Drug Misuse Research Division

Trends in treated problem cannabis use in the seven health board areas outside the Eastern Regional Health Authority, 1998 to 2002

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Summary

The data presented in this paper describe trends in treated problem cannabis use in seven health board areas, namely: the Midland, Mid-Western, North Eastern, North Western, Southern, South Eastern and Western Health Boards. The total numbers include 6,164 cases who lived and were treated in the seven health boards between 1998 and 2002. In this paper, treated problem cannabis use is described in relation to person, place and time. This paper will assist policy makers and service planners develop appropriate responses to problem cannabis use.

The analysis presented in this paper is based on data reported to the National Drug Treatment Reporting System (NDTRS).

The main findings and their implications are:

- Both the incidence and prevalence of treated problem cannabis use more than trebled during the reporting period. For example, the incidence increased from 14.7 per 100,000 of the population aged between 15 and 64 years in 1998 to 50.5 per 100,000 in 2002. This observed increase may be explained by a combination of the following factors: a possible increase in cannabis supply between 1996 and 2001 (Connolly 2004), an increase in access to treatment services or an increase in the numbers of centres reporting cases to the NDTRS.

- Cannabis is reported most commonly as the main problem drug treated in the seven health board areas outside the Eastern Regional Health Authority area. The total number who sought treatment for cannabis as a main problem drug trebled during the reporting period, from 392 cases in 1998 to 1,328 in 2002. In total, 70 per cent (4322/6164) of those who sought treatment for problem cannabis use reported that it was their main problem drug while the remainder reported it as a second, third or fourth problem drug. The total number of new cases reporting cannabis as their main problem drug remained consistently higher than the number reporting it as a second, third or fourth problem drug. For example, 843 new cases reported cannabis as a main problem drug, while 245 new cases reported it as a second, third or fourth problem drug in 2002.

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- The age by which half of new cannabis cases reported first using cannabis was similar to the age by which new cases reported that they had commenced using illicit drugs. This indicates that cannabis is the first drug used by many of those treated.

- Despite a large increase the provision of services to address problem substance use, for new cases reporting cannabis as their main problem drug the time interval between first commencing cannabis use and starting treatment increased over the period under review, from four years in 1998 to five years in 2002. The reasons for, and consequences of, cannabis users delaying treatment for five years require investigation.

- There was a small decrease in the proportion of cannabis cases who reported using other drugs as well as cannabis, from 83 per cent in 1998 to 78 per cent in 2002, although polydrug use remained a common practice. Polydrug use is associated with poor treatment outcomes and needs to be addressed during treatment.

- Ecstasy and alcohol were the most common second drugs used in conjunction with cannabis as a main problem drug. In 2002, alcohol replaced ecstasy as the most common second drug used. This suggests that cannabis use is commonly associated with social events and is used in conjunction with alcohol and ecstasy.

- The main problem drug was examined by selected socio-demographic characteristics and some important patterns were identified. The proportion of new cannabis cases under 18 years of age increased substantially from 21 per cent in 1998 to 31 per cent in 2002. Those aged 17 years or under require different approaches to treatment and it is important that this is included in service planning. Although the vast majority of new cases who reported cannabis as a main problem drug were male, there was an increase in the proportion of females reporting cannabis as a main problem drug. Over the reporting period, an increasing proportion of new cannabis cases reported that they were still attending school. A higher proportion of new cannabis cases (36%) were employed than were their previously treated counterparts (29%), indicating that those with chronic problem cannabis use may have greater difficulties securing or retaining employment.

Glossary of terms

- **Incidence** is a term used to describe the number of new cases of disease or events that develop among a population during a specified time interval. For example, in 2001, ten cannabis users living in a specific county sought treatment for the first time. The incidence is the number of cannabis cases divided by the population living in the county (say 31,182 persons in this example) expressed per given number of the population, i.e., per 100, per 1,000, per 10,000, etc.
  - The calculation in this case is as follows: (10/31,182) x 10,000, which gives an incidence rate of 3.2 per 10,000 of the specific county population in 2001.

- **Prevalence** is a term used to describe the proportion of people in a population who have a disease or condition at a specific point or period in time. For example, in 2001, ten cannabis users living in a specific county sought treatment for the first time, 20 cannabis users returned to treatment in the year and five cannabis users continued in treatment from the previous year; in total there are 35 people treated for problem cannabis use in 2001. The prevalence is the total number of cases (35) divided by the population living in the county (31,182 persons) expressed per given number of the population, i.e., per 100, per 1,000, per 10,000, etc.
  - The calculation in this case is as follows: (35/31,182) x 10,000, which gives a prevalence rate of 11.2 per 10,000 of the specific county population in 2001.

- The **median** is the value at the mid-point in a sequence of numerical values ranged in ascending or descending order. It is defined as the value above or below which half of the values lie. Unlike the mean (average), the median is not influenced by extreme values (or outliers). For example, in the case of five drug users aged 22, 23, 24, 24 and 46 years respectively, the median (middle value) is 24 years, whereas the mean is 27.8 years. While both the median and the mean describe the central value of the data, the median is more useful since the mean is influenced by the one older person in this example.

Introduction

The National Drug Treatment Reporting System (NDTRS) is an epidemiological database on treated problem drug use in Ireland. It was established in 1990 in the Greater Dublin Area and was extended in 1995 to cover other areas of the country. The reporting system was originally developed in line with the Pompidou Group's Definitive Protocol (Hartnoll 1994) and subsequently refined in accordance with the Treatment Demand Indicator Protocol (EMCDDA and Pompidou Group 2000). The NDTRS is co-ordinated by staff at the Drug Misuse Research Division (DMRD) of the Health Research Board (HRB) on behalf of the Department of Health and Children.

Drug treatment data are viewed as an indirect indicator of drug misuse as well as a direct indicator of demand for treatment services. These data are used at national and European levels to provide information on the characteristics of clients entering treatment, and on patterns of drug misuse, such as types of drugs used and consumption behaviours. They are 'valuable from a public health perspective to assess needs, … and to plan and evaluate services' (EMCDDA 1998: 23). Information from the NDTRS is made available to service providers and policy makers and is used to inform local and national drug policy and planning. For example, in 1996 NDTRS data were used to identify a number of local areas with problematic heroin use (Ministerial Task Force 1996). These areas were later designated as Local Drugs Task Force Areas and are continuing to provide strategic responses to drug misuse in their communities.

The monitoring role of the NDTRS is recognised by the Government in its document *Building on Experience: National Drugs Strategy 2001–2008*. Data collection for the NDTRS is one of the actions identified and agreed by Government for implementation by health boards: 'All treatment providers should co-operate in returning information on problem drug use to the DMRD of the HRB' (Department of Tourism, Sport and Recreation 2001: 118).

