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UNIVERSITEIT VAN AMSTERDAM

# CANNABIS USERS IN AMSTERDAM

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# Cannabis Users in Amsterdam

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In this presentation I will say something about users of cannabis –that is to say hash and marijuana– principally in Amsterdam. The emphasis is on Amsterdam, not because I find users here more important than elsewhere, but because the data on these users is relatively ample.

In 1987, 1990, and 1994 we asked large samples of the population of persons 12 years and older (roughly 4,400 people) about lifestyle and use of legal and illegal drugs. Therefore we can say with some confidence something about the development of cannabis use and about users' characteristics. This confidence exists because each year we choose not only the same technique of sample selection, but also because we continued to work with the same interview instrument.

Here I will primarily address the question of the consequences the past years' drug policy of 'tolerance' has had regarding the spread and intensity of cannabis use. Can we say that there are continually more people who have had experience with cannabis? Or does the availability in Amsterdam lead instead to a slow decrease in its importance? Or can we speak of a certain stability?

Today a few other questions are equally as important: Who are the cannabis users in the city, how old are they when they begin, from what populations (communities) do users come. If people use cannabis do they then go on to also use other drugs, what, in their experience, happens to their cannabis use over time, how many people are frequent users, etc.

In table 1 we can see the data on:

- life time drug use during (ever use),
- drug use in the year preceding our research, (use last year),
- and use in the month preceding our research, (use last month).

From table 1 it appears that *ever use of cannabis* increased slowly in Amsterdam. In the age-adjusted figures we can see that experience with cannabis increased from just under 23% of the population in 1987 to just under 29% in 1994. This increase is also logical, because the oldest people –people who mostly had no experience with cannabis– passed away. The elderly were

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replaced by youth who have a much greater chance having used cannabis. Therefore, the ever use figures in Amsterdam can only slowly increase, even if use among the youth dropped.

Table 1 Development of drug use in Amsterdam, 1987 - 1994. Numbers for 1990 and 1994 adjusted for the age, gender and ethnicity distribution in 1987.

drugs	Ever use			Use last 12 months			Use last 30 days		
	1987	1990	1994	1987	1990	1994	1987	1990	1994
Tobacco	71.6 •••	67.4	65.3 °°°	49.6 ••	46.3	44.9 °°°	45.9 ••	42.5	40.0 °°°
Alcohol	87.6 •	85.7	84.5 °°°	78.8	77.4	76.0 °	71.1 ••	68.4	68.3 °
Sleeping pills	20.0	18.7	19.0	11.2 ••	9.4	9.8	8.2 ••	6.5	6.4 °
Tranquillizers	22.2 •	20.2	20.8	10.7 •	9.2	9.7	7.3 •	5.9	6.0
Cannabis	22.8	24.0 •••	28.5 °°°	9.3	9.8	10.5	5.5	6.0	6.4
Cocaine	5.6	5.3	6.0	1.6	1.2	1.6	0.6	0.3 •	0.8
Amphetamine	4.4	4.0	4.3	0.6	0.5	0.4	0.3	0.2	0.3
Ecstasy		1.2 •••	3.4		0.7 •••	1.7		0.1 •••	0.9
Hallucinogens	3.8	3.9	4.3	0.4	0.3	0.4	0.1	0.1	-
Inhalants	1.1	0.9	1.3	0.3	0.1	0.1	0.2	0.0	0.1
Opiates (all)	9.2 •••	7.2	8.5	2.4	1.9	2.3	1.1 •	0.6	0.7
Heroin		1.1	1.2	0.3	0.1	0.2	0.2 •	0.0	-

Sign. test: Chi square (Yates' corr.) 1987 - 1990, 1990 - 1994 • p < .05 •• p < .01 ••• p < .001  
1987 - 1994 ° p < .05 °° p < .01 °°° p < .001

Source: Sandwijk et al. (1995).

