Drug Misuse Research Division

Trends in treated problem drug use in Ireland, 1998 to 2002

Occasional Paper No. 17 / 2005

Contents

Summary

The data presented in this paper describe trends in treated problem drug use in Ireland. The total numbers include 33,391 cases who lived and were treated in Ireland between 1998 and 2002. In this paper, treated problem drug use is described in relation to person, place and time. This paper will assist policy makers, service planners and public health practitioners to develop appropriate responses to problem drug use in the future.

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

The main findings and their implications are:

- The prevalence of treated problem drug use among persons aged between 15 and 64 years living in Ireland, expressed per 100,000 of the population, increased by 27 per cent, from 225.4 in 1998 to 286.9 in 2002. The increased prevalence of treated problem drug use indicates that problem drug use is a chronic health condition that requires repeated treatment over time.

- The incidence of treated problem drug use among persons aged between 15 and 64 years living in Ireland, expressed per 100,000 of the population, increased by 24 per cent, from 59.0 in 1998 to 73.3 in 2001, and subsequently decreased by 6 per cent in 2002. The decreased incidence observed in 2002 masks two separate trends. The first trend observed is that the incidence of treated problem drug use in the areas outside the Health Service Executive Eastern Region (Dublin, Kildare and Wicklow) almost trebled, from 24.8 per 100,000 of the population in 1998 to 69.7 per 100,000 in 2002 (Long *et al.* 2004). The second trend is a decrease in the incidence of treated problem drug use (specifically opiates) in Dublin between 2000 and 2002 (Kelly *et al.* 2005). The decrease in the incidence of treated problem opiate use may reflect a decrease in new opiate users in Dublin, saturation of the more vulnerable populations in Dublin, a switch to other drugs (such as cocaine), a combination of these factors, or another factor not yet identified. The most likely explanation is a decrease in new opiate users in certain areas of Dublin and, to a lesser extent, a switch to other drugs by young people in Dublin.

- The incidence rates of treated problem drug use among persons aged between 15 and 64 years living in Ireland, expressed per 100,000 of the population, was examined by county for the period 1998 to 2002. The incidence rates were highest in Carlow, Dublin and Waterford (with over 100 cases per 100,000 of the 15 to 64 year old population), followed by Cork, Louth, Meath, Westmeath, Sligo, Tipperary

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and Limerick (with between 50 and 99 cases per 100,000). Excluding Sligo, the incidence rates were lowest in western counties (with between 10 and 19 cases per 100,000).

- During the reporting period, opiates were the most frequently reported main problem drug, while cannabis was the second most frequently reported main problem drug by treated cases in Ireland. The pattern of main problem drugs reported by cases previously treated was similar to that reported by all cases, while the pattern reported by new cases was different. The number of new cases treated who reported problem opiate use decreased by 21 per cent, from a peak of 922 in 1999 to 729 in 2002. The number of new cases treated who reported problem cannabis use increased by 144 per cent, from 379 in 1998 to 925 in 2002. The numbers of new cases treated who reported cocaine as their main problem drug, though small, increased consistently between 1999 and 2002.

- The types of main problem drug reported by new cases differed by Health Service Executive (HSE) area. In the HSE Northern (Dublin), HSE East Coast, HSE South Western, HSE North Eastern and HSE Midland Areas, opiates and cannabis were the most common main problem drugs reported by new treated cases. In the HSE South, HSE South Eastern and HSE Western Areas, cannabis and ecstasy were the most common main problem drugs reported by new cases. This may reflect either the types of drug used or the types of treatment service provided in the area, or a combination of both factors.

- Of all cases treated between 1998 and 2002, 28 per cent reported problem use of one drug, 32 per cent reported problem use of two drugs, 26 per cent reported problems with three drugs and 15 per cent reported problems with four or more drugs. The proportion of cases treated who reported problems with more than one drug increased by 5 per cent, from 71 per cent in 1998 to 76 per cent in 2002. Use of more than one drug is a common practice, increases the complexity of such cases, and is associated with poorer treatment outcomes.

- Of the treated cases reporting problem use of more than one drug, the rank order of additional drugs from most common to least common remained the same between 1998 and 2000, namely: benzodiazepines, followed by cannabis, opiates, ecstasy, cocaine and alcohol. In 2001 and 2002, the rank order changed. In 2002, cannabis replaced benzodiazepines as the most common drug, while cocaine moved up from fifth most common to third most common.

- For new cases treated, the pattern of additional drugs was linked to the main problem drug. For example, where an opiate was the main problem drug the most common additional problem drugs were cannabis, followed by benzodiazepines, other opiates and then cocaine. Information about the combinations of drugs used is important in terms of individual clients' care plans.

- Injecting drug use was associated with opiates and, to a lesser extent, amphetamines and cocaine.

- Almost 18 per cent of all new cases treated were under 18 years of age, while only 3 per cent of cases treated previously were in this young age group. Young teenagers initiated drug use with cannabis and volatile inhalants. The use of opiates, ecstasy and amphetamines was commenced in mid to late teens.

- The proportion of previously treated male cases remained stable, while there was an increase in the proportion of new male cases treated. There were differences in type of drug used by new male and female cases, with very high proportions of males treated for cocaine and cannabis use compared to their female counterparts.

- The number of treated cases who reported leaving school early was higher among previously treated cases (29%) than among new cases (21%). Employment levels among treated cases aged 16 to 64 years were much lower than those in the general population: for example, 31 per cent of new cases treated were employed and 24 per cent of previously treated cases were employed. For new cases, the highest rates of employment were among those using drugs commonly associated with social events and the lowest rates of employment were among those who used opiates and benzodiazepines; this observation, along with the high rates of early school leaving, has important implications for the social and occupational reintegration of opiate and benzodiazepine users.

Glossary of terms

- 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.

- **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 opiate users living in a specific county sought treatment for the first time. The incidence is the number of opiate 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 opiate users living in a specific county sought treatment for the first time, 20 opiate users returned to treatment in the year and five opiate users continued in treatment from the previous year; in total there are 35 people treated for problem opiate 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.
- **Epidemic** disease levels are excess number of new cases among a specific population for that point and place in time. An epidemic can also be called an outbreak. An excess number of cases is defined as a number greater than two standard deviations above the normal expected for that point in time.

- **Endemic** disease levels are numbers of new cases among a specific population that are within the normal range for the time of year and place of residence. A normal number of cases is defined as a number within two standard deviations of the normal expected for that point in time.

- **Health boards and the Health Service Executive**

  - On 1 January 2005, the ten health boards managing the health services in Ireland were replaced by a single entity, the Health Service Executive (HSE). The former health boards were responsible for health care provision to populations in specific geographical areas. In the interest of continuity of care, the HSE has maintained these ten areas for an interim period and called them HSE areas. The former Eastern Regional Health Authority is known as the HSE Eastern Region for this interim period.

  - When the HSE has established itself and redeployed staff, health care will be provided through four HSE regions and 32 local health offices. The local health offices will be based on the geographical boundaries of the existing community care areas. In this paper we have presented the data by HSE area (that is, old health board boundaries) and the four new HSE regions in order to reflect possible planning needs.

  - The table below presents the past health board structure, the present interim structure and the proposed future regional structure.

Glossary of terms *(continued)*

Regional Health Authority	Health boards	HSE areas	HSE regions
Not applicable	North Eastern Health Board	HSE North Eastern Area	HSE Dublin/North East Region
Eastern Regional Health Authority (ERHA*)	Northern Area Health Board	HSE Northern Area	
Eastern Regional Health Authority (ERHA)	East Coast Area Health Board	HSE East Coast Area	HSE Dublin/Mid-Leinster Region
Eastern Regional Health Authority (ERHA)	South Western Area Health Board	HSE South Western Area	
Not applicable	Midland Health Board	HSE Midland Area	
Not applicable	South Eastern Health Board	HSE South Eastern Area	HSE Southern Region
Not applicable	Southern Health Board	HSE Southern Area	
Not applicable	Mid-Western Health Board	HSE Mid-Western Area	HSE Western Region
Not applicable	North Western Health Board	HSE North Western Area	
Not applicable	Western Health Board	HSE Western Area	

*The ERHA is known as the HSE Eastern Region for the interim period.

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 drug 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 the former 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 problem 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 problem drug use. 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 (Table 1). In Ireland, data returns to the NDTRS for clients attending treatment services during 2002 were provided by 175 treatment services: 154 non-residential and 21 residential.

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

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

(a) *Previously treated cases* – describes individuals who were treated previously for problem 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;

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

(c) *Status unknown* – describes individuals whose status with respect to previous treatment for problem drug use is not known.