Methods

Compliance with the NDTRS requires that one form be completed for each person who receives treatment for problematic drug use at each treatment centre in a calendar year. Service providers at drug treatment centres throughout Ireland collect data on each individual treated for drug misuse. At national level, staff at the DMRD of the HRB compile anonymous, aggregated data.

For the purpose of the NDTRS, treatment is broadly defined as 'any activity which aims to ameliorate the psychological, medical or social state of individuals who seek help for their drug problems'. Clients who attend needle-exchange services are not included in this reporting system. Up to 2004, clients who reported alcohol as their main problem drug were not included in this reporting system. Treatment options include one or more of the following: medication (detoxification, methadone reduction and substitution programmes), addiction counselling, group therapy, psychotherapy and/or life skills training. Treatment is provided in both residential and non-residential settings. In the seven health board areas, data returns to the NDTRS for clients attending treatment services during 2002 were provided by 79 treatment services: 63 non-residential and 16 residential (Table 1).

The main elements of the reporting system are defined as follows:

All cases treated – describes individuals who receive treatment for problematic drug use at each treatment centre in a calendar year, and includes both

(a) *Previously treated cases* – describes individuals who were treated previously for problematic drug use at any treatment centre and have returned to treatment in the reporting year, and also those individuals continuing in treatment from the preceding calendar year; and

(b) *New cases treated* – describes individuals who have never been treated for problem drug use.

In the case of the data for 'previously treated cases' there is a possibility of duplication in the database; for example, where a person receives treatment at more than one centre.

As a result of small numbers in 1998 and a high rate (10%) of treatment status unknown, some of the comparisons are limited to the time-period 1999 to 2002.

The data presented in this paper provide:

- A brief description of demand for cannabis treatment in seven health board areas, namely: the Midland, Mid-Western, North Eastern, North Western, Southern, South Eastern and Western Health Boards. This includes cases resident in the Eastern Regional Health Authority and cases not resident in Ireland who sought treatment in one of the seven health board areas between 1998 and 2002.

- A detailed description of problem cannabis use among those treated and living in the seven health board areas between 1998 and 2002.

Analysis

The analysis presented provides an overview of numbers treated for problem cannabis use in the seven health board areas. In addition, an analysis of those living and treated in the seven health board areas is presented. The latter analysis estimates the prevalence and incidence of treatment for cannabis use, calculates the time interval between starting cannabis use and first treatment, describes the initial treatment(s) provided, documents other drugs associated with treated problem cannabis use and describes socio-demographic characteristics of cases.

Coverage of cannabis-related treatment

The total number of services providing treatment for cannabis as a main problem drug in the seven health board areas outside the Eastern Regional Health Authority area and participating in the NDTRS increased between 1998 and 2002 (Table 1). The largest increase was in outpatient treatment services, while there was a smaller increase in the number of residential treatment services.

Table 1 Number and type of services providing treatment for cannabis as a main problem drug and number of cases treated (in brackets) in the seven health board areas,* and reported to the NDTRS, 1998 to 2002

Drug services	1998	1999	2000	2001	2002
Outpatient	34 (319)	32 (406)	44 (756)	53 (739)	53 (820)
Residential	11 (90)	9 (153)	11 (203)	12 (422)	16 (539)

* Midland Health Board, Mid-Western Health Board, North Eastern Health Board, North Western Health Board, Southern Health Board, South Eastern Health Board and Western Health Board.

Numbers treated

In total, 6,516 cases sought treatment for problem cannabis use in the seven health board areas between 1998 and 2002. Of these, 6,164 (94.6%) lived in one of the seven health board areas, 330 (5.1%) lived in the Eastern Regional Health Authority area and 17 (0.3%) lived outside Ireland. Five cases (0.1%) had no place of residence recorded.

In total, 4,447 cases sought treatment for cannabis as a main problem drug in the seven health boards between 1998 and 2002, of whom 4,322 (97.2%) lived in one of the seven health board areas, 110 (2.1%) lived in the Eastern Regional Health Authority area and 11 (0.2%) lived outside Ireland. Four cases (0.1%) had no place of residence recorded.

The analysis pertaining to those reporting any use of cannabis is based on the 6,164 cases who lived in and were treated in the seven health board areas, while the analysis relating to those reporting cannabis as a main problem drug is based on the 4,322 cases.

The total numbers who sought treatment and reported cannabis as a problem drug almost trebled, increasing from 628 in 1998 to 1,831 in 2002 (Table 2). The proportion of cases reporting cannabis as a main problem drug increased over the reporting period, while the proportion reporting it as a secondary drug declined. In total, 70 per cent (4322/6164) of those who sought treatment for problem cannabis use reported that it was their main problem drug, while the remainder reported it as a second, third or fourth problem drug. The number of new cases who reported cannabis as a problem drug trebled during the period under review. Of cannabis users seeking treatment for the first time, 69 per cent of cases reported cannabis as their main problem drug in 1998, whereas 78 per cent of cases reported it as their main problem drug in 2002. This represents an increase of nearly ten per cent. Although the proportions were not as high, the same increasing trend was noted for previously treated cannabis cases.

Table 2 Number of cannabis cases living and treated in the seven health board areas,* by rank of problem drug and by treatment status, reported to the NDTRS, 1998 to 2002

Cannabis	1998		1999		2000		2001		2002	
					Number (%)					
Problem drug cannabis	**628**		**792**		**1308**		**1605**		**1831**	
Main problem drug	392	(62.4)	543	(68.6)	924	(70.6)	1135	(70.7)	1328	(72.5)
Second, third or fourth drug	236	(37.6)	249	(31.4)	384	(29.4)	470	(29.3)	503	(27.5)
Treatment status										
Previously treated cases	**209**	**(33.3)**	**287**	**(36.2)**	**460**	**(35.2)**	**578**	**(36.0)**	**666**	**(36.4)**
Main problem drug	109	(52.2)	177	(61.7)	304	(66.1)	362	(62.6)	432	(64.9)
Second, third or fourth drug	100	(47.8)	110	(38.3)	156	(33.9)	216	(37.4)	234	(35.1)
New cases	**355**	**(56.5)**	**484**	**(61.1)**	**821**	**(62.8)**	**964**	**(60.1)**	**1086**	**(59.3)**
Main problem drug	245	(69.0)	357	(73.8)	600	(73.1)	724	(75.1)	843	(77.6)
Second, third or fourth drug	110	(31.0)	127	(26.2)	221	(26.9)	240	(24.9)	243	(22.4)
Not known	64	(10.2)	21	(2.7)	27	(2.1)	63	(3.9)	79	(4.3)

* Midland Health Board, Mid-Western Health Board, North Eastern Health Board, North Western Health Board, Southern Health Board, South Eastern Health Board and Western Health Board.