If we look at the data on use in the last year, we see that use did not increase, but remained very stable over the years – fluctuating around 9.5% of the population. This is much less than the ever use figures. Last month use also is lower and very stable – around 6% of the population. From these figures we can conclude that there are many more people who smoke a joint every once in a while than there are who do so with any regularity. And we see this pattern of predominately moderate use returning again and again in the population research that we have done.

Let us then look to see if the stability of use patterns holds for all the age groups, or if there are some groups who are exceptions in this regard. In the group of 12 - 15 year olds, life time experience with cannabis is stable in the period from 1987 - 1994: roughly 3%. It is also stable in the age group 16 - 19: at roughly 25%. However, in the age group 20 - 24 year, life time use or ever use increased slowly over the years from just under 40% in 1987 to 50% in 1994. This

Table 2 Cannabis use by age group (percentages, numbers not age-adjusted).

age	Ever use			Use last 12 months			Use last 30 days			N		
	1987	1990	1994	1987	1990	1994	1987	1990	1994	1987	1990	1994
12-15	4.7	2.9	5.8	2.9	2.9	5.8	0.6	1.7	2.3	172	175	86
16-19	25.5	21.7	28.7	17.8	16.7	19.4	11.6	10.3	10.9	259	263	129
20-24	38.2	36.3 •	50.0 °	23.4	20.6	26.8	13.1	11.4	14.0	458	465	228
25-29	41.9	42.8	44.1	17.8	19.2	16.9	11.1	12.0	11.4	585	594	290
30-34	46.5	44.4	42.3	13.1	14.9	15.9	8.8	9.3	12.3	443	450	220
35-39	36.2	42.8	45.3 °	12.4	13.4	13.5	6.2	9.6	7.8	387	395	192
40-49	19.1 •	26.7 •	36.1 °	5.7	7.2	8.8	3.3	3.9	5.6	576	584	285
50 +	3.0	3.7 •	6.9 °	0.4	0.9	0.3	0.2	0.6	-	1,489	1,515	737
total	22.8	24.0 •	28.5 °	9.3	9.8	10.5	5.5	6.0	6.4	4,369	4,440	2,166

Sign. test: Chi square • p < .05 1987-1990, 1990-1994  
° p < .05 1987-1994

Source: Sandwijk et al. (1995)

means that by the time young people in Amsterdam reach their 24th year, half of them have smoked a joint or pipe, on at least one occasion.

With the generation-effect, the ever use figures increase for the group 35 and up, exactly that group in which the last month figures clearly decrease as compared with younger age groups. If we look at the last month use figures the picture over the years is again very stable. In the 20-24 year age group – the group with the most active night life in the city – we see the most frequent cannabis use in the last month. Roughly 1 out of every 6 Amsterdammers in the 20-24 year group, has smoked a joint or more per month.