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. For those receiving methadone maintenance or detoxification, this possibility is considered to be small since the introduction of the Misuse of Drugs Regulations in 1998, whereby precautions are taken to ensure that methadone treatment is available from one source only.

The data presented in this paper provide a description of problem drug use in Ireland by health area of residence. There were 35,683 cases treated in Ireland between 1998 and 2002. Of these, 33,391 (94%) cases lived in Ireland, 47 (0.1%) cases did not live in Ireland, 77 (0.2%) cases had no fixed address, and 2,168 (6%) cases had no place of residence recorded. The tables presenting data on service provision, treatment status and place of residence are based on the 35,683 cases. The remainder of the tables and all the figures are based on the 33,391 cases who lived and were treated in Ireland.

Analysis

The analysis presented provides an outline of the following: service provision for problem drug use; numbers treated for problem drug use; incidence and prevalence of treatment for problem drug use; main problem drugs; additional problem drugs; risk behaviours; socio-demographic characteristics of cases; and relationship between the main problem drug and selected characteristics.

Service provision

The total number of drug treatment services available in Ireland and participating in the NDTRS increased between 1998 and 2002 (Table 1). The largest increase was in outpatient treatment services. In the HSE Eastern Region, counsellors employed by statutory services did not consistently return information on cases who received counselling only, therefore there is an under-representation of cases in this region treated for use of drugs other than opiates. There was a small increase in the number of residential treatment services. The number of general practitioners participating in the NDTRS was very low. In 2002, there were 293 general practitioners prescribing methadone treatment in Ireland, but only 28 (10%) provided returns to the NDTRS. Cases who attended general practice may have differed from those who attended statutory treatment centres and this may affect the generalisability of the findings presented in this paper. The prison service does not participate in the NDTRS, although it does provide drug treatment services. There were inconsistencies in the NDTRS data collection, data coding and data entry processes for data pertaining to the HSE Eastern Region up to and including 2000. These have been rectified in the data presented in this paper; therefore, the numbers presented in this paper for the years 1998 to 2000 differ from numbers presented in previous publications.

Table 1 Number and type of services providing treatment for problem drug use and number of cases treated (in brackets) in Ireland and reported to the NDTRS, 1998 to 2002

Drug services	1998		1999		2000		2001		2002	
Outpatient	83	(4566)	86	(4497)	105	(5583)	120	(6688)	124	(7270)
Residential	17	(1272)	16	(1005)	18	(796)	16	(725)	21	(798)
Low-threshold*	3	(182)	4	(284)	2	(280)	2	(216)	2	(149)
General practitioner	1	(24)	42	(413)	29	(274)	32	(271)	28	(371)
Treatment in prison	2	(4)	2	(7)	0	(0)	0	(0)	0	(0)
Not known	0	(0)	0	(0)	0	(0)	0	(0)	1	(8)

*Low-threshold services are services that provide low-dose methadone or drop-in facilities only.

Numbers treated

Of the 35,683 cases treated for problem drug use in Ireland between 1998 and 2002, 9,415 (26%) were treated for the first time. Overall, the number of cases previously treated and reported to the NDTRS increased by 49 per cent between 1998 and 2002 (Table 2). The number of new cases treated and reported to the NDTRS increased by 29 per cent during the reporting period.

Table 2 Number (%) of cases treated in Ireland, by treatment status, reported to the NDTRS, 1998 to 2002

Treatment status	1998		1999		2000		2001		2002	
	Number (%)									
All cases	**6048**		**6206**		**6933**		**7900**		**8596**	
Previously treated cases	4194	(69.3)	4421	(71.2)	4877	(70.3)	5663	(71.7)	6256	(72.8)
New cases	1626	(26.9)	1673	(27.0)	1941	(28.0)	2074	(26.3)	2101	(24.4)
Status unknown	**228**	**(3.8)**	**112**	**(1.8)**	**115**	**(1.7)**	**163**	**(2.1)**	**239**	**(2.8)**

In relation to the prevention of and response to problem drug use, the geographical boundaries used by service providers vary. In order to allow for different boundaries, selected data in this paper are presented by Health Service Executive (HSE) region, by HSE area and by county of residence.

Of the 35,683 cases treated in Ireland between 1998 and 2002, 33,391 (94%) cases lived in a specified HSE region, 47 (0.1%) cases did not live in Ireland, 77 (0.2%) cases had no fixed address, and 2,168 (6%) cases had no place of residence recorded (Table 3).

Table 3 Number (%) of cases treated in Ireland, by place of residence and treatment status, reported to the NDTRS, 1998 to 2002

Place of residence	1998		1999		2000		2001		2002	
	Number (%)									
All cases	**6048**		**6206**		**6933**		**7900**		**8596**	
Specified HSE region	5590	(92.4)	5918	(95.4)	6611	(95.4)	7427	(94.0)	7845	(91.3)
Not resident in Ireland	10	(0.2)	12	(0.2)	9	(0.1)	7	(0.1)	9	(0.1)
No fixed abode	64	(1.1)	8	(0.1)	5	(0.1)	0	(0.0)	0	(0.0)
Dublin unknown	379	(6.3)	265	(4.3)	308	(4.4)	465	(5.9)	731	(8.5)
Unknown	5	(0.1)	3	(0.0)	0	(0.0)	1	(0.0)	11	(0.1)

Between 1998 and 2002, just under half (47%) of treated drug users lived in the HSE Dublin/Mid-Leinster Region, while over one third lived in the HSE Dublin/North East Region (Table 4). The numbers of treated drug users increased each year in all HSE regions except the Dublin/North East Region. In HSE Dublin/North East, the total number of cases increased steadily up to 2001, but decreased by almost 10 per cent between 2001 and 2002. The number of previously treated cases followed a similar trend to that of all cases. Though small, the numbers of new cases treated in the HSE Southern and HSE Western Regions increased considerably between

1998 and 2002. The number of new cases treated in the HSE Dublin/North East was highest in 1999 and had declined by 19 per cent by 2002, while the number of new cases treated in HSE Dublin/Mid-Leinster was highest in 2000, and had declined by 28 per cent by 2002.

Table 4 Number (%) of cases treated in Ireland, by HSE region of residence and by treatment status, reported to the NDTRS, 1998 to 2002

HSE region of residence	1998		1999		2000		2001		2002	
					Number (%)					
All cases	**5590**		**5918**		**6611**		**7427**		**7845**	
HSE Dublin/North East	2235	(40.0)	2122	(35.9)	2325	(35.2)	2741	(36.9)	2481	(31.6)
HSE Dublin/Mid-Leinster	2693	(48.2)	3061	(51.7)	3123	(47.2)	3193	(43.0)	3560	(45.4)
HSE Southern	504	(9.0)	503	(8.5)	849	(12.8)	1064	(14.3)	1277	(16.3)
HSE Western	158	(2.8)	232	(3.9)	314	(4.7)	429	(5.8)	527	(6.7)
Previously treated cases	**3907**		**4179**		**4647**		**5277**		**5666**	
HSE Dublin/North East	1643	(42.1)	1539	(36.8)	1817	(39.1)	2172	(41.2)	1983	(35.0)
HSE Dublin/Mid-Leinster	2020	(51.7)	2326	(55.7)	2390	(51.4)	2546	(48.2)	2986	(52.7)
HSE Southern	183	(4.7)	218	(5.2)	338	(7.3)	409	(7.8)	503	(8.9)
HSE Western	61	(1.6)	96	(2.3)	102	(2.2)	150	(2.8)	194	(3.4)
New cases	**1477**		**1631**		**1855**		**1998**		**1975**	
HSE Dublin/North East	475	(32.2)	546	(33.5)	480	(25.9)	520	(26.0)	440	(22.3)
HSE Dublin/Mid-Leinster	610	(41.3)	678	(41.6)	679	(36.6)	600	(30.0)	488	(24.7)
HSE Southern	303	(20.5)	276	(16.9)	498	(26.8)	630	(31.5)	741	(37.5)
HSE Western	89	(6.0)	131	(8.0)	198	(10.7)	248	(12.4)	306	(15.5)
Status unknown	206		108		109		152		204	

Of the 33,391 treated cases living in Ireland, 120 cases lived in Wicklow but could not be assigned a specific HSE area and were excluded from this analysis. As expected, the HSE South Western Area (Kildare and the south western areas of Dublin and Wicklow) and HSE Northern Area (north Dublin) had the highest numbers of treated cases (Table 5). The HSE Western Area (Galway, Mayo and Roscommon) and HSE North Western Area (Donegal, Leitrim and Sligo) had the lowest numbers of treated cases.

