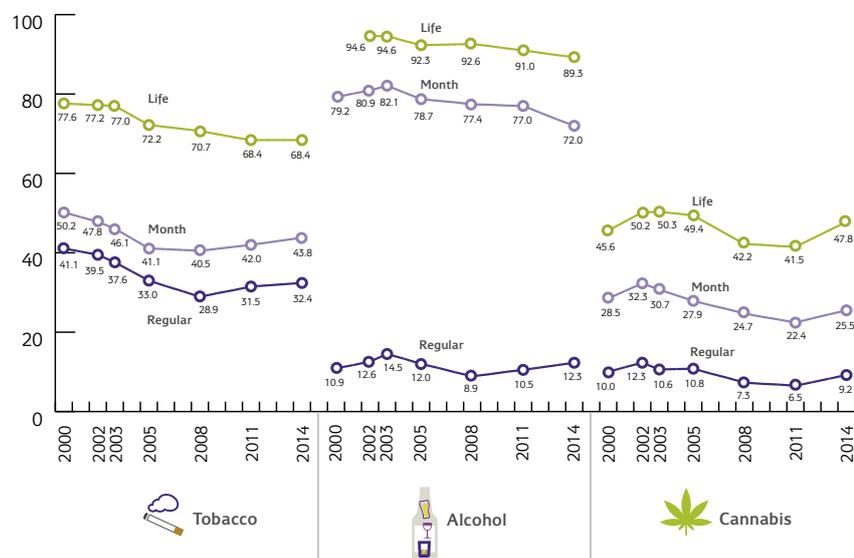
estimate of the proportion of cannabis users who are potentially dependent. The last section covers the social and family factors associated with regular use.

■ The main trends over the past fifteen years

Lifetime use

Figure 1 presents the trends for the main three substances in widespread use among 17-year-olds in mainland France since 2000. The hierarchy of substances most subject to lifetime use has not changed

Figure 1 - Trends in levels of tobacco, alcoholic beverage and cannabis use by 17-year-olds in mainland France since 2000 (in %)



Source: ESCAPAD surveys - OFDT

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100

over the period, with alcohol coming far in front, followed by tobacco then cannabis, the leading illegal substance used among adolescents. Hence, in 2014, almost 9 out of ten 17-year-olds had already drunk alcohol (89.3%), almost 7 out of 10 had already smoked a cigarette (68.4%) and just under 5 out of 10 had smoked cannabis at least once in their life (47.8%). A little under half (45.2%) had tried all three substances, whereas, in contrast, 8.0% had never used any of these substances.

While tobacco lifetime use is more common in girls (70.1% vs. 66.8%), initiation of alcohol and cannabis use is more frequent in boys, with 90.2% and 49.8% respectively vs. 88.3% and 45.8% for girls (figure 2).

For the past fifteen years, the levels of tobacco and alcohol lifetime use have been falling steadily, with a drop of 9 and 5 points, respectively, between 2000 and 2014. The evolution of cannabis use, on the other hand, is shown to be irregular. After an initial period of increase, reaching its highest level in 2003 (50.3%), the percentages began to fall markedly until 2011, when lifetime use reached its lowest level (41.5%). The more recent period, 2011–2014, corresponds to a marked increase (by more than 6 points), concerning both girls and boys in comparable proportions (49.8% vs. 44.0% for boys and 45.8% vs. 38.9% among girls). In 2014, lifetime use nonetheless remained lower than in 2003 (47.8% vs. 50.3%). While the level of lifetime use among boys is at a similar level to that in 2000 (50.1%), the level for girls is now higher (45.8% vs. 40.9% in 2000).

Regular use

The steady fall in alcohol and tobacco lifetime use over the past fifteen years has not led to an identical downward trend in regular use. Daily smoking rates, which fell substantially between 2000 and 2008, from 41.1% to 28.9%, have

2000, the first ESCAPAD survey

From the outset, for the survey designers and the OFDT Scientific Committee, the aim was to implement an ongoing scientific survey in order to regularly monitor the evolution in psychoactive substance use during adolescence. The first large-scale quantitative survey conducted in mainland France, ESCAPAD was designed to address the lack of epidemiological data in this field in France. While France had been lagging far behind some other European countries – particularly English-speaking ones – at the start of the 2000s, the survey mechanism progressively implemented is now one of the most comprehensive in Europe. Two other periodic surveys have been introduced in addition to ESCAPAD since this date: the French section of the Health Behaviour in School-aged Children (HBSC) survey, conducted among *collège* pupils (lower secondary school for children aged 11 to 15), and the European School Survey Project on Alcohol and Other Drugs (ESPAD), which examines *lycée* (high school or sixth-form college) students, together making it possible to monitor the use of various substances in adolescents from 11 to 18 years old.

In the preface of the first survey report, in December 2000, Professor Roger Henrion, the first President of the OFDT Scientific Committee, wrote: *“At least we will now have access in France to a general population survey that is reproducible from one year to the next, which will provide us with basic information on size and weight and allow us to monitor the evolution of psychoactive substance use, rapidly detect the emergence of new substances and, finally, gather the opinions of French youngsters on their health, at the lowest possible cost. It will complement the surveys conducted in partnership with the INSERM (French National Institute of Health and Medical Research) in the school environment and with the Comité français d’éducation pour la santé (French Committee for Health Education)”,* which subsequently became the INPES, National Institute for Prevention and Health Education (note for readers).

been rising again since 2008. Between 2011 and 2014, daily use continued to increase very slightly, from 31.5% to 32.4%. This rise is primarily a result of increased daily use among girls, with the prevalence of this increasing from 30.2% to 31.9%, while it has remained stable, at 33.0%, for boys. As was observed in the early 2000s, the levels of daily smoking do not differ between boys and girls in late adolescence.