Incidence and prevalence over time

Figure 1 presents the incidence and prevalence of treated problem cannabis use from 1998 to 2002 among persons aged between 15 and 64 years in the seven health board areas, expressed per 100,000 population. Both the incidence and prevalence of treated problem cannabis use trebled during the reporting period. The incidence increased from 14.7 per 100,000 of the population in 1998 to 50.5 per 100,000 in 2002, while the prevalence increased from 23.5 per 100,000 to 79.6 per 100,000 over the same time period. This observed increase may be explained by: an increase in cannabis supply between 1996 and 2001 (Connolly 2004), an increase in cannabis toxicity, an increase in access to treatment services, or an increase in the numbers of centres reporting cases to the NDTRS. The most likely explanation is a combination of some or all these factors.

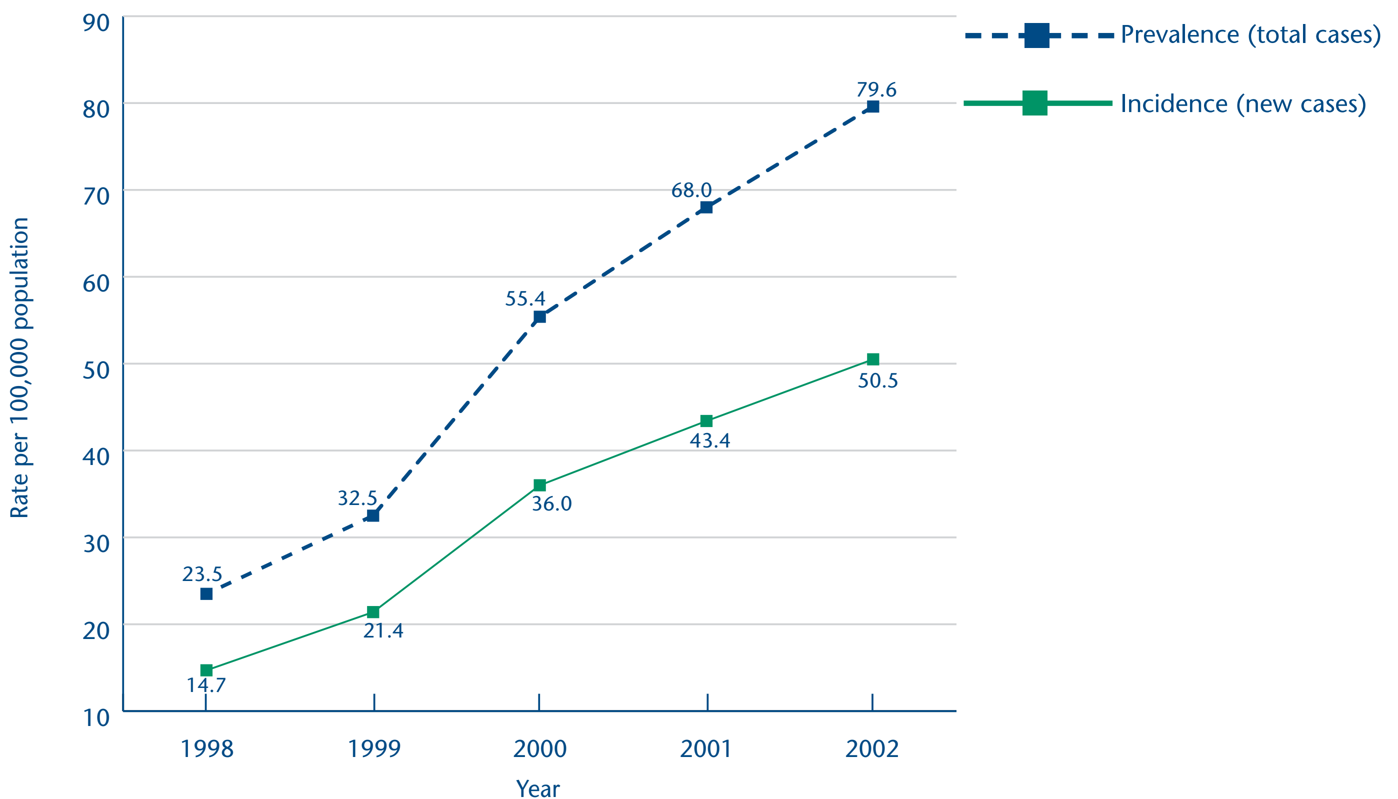

Figure 1 Incidence and prevalence of treatment for cannabis as a main problem drug among persons aged between 15 and 64 years living and treated in the seven health board areas per 100,000 population (Central Statistics Office 2003), based on returns to the NDTRS, 1998 to 2002

Geographical spread of treated problem cannabis use

In order to examine the spread of treated problem cannabis use throughout Ireland it was necessary to calculate and map geographically the average annual rate of new cannabis cases in each county over two five-year time periods, namely 1996 to 2000 and 1998 to 2002. Five-year periods were chosen because the numbers of cannabis cases in each county for each individual year were small. Averaging the number of cases over five years provides a more reliable (robust) estimate of the annual rate. While these two time periods partially overlap, it is still possible to track the spread of treated problem cannabis use between the earlier period (1996–2000) and the later period (1998–2002).

Figure 2 presents the average annual rate of treatment for cannabis as the main problem drug among persons aged 15 to 64 years, by county of residence, for the period 1996 to 2000. The general pattern is one of high rates extending from the north-east through to the midlands, the mid-west and the south of the country. The highest rate was observed in Waterford (74.3 per 100,000 population), followed by Westmeath (36.1), Cork (34.5) and Carlow (27.6). The lowest rates were observed in the west and in the north-west with the exception of Sligo.