The numbers of cases living in the HSE East Coast Area (the coastal areas of Dublin and Wicklow), HSE Southern Area (Cork and Kerry), HSE South Eastern Area (Carlow, Kilkenny, South Tipperary, Waterford and Wexford), HSE North Western and HSE Western Areas increased steadily between 1998 and 2000. In 2001, the numbers treated in the HSE Midland Area (Laois, Longford and Westmeath) fell sharply and increased again in 2002, indicating a possible lapse in participation rather than a true decrease in treatment seeking. Overall, the numbers in the HSE South Western Area increased. In 2002, the numbers treated in the HSE North Eastern and HSE Northern (Dublin) Areas decreased. According to staff in the HSE North Eastern Area, the reduction in numbers reported to the NDTRS in 2002 was due to a reduction in returns to the reporting system rather than an actual reduction in the demand for services.

Numbers of previously treated cases are an indirect indicator of chronic drug use among the population living in a geographical area. From 1998 to 2002, the number of previously treated cases who returned to, or continued in, treatment and lived in the HSE South Western, HSE East Coast, HSE Midland, HSE Southern, HSE South Eastern, HSE North Western and HSE Western Areas increased between 1998 and 2000. The number of previously treated cases living in the HSE Mid-Western (Clare, Limerick and North Tipperary) and HSE Northern (Dublin) Areas decreased by 10 per cent and 9 per cent respectively in 2002 compared to 2001.

New cases seeking treatment are an indirect indicator of recent trends in problem drug use. The number of new cases treated who lived in the HSE Southern and HSE Western Regions increased between 1998 and 2002. The number of new cases living in the HSE Northern (Dublin) and the HSE North Eastern Areas decreased by approximately 15 per cent between 2001 and 2002. In the HSE South Western Area, the number of new cases treated was highest in 2000 and had declined by 48 per cent by 2002. The reason for the decrease is the decline in the number of new problem opiate users seeking treatment and living in certain areas of Dublin

(Kelly *et al.* 2005). Although there were fluctuations, overall the numbers of new cases treated in the HSE East Coast Area (the coastal areas of Dublin and Wicklow) almost doubled in 2001 when compared to the preceding three years. The number of new cases living in the HSE Midland Area decreased by 30 per cent between 2000 and 2002; the reason for this is not clear.

Table 5 Number (%) of cases treated in Ireland, by HSE area of residence and by treatment status, reported to the NDTRS, 1998 to 2002

HSE area of residence	1998		1999		2000		2001		2002	
					Number (%)					
All cases	**5574**		**5905**		**6592**		**7396**		**7804**	
Dublin/North East Region										
Northern (Dublin) Area	2107	(37.8)	1967	(33.3)	2060	(31.3)	2347	(31.7)	2141	(27.4)
North Eastern Area	128	(2.3)	155	(2.6)	265	(4.0)	394	(5.3)	340	(4.4)
Dublin/Mid-Leinster Region										
South Western Area (of Dublin and Wicklow and all of Kildare)	2255	(40.5)	2482	(42.0)	2467	(37.4)	2434	(32.9)	2688	(34.4)
East Coast Area (of Dublin and Wicklow)	326	(5.8)	425	(7.2)	469	(7.1)	591	(8.0)	647	(8.3)
Midland Area	96	(1.7)	141	(2.4)	168	(2.5)	137	(1.9)	184	(2.4)
Southern Region										
Southern Area	303	(5.4)	308	(5.2)	504	(7.6)	630	(8.5)	715	(9.2)
South Eastern Area	201	(3.6)	195	(3.3)	345	(5.2)	434	(5.9)	562	(7.2)
Western Region										
Mid-Western Area	96	(1.7)	160	(2.7)	204	(3.1)	249	(3.4)	245	(3.1)
North Western Area	48	(0.9)	40	(0.7)	80	(1.2)	101	(1.4)	132	(1.7)
Western Area	14	(0.3)	32	(0.5)	30	(0.5)	79	(1.1)	150	(1.9)
Previously treated cases	**3898**		**4170**		**4637**		**5257**		**5635**	
Dublin/North East Region										
Northern (Dublin) Area	1613	(41.4)	1486	(35.6)	1739	(37.5)	2022	(38.5)	1850	(32.8)
North Eastern Area	30	(0.8)	53	(1.3)	78	(1.7)	150	(2.9)	133	(2.4)
Dublin/Mid-Leinster Region										
South Western Area (of Dublin and Wicklow and all of Kildare)	1738	(44.6)	1929	(46.3)	1930	(41.6)	2017	(38.4)	2363	(41.9)
East Coast Area (of Dublin and Wicklow)	224	(5.7)	335	(8.0)	390	(8.4)	445	(8.5)	499	(8.9)
Midland Area	49	(1.3)	53	(1.3)	60	(1.3)	64	(1.2)	93	(1.7)
Southern Region										
Southern Area	108	(2.8)	139	(3.3)	205	(4.4)	209	(4.0)	269	(4.8)
South Eastern Area	75	(1.9)	79	(1.9)	133	(2.9)	200	(3.8)	234	(4.2)
Western Region										
Mid-Western Area	34	(0.9)	64	(1.5)	80	(1.7)	91	(1.7)	82	(1.5)
North Western Area	16	(0.4)	15	(0.4)	16	(0.3)	28	(0.5)	58	(1.0)
Western Area	11	(0.3)	17	(0.4)	6	(0.1)	31	(0.6)	54	(1.0)
New cases	**1470**		**1627**		**1846**		**1987**		**1965**	
Dublin/North East Region										
Northern (Dublin) Area	447	(30.4)	454	(27.9)	299	(16.2)	300	(15.1)	254	(12.9)
North Eastern Area	28	(1.9)	92	(5.7)	181	(9.8)	220	(11.1)	186	(9.5)
Dublin/Mid-Leinster Region										
South Western Area (of Dublin and Wicklow and all of Kildare)	489	(33.3)	515	(31.7)	502	(27.2)	379	(19.1)	262	(14.0)
East Coast Area (of Dublin and Wicklow)	68	(4.6)	76	(4.7)	68	(3.7)	138	(6.9)	133	(6.8)
Midland Area	46	(3.1)	83	(5.1)	100	(5.4)	72	(3.6)	70	(3.6)
Southern Region										
Southern Area	182	(12.4)	167	(10.3)	298	(16.1)	408	(20.5)	427	(21.7)
South Eastern Area	121	(8.2)	109	(6.7)	200	(10.8)	222	(11.2)	314	(16.0)
Western Region										
Mid-Western Area	57	(3.9)	91	(5.6)	112	(6.1)	131	(6.6)	145	(7.4)
North Western Area	29	(2.0)	25	(1.5)	62	(3.4)	71	(3.6)	71	(3.6)
Western Area	3	(0.2)	15	(0.9)	24	(1.3)	46	(2.3)	90	(4.6)
Status unknown	**206**		**108**		**109**		**152**		**204**	

Incidence and prevalence of treated drug use

The remainder of the analysis is based on 33,391 treated cases who lived in a specified HSE region and were treated for problem drug use in Ireland between 1998 and 2002.

In order to adjust for variation in population size in each HSE area and county, the actual incidence of treated drug use in each area was calculated using the average number of new cases over the five-year period living in each of the ten HSE areas and 26 counties; this average was divided by the population aged 15 to 64 years living in the respective HSE areas and counties, using the census figures for 1998 and 2002 (Census 2003).

Between 1998 and 2002, the incidence rate of treated problem drug use for the reporting period was highest in the HSE South Western Area and the Northern (Dublin) Area, followed closely by the Southern, South Eastern and North Eastern Areas (Figure 1). The Western Area had the lowest incidence, indicating one or more of the following: lower drug use rates than in the rest of Ireland, lower access to or uptake of appropriate treatment services, or lower participation in the NDTRS.

