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# MONOGRAPHS

A cannabis reader: global issues and local  
experiences

Perspectives on cannabis controversies, treatment and  
regulation in Europe

**Editors**

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8  
VOLUME II

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# Chapter 13

## Cannabis users in drug treatment in Europe: an analysis from treatment demand data

**Keywords:** cannabis – EMCDDA – epidemiology – treatment – treatment demand

### Setting the context

This chapter analyses the 2005 data on people entering drug treatment for primary cannabis use in the Member States. For several years, the EMCDDA has reported an increasing number of people reported as seeking treatment for cannabis use. Although definitive reasons for this are difficult to specify, it is clear that the explanation is multi-faceted and requires careful study before drawing firm conclusions (Simon, 2004).

Cannabis treatment, like cannabis use, is usually a young person's phenomenon. As with the use of other types of drugs, treatment for cannabis attracts more males than females. While most cannabis treatment clients begin use early in their lives, the spread of ages amongst those now entering treatment is much broader, and their drug use reaches beyond cannabis to include other illicit drugs also, such as cocaine, other stimulants and, occasionally, opiates (EMCDDA, 2003a).

Recent years have shown an increase in demand for cannabis treatment in most Member States, even though there are important differences between the countries. In particular, there has been an increase in the number of adolescents reporting social and psychological problems related to cannabis use, for which they themselves, their families or their school request specialised help (EMCDDA, 2003a). A number of factors may explain the reported increase, for example a simple improvement of data coverage in the EMCDDA reporting system, expansion of treatment availability, or an increased number of referrals to treatment by the criminal justice system and by the client's social networks. The reported pattern of use of cannabis in the period immediately prior to treatment has been changing, and this does not just mean an increase in the number of users reporting frequent use.

People seeking treatment specifically for cannabis use now represent a significant proportion of overall drug treatment requests across Europe, though differences between countries are substantial. Some countries, such as France, Germany, Hungary and Denmark, currently have very high percentages of cannabis clients among people in treatment. Other countries, such as Lithuania, Luxembourg, Romania and Portugal, report low percentages.

This chapter argues that further investigation of cannabis consumption patterns and related problems could identify areas where specialised drug services might provide interventions, targeted not only at regular cannabis users but also at any other adolescent cannabis users with social, behavioural or psychological problems.

## Further reading

- Copeland, J. (2004), 'Developments in the treatment of cannabis use disorder', *Current Opinion in Psychiatry* 17(3): 161–167.
- EMCDDA, *Annual report*, published each year in November.
- UNODC and EMCDDA (2006), *Guidance for the measurement of drug treatment demand*, United Nations Office on Drugs and Crime and European Monitoring Centre for Drugs and Drug Addiction, Vienna and Lisbon.

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# Cannabis users in drug treatment in Europe: an analysis from treatment demand data

Linda Montanari, Colin Taylor and Paul Griffiths

## Introduction

Cannabis is the most widely used illicit drug in Europe and its use is one of the most frequent reasons cited for entering drug treatment. In 2005, 20% of all drug clients and 29% of new drug clients (EMCDDA, 2007a, b) <sup>(1)</sup> entered treatment for problems related to their primary cannabis use. In recent years, drug services in the European Union have reported a more or less steady increase in the number of people seeking treatment because of problems related to their cannabis use, making cannabis-related treatment an increasingly larger proportion of drug treatment demands. In terms of overall treatment demand, cannabis now lies behind only the main problem drug type, opiates, and is ahead of demands for cocaine-related treatment.

In this chapter, the increase in treatment demand and its implications are analysed through data collected under the treatment demand indicator (TDI), a pan-European instrument used to monitor data on people entering treatment for drug use (EMCDDA and Pompidou Group, 2000) <sup>(2)</sup>.

This chapter highlights a number of key questions arising from the increase in the reported demand for cannabis treatment. To build a clear picture of the changing situation, it is fundamental to understand how each of these questions is driving the current changes in treatment demand.

- Does this increase in reported demand represent an increase in the number of people in need of help for cannabis use?
  - If so, to what extent does it result from an increase in use of cannabis in the general population — in particular, regular and intensive use?