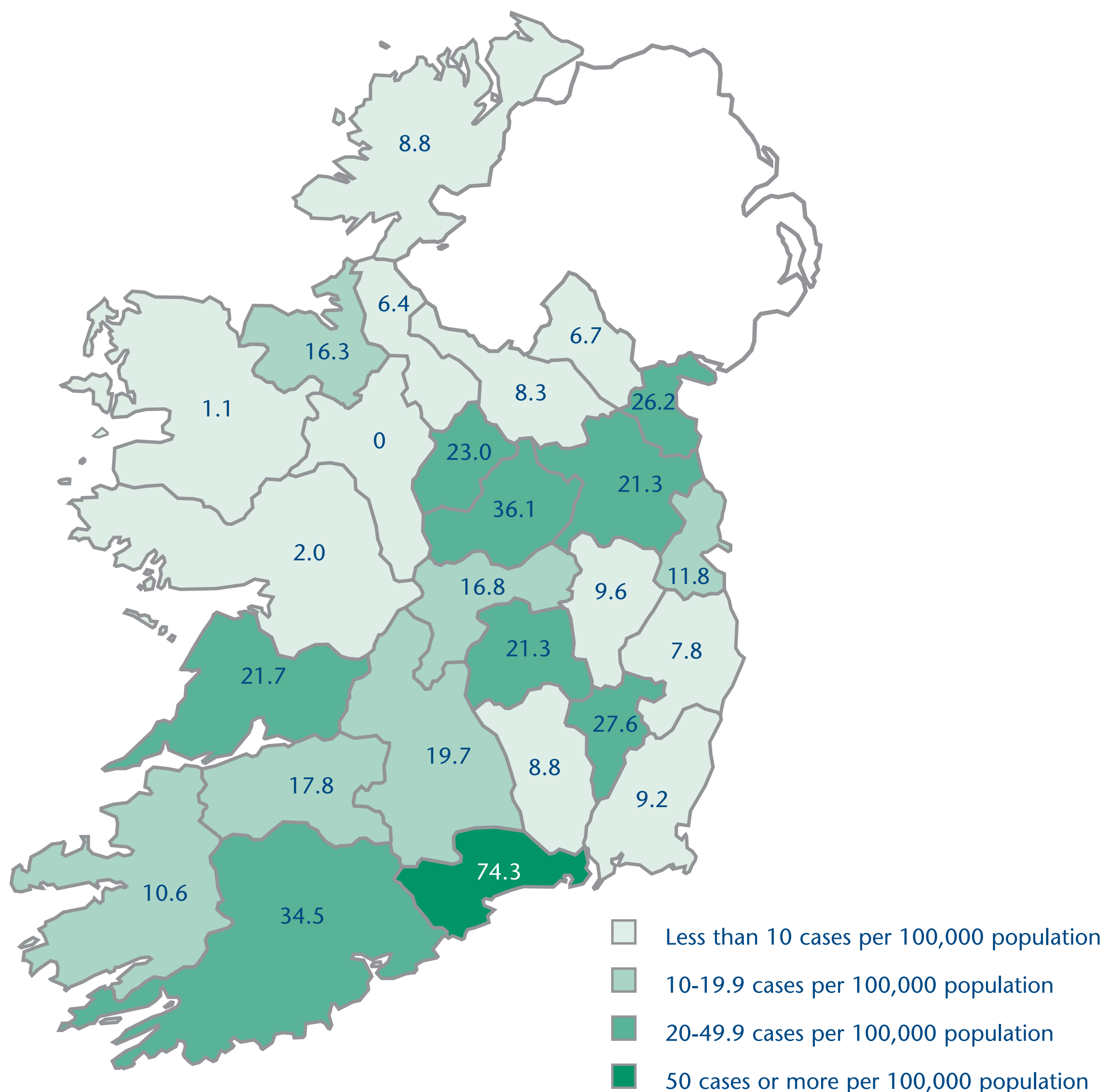

Figure 2 Average annual incidence of treatment for cannabis as a main problem drug among persons aged 15 to 64 years by county of residence per 100,000 population (Central Statistics Office 2003) based on returns to the NDTRS, 1996 to 2000

Figure 3 presents the average annual rate of treatment for cannabis as a main problem drug among persons aged 15 to 64 years, by county of residence, for the period 1998 to 2002. Rates tended to be higher in this later period, with a spread of demand for treatment into the south-east and north-west of the country. Large increases in the demand for treatment were noted in Carlow (62.9, up from 27.6) and Sligo (39.0, up from 16.3), followed by Cork (53.4, up from 34.5) and Kerry (29.2, up from 10.6). While Waterford still had the highest rate of new cannabis cases seeking treatment (72.3) the rate was slightly lower than in the earlier time period (74.3). Decreases were also noted in Westmeath and Leitrim. Some of the lowest rates were observed in the counties comprising the Western Health Board (Galway, Mayo, Roscommon). Rates for this later period were not available for Dublin, Kildare and Wicklow due to incomplete data from the ERHA for the years 2001 and 2002 at the time of writing.