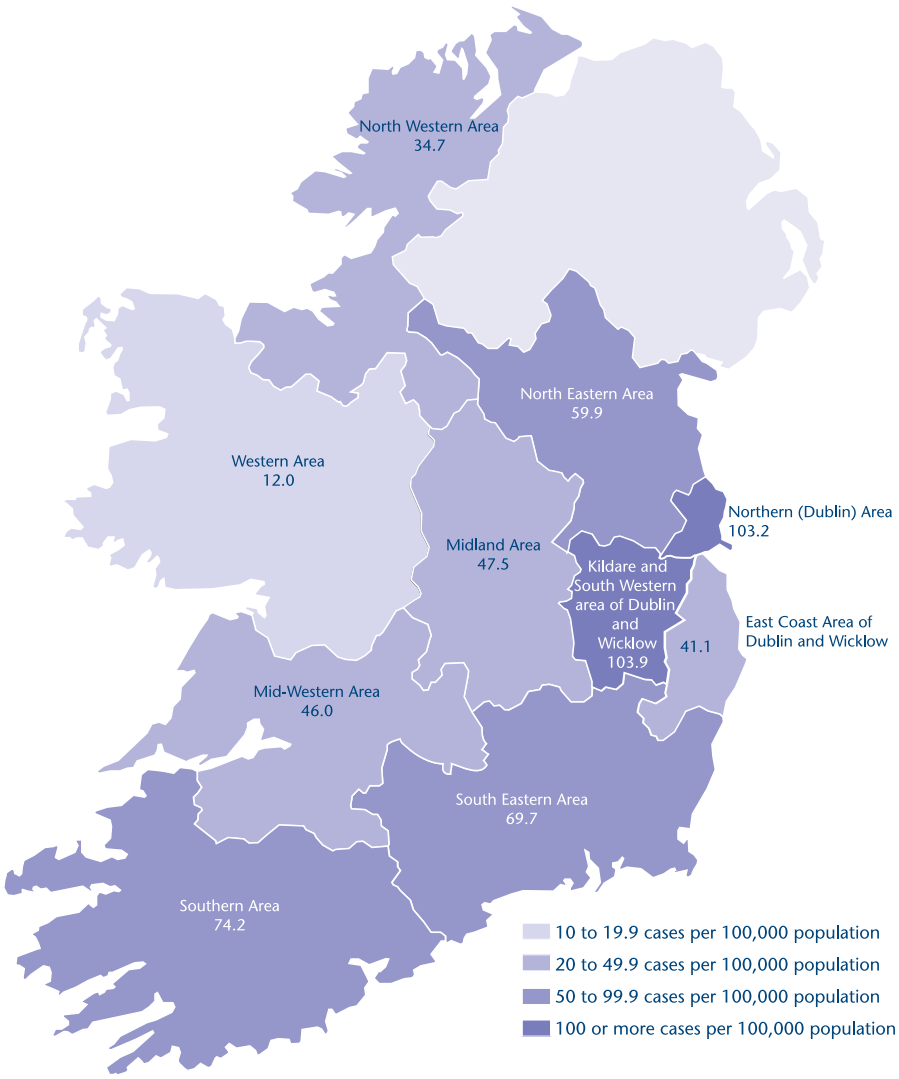

Figure 1 Average annual incidence of treated problem drug use among persons aged 15 to 64 years living in Ireland, by HSE area, based on returns to the NDTRS per 100,000 of the population, 1998 to 2003 (Central Statistics Office 2003)

The incidence rates of treated problem drug use were examined by county for the period 1998 to 2002 (Figure 2). The incidence rates were highest in Carlow, Dublin and Waterford (with over 100 cases per 100,000 of the 15 to 64 year old population) followed by Cork, Louth, Meath, Westmeath, Sligo, Tipperary and Limerick (with between 50 and 99 cases per 100,000). Excluding Sligo, the incidence rates were lowest in western counties (with between 10 and 19 cases per 100,000).

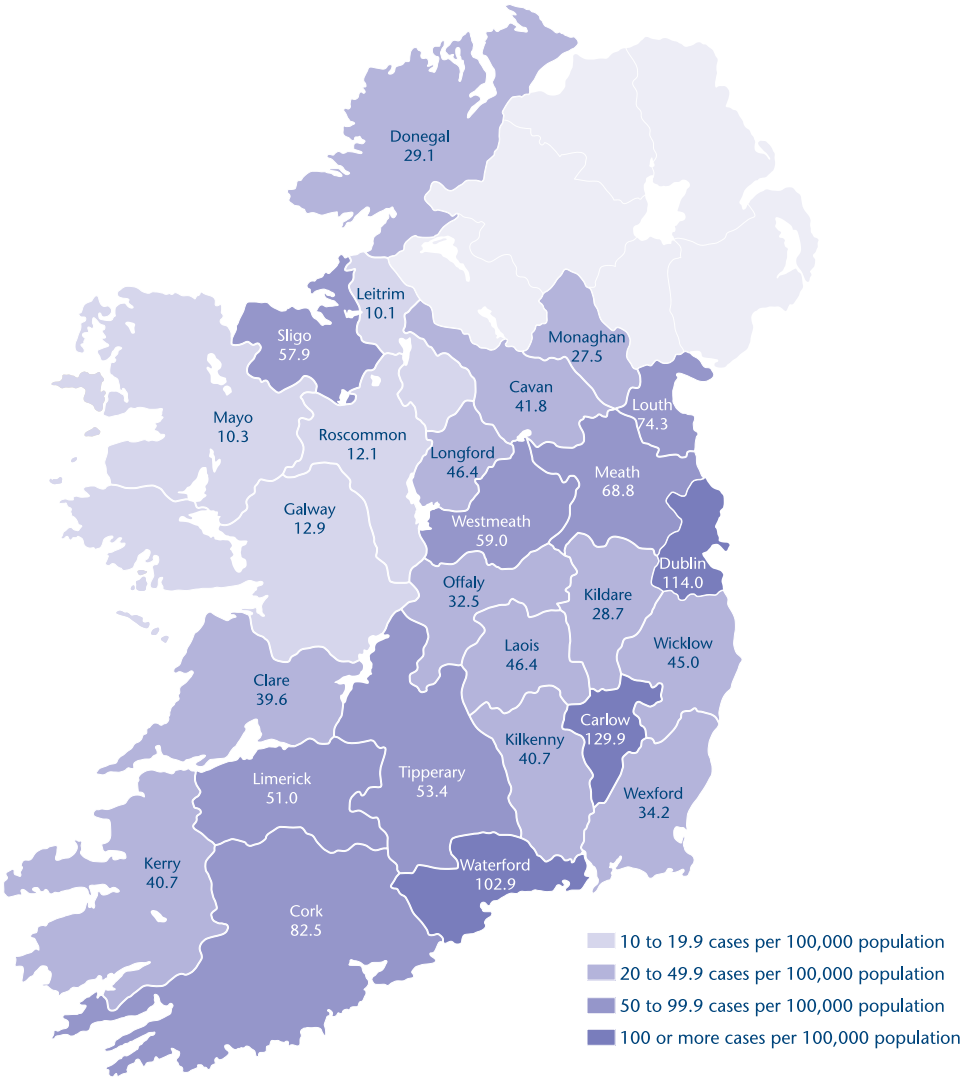

Figure 2 Average annual incidence of treated problem drug use among persons aged 15 to 64 years living in Ireland, by county, based on returns to the NDTRS per 100,000 of the population, 1998 to 2003 (Central Statistics Office 2003)

Figure 3 presents the incidence and prevalence of treated problem drug use from 1998 to 2002 among persons aged between 15 and 64 years living in Ireland, expressed per 100,000 of the population. The prevalence of treated problem drug use increased by 27 per cent between 1998 and 2002. The increased prevalence of treated problem drug use indicates that this is a chronic health condition that requires repeated treatment over time. The incidence of treated problem drug use increased by 24 per cent between 1998 and 2001, and decreased by 6 per cent between 2001 and 2002. The decreased incidence observed in 2002 masks two separate trends (not shown in Figure 3). The first trend is that the incidence of treated problem drug use in the areas outside the HSE Eastern Region (Dublin, Kildare and Wicklow) almost trebled, from 24.8 per 100,000 of the population in 1998 to 69.7 per 100,000 in 2002 (Long *et al.* 2004). The increase in incidence outside the HSE Eastern Region may reflect a combination of an increase in the number of treatment services and an increase in drug use. The second trend is a decrease in the incidence of treated problem drug use (specifically opiates) in Dublin between 2000 and 2002 (Kelly *et al.* 2005). The decrease in the incidence of treated problem opiate use may reflect a decrease in new opiate users in Dublin, saturation of the more vulnerable populations in Dublin, a switch to other drugs (such as cocaine), a combination of these factors, or another factor not yet identified. The most likely explanation is a decrease in new opiate users in certain areas of Dublin and, to a lesser extent, a switch to other drugs by young people in Dublin.