<sup>(1)</sup> See figure TDI-G02 in the Statistical bulletin 2007.

<sup>(2)</sup> The TDI is called the treatment demand indicator protocol, but in fact it counts the number of people starting a drug treatment for their drug use, as written in the TDI definition. The people asking for, but not receiving treatment, are not recorded. People sent to treatment centres not on their own initiative are also included in the reported data.

- If so, to what extent is it related to other changing factors among drug users, such as their changing patterns of drug use? To what extent is it related to physical, social or psychological problems among cannabis users themselves?
- Can this increase be explained by factors independent of an increased need for help? Explanations might include:
  - improvements in the coverage of the treatment reporting system;
  - expansion of the types of treatment facilities available, and, in particular, specific treatment services targeting adolescents and young people, that reach out to and attract the cannabis user population more effectively than before;
  - an increase in referrals to treatment, affecting cannabis users who would not otherwise have sought help spontaneously; and
  - linked to the above, an increase resulting from changes in the way cannabis or other drug use is dealt with by the criminal justice system, within schools, or by agencies working with young people.

The analysis presented here is a broad one, describing trends across several countries in the EU. The chapter questions the extent to which the overall European picture is reflected in each of the individual countries, and whether some countries have a different pattern of change in treatment demand.

## Method and sources for data collection

The data presented in this chapter are primarily obtained through a standard protocol used by all EU countries, the TDI, a joint EMCDDA–Pompidou Group Protocol (EMCDDA and Pompidou Group, 2000). The protocol establishes harmonised definitions across 20 questionnaire items. These items relate to drug-related information, socio-demographic data and use of services, and aim to obtain consistent information on the number, characteristics and patterns of use of people entering treatment for drug use. From 2000 onwards, European Member States have collected data using the TDI to provide information on trends in the treatment of problem drug use. The indicator serves several purposes: prevalence estimation; identification of patterns of drug use and use of services; service planning; and service evaluation.

TDI data can be regarded as providing a reasonably robust and useful representation of the characteristics of clients referred to specialised drug services within the EU. However, there are limitations that must be borne in mind, as achieving comparability in data from all EU Member States is not easy. While departures from EU comparability persist, they are believed not to distort the broader picture of drug treatment patterns.

One limitation of the EMCDDA's data is the extent of 'double-counting' of clients. The number of people entering treatment each year is defined so as to count only one episode — that is, a single treatment demand — each year. The task of excluding 'repeat' treatment episodes should therefore ideally be controlled centrally in each country, yet in practice some countries' collection procedures cannot use controls at a national level, resulting in a slightly higher count of people. A further potential lack of comparability is that treatment for cannabis as the primary drug of abuse is defined in the protocol as cannabis being 'the drug that causes the client the most problems'. Different treatment systems may interpret this differently. Reporting can be based on problems as defined by clients themselves, or on short diagnoses based on the ICD-10. When the primary drug is unclear, usually what is reported is the drug most frequently used, or the drug considered most important for the potential consequences on the health and social situation of the client.

A stronger caveat must be voiced on how far we can generalise from the consolidated European data set. The single factor that impacts most heavily on interpreting the findings is the potential for under-reporting, which arises from the varying extent to which the reporting system succeeds in covering, each year, all the relevant treatment facilities in each Member State. It must be remembered that treatment facilities are not fixed: new agencies might enter the reporting system and old ones leave it. Monitoring the effect of these changes is a continuing part of data collection, and is the subject of current work (see, for example, Simon, this monograph, on the German situation).

The EMCDDA's TDI data nonetheless remains the major pan-European body of data on treatment. The discussion based on this information source will focus on four main areas:

- profiling cannabis treatment clients — their socio-demographic characteristics (age, gender, living and social conditions);
- describing patterns of drug use amongst treatment clients (age at first use, frequency of use and combination with other drugs);
- incidence of client treatment in Europe, and a comparison with general population data on cannabis use; and
- referral routes into treatment for cannabis.