At present, this trend does not contradict a less heavy tobacco smoking "model" for girls, in terms of the number of cigarettes smoked: smoking of more than 10 cigarettes/day is still much less common among adolescent girls than boys (6.1% vs. 9.3%). Furthermore, this recent rise in daily smoking in girls does not call into question the overall decrease measured since the start of the decade, with the 2014 level remaining 7 points low-

er than in 2000. Finally, the increase in daily smoking since 2005 has not modified the proportion of heavy smokers (more than 10 cigarettes per day), which remained stable over the period 2005–2014, at around 11%.

The levels of regular alcohol use have evolved in three successive phases: a period of increasing use between 2000 and 2003, followed by a decrease for 5 years then a further increase from 2008. In 2014, 12.3% of respondents regularly drank alcohol, with boys more frequently concerned than girls, once again: 17.5% versus 6.8%. The 2-point increase since 2011 (10.5%) is seen in comparable proportions in girls and boys (6.8% vs. 5.6% for girls and 17.5% vs. 15.2% among boys). However, daily alcoholic beverage use still remains exceptional, with fewer than 2% of 17-year-olds reporting daily use.

In contrast with what is observed for tobacco and alcohol, the curve for regular cannabis use presents strong similarities with the curve for lifetime use. The rise in regular use levels in the early 2000s was followed by a marked decrease until 2011, followed by an increase by more than 2 points in 2014 (i.e. a relative increase of 40% between these two dates). As with alcohol, regular use is a primarily male phenomenon (12.5%), only concerning 1 in 20 17-year-old girls (5.8%). However, although the level remains moderate, the increase among girls reveals a much higher relative rise than among boys between 2011 and 2014, at 70% and 30% respectively. Finally, daily cannabis use, levels of which have changed little over the past fifteen years, also increased between 2011 and 2014: 4.0% vs. 3.0% in 2011.

Main indicators use

Lifetime use: use at least once in a lifetime.

Use in the last year: use at least once during the past 12 months.

Use in the last month: use at least once during the past 30 days.

Regular use: use at least 10 times during the past 30 days (term sometimes used for daily smoking).

Daily use: use at least once daily during the past 30 days.

For drunken episodes, these indicators are slightly different:

drunken episode in the last year: at least one drunken episode in the last year.

repeated drunken episodes: at least 3 drunken episodes in the last year.

regular drunken episodes: at least 10 drunken episodes in the last year.

For heavy episodic drinking (HED i.e. stated having drunk at least 5 glasses on a single occasion):

HED in the last month: at least once during the past 30 days.

repeated HED: at least 3 times during the past 30 days.

regular HED: at least 10 times during the past 30 days.

The analysis may occasionally use other indicators for the frequency of use in a lifetime; in this case, their definition is specified.

Lifetime use of other illegal or diverted substances

Between 2000 and 2014, levels of lifetime use of illegal psychoactive substances other than cannabis increased in different proportions and at different rates depending on the substance groups considered (figure 3). However, the levels always remained below 4%, with the exception of diverted substances, such as poppers and inhalants, for which lifetime use levels sharply increased in a short period of time (13.7% in 2008 for poppers, for example). It should be noted that boys and girls present comparable prevalence rates for poppers, inhalants, cocaine, heroin and crack.

Substances can be divided into different groups, depending on the trend profiles:

- A first group concerns stimulant substances (cocaine, MDMA/ecstasy and amphetamines), for which use has trebled over the past fifteen years. It is important, however, to differentiate MDMA/ecstasy lifetime use, which presents a very specific profile: after a marked rise in the early 2000s, lifetime use fell again just as sharply, reaching its lowest level in 2011 (1.9%) and then rising significantly again to the peak already reached in 2003 (3.8%), i.e. variations ranging from one-fold to two-fold over the period as a whole.

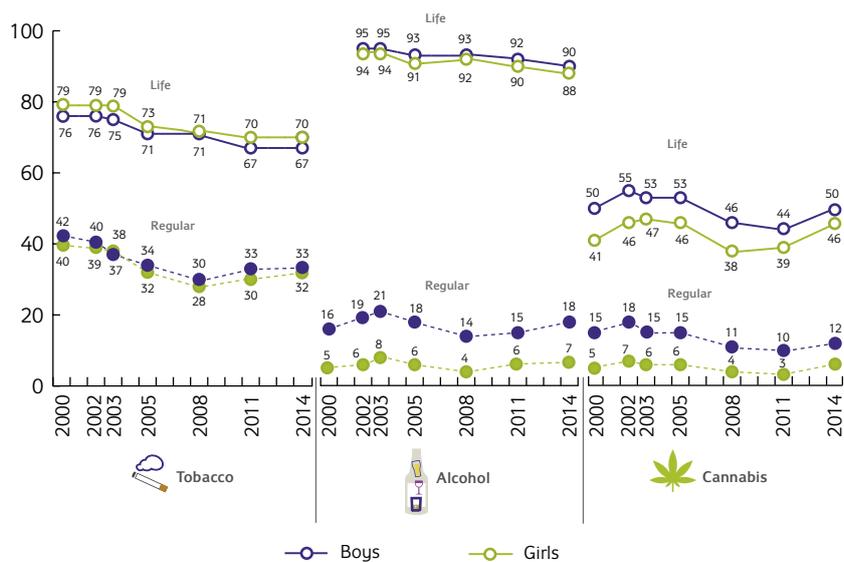
- A second group of substances (LSD, heroin and crack), for which lifetime use is very rare, presents a profile that is stable overall throughout the period, with very low levels, of 1.6%, 1.0% and 1.1%, respectively.