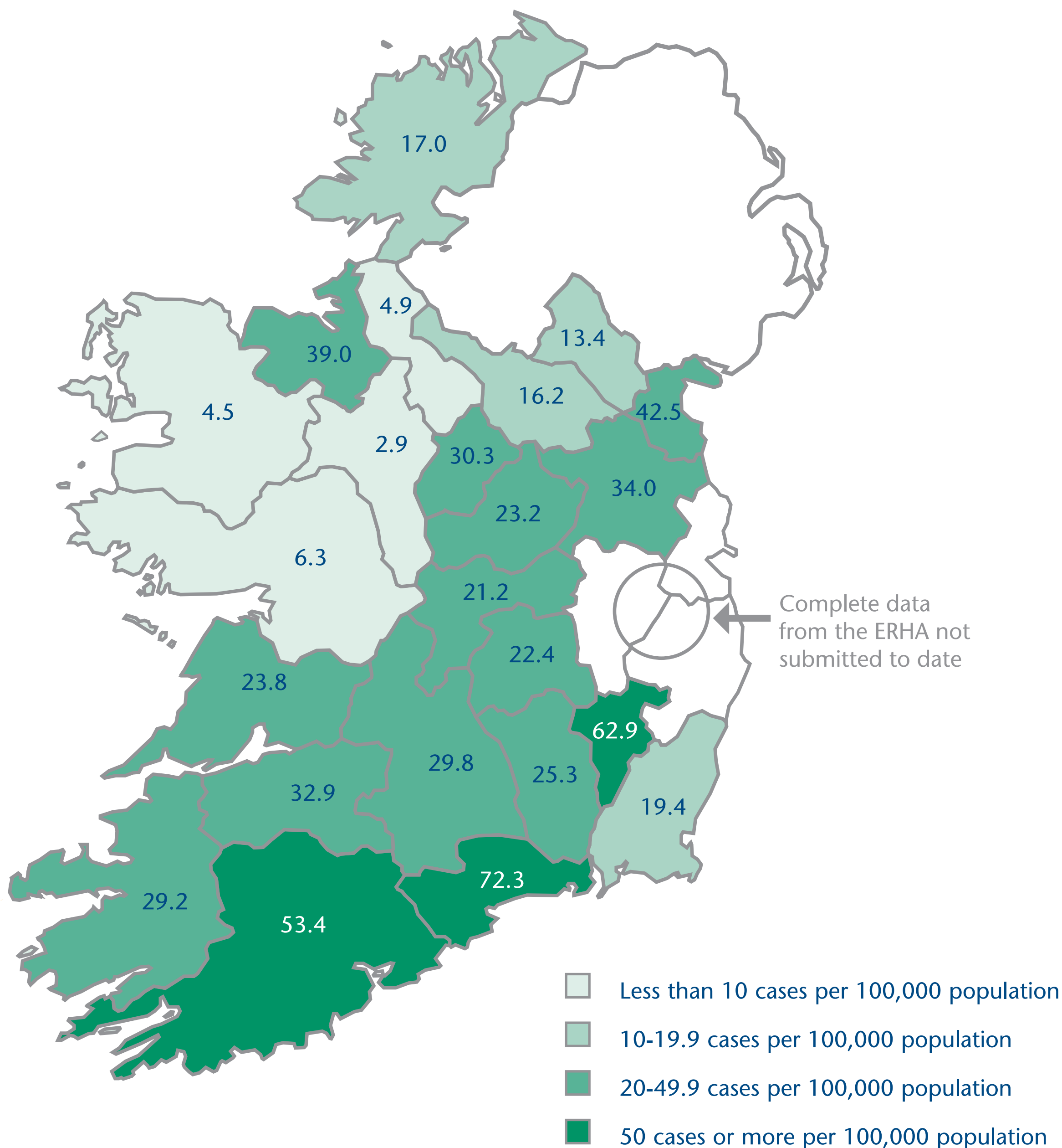

Figure 3 Average annual incidence of treatment for cannabis as a main problem drug among persons aged 15 to 64 years by county of residence per 100,000 population (Central Statistics Office 2003) based on returns to the NDTRS, 1998 to 2002

Time to treatment

Between 1998 and 2002, 50 per cent of new cases treated in the seven health board areas reported that they had commenced using illicit drugs by 15 years of age (Table 3). The age by which half of new cases reported first using cannabis declined from 16 years in 1998 to 15 years in subsequent years and was similar to the age new cases reported that they commenced using illicit drugs. This finding indicates that cannabis was among the first drugs used by a substantial number of new cannabis cases. Over the period under review, the median age of new cases seeking initial treatment remained stable at 21 years, while the median number of years taken to seek initial treatment increased by one year. Given the expansion of drug treatment services outside the Eastern Regional Health Authority area in recent years, the increase in the time interval between commencing drug use and seeking treatment was unexpected and requires investigation.

Table 3 Age commenced drug use and time to treatment for new cases reporting cannabis as their main problem drug, living and treated in the seven health board areas* and reported to the NDTRS, 1998 to 2002

New cases median† age or time (range)‡ in years	1998		1999		2000		2001		2002	
Started any drug use	15	(12-19)	15	(12-20)	15	(11-20)	15	(12-21)	15	(11-20)
Commenced cannabis use	16	(12-20)	15	(12-21)	15	(12-21)	15	(12-21)	15	(12-21)
Sought first treatment for cannabis	21	(16-33)	21	(16-33)	21	(16-37)	20	(15-36)	21	(15-36)
Time to treatment	4	(1-15)	4	(1-15)	5	(1-19)	5	(1-17)	5	(1-17)

* Midland Health Board, Mid-Western Health Board, North Eastern Health Board, North Western Health Board, Southern Health Board, South Eastern Health Board and Western Health Board.

† See glossary.

‡ Age range presented is the 5th to 95th percentile (90% of all cases are within this age range).

Treatment provision

It is recognised that there is no single treatment modality for problem cannabis use. Consequently, there was a broad range of services covering treatment and rehabilitation provided in the seven health boards. A question ascertaining the type of treatment provided on admission was introduced to the NDTRS form in 1999. Of the 4,038 cases who received treatment for cannabis as a main problem drug and were resident in the seven health board areas between 1999 and 2002, 3,989 had an initial treatment recorded and 49 had no treatment recorded. Of the 3,989 cases for whom initial treatment was documented, 92 per cent (3,670) received counselling or advice, 22 per cent (882) had medication-free therapy, 7 per cent (294) attended a social or occupational rehabilitation programme, 2 per cent (94) had a medical detoxification for a secondary problem drug (such as opiates, alcohol or benzodiazepines) and one person was also receiving methadone maintenance for heroin as a secondary drug. Of the 3,989 cases for whom initial treatment was documented, 946 (25%) had more than one type of initial treatment; therefore, the total number of treatments is greater than the number of cases (3,989).

Cannabis-using practices

The vast majority of treated problem cannabis users reported that their main route of administration was by smoking, while small numbers reporting eating or sniffing the drug. There was no relationship between the route of administration and whether cannabis was the main problem drug or a second, third or fourth drug (Table 4).

Overall, less than half of cases who reported cannabis as a main problem drug used it daily, while over one quarter used it between two and six times per week. As expected, a higher proportion of those reporting cannabis as a main problem drug used it daily than did those reporting it as a second, third or fourth problem drug. The proportion of cases who reported cannabis as a main problem drug and reported that they had not used the drug in the month prior to treatment increased over the period under review, from 12 per cent in 1998 to 23 per cent in 2002. From 1999 to 2002, higher proportions of cases reporting cannabis as a second, third or fourth problem drug had not used it in the month prior to treatment, compared to the proportions of cannabis cases reporting it as a main problem drug. The reason for this is not clear.

Table 4 Drug-using route and frequency for cannabis users living and treated in the seven health board areas,* and reported to the NDTRS, 1998 to 2002

Cannabis	1998		1999		2000		2001		2002	
					Number (%)					
Route of administration										
Main problem drug	**392**		**543**		**924**		**1135**		**1328**	
Smoked	372	(94.9)	524	(96.5)	896	(97.0)	1096	(96.6)	1286	(96.8)
Eaten	10	(2.6)	12	(2.2)	18	(1.9)	28	(2.5)	28	(2.1)
Sniffed	2	(0.5)	0	(0.0)	2	(0.2)	2	(0.2)	1	(0.1)
Not known	8	(2.0)	7	(1.3)	8	(0.9)	9	(0.8)	13	(1.0)
Second, third or fourth problem drug	**236**		**249**		**384**		**470**		**503**	
Smoked	215	(91.1)	231	(92.8)	367	(95.6)	455	(96.8)	487	(96.8)
Eaten	9	(3.8)	10	(4.0)	11	(2.9)	12	(2.6)	11	(2.2)
Sniffed	1	(0.4)	2	(0.8)	2	(0.5)	0	(0.0)	1	(0.2)
Not known	11	(4.7)	6	(2.4)	4	(1.0)	3	(0.6)	5	(1.0)
Frequency used										
Main problem drug	**392**		**543**		**924**		**1135**		**1328**	
Daily	166	(42.3)	235	(43.3)	371	(40.2)	440	(38.8)	532	(40.1)
2-6 times per week	101	(25.8)	151	(27.8)	238	(25.8)	324	(28.5)	327	(24.6)
Once per week or less	41	(10.5)	57	(10.5)	74	(8.0)	102	(9.0)	125	(9.4)
No use in the last month	47	(12.0)	85	(15.7)	205	(22.2)	220	(19.4)	311	(23.4)
Not known	37	(9.4)	15	(2.8)	36	(3.9)	49	(4.3)	33	(2.5)
Second, third or fourth problem drug	**236**		**249**		**384**		**470**		**503**	
Daily	9	(3.8) †	71	(28.5)	112	(29.2)	136	(28.9)	143	(28.4)
2-6 times per week	6	(2.5) †	63	(25.3)	80	(20.8)	140	(29.8)	129	(25.6)
Once per week or less	5	(2.1) †	34	(13.7)	52	(13.5)	57	(12.1)	62	(12.3)
No use in the last month	2	(0.8) †	53	(21.3)	100	(26.0)	119	(25.3)	147	(29.2)
Not known	214	(90.7) †	28	(11.2)	40	(10.4)	18	(3.8)	22	(4.4)