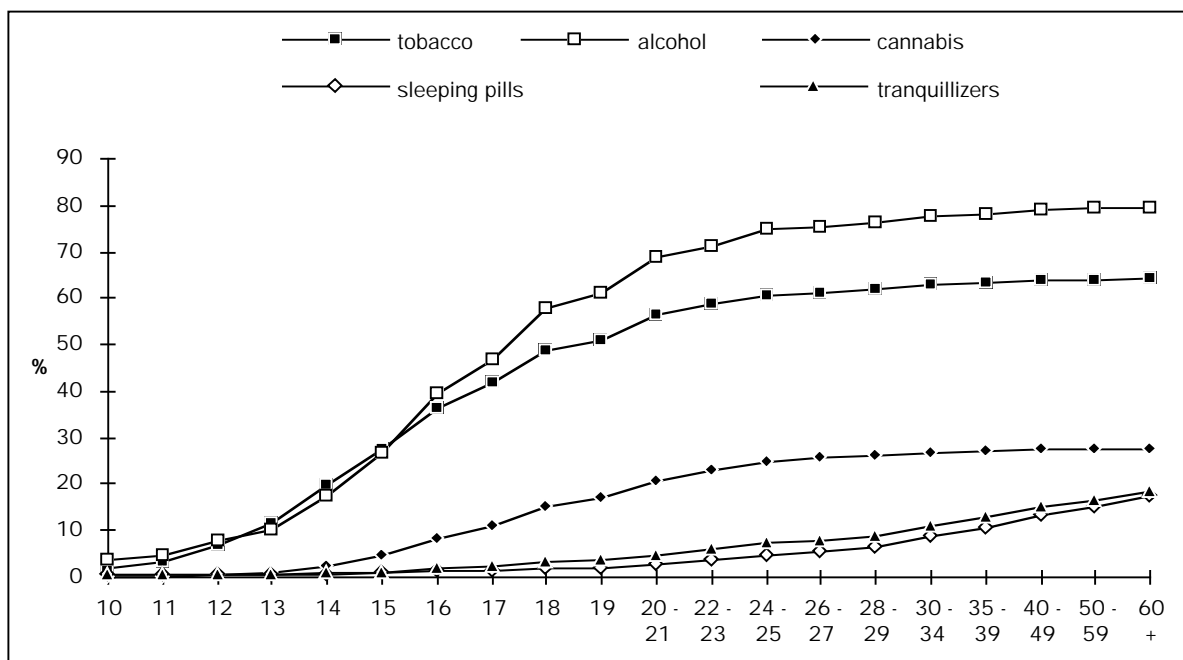
Among people older than 24 years, last month use falls off. In Amsterdam, people over the 25-35 year age group show less enthusiasm for the herb, and those in their fifties lose interest almost altogether. We can say with confidence that cannabis use, in contrast to alcohol use, is strongly bound to a phase of life. When it occurs, irrespective of popularity, it is chiefly something for the 16 - 35 year age group. The average age of the current cannabis user in Amsterdam is around thirty.

Let us now take a special look at that group of people in Amsterdam who had used cannabis in the month preceding the study. That is between 20 and 25% of all the people who have ever had experience with the herb. We call them the ‘continuers’.

Throughout the years of the study, we can find this same 20 - 25% proportion of continuers (see table 1). Of the continuers, 65% used maximally twice per week. Smoking more than 20 times a month was infrequent: *roughly 4% of all those who have had experience with cannabis*. In comparison, 13% of people who have ever drunk alcohol have done so more than 20 times in the past month.

What many people find hard to believe is that in a city like Amsterdam, the average age of first cannabis use is not around 15, but 20! The median age is 18.

Figure 1 Age of first cannabis use in 1994 compared with first use of tobacco, alcohol, sleeping pills, and tranquillizers.