The TDI provides good short-term trend information in these four areas, although longer-term longitudinal data — 1999 to 2005 — on treatment demand in 20 European countries are available <sup>(3)</sup>. For some socio-demographic characteristics (education, labour and living status) — and for information on source of referral — only two years

<sup>(3)</sup> See figure TDI-01 in the Statistical bulletin 2007, which provides methodological details on trends calculations.

of data (2001/2002) are available, for seven countries. In these seven countries, a specific exercise, not available for other years, was conducted.

Discussion of patterns of drug use, profile of clients and sources of referrals to treatment is restricted to outpatient clinics, since these data have the most consistent coverage of clinics and individuals.

## Cannabis treatment clients

Overall, cannabis is the most used illicit drug in Europe and, over recent years, it has risen to become the second most frequently cited drug reported as the primary reason for entering specialised drug treatment, after opiates. According to the TDI data in 2005, around 20% of all treatment clients and 29% of first-time treatment clients were recorded as having a primary cannabis problem <sup>(4)</sup> (EMCDDA, 2007a, b).

Polydrug use is often reported among cannabis users. Among drug clients, cannabis can be registered as a primary drug, or a secondary drug used along with other substances. Among all drug clients entering treatment for primary cannabis use, alcohol (37%) or amphetamines or ecstasy (28%) were reported as the most frequent secondary drugs <sup>(5)</sup>. However, a proportion of clients reported cocaine use (15%) and/or other opioid use (7%) as secondary drugs, with cannabis reported as the primary drug for treatment. Although few in number, these clients are an interesting group who could be more carefully examined to better understand patterns of drug use and related problems.

Among all outpatient treatment clients reported by a clinic's staff, cannabis may also be cited as a secondary problematic drug. After alcohol (38%), cannabis is reported as the second most frequently cited secondary substance (17%) by those receiving drug treatment <sup>(6)</sup>. When treatment clients cite cannabis as a secondary drug, analysis shows that overall cannabis use is frequently reported as a secondary reason for entering treatment among primary cocaine users (28%), primary users of other stimulants (26%) and primary opiate users (17%). Similar drug combinations are also found in the American treatment data. Analysis of American treatment data shows that marijuana appears to be the secondary reason for seeking treatment among clients using alcohol (56%), cocaine (21%), stimulants (11%) and opiates (10%) (DASIS, 2003).

Thus it seems that a group of primary cannabis clients exists which also uses other drugs in combination with cannabis. Cannabis can be combined with alcohol, amphetamines or ecstasy, but also with other, 'harder', drugs such as cocaine or heroin. Among

<sup>(4)</sup> See figure TDI-02 in the Statistical bulletin 2007.

<sup>(5)</sup> See table TDI-23 in the Statistical bulletin 2007.

<sup>(6)</sup> See table TDI-22 in the Statistical bulletin 2007.

polydrug users including cannabis, and especially in those clients reporting use of the 'hard' drugs, it is not clear what the role of cannabis is in the request for treatment. Polydrug use has become more common in recent years and cannabis might be just one among other substances that gives rise to users entering treatment. Limitations in data recording, and the small number of absolute cases reported in some countries should be considered also.

For simplicity, to analyse changes and trends we have considered here only the group of clients reporting cannabis as the primary drug for the first time in their life. Nevertheless, this information must be seen in the context of a changing and expanding reporting system, the implications of which are discussed below.

When looking at socio-demographic characteristics of cannabis clients, the following picture emerges. Cannabis clients new to treatment are predominantly young males. The highest male to female ratio among all drugs clients is found among these new outpatient clients (6 males:1 female) <sup>(7)</sup>. Higher male to female ratios are found in Italy, Portugal, Hungary, Germany, with lower ratios in the Czech Republic, Sweden, Finland and the United Kingdom. These differences in the male to female ratios among countries is quite similar across the other primary drugs of use. Almost all new clients entering treatment for primary cannabis use are younger than 30, and almost 40% are younger than 20. The mean age of cannabis clients is 24 years, whereas in the case of other drugs, this age is generally higher. Country differences are found in the age distribution of cannabis clients <sup>(8)</sup>. Among the group of people under 20 years old receiving drug treatment, the vast majority reports using cannabis as the primary drug (80% among people under 15, 67% among those aged 15–19) <sup>(9)</sup>.