* Midland Health Board, Mid-Western Health Board, North Eastern Health Board, North Western Health Board, Southern Health Board, South Eastern Health Board and Western Health Board.
† This is the first year this information was collected through the NDTRS.

Polydrug use and second problem drug

There was a small decrease in the proportion of cannabis cases who reported using other drugs as well as cannabis, from 83 per cent in 1998 to 78 per cent in 2002, although polydrug use remained a common practice (Table 5). Polydrug use is associated with poor treatment outcomes and needs to be addressed during treatment. The same trend was noted for both new and previously treated problem cannabis users.

Table 5 Use of two or more drugs by cases reporting cannabis as their main problem drug, living and treated in the seven health board areas,* by treatment status and reported to the NDTRS, 1998 to 2002

Used two or more drugs	1998		1999		2000		2001		2002	
	Number (%)									
All cases	326	(83.2)	413	(76.1)	727	(78.7)	864	(76.1)	1038	(78.2)
Previously treated cases	94	(86.2)	147	(83.1)	246	(80.9)	262	(72.4)	350	(81.0)
New cases	207	(84.5)	260	(72.8)	465	(77.5)	570	(78.7)	647	(76.7)

* Midland Health Board, Mid-Western Health Board, North Eastern Health Board, North Western Health Board, Southern Health Board, South Eastern Health Board and Western Health Board.

For cases who reported cannabis as their main problem drug and reported using more than one drug, the most common secondary drugs were ecstasy and alcohol (Table 6). The proportion reporting ecstasy as their second problem drug increased from 41 per cent in 1998 to 50 per cent in 2001 but decreased to 40 per cent in 2002, while the proportion reporting alcohol increased steadily from 26 per cent in 1998 to 44 per cent in 2002. From 1998 to 2001, ecstasy was the most common second drug reported by cannabis users, whereas alcohol was the most common second drug reported in 2002. New and previously treated cases reported a similar increasing trend in alcohol as a second problem drug. Among new cases, the reported use of amphetamines as a second drug decreased substantially during the period under review, while reported use of cocaine as a second drug increased (Table 6 and Figure 4).

Table 6 Second problem drug used by cases reporting cannabis as their main problem drug, living and treated in the seven health board areas,* by treatment status and reported to the NDTRS, 1998 to 2002

Second problem drug	1998		1999		2000		2001		2002	
	Number (%)									
All cases	**326**		**413**		**727**		**864**		**1037**	
Ecstasy	135	(41.4)	200	(48.4)	362	(49.8)	429	(49.7)	414	(39.9)
Alcohol	83	(25.5)	95	(23.0)	202	(27.8)	293	(33.9)	451	(43.5)
Amphetamines	77	(23.6)	63	(15.3)	62	(8.5)	29	(3.4)	51	(4.9)
Cocaine	6	(1.8)	7	(1.7)	15	(2.1)	30	(3.5)	42	(4.1)
Opiates	3	(0.9)	6	(1.5)	14	(1.9)	15	(1.7)	11	(1.1)
Benzodiazepines	0	(0.0)	6	(1.5)	12	(1.7)	8	(0.9)	17	(1.6)
Volatile inhalants	2	(0.6)	6	(1.5)	8	(1.1)	17	(2.0)	16	(1.5)
Other cannabis	0	(0.0)	0	(0.0)	1	(0.1)	0	(0.0)	2	(0.2)
Other substances	20	(6.1)	30	(7.3)	51	(7.0)	43	(5.0)	33	(3.2)
Previously treated cases	**94**		**147**		**246**		**262**		**350**	
Ecstasy	41	(43.6)	64	(43.5)	110	(44.7)	128	(48.9)	132	(37.7)
Amphetamines	26	(27.7)	20	(13.6)	29	(11.8)	9	(3.4)	15	(4.3)
Alcohol	17	(18.1)	31	(21.1)	60	(24.4)	84	(32.1)	156	(44.6)
Opiates	2	(2.1)	4	(2.7)	6	(2.4)	11	(4.2)	6	(1.7)
Benzodiazepines	0	(0.0)	3	(2.0)	6	(2.4)	6	(2.3)	12	(3.4)
Cocaine	1	(1.1)	3	(2.0)	8	(3.3)	11	(4.2)	10	(2.9)
Volatile inhalants	0	(0.0)	2	(1.4)	4	(1.6)	5	(1.9)	8	(2.3)
Other cannabis	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Other substances	7	(7.4)	20	(13.6)	23	(9.3)	8	(3.1)	11	(3.1)
New cases	**207**		**260**		**465**		**570**		**646**	
Ecstasy	81	(39.1)	133	(51.2)	241	(51.8)	282	(49.5)	266	(41.2)
Alcohol	63	(30.4)	63	(24.2)	138	(29.7)	202	(35.4)	280	(43.3)
Amphetamines	44	(21.3)	42	(16.2)	33	(7.1)	19	(3.3)	34	(5.3)
Cocaine	5	(2.4)	4	(1.5)	7	(1.5)	19	(3.3)	32	(5.0)
Volatile inhalants	2	(1.0)	4	(1.5)	4	(0.9)	12	(2.1)	8	(1.2)
Opiates	0	(0.0)	2	(0.8)	8	(1.7)	4	(0.7)	5	(0.8)
Benzodiazepines	0	(0.0)	2	(0.8)	5	(1.1)	2	(0.4)	5	(0.8)
Other cannabis	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)	2	(0.3)
Other substances	12	(5.8)	10	(3.8)	28	(6.0)	30	(5.3)	14	(2.2)

* Midland Health Board, Mid-Western Health Board, North Eastern Health Board, North Western Health Board, Southern Health Board, South Eastern Health Board and Western Health Board.