For hallucinogenic mushrooms, the levels, at between 3 and 4%, have remained relatively constant over the past fifteen years.

For poppers or inhalants (glues, solvents, etc.), generally misused from their primary use, the lifetime use levels fell in 2014, very significantly for poppers (5.4% vs. 9.0% in 2011), whereas, due to lower lifetime use rates in 2014 (4.3% vs. 5.5% in 2011), inhalants returned to their 2003 level (4.4%); they nonetheless remain the two substances most frequently tried after cannabis.

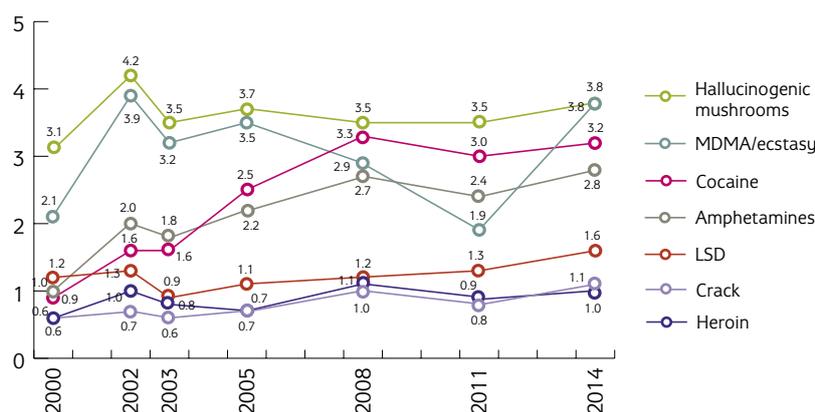
At the age of 17, the vast majority of adolescents who have used one of these substances did not go further than lifetime use. For hallucinogenic mushrooms, in particular, 76% of lifetime users had only used once, with the proportion being around 60% for the other substances. Hence 17-year-olds going beyond the initiation stage with these substances are very much in the minority: irrespective of the substance considered, fewer than 1% of adolescents declare that they have used them more than 5 times.

Figure 2 - Trends in levels of tobacco, alcoholic beverage and cannabis use by 17-year-olds, by gender, in mainland France since 2000 (in %)



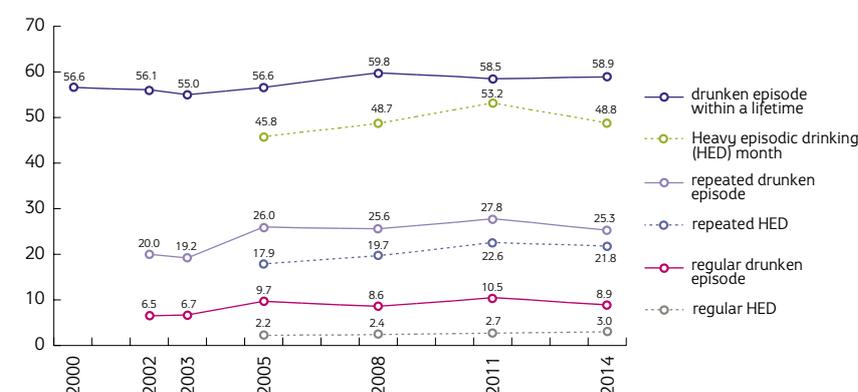
Source: ESCAPAD surveys - OFDT

Figure 3 - Trends in lifetime use of the main illegal drugs by 17-year-olds in mainland France since 2000 (in %)



Source: ESCAPAD surveys - OFDT

Figure 4 - Trends in drunken episodes in 17-year-olds in mainland France since 2000 (in %)



Source: ESCAPAD surveys - OFDT

Psychoactive medicine

There was an upward trend in lifetime use of psychoactive medicine in adolescents between 2011 and 2014¹. This was the case for anxiolytics and hypnotics in particular, with this rise following a fall observed between 2008 (year when the question was introduced into the survey) and 2011. However, antidepressant use is shown to be relatively stable since 2008. It should be highlighted that anxiolytic prescriptions appear to be higher in

France than in other European countries (Kovess *et al.*, 2015). As in the adult population, psychoactive medicine use is almost twice as common among girls, irrespective of the psychotropic medicine category (Beck *et al.*, 2014; Inserm, 2012). In addition, tranquilisers present the specific feature of being medications for which use is most often repeated: 4.2% of adolescent girls state that they have taken them more than ten times in their life, with the rate being 2.0% for sleeping pills and 1.5% for antidepressants).

Ritalin², in contrast, remains the only medication taken more frequently by boys (1.4% vs. 0.7% in girls).

1. In 2014, 3 classes of medications were kept in the survey out of the 5 present in 2011: tranquilisers, antidepressants and sleeping pills. The questions concerning Ritalin and phytotherapy (herbal medicines) were also kept.

2. Ritalin (active substance: methylphenidate) is a psychostimulant medication initially used to treat narcolepsy, but it is now most commonly used to treat attention deficit hyperactivity disorder.

