

Bonger International Bulletin

Trends and patterns in licit and illicit drug use in nightlife and among secondary school pupils in Amsterdam, 2011

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ABSTRACT

Antenna is a mixed-method study that annually monitors trends in nightlife and substance use among Amsterdam adolescents and young adults. It combines and integrates qualitative data from a panel study (semi-annual interviews with a panel of avid nightlifers and professionals from various nightlife scenes) with quantitative data from annual surveys among various populations of young people as well as from substance use prevention indicators. In 2011, Antenna included a survey among 840 secondary school pupils. The school survey shows that the likelihood of substance use increases with age. Within the group of older pupils, the subgroup aged above 16 not only had much higher rates of current tobacco, alcohol and cannabis use than those under 16, but they also had higher lifetime rates of ecstasy, amphetamine, laughing gas and GHB consumption.

Introduction

'New jollity' may be the best way to characterise the mood in Amsterdam nightlife in 2011. Although complaints could still be heard about stringent door policies, drug searches, high entry charges and expensive drinks, there was also enthusiasm for new venues that had recently opened their doors. The nocturnal domain continued its shift to neighbourhoods outside the city centre, and nightlifers grew increasingly resourceful in organising festivities of their own. New types of club owners and event organisers, less associated with commercialism, were winning the hearts of clubbers and partygoers. The new venues were cheaper than the more established clubs, and the door policies more lenient.

The Antenna monitoring scheme

Since 1993, Amsterdam Antenna has been documenting substance use trends yearly amongst Amsterdam adolescents and young adults, using both qualitative and quantitative data (Korf & Nabben, 2000; Korf et al., 1998). Antenna is a mixed-method monitoring scheme. The information reported in its various components produces a diversified picture of developments and trends in Amsterdam's world of recreational substances. Our **panel study** traces the latest developments by conducting individual, semi-annual interviews with a panel of insiders – both nightlifers and professionals from various scenes. Although the main focus is on nightlife and on trendsetters who experiment with new music, venues or drugs, attention is also devoted to groups of youth who hang out in neighbourhoods. The panel study reports no exact figures. Our annual **survey**, on the other hand, delivers quantitative data about substance use in specific groups in the city: school-aged adolescents, young clients of youth services, cannabis coffeeshop customers, pubgoers and clubbers. In 2011, the survey focused again on Amsterdam secondary school pupils.

A third type of statistics reported in Antenna derives from sources we call **substance use prevention indicators**. These provide quantitative data on the alcohol and drugs markets, obtained from several sources: requests for information or advice received via a telephone help line and a website; drug education contacts at dance events; and results from the testing of voluntarily submitted drug samples.

Panel study

The influx of youthful new clubbers into Amsterdam nightlife has accelerated since some of the bigger clubs lowered their entry ages to 16. The largest segment of the nightlife crowd is dominated by the burgeoning student population. Although music still largely determines the atmosphere in the scores of clubs and other nightlife venues, the dance urge has petered out somewhat (with a few notable exceptions). It is almost as if the clubbers simply forget to dance because of the steady bombardment with texts, tweets and other diversions. At the same time, the omnipresent social media do help to spawn countless new and spontaneous party initiatives. Clandestine partying locations seem to be a thing of the past. Even nightlife novices can find them now.

Fewer expensive drinks

The economic malaise seems to have had a depressant effect on the innovative spirit of the alcohol industry. Since club prices are high, expensive drinks are out. Beer, wine and vodka remain the unchallenged favourites, and a new brand of beer may make the blood flow faster on occasion. Jägermeister scores well in the techno scene. The chic segment has seen a rapidly growing number of cocktail bars. Competition has pushed down prices in some venues.

Smoking ban remains in force in clubs, but ashtrays return to small bars

Most clubs enforce a strict smoking ban, but ashtrays have once again become standard furnishings in many small bars. The biggest complaint of clubgoing smokers is not the smoking ban, but the filth, unhealthy atmosphere and poor ventilation systems in many of the smoking rooms. Security staff complain of having to constantly grind out the same tune about the smoking ban, especially to tourists who are wont to feign ignorance.

Cannabis smoking in clubs continues to decrease

For years now, the use of cannabis in Amsterdam nightlife has been on the decline. Most of the 'heavy tokers' are older than the average clubgoer. It is now exceptional to see a joint smoked in a club, except on reggae nights. Yet cannabis subcultures do still thrive elsewhere – cannabis coffeeshops, pavement cafés and parks. For many tourists, Amsterdam is still the cannabis mecca. More often than not, they are the people seen relishing a joint in the public domain. The smell of marijuana may also waft across large dance events or urban beaches.