The age of first cannabis use — onset — is important, since it has been reported that the younger the age at which users first consume cannabis, the higher the risk of developing drug problems in the future (Kraus et al., 2003). Compared with other drug types, which show considerable variation across countries, age of first cannabis use among clients requesting treatment for cannabis is quite similar across countries in Europe. In the TDI data for cannabis clients starting treatment for the first time, the mean age of starting cannabis use is 17 years. Virtually all new cannabis clients start their drug use before they are 20 and 33% before they are 15. The corresponding figures for opiates are 45% before 20 years old, and 5% before 15 years old, and for cocaine, 48% and 6%, respectively <sup>(10)</sup>. A comparison of age of onset with age first treated shows that there is a time lag of around 7 years between first cannabis use

<sup>(7)</sup> See table TDI-22 in the Statistical bulletin 2007.

<sup>(8)</sup> See tables TDI-10 and TDI-102 in the Statistical bulletin 2007.

<sup>(9)</sup> See table TDI-10 in the Statistical bulletin 2007.

<sup>(10)</sup> See table TDI-11 in the Statistical bulletin 2007.

and first drug treatment, regardless of where treatment is sought (that is, in different countries and in different types of treatment centre).

Finally, looking at available data on other social characteristics in 2002 <sup>(11)</sup>, the relatively young age of cannabis clients means that a large proportion, 45%, are still in education, compared with only 8% amongst clients being treated for problems with other drugs. A further 24% of those being treated for cannabis problems are in regular employment, equal to the percentage who are unemployed. This is in stark contrast to clients using drugs such as heroin, among whom very few are employed. In addition, cannabis clients more often report living in stable accommodation than those being treated for problems with other drugs, reflecting the fact that many are young people, students, or living with their parents (Agosti and Levin, 2004). However, a few countries, such as Greece, also report a number of primary cannabis clients who are older, in more precarious social conditions and using other drugs together with cannabis (EMCDDA, 2004).

To conclude, the most common characteristics of cannabis clients are that they are young male, a student/school pupil and living with parents. However, there are also indications of cannabis clients who are older or less socially well-integrated. The same patterns were found in the recent review of cannabis specialised treatment reported by Rødner Sznitman (this monograph).

## Incidence of demands for cannabis treatment

Based on data that were available in 19 EU countries, there are on average 41 persons per 100 000 young adults (aged 15–34) each year who enter treatment for cannabis use for the first time. Only a tiny proportion — 1 in 200 — last-month cannabis users in the young adult population (aged 15–34) report entering specialised drug treatment for cannabis use (Table 1). A 2004 detailed review of cannabis treatment demand, conducted by the Dutch National Alcohol and Drugs Information System (LADIS), confirms that only a small proportion of regular cannabis users in the Netherlands receives drug treatment.

Major differences are found between countries in the TDI data set in the proportion of clients seeking treatment for cannabis. This varies considerably, from 3% in Bulgaria to 48% in France and 36% in Hungary. In terms of new clients, there are also large differences between countries, with cannabis clients reaching an almost 70% share of new clients entering drug treatment in France <sup>(12)</sup>. In general, a high prevalence of

<sup>(11)</sup> An ad hoc data collection on social characteristics of cannabis clients was done in 2002, yet is not available for other years.

<sup>(12)</sup> See tables TDI-04 and TDI-05 in the Statistical bulletin 2007.