Table 1- Levels of psychoactive substance use, by gender, among 17-year-olds in mainland France in 2014 (%)

		Boys 2014	Girls 2014	Sex ratio 2014		All 2011	All 2014	Change from 2011 to 2014
Tobacco	Lifetime use	66.8	70.1	0.95	***	68.4	68.4	→
	In the last month	43.2	44.4	0.97	ns	42.0	43.8	↗
	In the last month: <1 cig/day	10.2	12.6	0.81	***	10.5	11.3	↗
	Daily: >1 cig/day	33.0	31.9	1.04	ns	31.5	32.4	↗
	Heavy: >10 cig/day	9.3	6.1	1.53	***	7.7	7.7	→
Alcohol	Lifetime use	90.2	88.3	1.02	***	91.0	89.3	↘
	In the last month: ≥1 time	76.2	67.6	1.13	***	77.0	72.0	↘
	In the last month: >10 times (regular)	17.5	6.8	2.58	***	10.5	12.3	↗
	In the last month: >30 or daily	2.9	0.6	4.82	***	0.9	1.8	↗
Drunken episodes	Lifetime use	63.8	53.8	1.18	***	58.5	58.9	→
	In the last year: ≥1 time	55.2	42.7	1.29	***	50.3	49.0	↘
	In the last year: >3 (repeated)	32.1	18.3	1.75	***	27.8	25.3	↘
	In the last year: >10 (regular)	13.0	4.7	2.79	***	10.5	8.9	↘
Heavy episodic drinking (at least 5 glasses on one occasion)	In the last month: >1 time	54.6	42.9	1.27	***	53.2	48.8	↘
	In the last month: >3 times (repeated)	28.3	15.2	1.86	***	22.6	21.8	↘
	In the last month: >10 times (regular)	4.7	1.3	3.66	***	2.7	3.0	→
Cannabis	Lifetime use	49.8	45.8	1.09	***	41.5	47.8	↗
	In the last year: ≥1 time	41.1	35.3	1.17	***	34.6	38.2	↗
	In the last month: ≥1 time	29.1	21.9	1.33	***	22.4	25.5	↗
	In the last month: >10 times (regular)	12.5	5.8	2.16	***	6.5	9.2	↗
	In the last month: >30 or daily	5.6	2.3	2.47	***	3.0	4.0	↗
Poppers	Lifetime use	5.7	5.2	1.10	ns	9.0	5.4	↘
Inhalants	Lifetime use	4.2	4.3	0.97	ns	5.5	4.3	↘
Hallucinogenic mushrooms	Lifetime use	5.0	2.7	1.85	***	3.5	3.8	→
MDMA/ecstasy	Lifetime use	4.2	3.5	1.20	*	1.9	3.8	↗
Cocaine	Lifetime use	3.2	3.3	0.96	ns	3.0	3.2	→
Amphetamines	Lifetime use	3.2	2.3	1.38	***	2.4	2.8	↗
LSD	Lifetime use	1.9	1.3	1.48	***	1.3	1.6	↗
Crack	Lifetime use	1.0	1.1	0.95	ns	0.8	1.1	↗
Heroin	Lifetime use	1.0	1.0	1.02	ns	0.9	1.0	→

Source: ESCAPAD 2011, 2014; OFDT

Key: ns: not significant; *: p<0.05; **: p<0.001; ***: p<0.0001 (the comparison test is a Pearson chi-square test)

Table 2 - Lifetime use of psychoactive medicine, by gender, among 17-year-olds in 2014 (%)

		Boys 2014	Girls 2014	Sex ratio 2014		All 2008	All 2011	All 2014	Change from 2011 to 2014
Psychoactive medicine	Lifetime use	19.3	30.0	0.64	***	26.9	21.7	24.6	↗
Tranquilisers	Lifetime use	11.5	20.3	0.57	***	18.4	15.0	15.8	↗
Sleeping pills	Lifetime use	10.6	14.7	0.72	***	14.6	10.7	12.6	↗
Antidepressants	Lifetime use	3.9	7.8	0.50	***	7.2	5.6	5.8	→
Phytotherapy/Homeopathy	Lifetime use	16.9	36.9	0.46	***	30.4	30.3	26.7	↘

Source: ESCAPAD 2008, 2011 and 2014; OFDT

First-time ages

The sequence of lifetime uses of substances has remained unchanged since 2000³: after tobacco lifetime use at an average age of 14 comes the start of daily smoking (14.9 years) then, at a little over the age of 15, cannabis and the first drunken episode. The first contacts with tobacco (14.0 years) and cannabis (15.3 years) have fluctuated since 2000, in contrast with the age of the first drunken episode, which appears to have been very stable over the period (mean lifetime use age ranging from 15.1 to 15.3 depending on the years). Following a fall in the average age at initiation up until 2005, reflecting greater precocity, the trend has been reversed. Over the decade as a whole, the age of progression to daily smoking has been increasingly delayed, despite a very slight decrease in the average age observed in 2014 for the first time (14.9 vs. 15.0 in 2011). In addition, since 2011, progression to daily smoking has been greatly accelerated. At present, less than a year elapses, on average, between the first cigarette and potential daily smoking behaviour (in 2003, the average length of time was a year and a half).