Ecstasy still popular at dance events

Ecstasy remains the most popular recreational drug in about half of our panel networks, including the youngest nightlife cohort. At the same time, worries have arisen in some circles of

users about pills with a very high MDMA content. The typical ecstasy user is still a young white person with a penchant for electronic music. The drugs **2-CB**, **mephedrone**¹ and **4-fluo**, which caused a mild furor around 2008-2009 in response to a contaminated ecstasy market, have not gained any further popularity.

Cocaine use in steady descent, amphetamine on the rise

Although the use of **cocaine** is less tied to particular settings or times of day than ecstasy, the faltering economy seems to have tempered the urge to sniff. Nevertheless, cocaine is still a popular drug at home or on the go. **Amphetamine**, or speed, long held a reputation as an inferior stimulant during the prolonged heyday of ecstasy and cocaine, but it has undergone a revalorisation in recent years, and this continued in 2011. Its current popularity rhymes well with the deliberate lack of polish typical of today's nightlife. **Methamphetamine** remains a marginal drug found only in tiny niches, and even there it is often difficult to come by.

Anaesthetics are stayers, GHB provokes controversy

Anaesthetics (GHB, ketamine and laughing gas) have enjoyed some popularity for quite a while now, although in nightlife networks they are less common than stimulants. The consumption of **GHB** has levelled off after years of growth. It is cheap and, like speed, is shared generously with others. It is the drug of choice in some of our panel networks, but concerns are growing about frequent use and loss of consciousness. Event organisers and club staff now try to curtail its spread by carrying out more stringent entry searches. **Ketamine** trails GHB at some distance and is less widespread. It is used mainly in the more alternative club segments. Supplies can be haphazard. It is taken with some apprehension because of its unpredictable high. Users in nightlife tend to sniff tiny lines to avoid losing control altogether. The use of **laughing gas** has returned to the peak it enjoyed in the late 1990s. The increased popularity has gone hand in hand with a growing number of accidents. It is taken mainly in private settings or at impromptu parties.

Psychedelics and aphrodisiacs uncommon, polydrug use widespread

The use of **psychedelics** such as LSD and magic mushrooms has a marginal place in Amsterdam nightlife. **Viagra** and **poppers** are popular mostly in promiscuous networks but play very little part in other scenes. **Polydrug use** occurs in all networks, but it is more frequent and varied in the dance music scene than in the urban scene. Although certain specific combinations are more popular, drugs are often combined impulsively as well.

Many neighbourhood youth smoke cannabis daily

The Amsterdam neighbourhood youth in our panel study are part of a street culture. Compared to the clubgoers, who generally have higher levels of education, neighbourhood youth tend to hang about more in the districts where they live. A large majority of the neighbourhood youth in our panel networks, who are predominantly males from minority ethnic backgrounds, have experience with cannabis, and many of them smoke it daily. If any ecstasy or cocaine is taken at all by neighbourhood youth, that is mainly confined to those of ethnic Dutch background.

School-aged adolescents in 2011

In the autumn of 2011, 840 pupils (from 39 classes at 8 Amsterdam secondary schools) completed our questionnaire. To enhance the representativeness of the survey, we weighted

the data by school type, age, gender and ethnicity on the basis of population statistics. This Antenna reports weighted figures only.

The vast majority of the adolescents we questioned were aged 12 to 17. Males and females were almost equally represented. Slightly more than one in three respondents (37%) had ethnic Dutch backgrounds (defined as having parents who were both born in the Netherlands). In leisure time, the pupils mostly went shopping, to the cinema or to parties at the homes of friends. Half of the sample had gone out to a pub, club or event one or more times in the preceding month. One quarter had part-time jobs. Spending money averaged 10 euros per week. Mobile phones occupied an even more pivotal place than in our last school survey in 2007: 90% reported using telephone, text, ping or other services, averaging about four hours a day, as compared to three hours in 2007. More than half reported computer gaming, for a median duration of two hours a day. Only a few played poker for money (3%) or gambled on the Internet (1%).