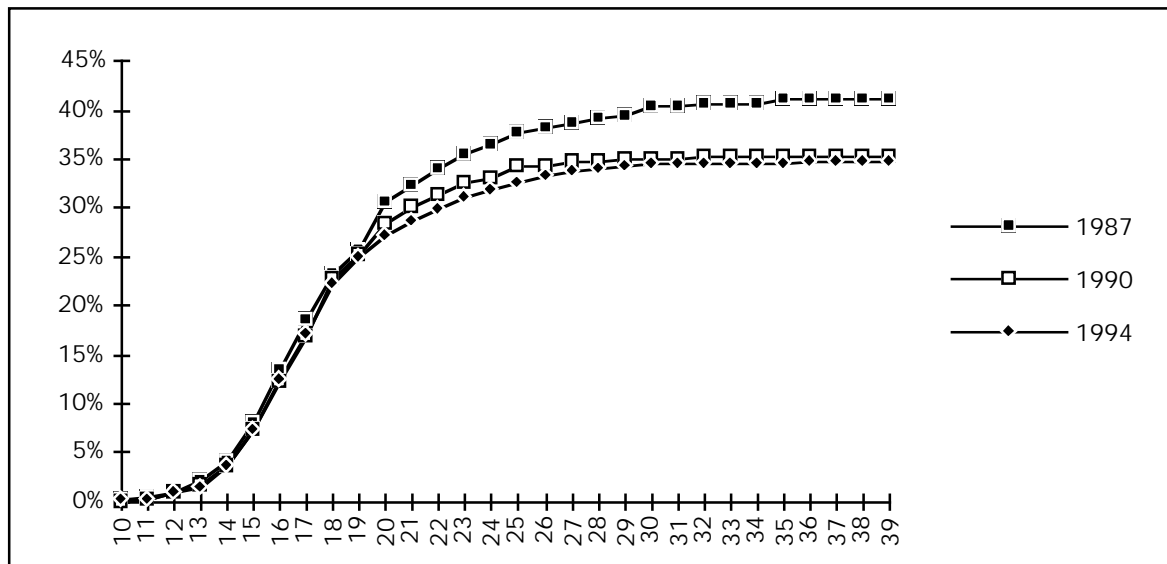


Source: Sandwijk et al. (1995).

In figure 1 we see that people begin cannabis use from the age of 13 on, and that people get initiated until around age 26. In other words, the age of initiation ranges from 13 to 26 years. That means that relatively many people (half) are older than 18 when they first smoke a joint (or pipe). Initiation after the 26th year occurs rarely. Figure 2 was made to see if the starting age for cannabis use has changed over the years.

In 1987, the age of first cannabis use showed more variation than in 1990 and 1994, but the difference is small. The average age of first cannabis use is fairly constant. In order to show how it looks when range in age of first use is not constant, we present figure 3 displaying what happened with first use of Exstasy in 1990 and 1994 (We do not have data for 1987).

Figure 2 Age of first cannabis use (12 - 39 year olds) in 1987, 1990, and 1994



Source: Sandwijk et al. (1995).

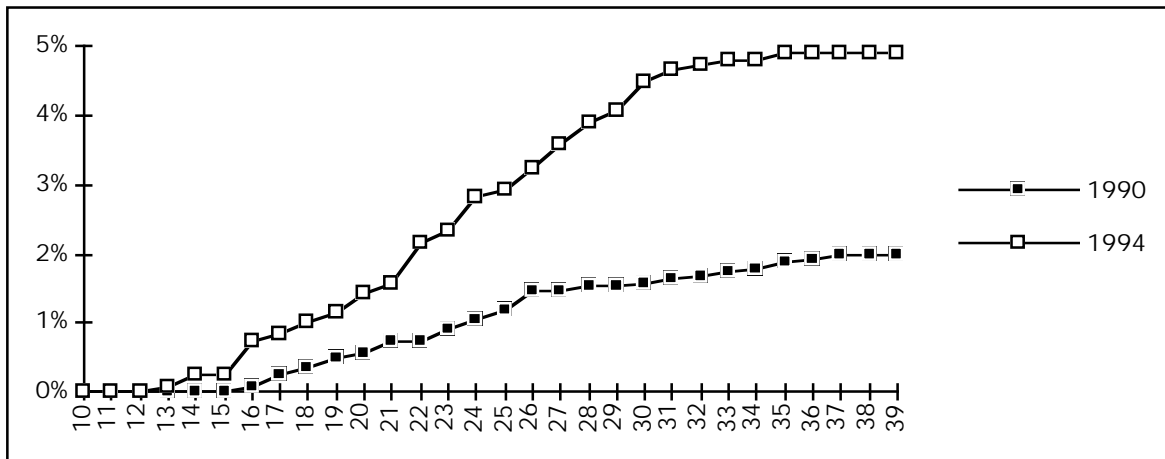
In 1990, age of first use of XTC occurred somewhere between the 16th and 26th year. Between 1990 and 1994 it has spread out to between 14 and around 33 years. What does this mean? The figures 2 and 3 show that the age of first cannabis use is relatively stable (figure 2), but for the new drug ecstasy, the age of first use has not yet found its own pattern (figure 3).