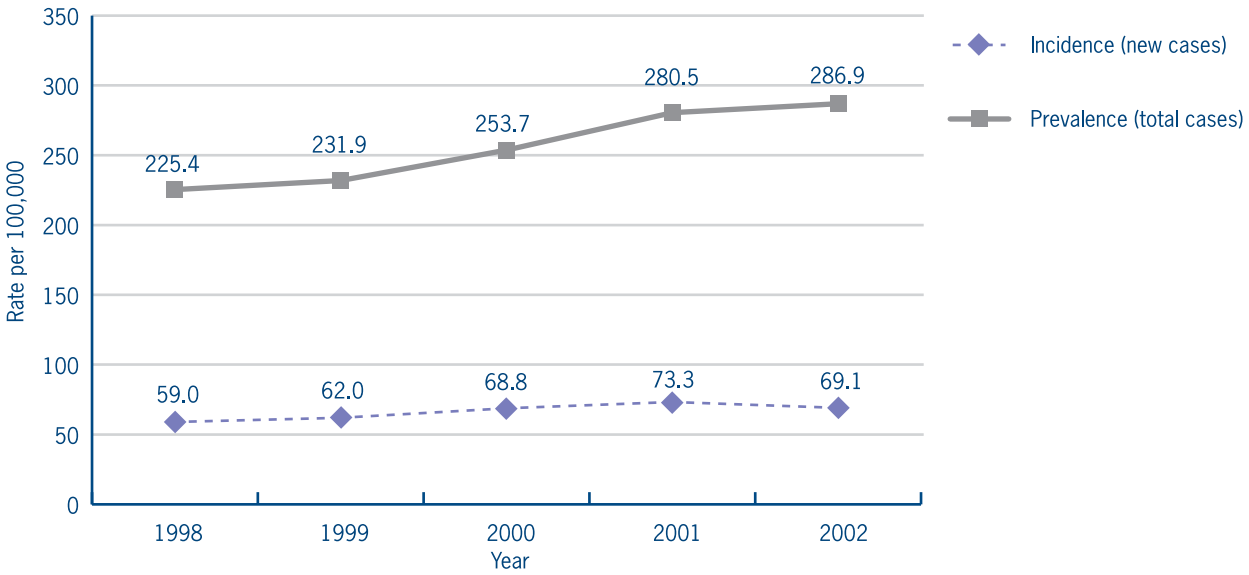

Figure 3 Incidence and prevalence of treated problem drug use among persons aged between 15 and 64 years living and treated in Ireland, based on returns to the NDTRS per 100,000 population, 1998 to 2002 (Central Statistics Office 2003)

Main and additional problem drugs

The total number of cases who reported opiates, cannabis, ecstasy, benzodiazepines or cocaine as their main problem drug increased steadily between 1998 and 2002 (Table 6). During the reporting period, an opiate was the most frequently reported main problem drug, while cannabis was the second most frequently reported main problem drug. The pattern of main problem drugs reported by cases previously treated was similar to that reported by all cases, while the pattern reported by new cases was different. The number of new cases treated who reported problem opiate use decreased by 21 per cent, from 922 in 1999 to 729 in 2002. The number of new cases treated who reported problem cannabis use increased by 144 per cent, from 379 in 1998 to 925 in 2002. The numbers of new cases treated who reported cocaine as their main problem drug, though small, increased consistently, from 78 in 1999 to 142 in 2002, indicating the early years of an epidemic.

Table 6 Main problem drug used by new cases treated in Ireland, by treatment status, reported to the NDTRS, 1998 to 2002

Main problem drug	1998		1999		2000		2001		2002	
	Number (%)									
All cases	**5578**		**5918**		**6611**		**7427**		**7845**	
Opiates	4479	(80.3)	4770	(80.6)	4984	(75.4)	5589	(75.3)	5742	(73.2)
Cannabis	603	(10.8)	713	(12.0)	1062	(16.1)	1229	(16.5)	1477	(18.8)
Ecstasy	187	(3.4)	212	(3.6)	288	(4.4)	299	(4.0)	259	(3.3)
Benzodiazepines	89	(1.6)	47	(0.8)	96	(1.5)	103	(1.4)	95	(1.2)
Cocaine	78	(1.4)	55	(0.9)	74	(1.1)	91	(1.2)	142	(1.8)
Amphetamines	68	(1.2)	60	(1.0)	30	(0.5)	20	(0.3)	30	(0.4)
Volatile inhalants	34	(0.6)	32	(0.5)	39	(0.6)	39	(0.5)	46	(0.6)
Other substances	40	(0.7)	29	(0.5)	38	(0.6)	57	(0.8)	54	(0.7)
Previously treated cases	**3899**		**4179**		**4647**		**5277**		**5666**	
Opiates	3508	(90.0)	3774	(90.3)	4081	(87.8)	4646	(88.0)	4897	(86.4)
Cannabis	176	(4.5)	233	(5.6)	345	(7.4)	392	(7.4)	488	(8.6)
Amphetamines	25	(0.6)	22	(0.5)	11	(0.2)	16	(0.3)	15	(0.3)
Ecstasy	60	(1.5)	63	(1.5)	75	(1.6)	97	(1.8)	91	(1.6)
Benzodiazepines	59	(1.5)	32	(0.8)	70	(1.5)	63	(1.2)	70	(1.2)
Cocaine	45	(1.2)	28	(0.7)	40	(0.9)	41	(0.8)	70	(1.2)
Volatile inhalants	9	(0.2)	11	(0.3)	9	(0.2)	2	(0.0)	9	(0.2)
Other substances	17	(0.4)	16	(0.4)	16	(0.3)	20	(0.4)	26	(0.5)
New cases	**1474**		**1631**		**1855**		**1998**		**1975**	
Opiates	855	(58.0)	922	(56.5)	830	(44.7)	869	(43.5)	729	(36.9)
Cannabis	379	(25.7)	465	(28.5)	694	(37.4)	781	(39.1)	925	(46.8)
Ecstasy	113	(7.7)	141	(8.6)	206	(11.1)	197	(9.9)	162	(8.2)
Amphetamines	35	(2.4)	35	(2.1)	19	(1.0)	4	(0.2)	15	(0.8)
Cocaine	29	(2.0)	26	(1.6)	31	(1.7)	43	(2.2)	61	(3.1)
Benzodiazepines	22	(1.5)	11	(0.7)	24	(1.3)	35	(1.8)	25	(1.3)
Volatile inhalants	22	(1.5)	20	(1.2)	29	(1.6)	36	(1.8)	36	(1.8)
Other substances	19	(1.3)	11	(0.7)	22	(1.2)	33	(1.7)	22	(1.1)
Status unknown	205		108		109		152		204	

The main problem drug reported by new cases treated between 1998 and 2002 was examined by health region of residence (Table 7). The most commonly reported main problem drug for new cases living in each health region varied: cases living in the HSE Dublin/North East and HSE Dublin/Mid-Leinster Regions reported opiates, while cases living in the HSE Southern and HSE Western Regions reported cannabis.

Table 7 Main problem drug used by new cases treated in Ireland, by HSE region of residence, reported to the NDTRS, 1998 to 2002

Main problem drug	Dublin/North East		Dublin/Mid-Leinster		Southern		Western	
	Number (%)							
New cases	**2461**		**3052**		**2448**		**972**	
Opiates	1592	(64.7)	2352	(77.1)	174	(7.1)	87	(9.0)
Cannabis	606	(24.6)	440	(14.4)	1601	(65.4)	597	(61.4)
Ecstasy	114	(4.6)	131	(4.3)	393	(16.1)	181	(18.6)
Cocaine	50	(2.0)	53	(1.7)	63	(2.6)	24	(2.5)
Volatile inhalants	36	(1.5)	20	(0.7)	53	(2.2)	34	(3.5)
Amphetamines	23	(0.9)	18	(0.6)	46	(1.9)	21	(2.2)
Benzodiazepines	22	(0.9)	25	(0.8)	58	(2.4)	12	(1.2)
Other substances	18	(0.7)	13	(0.4)	60	(2.5)	16	(1.6)

The proportion of cases treated who reported problems with more than one drug increased by 5 per cent, from 71 per cent in 1998 to 76 per cent in 2002 (Table 8). The same trend was noted among new and previously treated cases.

Table 8 Use of more than one drug by cases living and treated in Ireland, by treatment status, reported to the NDTRS, 1998 to 2002

	1998		1999		2000		2001		2002	
					Number (%)					
All cases	**5590**		**5918**		**6611**		**7427**		**7845**	
All cases who used more than one drug	3951	(70.7)	4123	(69.7)	4655	(70.4)	5533	(74.5)	5957	(75.9)
Previously treated cases	**3907**		**4179**		**4647**		**5277**		**5666**	
Previously treated case who used more than one drug	2832	(72.5)	3012	(72.1)	3282	(70.6)	3976	(75.3)	4339	(76.6)
New cases	**1477**		**1631**		**1855**		**1998**		**1975**	
New cases who used more than one drug	994	(67.3)	1042	(63.9)	1297	(69.9)	1450	(72.6)	1479	(74.9)
Status unknown cases	**206**		**108**		**109**		**152**		**204**	
Status unknown cases who used more than one drug	125	(60.7)	69	(63.9)	76	(69.7)	107	(70.4)	139	(68.1)

Between 1998 and 2002, the highest proportions reporting problems with more than one drug lived in the HSE Southern and HSE Western Regions (Table 9).