**Table 1: Treatment demand for cannabis as primary drug among new drug clients and last-month prevalence of cannabis use among young adults in 2005 or most recent year available: incidence per 100 000 young population at 1 January 2006**

Country	% cannabis clients of last-month prevalence, young adults	New cannabis clients in 2005 of the total clients (%)	New cannabis clients 2005 (absolute numbers)	Cannabis clients per 100 000 young adult population	Last-month cannabis prevalence, young adults 2005 or most recent year available (%)	Last-month prevalence, young adults 2005 or most recent year available (absolute numbers)	General population, young adults (15–34) in 2006 (1 January)
Bulgaria	0.1	9.3	36	2	1.7	37213	2 188 992
Czech Republic	0.3	20.5	896	29	9.8	301 960	3 081 224
Denmark	1.1	52.6	830	63	5.9	78 124	1 324 139
Germany	0.5	58.0	8 139	42	7.6	1 485 409	19 544 850
Ireland	1.4	40.2	807	60	4.3	58 055	1 350 110
Greece	0.5	10.1	225	7	1.5	45 573	3 038 209
Spain	0.3	20.3	5 312	42	15.5	1 971 238	12 717 663
France	0.2	67.3	2 804	17	9.8	1 608 241	16 410 618
Italy	0.7	24.1	8 477	58	8.8	1 290 733	14 667 416
Cyprus	1.7	40.2	84	35	2.1	5 025	239 305
Latvia	0.3	17.0	68	10	3.7	25 200	681 077
Lithuania	0.0	0.3	1	0	1.5	14 867	991 130
Hungary	4.0	52.0	3 286	113	2.8	81 440	2 908 578
Netherlands	0.8	41.8	1 797	44	5.6	228 066	4 072 607
Portugal	0.4	11.4	552	19	4.4	129 324	2 939 173
Slovakia	0.5	28.8	277	16	3.3	57 968	1 756 615
Finland	0.4	34.0	215	17	4.0	51 802	1 295 042
Sweden	1.2	31.6	422	19	1.5	34 200	2 279 985
United Kingdom	0.5	21.9	9 400	59	11.6	1 844 191	15 898 200
Total	0.5	29.0	43 628	41	8.7	9 348 627	107 384 933

Notes: only countries that sent information about first treatments are included.

Source: 2006 Reitox National reports, Standard Table 3. For total number of clients see table TDI-2. For population see Eurostat, demographic data 2006 (<http://epp.eurostat.ec.eu.int>).

cannabis use reported in the general population is associated with a high percentage of primary cannabis users among treatment clients. In particular, the available data show that countries with high or low last-month prevalence in the young adult population (15–34 years) have correspondingly high or low incidence of cannabis as a share of treatment demand. However, there are a few exceptions: in some countries, high levels of last-month cannabis prevalence in the young adult population contrast with low levels of treatment demand for cannabis and vice versa (Cyprus, Hungary, France, Portugal — see Table 1).

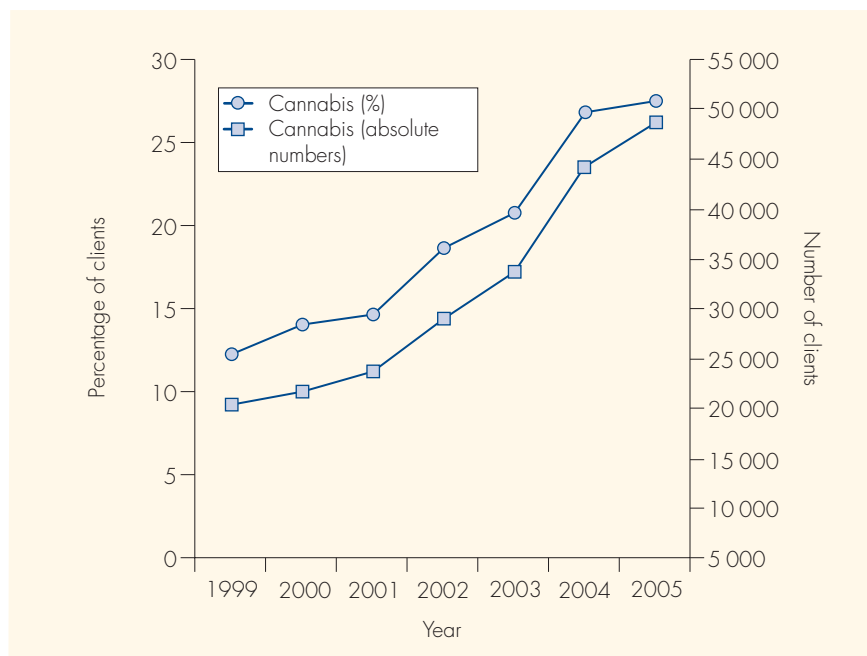
The reasons for discrepancies between use and treatment across countries are presumably historically rooted, in both the development of treatment centres and in attitudes to treatment, as well as prevalence and patterns of cannabis use. In cases where high levels of recent cannabis prevalence contrast with low proportions of treatment demand, this could imply that treatment availability for cannabis is insufficient or not appropriate. On the other hand, it could simply be because there is no perceived need for drug treatment. As shown elsewhere (Corrigan, Beck and Legleye, this monograph), it is uncertain to what extent cannabis use triggers a need for treatment. In other cases, where high demand for cannabis treatment contrasts with low recent cannabis prevalence, this might arise from more restrictive national legislation, or a widespread medical approach to dealing with cannabis problems.