## Stability of cannabis use in Amsterdam

It is obvious that a typical period to start using cannabis exists in Amsterdam's culture, with an average age of first use at around 20. If we had the necessary data we would know if this is also true in other parts of the Netherlands. For a country with a drug policy as unique as ours, the lack of national data figures is a serious policy-evaluation handicap.

We know through our Amsterdam research that the incidence – that is to say, the number of new cannabis users per year – is very stable; roughly 1% of the population of 12 years and older per year. We know too, from the data from 1990 and 1994, that something like 10% of all cannabis users quit per year. The average age of those people who stop cannabis use is 26 .

Figure 3 Age of first ecstasy use (12 - 39 year olds) in 1990 and 1994



Source: Sandwijk et al. (1995).

*To summarize, in Amsterdam we see that roughly 1 out of 4 residents has ever had experience with cannabis, with very constant ages of first use, a very constant incidence of use, and a very constant attrition rate among users. Moreover, we see a very constant prevalence of use in the past year and the past month.*

Last month's use is reported by around 24% of all life time users, with a very light tendency towards decreasing. (With cocaine that is around 10%. That is to say only 1 in 10 cocaine experimenters will continue to use at least once a month). Furthermore we see that over the years the percentage of cannabis users who have had ample experience (namely, having used more than 25 times) remained constant in 1990 and 1994, and consists of roughly 45% of all life time users.

From all these data we can cautiously conclude that even if Amsterdam would have undergone an increase in cannabis availability, for example via an increase in the number of retail outlets (coffeeshops), this has not lead to any intensification of use-patterns. A saturation point has been reached, in any case in the period from 1987 through 1994. The only group where we see a statistically significant increase in ever use of cannabis is the group of people in Amsterdam who go out most frequently: the group of 20 to 24 year olds. *But, when we look at the last year's and last month's use from just this group we again see a very constant pattern of use where no increase can be seen.* Thus, it is the experimental behavior of this group which slightly increases, but not its continued use. It is also important to note that life time cannabis use in Amsterdam, in a social climate of total decriminalization, is no higher than in the United States where the degree of criminalizing and taboo equals that of alcohol in Iran.

From here it follows that economic and material access to an illegal drug only has a limited influence on the level of its use. In this regard illegal drugs are similar to legal ones, like tobacco and alcohol. Factors other than availability – for example life styles and attributions given to consequences of use – are possibly of greater importance. Cocaine, which is quite readily accessible in Amsterdam, has developed only a limited popularity (see table 1). Heroin, openly available and possibly the least expensive drug in Amsterdam considering 'bang for the buck', has demonstrated only minimal use over the years.

What is the situation in Amsterdam for people who use cannabis so heavily that they request the Consultation Bureau of Alcohol and Drugs' (CAD) advice and assistance? In 1988, the number of new intakes at the Amsterdam CAD was 53, in 1994 this had increased to 347. In the area of cannabis the number of those who leave the CAD system per year lies roughly even with the number of intakes. The total number of people actually in treatment for cannabis-related problems rose from 27 in 1988 to 54 in 1994 (Source: National Alcohol and Drug Information System, Utrecht)<sup>1</sup>. Considering the approximately 60,000 users of cannabis in Amsterdam last year this is not exactly unsettling.

## **Profile of the cannabis user**

We see, over the years, that cannabis users are primarily white, native Dutch, then those from Surinam, and after this the Turkish and Moroccan residents. There is a strong connection between education level and the chance of someone using cannabis. The higher the education level, the higher the chance. In all the years that we have done this research we have seen roughly 10 to 15% of the people with no more than basic education have ever tried using cannabis, but among those persons with college or university education this figure lies between 45 and 50%. If we look at employment status, we only see differences between the unemployed and full-time workers in use over the past month, not in life time experience or last year's use. Among the unemployed roughly 15% have used at least once over the past month. Among full-time workers roughly 8%. The difference is not that large. What we also see unchanged over the years in Amsterdam is that income level barely plays any role in the chances of someone using or not using cannabis.