Changes in the patterns of alcohol use

In parallel with trends in alcohol use frequency, the survey makes it possible to analyse changes in the patterns of alcohol use or ages at initiation. Monitoring of the evolution in drunken episodes since 2002 and of heavy episodic drinking (HED) since 2005 has thus demonstrated different evolution profiles from that of regular alcohol use (figure 4). Drunken episodes, following a period of sharp increases, have stabilised since 2005, only fluctuating very slightly: in 2014, 58.9% of adolescents reported that they had already been drunk at least once in their life and over a quarter (25.3%) had experienced at least three drunken episodes in the last 12 months. These behaviours remain much more common in boys, with 32.1% of boys vs. 18.3% of girls (table 1).

For HED, the levels rose constantly until 2011, before falling back substantially between 2011 and 2014. Now, HED episodes in the last month are shared by less than half of 17-year-olds: 48.8% vs. 53.2% in 2011. Repeated HED (at least three episodes in the last month) has also fallen slightly, from 22.6% to 21.8 between 2011 and 2014, it should nonetheless be recalled that the level

was 17.9% in 2005. However, regular HED (at least ten episodes in the last month) appears to be increasing steadily (3.0% in 2014 vs. 2.2% in 2005). In 2014, there were still more boys than girls who had drunk 5 or more glasses on a single occasion in the past month (54.6% and 42.9% among the girls) (table 1). This differential is further accentuated with repeated or regular HED (i.e. 28.3% among boys vs. 15.2% in girls for the former and 4.7% vs. 1.3% for the latter).

HED behaviour remains much more common among regular alcoholic beverage users: in 2014, 95.3% of them reported at least one HED episode over the past month. However, the proportion of occasional drinkers (i.e. adolescents who say they have only drunk alcohol once or twice in the 30 days prior to the survey) reporting a HED episode in the past month is also high and has been increasing constantly since 2005, rising from 30.7% to 37.5% in 2008, then from 43.9% in 2011 to 45.4% in 2014. The same trend is observed, but in much lower proportions, among regular alcohol users, for whom the levels have risen from 92.3% to 95.3%. In 2014, the last HED episode in the month preceding the survey occurred, for 89.4% of cases, at a weekend evening get-together with friends. Conversely, having drunk alone at the last HED episode remains rare (1.2%). Finally, it should be highlighted that, in one in ten cases (9.7% of cases), this HED episode occurred in the presence of parents: this practice, though in the minority, nonetheless appears to be high.

■ Focus on...

This survey makes it possible to analyse new behaviours, or behaviours that have been little explored to date.

Use of e-cigarettes among adolescents

With the phenomenon of electronic cigarettes having emerged in recent years, seducing numerous adults – primarily smokers –, it appeared essential to measure its use in the adolescent population. In the ESCAPAD survey, almost 1 in 2 young people stated that they had already used an electronic cigarette at least once in their life, with more boys (56.4%) being concerned than girls (49.9%). At the time of the survey, more than a third of the adolescents had repeated the experience several times and 1 in 7 had already done it more than 10 times in their life. As with tobacco and psychoactive substances as a whole, the differences between girls and boys are accentuated as use intensifies. In addition, girls are more often simply lifetime users: 17.8% state they have only done it once, compared to 13.8% in boys.

Daily e-cigarette use concerns 2.5% of 17-year-old adolescents, with boys being concerned more often than girls once more: 3.1% vs. 1.8%. Furthermore, the link between e-cigarette use and tobacco use is shown to be high: 30.6% of daily vapers declare that they also smoke more than 10 cigarettes per day, whereas this is only the case for 23.3% of other e-cigarette users. The latter point might suggest that among the adolescent population, electronic cigarettes are more of a complement for “heavy smokers” than a substitute (Spilka *et al.*, 2015).

Shisha or hookah use also appears to have been growing among adolescents over the past few years. Almost 2 out of 3 young people have already tried shisha (64.7%), with slightly more boys than girls having experimented (66.1% and 63.2% respectively). In addition, fewer girls than boys are regular users (at least 10 times in their life): 18.3% vs. 32.1% for boys.

Problem cannabis use

Raising people's awareness of the detrimental effects of frequent cannabis use and establishing (early) detection of adolescents liable to present problem use or addiction has shown to be very important (Inserm, 2014).

Today, the latest studies agree on the health dangers associated with frequent cannabis use, particularly when this use started early in adolescence and when cannabis is smoked in high quantities. In the short term, this type of cannabis use can cause immediate attention and memory problems liable to lead to learning difficulties; impair coordination and reflexes, which can increase the risks of accidents (physical, road accidents, etc.); impair judgement and increase risky sexual behaviours, for example; promote psychosis and episodes of paranoia following high cannabis doses.

In addition, longer term cannabis use, again of high quantities, can cause addiction, impair a person's cognitive and neurological development, exacerbate the risks of developing psychotic disorders in predisposed individuals and, more generally, impair quality of life (poorer social links, greater difficulties at school, greater economic vulnerability, etc.) (Volkow *et al.*, 2014).

3. Given the age of the adolescents, the ESCAPAD survey does not question them on the age at initiation of alcohol, which remains the substance that is tried the most early on: at 11 years old, more than half of young people report that they have already drunk alcohol (Godeau *et al.* 2012).