Table 9 Use of more than one drug by new cases living and treated in Ireland, by HSE region of residence, reported to the NDTRS, 1998 to 2002

	Dublin/North East		Dublin/Mid-Leinster		Southern		Western	
			Number (%)					
All new cases	**2461**		**3055**		**2448**		**972**	
New cases who used more than one drug	1530	(62.2)	1878	(61.5)	2091	(85.4)	763	(78.5)

Of all cases treated between 1998 and 2002, 28 per cent reported problem use of one drug, 32 per cent reported problem use of two drugs, 26 per cent reported problems with three drugs and 15 per cent reported problems with four or more drugs (Table 10). A similar trend was noted among both new and previously treated cases.

Table 10 Number of problem drugs used by cases treated in Ireland, by treatment status, reported to the NDTRS, 1998 to 2002

Number of problem drugs used	1998		1999		2000		2001		2002	
					Number (%)					
All cases	**5590**		**5918**		**6611**		**7427**		**7845**	
One drug	1638	(29.3)	1794	(30.3)	1956	(29.6)	1894	(25.5)	1888	(24.1)
Two drugs	1826	(32.7)	1737	(29.4)	2154	(32.6)	2544	(34.3)	2458	(31.3)
Three drugs	2011	(36.0)	1448	(24.5)	1426	(21.6)	1748	(23.5)	1962	(25.0)
Four drugs or more	115	(2.1)	939	(15.9)	1075	(16.3)	1241	(16.7)	1537	(19.6)
Previously treated cases	**3907**		**4179**		**4647**		**5277**		**5666**	
One drug	1074	(27.5)	1166	(27.9)	1365	(29.4)	1301	(24.7)	1327	(23.4)
Two drugs	1306	(33.4)	1288	(30.8)	1530	(32.9)	1756	(33.3)	1731	(30.6)
Three drugs	1435	(36.7)	1061	(25.4)	1026	(22.1)	1276	(24.2)	1464	(25.8)
Four drugs or more	92	(2.4)	664	(15.9)	726	(15.6)	944	(17.9)	1144	(20.2)
New cases	**1477**		**1631**		**1855**		**1998**		**1975**	
One drug	483	(32.7)	589	(36.1)	558	(30.1)	548	(27.4)	496	(25.1)
Two drugs	453	(30.7)	414	(25.4)	582	(31.4)	726	(36.3)	640	(32.4)
Three drugs	521	(35.3)	364	(22.3)	381	(20.5)	446	(22.3)	473	(23.9)
Four drugs or more	20	(1.4)	264	(16.2)	334	(18.0)	278	(13.9)	366	(18.5)
Status unknown	**206**		**108**		**109**		**152**		**204**	

Between 1998 and 2002, a higher proportion of new cases treated in the HSE Southern Region reported problem use of third and fourth drugs than the proportions in other regions (Table 11). Use of more than one drug is a common practice, increases the complexity of such cases, and is associated with poorer treatment outcomes.

Table 11 Number of problem drugs used by new cases treated in Ireland, by HSE region of residence, reported to the NDTRS, 1998 to 2002

Number of problem drugs used	Dublin/North East		Dublin/Mid-Leinster		Southern		Western	
	Number (%)							
New cases	**2461**		**3055**		**2448**		**972**	
One drug	931	(37.8)	1177	(38.5)	357	(14.6)	209	(21.5)
Two drugs	749	(30.4)	989	(32.4)	718	(29.3)	359	(36.9)
Three drugs	507	(20.6)	631	(20.7)	802	(32.8)	245	(25.2)
Four drugs or more	274	(11.1)	258	(8.4)	571	(23.3)	159	(16.4)

Of the treated cases reporting problem use of more than one drug, the rank order of the additional drugs from most common to least common remained the same between 1998 and 2000, namely: benzodiazepines, followed by cannabis, opiates, ecstasy, cocaine and alcohol (Table 12). In 2001 and 2002, the rank order changed. In 2002, cannabis replaced benzodiazepines as the most common drug, while cocaine moved up from fifth most common to third most common. The pattern of drug use among previously treated cases was similar to that among all cases. The rank order of additional problem drugs reported by new cases differed from that reported by previously treated cases. In 1998, the rank order of the top four additional drugs reported by new cases was cannabis, followed by ecstasy, benzodiazepines, and alcohol; by 2002 the rank order reported by new cases had changed and the most common additional drugs were alcohol, followed by ecstasy, cannabis and cocaine.

Table 12 Additional problem drugs used by cases living and treated in Ireland, by treatment status, reported to the NDTRS, 1998 to 2002

Additional problem drug(s) used*	1998		1999		2000		2001		2002	
	Number (%)									
All cases who used additional drug(s)	**3951**		**4123**		**4655**		**5533**		**5957**	
Benzodiazepines	1529	(38.7)	1694	(41.1)	1786	(38.4)	2277	(41.2)	2353	(39.5)
Cannabis	1335	(33.8)	1644	(39.9)	1743	(37.4)	2426	(43.8)	2694	(45.2)
Opiates	1308	(33.1)	1198	(29.1)	1162	(25.0)	1027	(18.6)	1154	(19.4)
Ecstasy	594	(15.0)	883	(21.4)	1098	(23.6)	1255	(22.7)	1293	(21.7)
Cocaine	412	(10.4)	748	(18.1)	884	(19.0)	1160	(21.0)	1569	(26.3)
Alcohol	406	(10.3)	457	(11.1)	724	(15.6)	908	(16.4)	1234	(20.7)
Amphetamines	311	(7.9)	383	(9.3)	409	(8.8)	302	(5.5)	306	(5.1)
Volatile inhalants	19	(0.5)	50	(1.2)	56	(1.2)	67	(1.2)	73	(1.2)
Other substances	279	(7.1)	393	(9.5)	369	(7.9)	341	(6.2)	310	(5.2)
Previously treated cases who used additional drug(s)	**2832**		**3012**		**3282**		**3976**		**4339**	
Benzodiazepines	1299	(45.9)	1444	(47.9)	1576	(48.0)	2045	(51.4)	2110	(48.6)
Opiates	1115	(39.4)	1038	(34.5)	976	(29.7)	854	(21.5)	954	(22.0)
Cannabis	901	(31.8)	1170	(38.8)	1218	(37.1)	1855	(46.7)	2135	(49.2)
Cocaine	325	(11.5)	569	(18.9)	689	(21.0)	917	(23.1)	1235	(28.5)
Ecstasy	303	(10.7)	504	(16.7)	585	(17.8)	708	(17.8)	714	(16.5)
Alcohol	206	(7.3)	235	(7.8)	330	(10.1)	400	(10.1)	585	(13.5)
Amphetamines	127	(4.5)	156	(5.2)	163	(5.0)	125	(3.1)	132	(3.0)
Volatile inhalants	11	(0.4)	32	(1.1)	22	(0.7)	28	(0.7)	33	(0.8)
Other substances	165	(5.8)	254	(8.4)	201	(9.2)	208	(5.2)	189	(4.4)
New cases who used additional drug(s)	**994**		**1042**		**1297**		**1450**		**1479**	
Cannabis	392	(39.4)	441	(42.3)	493	(38.0)	531	(36.6)	505	(34.1)
Ecstasy	256	(25.8)	362	(34.7)	493	(38.0)	513	(35.4)	548	(37.1)
Benzodiazepines	203	(20.4)	233	(22.4)	192	(14.8)	210	(14.5)	217	(14.5)
Alcohol	184	(18.5)	212	(20.3)	382	(29.5)	497	(34.3)	617	(41.7)
Opiates	161	(16.2)	144	(13.8)	176	(13.6)	157	(10.8)	182	(12.3)
Amphetamines	163	(16.4)	219	(21.0)	237	(18.3)	170	(11.7)	168	(11.4)
Cocaine	82	(8.2)	172	(16.5)	180	(13.9)	219	(15.1)	301	(20.4)
Volatile inhalants	8	(0.8)	18	(1.7)	31	(2.4)	38	(2.6)	39	(2.6)
Other substances	106	(10.7)	133	(12.8)	162	(12.5)	117	(8.1)	104	(7.0)

* By cases reporting use of one, two or three additional drugs.

The types of additional problem drugs reported by new cases were the same in the HSE Dublin/North East and HSE Dublin/Mid-Leinster Regions, but the rank order was different (Table 13). In the HSE Western and HSE Southern Regions the types of additional drugs were the same but, once again, the rank order was different. Among the top five additional drugs reported, there were three drugs that were common to all four regions: cannabis, ecstasy and cocaine.