An important variable is nightlife – going out. The more frequent peoples' visits to cafés or discos, the greater the chance that they will have used cannabis. A number of variables taken together have a highly predictive value. An unemployed person with higher education, younger than 40 years, who lives alone and is a frequent café-goer has a higher chance of ever having used cannabis than someone with a full-time job, relatively little education, who is over 40 years old and lives in a family with children.

## **Cannabis as stepping stone to other drugs**

Another important question is if cannabis users become curious about more drugs, other drugs. In other words, do people who use cannabis more or less automatically go on to try other drugs? This question we know as the stepping stone theory: does smoking reefer lead to using cocaine and heroin? Recently this theory has been raised again in other terms: cannabis as a “gateway drug”.

Tables 3 and 4 show the extent to which people who have had experience with cannabis have also had experience with cocaine and heroin. We split the population by age group so as to be able to track any possible age-bound differences. In Amsterdam, after cannabis, cocaine is the most frequently used illegal drug. As table 1 shows, about 6% of the population of people older than 12 have ever used cocaine. Among people who have ever used cannabis this percentage is noticeably higher. Among them, ever-experience with cocaine is roughly 22% over the years

(see table 3). But, if we look at the last month's cocaine use figures among those who have ever used cannabis, we find around 2%. We cannot therefore say that in Amsterdam, beginning with cannabis leads to regular cocaine use. For heroin, the figures lie considerably lower still (see table 4). But in contrast, if we look for heroin or cocaine users among those people who have never tried cannabis, they scarcely exist. For cocaine there were only 0.4% in 1987 and 1990 and 0.5% in 1994.

Table 3 Ever use, use last 12 months, and use last 30 days use of cocaine, for persons who ever used cannabis (%).

age	1987			1990			1994			N		
	ever	year	month	ever	year	month	ever	year	month	1987	1990	1994
12-15	-	-	-	-	-	-	-	-	-	8	4	9
16-19	7.6	3.0	-	1.8	1.8	-	1.8	1.8	-	66	56	55
20-24	16.0	5.7	1.1	12.3	4.9	0.6	14.5	9.2	5.2	175	163	173
25-29	33.1	10.2	4.1	23.1	7.0	1.7	18.5	5.8	1.5	245	242	260
30-34	29.6	6.8	1.5	27.7	6.1	2.3	30.3	7.5	3.1	206	213	228
35-39	22.1	2.9	2.1	27.9	4.2	2.1	31.5	7.0	2.3	140	190	213
40-49	21.8	5.5	3.6	21.6	4.0	1.1	23.9	2.7	1.6	110	176	255
50-59	8.1	2.7	2.7	11.4	-	-	15.6	1.6	1.6	37	35	64
60-69	-	-	-	9.1	9.1	9.1	18.2	9.1	9.1	7	11	11
70+	-	-	-	-	-	-	-	-	-	1	6	4
total	23.4	6.2	2.3	21.2	5.0	1.6	22.2	5.7	2.4	995	1,096	1,272

What do these figures mean? Well, indeed in Amsterdam a portion of cannabis users have had experience with other drugs. But also, three-quarters to two-thirds (dependent on age group) of those who have ever used cannabis have never used any other illegal drug. In other words, in Amsterdam's population there is a group of people who want to experience illegal drugs, but for the majority of these people experience with cannabis suffices. Furthermore, these figures mean that cannabis users who take additional drugs are small in number and do so only very infrequently. In the Amsterdam population, there is little evidence to support the 'stepping stone or gateway theory'.