Problem cannabis use

To better identify and evaluate problem cannabis use, the OFDT has developed a screening instrument, the Cannabis Abuse Screening Test (CAST), on the basis of the main criteria for determining abuse and harmful use drawn from DSM-V (Diagnostic and Statistical Manual of Mental Disorders, 5th edition) and ICD 10 (International Classification of Diseases - 10th version) diagnoses. The objective is to provide a description of problem uses, irrespective of use frequency, on the basis of general population surveys in France (Beck and Legleye, 2008). With the support of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), the CAST has become established as the reference test in European surveys among adolescents, particularly in the context of the ESPAD survey, which has been using it as an optional module in its questionnaire since 2007 (Hibell *et al.*, 2008). France has been using the CAST tool in ESCAPAD since 2003, and since 2011 in its current version. The CAST test is easy to administer, contains six questions and is divid-

ed into two stages. If a person answers “yes” to the question “Have you smoked cannabis in the last 12 months?” they are then asked to complete the test. In 2014, 38.2% of 17-year-olds reported they had smoked cannabis in the last year, 41.1% among boys and 35.3% among girls. Among these last year users (n=7,935), 7,374 (93.0%) completed the CAST test (Spilka *et al.*, 2014).

The event the most often reported by cannabis users in the past year is “have smoked cannabis before midday”, with 42% of them stating that they had already done so at least once in the past year. Then came “have smoked cannabis alone” and “have experienced memory problems”, cited by 29.3% and 25.9% of users respectively. The other three situations (“had problems such as arguments, fights, accidents, etc.”; “have tried to reduce or stop cannabis use, without success”; “have had comments from friends or family members”), are reported by barely 1 adolescent in 5. However, when these events occurred, the one most often repeated in the last year concerns comments by friends and family. Among those whose friends or family had made comments, almost half (44.5%) declared that this had been the case fairly or very

often. In comparison, 44.1% of users have only smoked cannabis before midday rarely and only one in four have done so fairly or very often.

To calculate the score, the questions are equivalent and the responses are coded on a scale of 0 to 4. Depending on the total obtained, which ranges from 0 to 24, users will be considered to be not at risk if they present a score of under 3, low-risk if the score is greater than or equal to 3 and less than 7 and, finally, at high risk of problem use for a score of greater than or equal to 7 (Legleye *et al.*, 2013).

According to this score, in 2014 one in 4 boys who had smoked cannabis in the last year were at high risk of problem use or cannabis addiction (25.7% vs. 17.3% for girls). In total, among the adolescents who have used cannabis in the past year, 21.9% present a high risk of problem cannabis use, i.e. a problem use prevalence of 8.4% in the population surveyed. This proportion seems to be on the rise compared to 2011 when 17.8% of last year users were at high risk (22.8% for boys vs. 12.8% for girls).

Regular polydrug use

The description of regular psychoactive substance use can be supplemented by observation of regular polydrug use, which, here, means cross-use or cumulative use of at least two regular uses of alcohol, tobacco or cannabis⁴. In the ESCAPAD survey, polydrug use is therefore a cumulative measurement of regular uses; it does not imply that these uses took place at the same time or on the same occasion.

In 2014, regular polydrug use of alcohol, tobacco or cannabis concerned 12.8% of adolescents (figure 5). Like regular uses, regular polydrug use is also a male phenomenon (17.1% of boys and 8.4% of 17-year-old girls in 2014). Cumulative regular tobacco and cannabis use is more widespread (5.0%), slightly ahead of cumulative regular tobacco and alcohol use (4.5%). However, regular alcohol and cannabis use without daily tobacco use is very rare (0.4% of adolescents). Finally, cumulative regular use of the three substances concerns 3.0% of 17-year-olds.

Regular use of only one of these three substances (exclusive regular use) concerns 24.1% of adolescents, 80% of whom are daily tobacco users, with exclusive tobacco and alcohol use levels being much lower (0.8% in the case of cannabis and 4.1% in the case of alcohol).

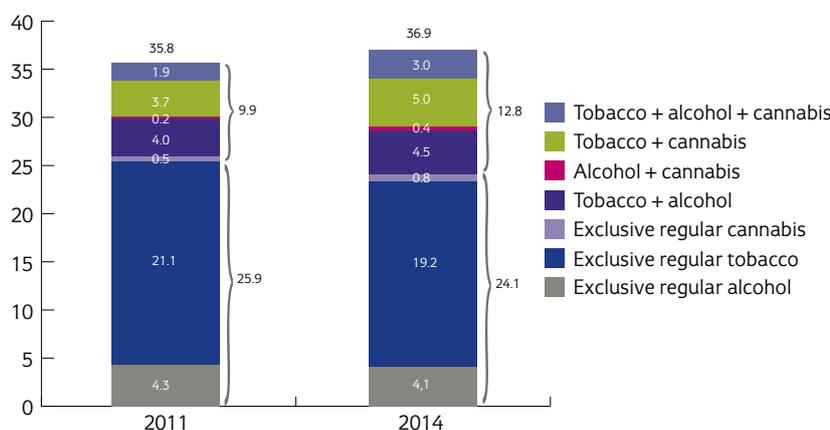
Between 2011 and 2014, regular polydrug use rose by 2.9 points. In parallel, the proportion of exclusive regular use

New psychoactive substances

A question concerning the use of substances that “imitate the effects of a drug, such as synthetic cannabis, mephedrone, methoxetamine or another substance”, more commonly known as new psychoactive substances (NPS) and often sold on the Internet, was included in the 2014 survey. Respondents were also asked to specify which substance they had used.

A total of 1.7% of 17-year-olds stated they had already taken a substance imitating the effects of a drug. Only 0.7% specified which substance it was - primarily a synthetic cannabinoid -, while the others did not, without it being possible to know why. The predominance of synthetic cannabinoids raises the question of a possible link between cannabis use and NPS lifetime use. In addition, boys prove to be users of NPS more often than girls (2.2% vs. 1.3%). Differences are also observed according to school status. Hence 1.6% of school pupils or students have already used an NPS, whereas 2.3% of young people in apprenticeships and 2.0% of young people who left the school system report this use.