Table 13 Additional problem drugs used by new cases living and treated in Ireland, by HSE region of residence, reported to the NDTRS, 1998 to 2002

Additional problem drug(s) used*	Dublin/North East		Dublin/Mid-Leinster		Southern		Western	
	Number (%)							
New cases who used additional drug(s)	**1530**		**1878**		**2091**		**763**	
Cannabis	703	(45.9)	932	(49.6)	517	(24.7)	210	(27.5)
Ecstasy	431	(28.2)	411	(21.9)	992	(47.4)	338	(44.3)
Benzodiazepines	412	(26.9)	531	(28.3)	83	(4.0)	29	(3.8)
Opiates	320	(20.9)	388	(20.7)	76	(3.6)	36	(4.7)
Cocaine	258	(16.9)	307	(16.3)	276	(13.2)	113	(14.8)
Amphetamines	175	(11.4)	161	(8.6)	457	(21.9)	164	(21.5)
Alcohol	97	(6.3)	167	(8.9)	1326	(63.4)	302	(39.6)
Volatile inhalants	48	(3.1)	17	(0.9)	40	(1.9)	29	(3.8)
Other substances	139	(9.1)	110	(5.9)	268	(12.8)	105	(13.8)

* By new cases reporting use of one, two or three additional drugs.

The association between the main problem drug and additional drugs among new cases treated was examined for the period 1998 to 2002 (Table 14). The pattern of additional drugs used was linked to the main problem drug. For example, where an opiate was the main problem drug the most common additional problem drugs were cannabis, followed by benzodiazepines, other opiates and then cocaine, whereas where cannabis was the main problem drug the most common additional drugs were ecstasy, followed by alcohol and then amphetamines. Information about the combinations of drugs used is important in terms of individual clients' care plans.

Table 14 Main problem drug and associated additional drugs used by new cases (number and %) living and treated in Ireland and reported to the NDTRS

	Main problem drug used*						
	Opiates 2668	Cannabis 2398	Ecstasy 719	Cocaine 167	Amphetamines 93	Benzo-diazepines 78	Volatile inhalants 65
	Number (%)						
Additional problem drugs used†							
Other opiates	653 (24.5)	93 (3.9)	22 (3.1)	26 (15.6)	4 (4.3)	13 (16.7)	1 (1.5)
Ecstasy	451 (16.9)	1536 (64.1)		80 (47.9)	57 (61.3)	13 (16.7)	9 (13.8)
Cocaine	512 (19.2)	303 (12.6)	110 (15.3)		18 (19.4)	4 (5.1)	
Amphetamines	96 (3.6)	557 (23.2)	256 (35.6)	36 (21.6)		2 (2.6)	4 (6.2)
Other benzodiazepines	935 (35.0)	68 (2.8)	20 (2.8)	7 (4.2)	2 (2.2)	11 (14.1)	2 (3.1)
Other volatile inhalants	20 (0.7)	87 (3.6)	16 (2.2)	1 (0.6)	0 (0.0)	0 (0.0)	8 (12.3)
Other cannabis	1488 (55.8)	6 (0.3)	588 (81.8)	113 (67.7)	67 (72.0)	22 (28.2)	40 (61.5)
Alcohol	165 (6.2)	1241 (51.8)	300 (41.7)	48 (28.7)	19 (20.4)	45 (57.7)	39 (60.0)

* By specific drug, by new cases reporting more than one problem drug.
† By new cases reporting use of between one and three additional drugs.

Treatment provision

Given the complex nature of the problems associated with drug misuse, it is recognised that there is no single treatment modality for problem drug use. Consequently, a broad range of services covering treatment and rehabilitation is provided throughout the country. A question ascertaining the type of treatment provided on admission to treatment was introduced to the NDTRS form in 1999. Of the 27,801 cases reported to the NDTRS

who lived in Ireland and received treatment between 1999 and 2002, 27,412 had an initial treatment recorded and 389 had no treatment recorded. Of the 27,412 cases for whom initial treatment was documented, 52 per cent (14,334) received counselling or advice, 8 per cent (2,198) had medication-free therapy, 4 per cent (1,061) attended a social or occupational rehabilitation programme, 14 per cent (3,847) commenced medically assisted detoxification and 52 per cent (14,138) commenced methadone maintenance at their first treatment visit. Of the 27,412 cases for whom initial treatment was documented, 8,499 (31%) had more than one type of initial treatment, therefore the total number of treatments is greater than the number of cases.

Risk behaviours

Between 1998 and 2002, 50 per cent of treated drug users had commenced illicit use of drugs before they were 15 years old (Table 15). Of those who ever injected illicit drugs, 50 per cent started injecting before they were 19 years old. With respect to the ages at which illicit use of drugs commenced and ages at which illicit injecting of drugs commenced, both new and previously treated cases reported similar age ranges.

Between 1998 and 2002, the number of cases previously treated who reported ever injecting increased by 41 per cent, while the number of new cases who reported ever injecting decreased by 24 per cent. During the same time period, the number of injectors previously treated who reported ever sharing injecting equipment increased by 63 per cent, while the number of new injectors who reported the same practice decreased by 21 per cent.

Table 15 Risk behaviours reported by all cases living and treated in Ireland, by treatment status, reported to the NDTRS, 1998 to 2002

Injecting and sharing status	1998		1999		2000		2001		2002	
All cases –										
Number injector status known	**5284**		**5755**		**6470**		**7278**		**7666**	
Median age (range)*										
started use, in years	15	(11-22)	15	(11-22)	15	(11-21)	15	(11-21)	15	(11-21)
Median age (range)*										
started injecting, in years	19	(15-27)	19	(14-28)	19	(14-28)	19	(14-29)	19	(15-28)
Number (%) ever injected	3468	(65.6)	3888	(67.6)	4193	(64.8)	4383	(60.2)	4510	(58.8)
Of whom:†										
'ever shared'	2043	(58.9)	2490	(64.0)	2815	(67.1)	3035	(69.2)	3087	(68.4)
'currently injecting'	1833	(52.9)	1749	(45.0)	1770	(42.2)	1787	(40.8)	1619	(35.9)
'currently sharing'	480	(13.8)	465	(12.0)	439	(10.5)	361	(8.2)	252	(5.6)
Previously treated cases –										
Number injector status known	**3740**		**4083**		**4564**		**5192**		**5567**	
Median age (range)*										
started use, in years	15	(11-22)	15	(11-22)	15	(11-21)	15	(11-21)	14	(11-21)
Median age (range)*										
started injecting, in years	19	(15-27)	18	(14-27)	19	(14-28)	19	(14-28)	19	(15-28)
Number (%) ever injected	2871	(76.8)	3207	(78.5)	3591	(78.7)	3852	(74.2)	4055	(72.8)
Of whom:†										
'ever shared'	1762	(61.4)	2142	(66.8)	2514	(70.0)	2776	(72.1)	2877	(70.9)
'currently injecting'	1455	(50.7)	1373	(42.8)	1454	(40.5)	1465	(38.0)	1363	(33.6)
'currently sharing'	379	(13.2)	356	(11.1)	361	(10.1)	276	(7.2)	201	(5.0)
New cases –										
Number injector status known	**1415**		**1583**		**1813**		**1960**		**1925**	
Median age (range)*										
started use, in years	15	(12-21)	15	(12-22)	15	(11-22)	15	(11-23)	15	(11-23)
Median age (range)*										
started injecting, in years	19	(15-28)	19	(15-30)	19	(15-31)	19	(15-32)	19	(15-32)
Number (%) ever injected	514	(36.3)	624	(39.4)	543	(30.0)	476	(24.3)	391	(20.3)
Of whom:†										
'ever shared'	238	(46.3)	320	(51.3)	278	(51.2)	241	(50.6)	187	(47.8)
'currently injecting'	327	(63.6)	345	(55.3)	287	(52.9)	282	(59.2)	223	(57.0)
'currently sharing'	88	(17.1)	105	(16.8)	74	(13.6)	80	(16.8)	48	(12.3)

* Age range presented is the 5th to 95th percentile (90% of all cases are within this age range).
† From the data presented in this table, it is not possible to ascertain the exact percentage of injectors with each risk factor of interest as not all known injectors had completed the subsequent injecting questions.