Even if cannabis is the most used drug in Europe, only a minor part of the population uses it on a regular basis, and an even smaller proportion demands drug treatment (Agosti and Levin, 2004; Toxibase and Crips, 2004). One of the various observations that may be made from this is that demand for cannabis treatment does not always mirror, in a logical and straightforward way, the cannabis prevalence rates in the general population. Instead, it is clear that the extent of demand for cannabis treatment is a complex issue that is probably related to several factors which lie beyond variations in reporting coverage. Contenders for explaining this phenomenon include prevalence of intensive cannabis users in the general population, availability of treatment, patterns of referral to treatment and national legislation.

## Trends in treatment incidence

Between 1999 and 2005, according to the TDI information from 20 countries, the number of new clients entering treatment for cannabis as a primary drug increased by 28 000, from around 15 000 to almost 44 000 reported cases. In 1999 the proportion of new cannabis clients represented around 12% of the total of the new clients, while in 2005 it reached almost 28% (Figure 1). In 11 countries there was an increase in the proportion of cannabis clients, and in 11 countries a stable or slightly decreasing trend was noted. The highest growth was reported in Hungary (+ 40%) and France (+ 37%), followed by Slovakia, Germany, Malta, Denmark and The Netherlands (around

**Figure 1:** Trends in new cannabis treatment demands from 1999 to 2005 (proportion of total clients and absolute numbers)



Notes: Missing data were interpolated by assigning for the respective country the EU average year-on-year trend from available data. Altogether, 14% of data points and 21% of the number of clients were interpolated. Countries included: Bulgaria, Czech Republic, Denmark, Germany, Greece, Spain, Ireland, France, Italy, Hungary, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, United Kingdom. In the case of Romania, the 2001 proportion of heroin clients among all new clients was used to estimate their 2000 and 1999 number based on all new clients number.

Source: 2006 Reitox National reports – Standard Table 4 – New clients.

+ 20%) while the smallest growth was found in Poland, Portugal, the Czech Republic and Romania<sup>(13)</sup>. An analysis carried out in England on cannabis treatment demand confirmed this upward trend (DMRD, 2004).

Compared with other substances, primary cannabis treatment demands increased faster than demands for treatment of other drugs. In the same time period, new heroin clients decreased by 32%, cocaine clients increased by 11% and other stimulant users increased by 4%. This reported increase in cannabis treatment demand is not restricted to Europe. In the USA, where a different drug treatment registration system is used<sup>(14)</sup>,

<sup>(13)</sup> See table TDI-03 in the Statistical bulletin 2007.

<sup>(14)</sup> In the USA, admissions to treatment rather than individuals are registered. In addition, in contrast to Europe, alcohol is included among the substances of abuse. See the SAMHSA website ([www.samhsa.gov](http://www.samhsa.gov)); note that in the USA, Canada and Australia the term 'marijuana' is used because the term 'hashish' (cannabis resin) is not common.

treatment admissions for marijuana increased from around 20 000 in 1992 to nearly 90 000 in 2000 (SAMHSA, 2003; EMCDDA, 2003b).

Looking at the factors that might have influenced the reported trends, changes are seen in the following areas:

- reporting system and data coverage;
- drug services organisation;
- sources of referrals to treatment;
- socio-demographic characteristics; and
- patterns of drug use and, in particular, frequency of cannabis use.