Table 4 Ever use, use last 12 months, and use last 30 days use of heroin, for persons who ever used cannabis (%).

age	1987			1990			1994			N		
	ever*	year	month	ever	year	month	ever	year	month	1987	1990	1994
12-15	-	-	-	-	-	-	-	-	-	8	4	9
16-19	-	-	-	1.8	-	-	-	-	-	66	56	55
20-24	-	1.1	0.6	2.5	0.6	-	1.7	1.2	-	175	163	173
25-29	-	1.2	0.4	5.8	1.2	0.4	3.5	1.5	0.4	245	242	260
30-34	-	2.4	1.5	5.2	0.5	-	6.1	-	-	206	213	228
35-39	-	2.1	0.7	3.7	-	-	7.5	1.4	0.5	140	190	213
40-49	-	-	-	3.4	-	-	4.3	1.2	0.4	110	176	255
50-59	-	2.7	-	-	-	-	1.6	-	-	37	35	64
60-69	-	-	-	9.1	-	-	9.1	-	-	7	11	11
70+	-	-	-	-	-	-	-	-	-	1	6	4
total	-	1.4	0.6	4.0	0.5	0.1	4.3	0.9	0.2	995	1,096	1,272

\* No data available



## The permeation of cannabis use to the provinces

In the USA we have seen a slow increase in the use of cannabis from the 1960's to 1979. Afterwards cannabis use slowly decreased until 1991, and thereafter began to increase slowly again.

In 1976 in America, among the 18 - 25 year group – the group in which the chance of drug use is relatively high – there was a big difference in cannabis use of city dwellers, versus that of suburban/rural residents. 59% of the city dwellers between 18 and 25 years old had experience with cannabis in 1976. Outside the city this was 38% – considerably less. In 1982 cannabis experience in this age group had increased notably, but far more in the suburban/rural areas. In the major cities, experience with cannabis had increased by 15%. Outside the cities it increased 50%. In 1992 we see that cannabis experience has become practically equal between metropolitan and non-metropolitan areas: 50% and 47% (source: National Household Surveys on Drug Abuse. NIDA, Rockville MD USA)

Table 5 Use of cannabis ever, ages 17 - 18 years, in 1984, 1988, and 1992.

1984*		1988		1992	
urban	non-urban	urban	non-urban	urban	non-urban
		31	17	28	32

\* No data available

Source: NIAD.

We do not have these data for the Netherlands. We only have figures from research with high school students; insufficient for this goal. In addition the figures from this research are not comparable due to different interview schedules and sampling methods. Still, in the Netherlands among 17-18 year olds we see the following:

Regarding having had experience with cannabis for city and provincial areas, these figures show that in the Netherlands convergence may take place. That has less to do with drugs than with the development of “big city” behavior and its trickling out to the provinces. I expect therefore that an increase in provincial youths’ cannabis use shall occur or is already occurring to match that of the cities. This development should be no cause for alarm, particularly not if use-patterns outside the city more or less resemble those in Amsterdam.

## In Conclusion

This presentation has dealt with the Amsterdam population’s cannabis use. However, there may well be subgroups in the city who demonstrate entirely different use patterns from that of the average resident. Subgroups like the Hell’s Angels, concert musicians, homeless youth, or the police, could display entirely different patterns. The interpretation of these differences is difficult and always insufficient where global use-patterns of the population as a whole are unknown.

## Notes

- 1 Thanks to the following people of the CAD Amsterdam: Mr. Scholten, Mr. Vermeulen, and Mr. Kerssemaker.
- 2 Average starting age of cocaine use is 25 years, average age of those people who then stop using cocaine is around 28 years. The average age of current cocaine users in Amsterdam (those who used during the research period) is around 32 years.
- 3 The NIAD will recalculate the figures from 1984 (Student research, van der Wal et al). With thanks to Roelf-Jan van Til (BRON UvA BV), Dr. I Spruit and Drs. H Kuipers (NIAD).

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