Role of parents and addiction in the family

More than half of the pupils reported that one or both of their parents drank alcohol; one in three had a parent who smoked tobacco, but only a small minority had a parent who smoked cannabis. Most parents reportedly prohibited their children from using tobacco or alcohol under age 16 and cannabis under age 18. Rules at home had thus become stricter since 2007. Most children reported obeying the rules about tobacco, alcohol and cannabis. Those who were not subject to such rules were far more likely to use the substances than those whose parents prohibited it. But some of the latter used the substances anyway, whilst some of the former abstained. Pupils reporting addictions in the family were more likely to report using these substances themselves.

Energy drinks, tobacco, alcohol and cannabis

The sample consisted of three age groups: pupils in the first or second year of secondary school, third-year pupils and older pupils in the pre-exam year of their respective school type.² **Energy drinks** were consumed on a substantial scale by all age groups; more than half (55%) of the first- and second-year pupils, some 51% of the third-year pupils and 60% of the older pupils had consumed them in the past month. The likelihood that pupils smoked **tobacco** increased with age: 3% of the first- and second-year pupils were current (last-month) smokers, but almost none smoked daily; 9% of the third-year pupils were current smokers and 4% were daily smokers, and this rose to 22% and 8% for the older pupils. The probability of **alcohol** use likewise increased with age: 6% of the first- and second-year pupils, 14% of the third-year pupils and 35% of the older pupils were current drinkers. No respondents in the younger two groups and less than 1% of the oldest group drank daily. The older the age, the greater the quantities consumed. The youngest current drinkers averaged less than 2 units (of 10 grams of ethanol) per drinking day; current drinkers in their third school year averaged 4 units and older current drinkers 5 units per drinking day. **Binge drinking** (5 or more units on a single occasion) in the past month was reported by 3% of the first- and second-year pupils, 7% of the third-year pupils and 25% of the older pupils. The use of **cannabis** was much less common than alcohol use, but the likelihood of cannabis smoking also increased with age. Of the first- and second-year pupils, some 4% had tried cannabis at some time in their lives and 1% were current users; 18% of the third-year pupils had tried cannabis and 9% had smoked it in the past month, and 29% of the older pupils reported lifetime cannabis use and 15% last-month use. Fewer than 1% smoked cannabis daily.

Alcohol but not tobacco purchased in supermarkets

About one in three current smokers reported never buying cigarettes or rolling tobacco themselves. Those under age 16 who did buy it usually did so in cigarette shops, and seldom to never in supermarkets. Apparently the Amsterdam supermarkets tightly observe the age limit of 16; almost all of the current smokers who did report tobacco purchases in supermarkets were over 16. Two thirds of the current drinkers in the first or second school year, just under half of those in the third year and 40% of the under-16s in the older group reported never buying their own alcohol. Those who did buy it did so mostly in supermarkets or pubs; apparently the drinking age was easier to circumvent than the age limit for tobacco.

Other drugs and medicines

Turning now to the drugs other than alcohol, tobacco and cannabis, **magic mushrooms** took first place among the first- and second-year pupils, with 5% reporting lifetime use; mushrooms came second among third-year pupils (2% lifetime use) and third among older pupils (5%). **Laughing gas** came second for the first- and second-year pupils (3% lifetime use) and it took first place among third-year pupils (6%) and older pupils (8%). **Ecstasy** held second place in the older group, again in terms of lifetime use (6%). Of the first- and second-year pupils, 1% had tried **ecstasy, cocaine or amphetamine**; in the third-year group, 2% reported lifetime use and 1% current use, and in the older group 7% reported lifetime use and 3% current use. Nobody in the younger two groups had tried **GHB** and 1% of the older group had tried it. Almost no one in the younger groups and 1% of the older group had experience with **ketamine**. Here again, the school survey showed that the likelihood of substance use increased with age. Within the group of older pupils, the subgroup aged above 16 not only had much higher rates of current tobacco, alcohol and cannabis use than those under 16, but they also had higher lifetime rates of ecstasy, amphetamine, laughing gas and GHB consumption. Of the two younger groups, 3% had taken **Ritalin** at some time in their lives (with or without a prescription); 6% of the older pupils had done so. Lifetime use of tranquillisers **or sleeping pills** (such as Valium, with or without a prescription) was reported by 7% of the first- and second-year pupils, 10% of the third-year pupils and 9% of the older pupils.

Few gender differences

First- and second-year girls and boys did not differ in their scale of tobacco, alcohol and cannabis use, but third-year girls were more likely to report lifetime tobacco use and recent (last-year) tobacco or alcohol use. In the older group, girls were about equally likely as boys to smoke tobacco; they were more likely to report recent alcohol use, whereas more boys reported cannabis use.