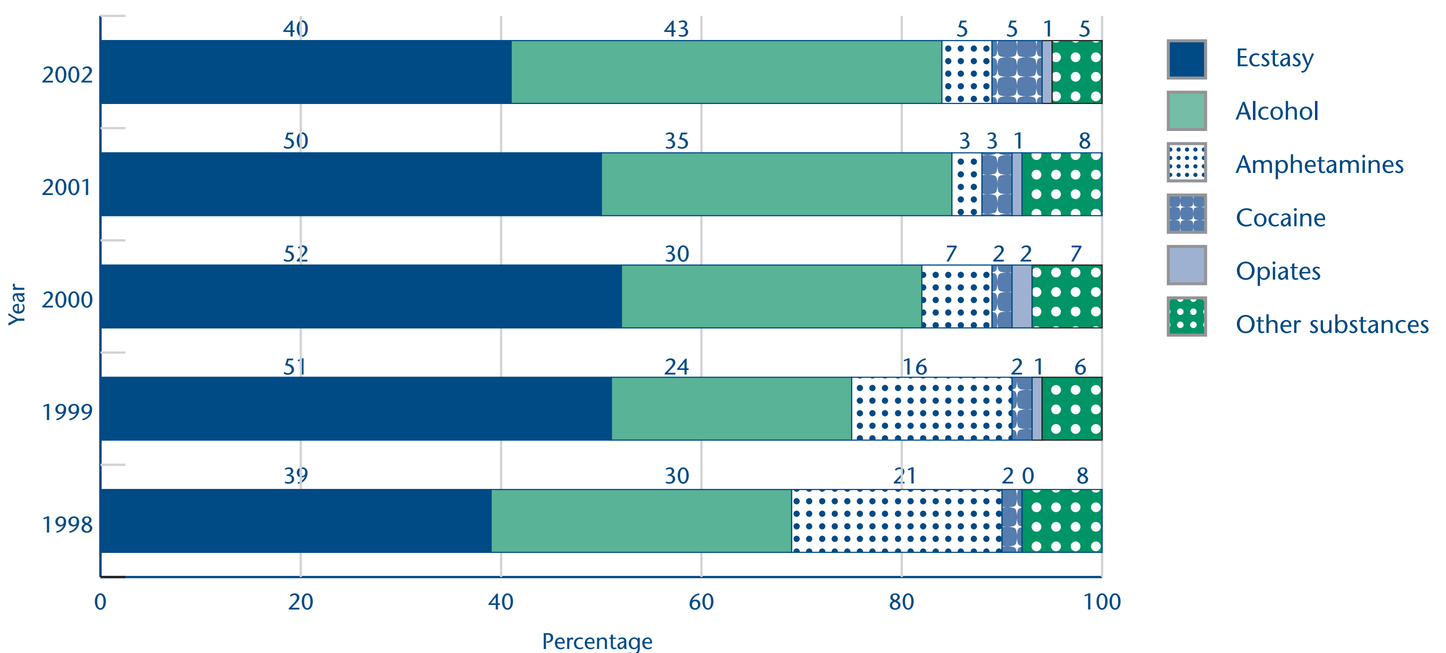

Figure 4 Second drug used by new cases reporting cannabis as their main problem drug, living and treated in the seven health board areas, and reported to the NDTRS, 1998 to 2002

Socio-demographic and economic characteristics

The socio-demographic characteristics of those who reported cannabis as a main problem drug were examined. The median age of previously treated cases who reported cannabis as their main problem drug in the seven health board areas increased between 1998 and 2002, while the median age of new cases remained stable (Table 7). The proportion of new cannabis cases under 18 years of age increased substantially, from 21 per cent in 1998 to 31 per cent in 2002. Those aged 17 years or under require different approaches to treatment and it is important that this is included in service planning. Although the vast majority of new cases who reported cannabis as a main problem drug were male, there was an increase in the proportion of females reporting cannabis as a main problem drug between 1998 and 2002. There was a decreasing trend in the proportion of cannabis cases seeking treatment and reporting that they were homeless.

As expected, a higher proportion of new cannabis cases reported that they were still in school, compared to those who had been previously treated. Over the reporting period, an increasing proportion of new cannabis cases reported that they were still attending school, suggesting that problem cannabis use does not disrupt their participation in school. Up to 2001, there was an increase in the proportion of new and previously treated problem cannabis users who reported having regular employment, and a subsequent decrease in 2002; this is in line with national employment trends. Overall, a higher proportion of new cannabis cases (36%) were employed than were their previously treated counterparts (29%), indicating that those with chronic problem cannabis use may have difficulties securing or retaining employment (not presented in table).

Figure 5 presents an overall profile of the characteristics of cannabis users treated for the first time based on the aggregate data for new cases presented in Table 7.

Table 7 Socio-demographic characteristics of cases reporting cannabis as their main problem drug, living and treated in the seven health board areas,* by treatment status and reported to the NDTRS, 1998 to 2002