Figure 5 - Regular polydrug use of tobacco, alcohol and cannabis



Source: ESCAPAD 2011, 2014 - OFDT

4. Polydrug use is not limited to these three substances. More qualitative approaches have been shown to be more suitable for studying other forms of polydrug use involving illegal drugs other than cannabis.

ers felt (-1.8 point). This concentration of regular use has become more pronounced among young girls, with poly-drug use increasing by practically half in 2011, from 5.8% to 8.4%. In boys, there was a less marked increase of only a quarter, from 13.9% to 17.1%. While the proportion of adolescents regularly using at least one of the substances (tobacco, alcohol or cannabis) increased between 2011 and 2014, from 35.8% to 36.9%, these regular uses also appear to be more often combined.

■ Related factors

The most significant sociodemographic factors during adolescence were analysed for the few major use profiles (regular alcohol, tobacco and cannabis use, repeated HED). Other factors may also exist.

Being male appears to have a strong influence (except in the case of tobacco), as does family composition (youngsters from reconstituted or single-parent families more often presenting regular use) and belonging to an economically-privileged family environment. Schooling situation and educational pathways also appear to be closely linked to legal and illegal psychoactive substance use. Young people

in apprenticeships or having left the school system are more numerous than school pupils, college or higher education students to report that they smoke daily, regularly drink alcohol, have experienced repeated HED episodes or smoke cannabis. For smoking, in particular, those having left the school system are proportionally twice as numerous to report daily smoking (59.9% vs. 28.9% among school pupils or students). The family's economic capital, assessed here on the basis of the highest occupation and socio-professional category within the parental couple, also appears to be strongly linked to these uses. Children from the most privileged or, conversely, under-privileged backgrounds report more regular tobacco or cannabis use (respectively 35.8% and 36.2% for tobacco vs. 32.4% overall, and 11.1% and 11.0% for cannabis vs. 9.2% overall). Adolescents whose parents are separated also present higher use levels than others. Finally, while place of residence and, more specifically, size of town, appears to play a role, this role differs depending on substances. Young people living in a rural area (fewer than 2,000 inhabitants) for example, have regular alcohol use levels that are higher than those living in large cities (> 200,000 inhabitants) (14.7% compared to 9.9%), and the same is true for smoking. How-

ever, the ratio is reversed for regular cannabis use (7.7% vs. 9.2%).

These results do not take into account all the characteristics of the individuals taken simultaneously. To jointly monitor the effects of all the variables in order to provide an estimation of the relationships between each one, a multivariate logistic regression was performed for each indicator ("OR" columns). In this regression, the link with gender is confirmed for regular alcohol use (OR = 2.8, $p < 0.001$), repeated HED and regular cannabis use. Likewise, taking into account the other variables, apprentices and working young people are revealed to be more likely to be regular users than school pupils and students. The link between family socio-economic capital and use is broadly maintained: all other things being equal, children from highly privileged backgrounds are bigger tobacco, alcohol and cannabis users. The link observed here is the reverse of that generally measured in the adult population. This is particularly true for tobacco smoking, which, in adults, increases inversely with social level (Peretti-Watel *et al.*, 2009). In addition, the social stratification characterised by the occupations and socio-professional categories of the parents is shown to have less influence than the school situation during adolescence. The fact of being an apprentice or

Table 3 - Factors associated with the main indicators of use among 17-year-olds

Associated factors	Responses n %	Daily tobacco		Regular alcohol		Repeated HED		Regular cannabis	
		%	OR	%	OR	%	OR	%	OR
Gender	Girls (48.9)	31.9	ref	6.78	ref	15.2	ref	5.77	ref
	Boys (51.1)	33.0	1.0	17.5	2.8 ***	28.3	2.1 ***	12.5	2.2 ***
Schooling	Students/Pupils (86.1)	28.9	ref	11.2	ref	20.3	ref	8.0	ref
	Apprenticeship (9.7)	52.0	2.5 ***	21.2	1.7 ***	34.5	1.7 ***	14.7	1.6 ***
	Working and other (4.2)	59.9	3.5 ***	13.8	1.2	25.4	1.3 *	21.3	2.7 ***
Type of family ¹	Nuclear family (66.0)	28.2	ref	12.0	ref	20.9	ref	7.3	ref
	Reconstituted family (10.6)	42.6	1.8 ***	12.9	1.2 *	24.4	1.3 ***	13.3	1.9 ***
	Single-parent and other family (23.4)	38.9	1.6 ***	12.5	1.2 *	23.3	1.3 ***	12.7	1.8 ***
Professional activity of parents ²	Both parents work (65.0)	31.3	ref	13.1	ref	23.2	ref	8.7	ref
	only 1 parent works (29.2)	34.3	0.9	11.1	0.8 **	20.1	0.8 ***	9.7	0.9 *
	No activity (5.8)	34.1	0.8 **	7.7	0.5 ***	14.4	0.5 ***	10.2	0.8 *
Highest profession of parents ³	Very privileged (7.4)	35.8	ref	13.4	ref	22.7	ref	11.1	ref
	Privileged (28.4)	34.1	0.9	11.8	0.9	22.0	0.9	9.6	0.8 *
	Intermediate (23.4)	29.0	0.8 **	13.5	1.0	23.8	1.0	8.3	0.8 *
	Modest (32.9)	31.8	0.8 ***	11.3	0.8 *	20.1	0.7 ***	8.5	0.7 **
Type of town ⁴	Under-privileged (8.0)	36.2	0.8 *	13.3	0.8 *	21.6	0.7 *	11.0	0.7 *
	Town [200,000 inhabitants and over] (42.2)	29.8	ref	9.9	ref	18.5	ref	9.2	ref
	Town [20,000 inhab.; 200,000 inhab.] (22.2)	33.7	1.1 **	12.2	1.3 ***	22.4	1.3 ***	10.1	1.1
	Town [2,000 inhab.; 20,000 inhab.] (26.1)	34.1	1.1 *	14.7	1.6 ***	25.2	1.5 ***	8.0	0.8 *
Rural <2,000 inhabitants (9.6)	32.8	1.1	14.7	1.5 ***	25.2	1.4 ***	7.7	0.8 *	