Pupils from non-Western ethnic backgrounds less likely to smoke and drink

First- and second-year pupils with Dutch or other Western ethnic backgrounds were more likely than those of non-Western descent to report recent tobacco smoking as well as lifetime, recent and current drinking. 'Western' third-year pupils reported more lifetime and recent tobacco use, more lifetime, recent and current alcohol use, and more lifetime and recent cannabis use. Similar findings were made in the oldest group; in addition, the older 'Western' pupils were also more likely to report current (last-month) tobacco and cannabis use than their age-group peers of non-Western descent.

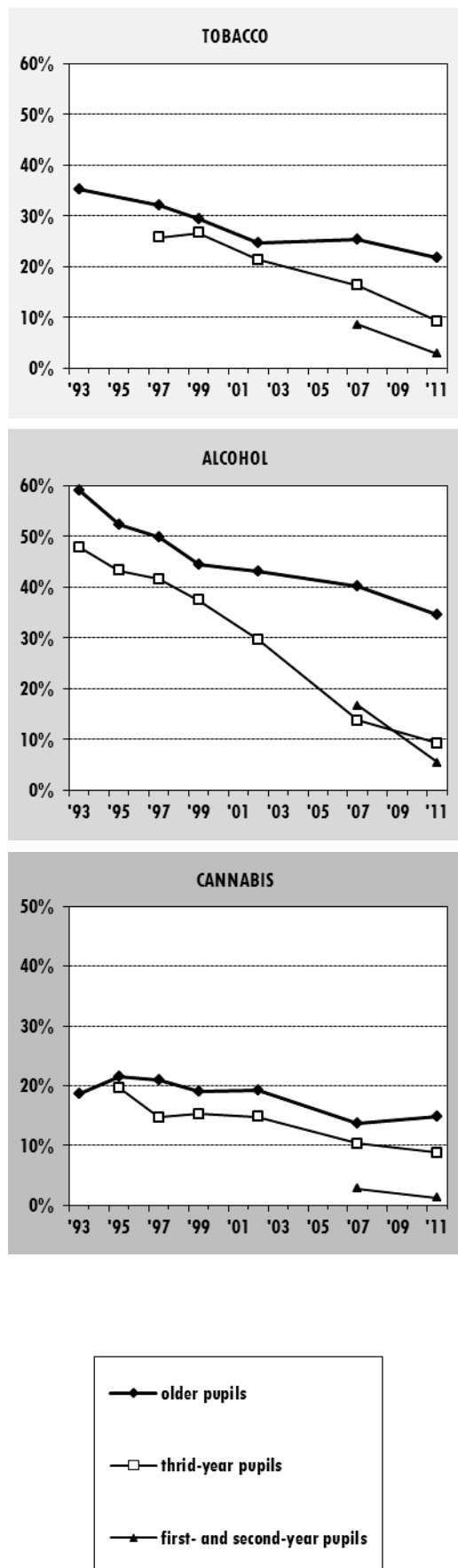
Substance use and mental health

As assessed by the Mental Health Inventory (MHI), 82% of our total sample of school-aged youth were psychologically healthy. First- and second-year pupils with poorer mental health were more likely than their healthier peers to report alcohol or cannabis use (lifetime, recent or current). More of them also reported lifetime use of laughing gas and of sleeping pills or tranquillisers. A very similar picture emerged in the oldest group, where pupils with poorer mental health were far more likely to report current use of tobacco, alcohol or cannabis, and were also more likely to report lifetime use of sleeping pills or tranquillisers, laughing gas or GHB than their healthier counterparts. In the group of third-year pupils, by contrast, few differences in substance use were seen in association with mental health; the only difference found in fact ran counter to the findings in the other two groups: fewer unhealthy pupils reported lifetime alcohol use than their healthier peers. Altogether, then, no straightforward connection emerged between mental health and substance use. In most of the correlations found, poor mental health could have been either a cause or a consequence of substance use.