The coverage of the European reporting system has expanded in recent years, with an increase in number of units and clients recorded by the system. It is unclear to what extent this represents a genuine expansion in treatment offering, as opposed to simply the coverage of the treatment reporting system. It is also unclear how treatment offering and reporting coverage may have affected the increase in cannabis treatment demands. Nevertheless, this growth is not sufficient to explain the increase in cannabis treatment demands (EMCDDA, 2003b) <sup>(15)</sup>.

The organisation of drug treatment services has changed in recent years. Because of the decrease in proportion of heroin clients, centres have adapted treatment offerings to embrace a differentiated client population that includes cocaine and cannabis users. This shift in targeted clients might have influenced demand for treatment. In particular, countries such as France — where a high proportion of cannabis users is found among all treated clients — have created treatment centres for target groups, such as adolescents, and these have reported a substantial proportion of cannabis clients (EMCDDA, 2003b). Overall, such centres might have added ‘weight’ to the share of cannabis users among all treatment clients.

## Referral routes into treatment

It is important to identify the channels through which people enter treatment. A number of standard options are available in the TDI schedule for recording the source of referral for drug users entering treatment. These distinguish (i) drug users who have referred themselves and (ii) those who have been referred through other agencies such as health, social or criminal justice agencies. Most cannabis clients are referred by family and friends, social services or the criminal justice system. In comparison with users of other drugs, a smaller proportion of cannabis clients are self-referrals (EMCDDA, 2004). A similar picture is also seen in the USA and Canada, where treatment demand for

<sup>(15)</sup> See table TDI-02 in the Statistical bulletin 2007.

marijuana as a primary substance is largely found not to be self-initiated (EMCDDA, 2003b). In countries with significant percentages of primary cannabis clients, legal authorities and schools play an important role in referring cannabis clients (EMCDDA, 2003a). In an American analysis of marijuana admissions to treatment based on source of referral (DASIS, 2005), marijuana admissions referred by criminal justice were also reported to have a different profile from non-criminal justice referrals: they were younger, with a higher presence of males, and often occasional users of cannabis with no other additional drugs.

Some understanding of the reasons for increases in treatment uptake may be found in analysing the changes in the sources of referral to treatment. Between 2001 and 2002, in those countries reporting data <sup>(16)</sup>, the total number of cannabis clients referred to treatment services by hospital/medical sources and by legal authorities increased by 79% and 58% respectively, while the known base of clients increased by 37%. By comparison, from 1992 to 2002 the USA also reported increases in marijuana admissions referred by the criminal justice system (EMCDDA, 2004).

One of the more problematic measures in the EMCDDA's TDI is the frequency of use of the primary drug in the period immediately before entering treatment. Intended to give insight into, amongst other things, the severity of problem to be treated, in practice this measure can be strongly tied to the route of referral and how treatment entry comes about. Often this 'frequency of use' item records, strangely, no or little use of the primary drug in the period in question — a phenomenon that might be related to referrals from criminal justice, or from a health agency positioned earlier in a referral chain. As such, it is difficult to separate its interpretation from referral patterns. For example, among clients in treatment for a primary cannabis problem in 2005, 30% of new cannabis clients use the drug occasionally or have not used in the month prior to treatment, while 40% use it daily <sup>(17)</sup>. There are again large differences between countries: the highest proportion of daily cannabis users is found in the Netherlands, Denmark and Spain, and the highest proportion of occasional users — including clients who may not have used in the past month — are found in Hungary, Germany and Italy. Compared with the other drugs, in the case of cannabis there is a higher polarisation of patterns of use between occasional users — including non-users — and daily users. The same patterns are also found in American analysis (NSDUH, 2004).

Among new cannabis users presenting to treatment between 2003 and 2005, the proportion of daily users increased by more than 10% <sup>(18)</sup>. A number of factors may be behind this increase, for example artefacts of reporting measures, polydrug use,

<sup>(16)</sup> The countries reporting in these years were Finland, Germany, Greece, Norway, Sweden and the United Kingdom.