Characteristics†	1998		1999		2000		2001		2002	
All cases	**392**		**543**		**942**		**1135**		**1328**	
Median‡ age (range)§ in years	20.8	(16.4-34.0)	21.3	(16.2-34.8)	21.4	(15.8-37.0)	21.4	(15.6-37.4)	21.6	(15.5-38.7)
Number (%) under 18 years of age	78	(20.0)	106	(19.6)	200	(21.6)	249	(21.9)	324	(24.5)
Number (%) of males	335	(87.7)	448	(82.8)	761	(83.0)	939	(83.7)	1066	(83.3)
Number (%) living with parents/family	245	(62.5)	366	(67.4)	610	(66.0)	740	(65.2)	879	(66.2)
Number (%) homeless	¶		28	(5.2)	39	(4.2)	41	(3.8)	44	(3.5)
Number (%) of early school leavers**	46	(16.9)	75	(19.7)	146	(20.2)	161	(19.4)	145	(15.3)
Number (%) still in school	37	(12.0)	55	(12.6)	105	(12.7)	136	(14.1)	220	(18.8)
Number (%) aged 16 to 64 years employed	116	(31.3)	155	(30.2)	310	(36.3)	379	(36.5)	372	(31.4)
Previously treated cases	**109**		**177**		**304**		**362**		**432**	
Median‡ age (range)§ in years	21.7	(16.6-35.7)	24.0	(16.6-37.3)	22.8	(16.6-37.9)	23.4	(16.5-38.6)	23.2	(15.9-41.3)
Number (%) under 18 years of age	16	(14.7)	19	(10.8)	45	(14.8)	50	(13.8)	65	(15.2)
Number (%) of males	89	(84.0)	141	(80.6)	248	(81.6)	304	(84.7)	343	(82.5)
Number (%) living with parents/family	76	(69.7)	109	(61.6)	185	(60.9)	200	(55.2)	254	(58.8)
Number (%) homeless	¶		10	(5.6)	14	(4.6)	14	(4.1)	18	(4.4)
Number (%) of early school leavers**	16	(20.5)	24	(19.2)	49	(19.5)	58	(20.4)	64	(18.9)
Number (%) still in school	9	(10.3)	6	(4.6)	21	(7.7)	21	(6.9)	40	(10.6)
Number (%) aged 16 to 64 years employed	28	(25.9)	33	(19.3)	92	(32.1)	113	(32.8)	118	(29.5)
New cases	**245**		**357**		**600**		**724**		**843**	
Median‡ age (range)§ in years	20.5	(16.4-32.8)	20.5	(16.1-33.4)	21.0	(15.6-36.9)	20.4	(15.2-35.6)	20.8	(15.3-35.7)
Number (%) under 18 years of age	54	(21.1)	85	(23.9)	154	(25.7)	193	(26.7)	256	(30.5)
Number (%) of males	217	(89.7)	300	(84.0)	497	(83.5)	591	(82.8)	680	(83.4)
Number (%) living with parents/family	164	(66.9)	253	(70.9)	412	(68.7)	517	(71.4)	595	(70.6)
Number (%) homeless	¶		16	(4.5)	24	(4.0)	20	(2.9)	17	(2.1)
Number (%) of early school leavers**	29	(15.3)	49	(19.7)	93	(20.3)	95	(18.4)	75	(12.9)
Number (%) still in school	23	(10.8)	49	(16.4)	83	(15.3)	113	(18.0)	178	(23.4)
Number (%) aged 16 to 64 years employed	76	(32.8)	122	(36.4)	214	(39.0)	252	(38.9)	240	(32.6)

* Midland Health Board, Mid-Western Health Board, North Eastern Health Board, North Western Health Board, Southern Health Board, South Eastern Health Board and Western Health Board.

† It is not possible to ascertain the percentage with each characteristic of interest from the total number because not all forms had complete data.

‡ See glossary.

§ Age range presented is the 5th to 95th percentile (90% of all cases are within this age range).

¶ Numbers not available.

** Left school before the age of 15 years.

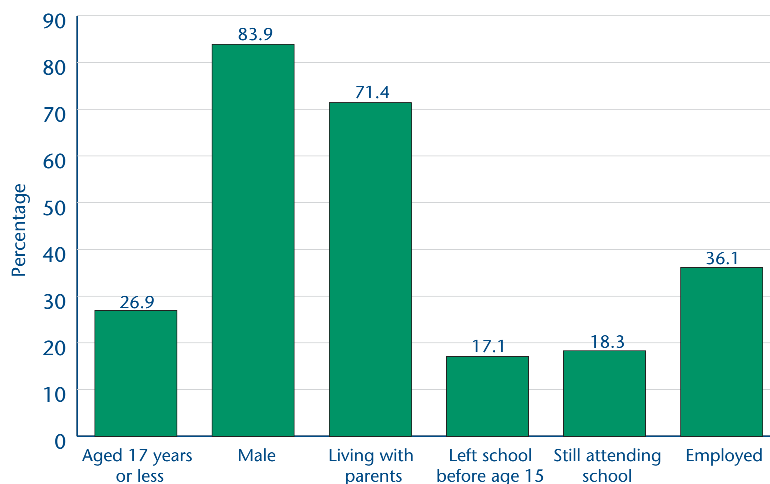

Figure 5 Selected socio-demographic characteristics of new cases reporting cannabis as their main problem drug, living and treated in the seven health board areas, reported to the NDTRS, 1998 to 2002

Conclusions

Both the incidence and prevalence of treated problem cannabis use increased steadily during the reporting period. Figure 3 presents a clear rise in demand for treatment for problem cannabis use in each county in the seven health board areas when compared to the average annual incidence presented in Figure 2. Cannabis is reported most commonly as the main problem drug treated in the seven health board areas outside the Eastern Regional Health Authority area (Long *et al.* 2004a, 2004b). The total number who sought treatment for cannabis as a main problem drug more than trebled during the reporting period. The total number of new cases reporting cannabis as their main problem drug remained consistently higher than the number reporting it as a second, third or fourth problem drug.

The high level of treatment demand for problem cannabis use is in line with the population prevalence estimate reported by the National Advisory Committee on Drugs and the Drug and Alcohol Information and Research Unit in October 2003 (NACD and DAIRU 2003). The authors reported that cannabis was the most commonly used drug in Ireland, with 24 per cent of respondents aged between 15 and 34 years having ever used it. Of these, almost nine per cent had used cannabis in the previous year and over four per cent had used it in the previous month.

The age by which half of new cannabis cases in the present study reported first using cannabis was similar to the age by which new cases reported that they had commenced using illicit drugs. This indicates that cannabis was the first drug used by many of those treated.

Despite a large increase in the provision of services to address problem substance use, for new cases reporting cannabis as their main problem drug the time interval between first commencing cannabis use and starting treatment increased over the period under review, from four years in 1998 to five years in 2002. The reasons for, and effect of, delaying treatment for five years requires investigation. It could be possible that the current services are not appropriate to the needs of cannabis users. Polydrug use remained a common practice and is associated with poor treatment outcomes. This needs to be addressed during treatment. Ecstasy and alcohol were the most common second drugs used in conjunction with cannabis as a main problem drug. In 2002, alcohol replaced ecstasy as the most common second drug used. This indicates that cannabis use is commonly associated with social events and that there is a need to address problem alcohol use and ecstasy use in conjunction with cannabis.

Cannabis as a main problem drug was examined by selected socio-demographic characteristics and some important patterns were identified. The proportion of new cannabis cases under 18 years of age increased substantially, from 21 per cent in 1998 to 31 per cent in 2002. Those aged 17 years or under require different approaches to treatment and it is important that the age profile is considered in service planning. The rise in problem cannabis use among those under 18 years of age has implications for the development of addiction services. Services for young drug users require a child-centred approach and the participation of parents or guardians. Although the vast majority of new cases who reported cannabis as a main problem drug were male, there was an increase in the proportion of females who reported cannabis as a main problem drug. Over the reporting period, an increasing proportion of new cannabis cases reported that they were still attending school, suggesting that problem cannabis use does not disrupt their participation in school. A higher proportion of new cannabis cases (36%) were employed than were their previously treated counterparts (29%), indicating that those with chronic problem cannabis use may have difficulties securing or retaining employment.

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