Figure 1 Substance use by Amsterdam secondary school pupils, 2011

	FIRST- AND SECOND-YEAR PUPILS		THIRD-YEAR PUPILS		OLDER PUPILS	
	life-time	last month	life-time	last month	life-time	last month
ecstasy	0.8%	0%	1.5%	0.2%	6.0%	1.6%
cocaine	0.3%	0%	0.9%	0.6%	1.5%	0.7%
amphetamine	0.5%	0%	0.4%	0.4%	1.5%	1.3%
ghb	0%	0%	0%	0%	1.5%	0%
ketamine	0.4%	0.3%	0.1%	0%	1.3%	1.0%
laughing gas	3.4%	0.5%	5.6%	0.2%	8.3%	2.0%
magic mushrooms	4.8%	1.7%	1.7%	0.6%	4.8%	0.7%
lsd	0.1%	0%	0.6%	0%	2.1%	0%
heroin	0.1%	0%	0%	0%	0%	0%
crack	0.5%	0.2%	0.5%	0.5%	1.1%	0.6%
Ritalin	2.6%	1.2%	2.7%	1.8%	5.8%	2.2%
tranquillisers or sleeping pills	6.6%	2.1%	10.1%	3.8%	8.7%	2.9%
poppers	0.1%	0%	0.4%	0.3%	0.5%	0.4%

Figure 2 Current use (last-month) of tobacco, alcohol and cannabis



Trends among school-aged adolescents

Dwindling numbers of tobacco, alcohol and cannabis users

In 2011 we found lower rates of tobacco, alcohol and cannabis use amongst first- and second-year pupils than in 2007.³ Current smoking dropped from 9% to 3% and current drinking from 17% to 5%; lifetime cannabis use declined from 7% to 4%. In the category of third-year pupils, the rate of current tobacco smoking fell since the late 1990s by a factor of three and the rate of daily smoking by a factor of four. The 2011 survey was the first one ever in which fewer than half of the third-year pupils (average age 14) reported experience with drinking alcohol. The share of current drinkers sank in that age group from 48% in 1995 to 14% in 2011, and the percentage of cannabis smokers decreased by half.⁴ In the oldest group, the percentage of tobacco smokers showed a similar steep decline since the mid-1990s. In 1993, 35% of the older pupils were current (last-month) smokers, against 22% in 2011; daily smoking fell more sharply still, from 23% to 7%. There were also far fewer current drinkers, with the rate dropping from 59% in 1993 to 35% in 2011. The percentage of daily cannabis smokers shrank in a decade's time from 20% to 15%.⁵

Slight rebound in stimulant use by older pupils

The sharpest decline in substance use was that for stimulants in the group of third-year pupils. In 1995, 11% of that age group had reported having tried ecstasy, cocaine or amphetamine at some time, and this had fallen to 2% by 2011, although the steepest part of that drop occurred in the late 1990s. In the oldest age category, a similar peak in the consumption of stimulants had been seen in 1995; after stabilising at a lower level for some time, stimulant use rose again slightly from 2007 to 2011.⁶

Growing use of laughing gas, sleeping pills, tranquillisers, GHB and Ritalin

A strong upturn in the lifetime use of laughing gas and of sleeping pills or tranquillisers began around the turn of the century. The use of GHB also increased, albeit at a much lower level; none of the pupils in our sample reported having taken GHB in the past month. Lifetime use of Ritalin doubled from 2007 to 2011.

Higher ages of first use

In the group of first- and second-year pupils in 2011, the average reported ages of first use were 11 for alcohol, 12 for tobacco and 13 for cannabis (for those who had experience with those substances). For third-year pupils with experience, the average age of initiation was 13 for all three substances. Older pupils with experience had drunk their first alcohol at 13, but smoked their first cigarette or joint at 14. For the first- and second-year pupils, these ages of first use still approximately equalled those for the corresponding age group in 2007. For third-year pupils, the age of first tobacco use also remained stable in that period, but rose slightly over the longer term. Their age of first alcohol use increased by almost two years since the late 1990s, whilst their age of first cannabis use remained steady. In the oldest group, the ages of first use increased since the turn of the century by about one year for tobacco, nearly two years for alcohol and approximately one-half year for cannabis.

Substance use prevention indicators

In queries made to the Jellinek Prevention agency's telephone information and advice line and its associated website in 2011, **alcohol** stood at first place. **Cannabis** was second in the telephone queries and third in the online queries. **Cocaine** was

second via the Internet and third via the telephone. Although not many questions came in about **amphetamine**, there were rather more in 2011 than in the previous year. In contrast to the 1990s, the numbers of questions about **ecstasy** remained low. Few queries were being received as yet about **GHB**.