<sup>(17)</sup> See table TDI-18 in the Statistical bulletin 2007.

<sup>(18)</sup> See table TDI-18 in the Statistical bulletin 2007.

and mental health problems among cannabis clients. A number of countries report polydrug use where cannabis is reported as the primary substance, yet accompanied by the use of alcohol and other drugs. In these cases, it is not totally clear which drug precipitates treatment-seeking, even though cannabis might be declared as the primary problem. Some countries have examined a purported relationship between mental health problems and cannabis use, and specific research has been carried out to investigate this relation. The scientific literature indicates that it is not always clear whether problematic cannabis use comes before a mental health problem, contributing to its appearance or discovery, or whether cannabis is used as a kind of medication for pre-existing mental health problems (see Witton, this monograph). However, there is a group of people that regularly uses cannabis and seeks help for problems that may be related to their cannabis use. This should be seriously taken into consideration by the treatment system, and be better investigated by researchers.

## Conclusions

The objective of this review has been to describe the observed increase in reported cannabis treatment demand, and to analyse the changing reporting environment to better understand the trend. In doing so, it has become apparent that many important questions that are fundamental to an informed policy debate on this controversial topic remain unanswered. What is also apparent is that the available evidence justifies neither an alarmist position nor complacency on cannabis treatment demand.

People with cannabis-related problems constitute a non-trivial proportion of treatment demands in specialised facilities in some countries, and form an important subgroup within the larger treatment population. Most are young males, typically around 20 years old, and most started using cannabis at around 17 years of age.

Cannabis clients have different patterns of drug use from those consuming other substances. Moreover, there are important differences between cannabis clients, and the profiles of different subgroups of cannabis users in treatment are likely to be directly relevant to understanding their needs and the provision of appropriate responses. Important dimensions for service provision include frequency of use, current and past use of other drugs, and referral source. In broad terms, summarising the available information at EU level, two client profiles can be postulated (EMCDDA, 2004):

- at one extreme, younger users, often students, referred to treatment services by family or school, and consuming only cannabis or sometimes together with alcohol or stimulants; and
- at the other extreme, polydrug users who are typically older and less socially well-integrated, and who are referred to treatment more often by legal authorities or health and social services, and who overlap with the chronic drug-using population.

In reflecting on changes in the characteristics of primary cannabis treatment demand over time, the available information suggests that there were increases in:

- numbers of clients referred from the criminal justice system;
- referrals from family and other social support networks (family, friends, social services, school);
- the proportion of people using cannabis intensively (daily cannabis use), although daily users remain in the minority; and
- levels of social and educational problems in some countries (although data in this area are still weak).

In considering the increase in treatment demand, it appears that changes in referral practice have an impact, and a substantial proportion of those referred appear not to be intensive drug users. Nonetheless, in some countries at least, a significant number of treatment demands come from individuals whose use of cannabis is intensive. The problems experienced by this group remain poorly understood, and research in this area is urgently needed. The observation that a majority of treatment demands made by the very young are for cannabis suggests that special consideration of the needs, referral pathways and responses of this group is required.

It is also important to recognise that treatment demand is not a direct indicator of the scale and nature of cannabis problems. General population survey data suggest that, compared with occasional use, intensive cannabis use is relatively uncommon. However, the widespread general use of cannabis means that considerable numbers of people may be using the drug intensively — at least for some part of their life (EMCDDA, 2004).

Although the effects of cannabis dependence or abuse are less severe than those of other drugs, this may, nevertheless, have a considerable public health impact. This is because of the scale of cannabis use, and the fact that many of those most affected are young and may be using the drug intensively during important developmental stages, or when they are particularly vulnerable. Among socially disadvantaged families or communities, cannabis dependence or abuse may compound individuals' problems by harming education or employment opportunities.

In summary, there remains a critical need for research to provide an understanding of the relationship between different patterns of cannabis use and the development of problems. The extent to which cannabis users experience problems and the nature of the problems that may be found still remain poorly understood. Methodological tools are required to assess problems at the population level. Such information is a prerequisite to the development, targeting and implementation of effective public health responses to cannabis use in Europe.

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