Source: ESCAPAD, 2014; OFDT

Key: ***: $p < 0.001$; **: $p < 0.01$; *: $p < 0.05$; *: not significant

1: Nuclear family = family composed of an adult couple, married or otherwise, and one or more of their own biological (or adopted) children, living together; Reconstituted family = composed of two parents, at least one of whom is not a biological relative (step-father/mother, grandparents, etc.); single-parent/other = home with only one biological parent, with other corresponding to children living in a children's home, for example.

2: No activity: seeking work, no professional activity, incapacity, retired.

3: Evaluated on the basis of the occupations and socio-professional categories of the parents: Very privileged (both parents are managers or entrepreneurs or skilled tradespeople), Privileged (at least one of the parents is a manager, entrepreneur or skilled tradesperson), Intermediate (at least one of the two is in an intermediate profession or a farmer), Modest (at least one of the two parents is an employee or manual worker), Under-privileged (no profession specified). Comment: these categories are based on the information given by the adolescents.

4: Determined on the basis of the post code or place of residence reported by the adolescents.

no longer at school is a high risk factor for regular use at the age of 17. Another determinant, the type of area lived in, is confirmed after adjustments of the selected factors. In particular, living in a rural area is linked, all other things being equal, to regular alcohol use and repeated HED (OR = 1.5 and 1.4, $p < 0.001$), in contrast with living in a large city. However, living in a rural area appears to be less often associated with regular cannabis use (OR = 0.8 with $p < 0.005$).

■ Discussion/Conclusion

For the past 15 years, the ESCAPAD survey has been tracking changes in drug use among adolescents. Each new survey is an opportunity to compare the latest trends with those observed previously and to re-examine the behaviour of a particularly vulnerable population. First of all, late adolescence is a period during which numerous at-risk behaviours begin, but it is also a time during which it is essential to intervene to prevent substance use becoming established in the long term and potentially becoming an addictive behaviour.

By providing a historical overview of the past 15 years, ESCAPAD surveys help us better understand and put into perspective the latest changes observed. While the 2014 survey indicated a strong rise in tobacco, alcohol and cannabis use, putting the figures into perspective showed that psychoactive substance use among 17-year-olds in 2014 nonetheless remained below the highest levels observed in the first decade of the 2000s.

The survey also revealed higher regular polydrug use of tobacco, alcohol and cannabis, with regular use of these three substances now appearing to be frequently combined. In parallel, while it demonstrated an overall fall in HED behaviour, regular drinking continued to increase, now affecting 3% of adolescents. In addition, the 2014 results of the CAST test express an increase in the prevalence of a risk of cannabis addiction.

For the past few years a partnership with the INPES (National Institute for Prevention and Health Education) has made it possible to improve the comparability of the Health Barometer (*Baromètre santé*) survey and the ESCAPAD survey. Comparison of the 2014 results of these two surveys reveals similar evolutions in the two populations observed (Beck *et al.*, 2015). In particular, a convergence in drinking behaviours, such as HED, which is increasingly frequent in adults (Richard *et al.*, 2014), whereas it is falling among adolescents; rising cannabis use in both study populations, for both lifetime use or more frequent use; or the establishment of e-cigarettes (particularly among boys), which is strongly correlated with a high tobacco use gradient.

These results will soon be adapted at regional level, including French overseas departments (Reunion Island, Martinique and Guadeloupe). In addition, thanks to the HBSC 2014 and ESPAD 2015 surveys, it will be possible to extend the observation period among younger adolescents (11-15 years old), on the one hand, and to better cover the distribution of uses in late adolescence by expanding the analysis to include 16-18 year-olds on the other.

Methodological reference points

The eighth French ESCAPAD survey took place from 17 to 21 March 2014 in cooperation with the French National Service Directorate (DSN) during France's National Defence and Citizenship Day (JDC). The survey was conducted in all centres active over the period in France (including French overseas departments or DOM), thus enabling 26,351 French adolescents to fill out an anonymous, self-administered questionnaire about their health and their use of psychoactive substances (including tobacco, alcohol and cannabis). The participation rate (non-blank questionnaires/young people present) was 99.3%. The data are weighted to give administrative departments their true demographic weight while respecting the departmental sex ratio. The ESCAPAD survey was approved by the French National Council for Statistical Information (CNIS) and was deemed of general public statistical interest by the Approval committee (*Comité du Label*). It also received the approval of the French Data Protection Agency (CNIL). The sample analysed here concerns 22,023 17-year-olds in mainland France.

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