Increasing queries about ketamine at dance events

Very different types of questions were asked at the information stands at dance events operated by Unity, a voluntary peer education group. One in three queries concerned **ecstasy**, or MDMA, followed at a considerable distance by **GHB** (7%), **cocaine**, **ketamine** and **alcohol** (all 6%). The proportion of questions about GHB remained rather steady over the past decade, but questions about ketamine gradually increased. Interestingly, Unity received relatively few queries about **amphetamine** or **cannabis**.

More high-dose ecstasy pills

The drug-testing service operated by Jellinek Prevention reported that 83% of the pills and powders submitted to it as **ecstasy** in 2011 actually contained 'genuine' ecstasy (MDMA). That is a percentage comparable to the 2010 level and it seems appropriate to conclude that quality on the ecstasy market has reverted to the level that existed before 2009, when we recorded a temporary dip to 58%. The substances **mCPP** and **mephedrone** were now virtually absent from the samples, in contrast to the findings of the Dutch nationwide data from the Drugs Information and Monitoring System (DIMS) (Brunt et al., 2010). A small number did contain **PMMA** in 2011. The average **MDMA** dosage in the tested ecstasy samples mounted in 2011 to 123 milligrams, higher than ever before. With about one in three tablets testing at over 140 milligrams of MDMA, the proportion of high-dosage pills now reached an unprecedented high. The number of presumed **cocaine** samples submitted to the test service further increased in 2011. Most indeed contained cocaine, but many were also contaminated or adulterated with other substances, in particular **levamisole** and **phenacetin**. The average purity level of 56% was comparable to that in 2009 and 2010, but lower than in 2008. The number of submitted samples thought to be **amphetamine** also increased in 2011. Fewer than one in three of these actually contained amphetamine as the main active ingredient; many consisted partly, or mostly, of caffeine. A small number of submitted drug samples had been purchased as **ketamine** and they usually turned out to contain it.

Conclusions

Stimulant drugs are, together with alcohol, a mainstay of Amsterdam nightlife. Ecstasy remains the most popular stimulant, as cocaine use continues its steady retreat in nightlife (and seems more suited to home parties). Amphetamine appears to be catching on more and more. Anaesthetic drugs remain popular as well. Although the use of GHB, ketamine and laughing gas is less widespread than that of stimulants, altogether these anaesthetic drugs now score higher than ever amongst the trendsetting nightlifers. An entirely different story pertains for Amsterdam's neighbourhood youth. For them, drug use is synonymous with smoking a joint. Many of them do so every day. Secondary school pupils smoke far less cannabis than the neighbourhood youth, and also far less than their age group counterparts in the past. Even sharper reductions are evident in their alcohol and tobacco use over time. Most of the adolescents we queried were still too young to enter clubs, but they will soon form a new generation of Amsterdam nightlifers. Will the new jollity we currently observe in nightlife be contagious? And will the jollity still be fuelled by pills and powders? Or will this new

generation – in view of its older ages of tobacco, alcohol and cannabis initiation – combine jollity with a measure of sobriety as it joins the Amsterdam nightlife scenes?

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Notes

1. Mephedrone is a relatively new drug at the European market (Sedefov & Gallegos, 2011). In 2010, it got much media attention, in particular in the UK.
2. The first- and second-year pupils were predominantly 12- to 14-year-olds (average age 13), which would approximately correspond to years 8 and 9 in the UK or grades 7 and 8 in the USA. Third-year pupils were predominantly 14- and 15-year-olds (average age 14), approximately year 10 in the UK or grade 9 in the USA. 'Pre-exam year' refers to the next-to-final year of the respective school type: the third year of VMBO (lower vocational and general secondary education), the fourth year of HAVO (higher general secondary education) and the fifth year of VWO (pre-university education). 'Older pupils' were predominantly 14- to 17-year-olds (average age 15), who would have been approximately in years 10 to 12 in the UK or grades 9 to 11 in the USA. In our study, third-year VMBO pupils were hence part of both the third-year pupils and the older pupils.
3. The category of first- and second year pupils was first included in our school survey in 2007.
4. The trends may be partly, or even primarily, explained by demographic developments; the drop in the percentage of cannabis users amongst third-year pupils was no longer apparent, for instance, when background characteristics were held constant.
5. This decrease was no longer evident after adjustment for changes in background demographic characteristics.
6. Rates of stimulant use still remained largely stable when background demographics were taken into account.



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Antenne 2011

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(with English summary)

ISBN 978 90 361 242 1

The **Bonger International Bulletin** reports and discusses findings from research studies conducted at the Bonger Institute of Criminology.

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