Between 1998 and 2002, the median age at which new cases commenced illicit use of drugs was similar across all HSE regions (Table 16). In the HSE Dublin/North East and the HSE Dublin/Mid-Leinster Regions, the median age at which new cases commenced injecting drug use was lower than that in the HSE Southern and HSE Western Regions. During the reporting period, the proportions of new cases treated who reported ever injecting illicit drugs was much lower in the HSE Southern and HSE Western Regions than in the HSE Dublin/North East and the HSE Dublin/Mid-Leinster Regions.

Table 16 Risk behaviours reported by new cases living and treated in Ireland, by HSE region of residence, reported to the NDTRS, 1998 to 2002

New cases	Dublin/North East		Dublin/Mid-Leinster		Southern		Western	
Number injector status known	**2402**		**2976**		**2395**		**923**	
Median age (range)* started use, in years	15	(11-23)	15	(11-21)	15	(12-24)	15	(11-21)
Median age (range)* started injecting, in years	19	(15-31)	19	(15-28)	21	(16-35)	22	(15-30)
Number (%) ever injected	981	(40.8)	1393	(46.8)	118	(4.9)	56	(6.1)
Of whom:†								
'ever shared'	531	(54.1)	671	(48.2)	43	(36.4)	19	(33.9)
'currently injecting'	632	(64.4)	769	(55.2)	40	(33.9)	23	(41.1)
'currently sharing'	182	(18.6)	198	(14.2)	12	(10.2)	3	(5.4)

* Age range presented is the 5th to 95th percentile (90% of all cases are within this age range).
† From the data presented in this table, it is not possible to ascertain the exact percentage of injectors with each risk factor of interest as not all known injectors had completed the subsequent injecting questions.

Socio-demographic characteristics

The median age of cases previously treated increased by two years between 1998 and 2002, while the median age of new cases increased by one year (Table 17). Almost 18 per cent of all new cases were under 18 years of age, while only 3 per cent of cases previously treated were in this young age group. The proportion of previously treated male cases remained stable, while there was an increase in the proportion of new male cases treated. The number of cases who reported leaving school early was higher among previously treated cases (29%) than among new cases (21%). The numbers of both new and previously treated cases who were still in school increased steadily between 1998 and 2002. Employment levels among treated drug users aged 16 to 64 years were much lower than those in the general population: for example, 31 per cent of new cases were employed and 24 per cent of previously treated cases were employed.

Table 17 Socio-economic characteristics of cases living and treated in Ireland, by treatment status, reported to the NDTRS, 1998 to 2002

Characteristics*	1998		1999		2000		2001		2002	
	Number (%)									
All cases*	**5590**		**5918**		**6611**		**7427**		**7845**	
Median age (range)† in years	23.6	(17.1-37.8)	24.2	(17.7-38.2)	24.8	(17.5-39.0)	25.2	(17.6-39.9)	25.8	(17.2-40.7)
Number (%) under 18 years of age	501	(9.0)	365	(6.2)	436	(6.6)	479	(6.5)	551	(7.1)
Number (%) of males	3856	(70.3)	4073	(69.0)	4638	(70.4)	5204	(70.8)	5306	(71.0)
Number (%) living with parents/family	3605	(65.2)	3652	(62.0)	4004	(61.3)	4352	(61.8)	4480	(59.7)
Number (%) homeless		§		§		§	216	(3.2)	207	(3.0)
Number (%) of early school leavers‡	1241	(27.5)	1285	(26.7)	1585	(28.2)	1726	(27.4)	1690	(25.3)
Number (%) still in school	151	(11.9)	146	(13.6)	192	(18.3)	208	(19.6)	335	(30.8)
Number (%) aged 16 to 64 years employed	1072	(20.5)	1514	(26.9)	1815	(29.1)	1928	(27.8)	1890	(25.8)
Previously treated cases*	**3907**		**4179**		**4647**		**5277**		**5666**	
Median age (range)† in years	24.6	(18.1-38.8)	25.3	(18.7-38.9)	25.8	(19.0-39.3)	26.2	(19.3-40.2)	26.7	(19.4-41.3)
Number (%) under 18 years of age	180	(4.6)	113	(2.7)	122	(2.6)	120	(2.3)	135	(2.4)
Number (%) of males	2631	(68.6)	2799	(67.1)	3131	(67.6)	3611	(69.1)	3680	(68.5)
Number (%) living with parents/family	2473	(64.1)	2460	(59.1)	2691	(58.5)	2975	(59.6)	3068	(56.8)
Number (%) homeless		§		§		§	150	(3.2)	146	(2.9)
Number (%) of early school leavers‡	952	(28.9)	986	(28.2)	1285	(31.1)	1370	(29.5)	1389	(27.5)
Number (%) still in school	35	(5.5)	25	(5.1)	31	(7.0)	34	(8.8)	57	(14.5)
Number (%) aged 16 to 64 years employed	646	(17.4)	992	(24.9)	1211	(27.3)	1294	(25.9)	1342	(25.0)
New cases*	**1477**		**1631**		**1855**		**1998**		**1975**	
Median age (range)† in years	21.1	(16.2-33.6)	21.8	(16.3-35.4)	22.0	(16.0-37.0)	22.2	(15.9-37.3)	22.2	(15.4-38.1)
Number (%) under 18 years of age	293	(19.9)	240	(14.8)	307	(16.6)	350	(17.6)	407	(20.7)
Number (%) of males	1087	(74.6)	1191	(73.2)	1419	(76.8)	1474	(74.5)	1473	(77.0)
Number (%) living with parents/family	1062	(72.6)	1128	(69.4)	1257	(68.6)	1323	(68.5)	1310	(67.8)
Number (%) homeless		§		§		§	51	(2.7)	47	(2.5)
Number (%) of early school leavers‡	269	(23.2)	284	(22.6)	285	(20.1)	331	(21.1)	273	(18.2)
Number (%) still in school	104	(18.2)	117	(21.0)	158	(27.0)	171	(26.1)	273	(40.6)
Number (%) aged 16 to 64 years employed	371	(27.2)	500	(32.5)	580	(33.8)	598	(32.9)	507	(28.6)

* It is not possible to ascertain the percentage with each characteristic of interest from the total number because not all forms had complete data.
† Age range presented is the 5th to 95th percentile (90% of all cases are within this age range).
‡ Left school before the age of 15 years.
§ Not available.

The socio-economic characteristics of new cases treated were examined by health region of residence for the period 1998 to 2002 (Table 18). Higher proportions of treated drug users were under 18 years and male in the HSE Western and HSE Southern Regions than in the other two health regions. In the HSE Western and HSE Southern Regions, new cases under 18 years were more likely to be in school than in the other two regions. In the HSE Dublin/Mid-Leinster Region higher proportions had left school early than in the HSE Dublin/North East, the HSE Southern and the HSE Western Regions.

Table 18 Socio-economic characteristics of new cases living and treated in Ireland, by HSE region of residence, reported to the NDTRS, 1998 to 2002

Characteristics*	Dublin/North East		Dublin/Mid-Leinster		Southern		Western	
	Number (%)							
New cases*	**2461**		**3055**		**2448**		**972**	
Median age (range)† in years	22.2	(15.6-35.8)	22.2	(16.8-35.5)	21.3	(15.5-38.8)	21.2	(15.5-35.8)
Number (%) under 18 years of age	450	(18.4)	364	(12.0)	551	(22.5)	232	(24.0)
Number (%) of males	1755	(72.9)	2198	(72.6)	1938	(79.7)	753	(78.5)
Number (%) living with parents/family	1707	(70.4)	2142	(71.5)	1579	(65.4)	652	(68.5)
Number (%) of early school leavers‡	458	(24.5)	546	(22.2)	337	(17.8)	101	(14.9)
Number (%) still in school	223	(28.7)	137	(15.4)	308	(32.1)	155	(37.2)
Number (%) aged 16 to 64 years employed	688	(30.9)	801	(27.9)	814	(36.4)	253	(29.0)

* It is not possible to ascertain the percentage with each characteristic of interest from the total number because not all forms had complete data.
† Age range presented is the 5th to 95th percentile (90% of all cases are within this age range).
‡ Left school before the age of 15 years.

Relationship between main problem drug and selected characteristics

In order to highlight important relationships, the main problem drug reported by new cases was examined by selected socio-demographic and economic characteristics. Figure 4 presents the three most common main problem drugs reported by new cases treated in each HSE area. The types of drugs reported differed by Health Service Executive (HSE) area. In the HSE Northern (Dublin), HSE East Coast, HSE South Western, HSE North Eastern and HSE Midland Areas, opiates and cannabis were the most common main problem drugs reported by new cases treated. In the HSE Southern, HSE South Eastern and HSE Western Areas, cannabis and ecstasy were the most common main problem drugs reported by new cases. This may reflect either the types of drug used or the types of treatment service provided in the area, or a combination of both factors.

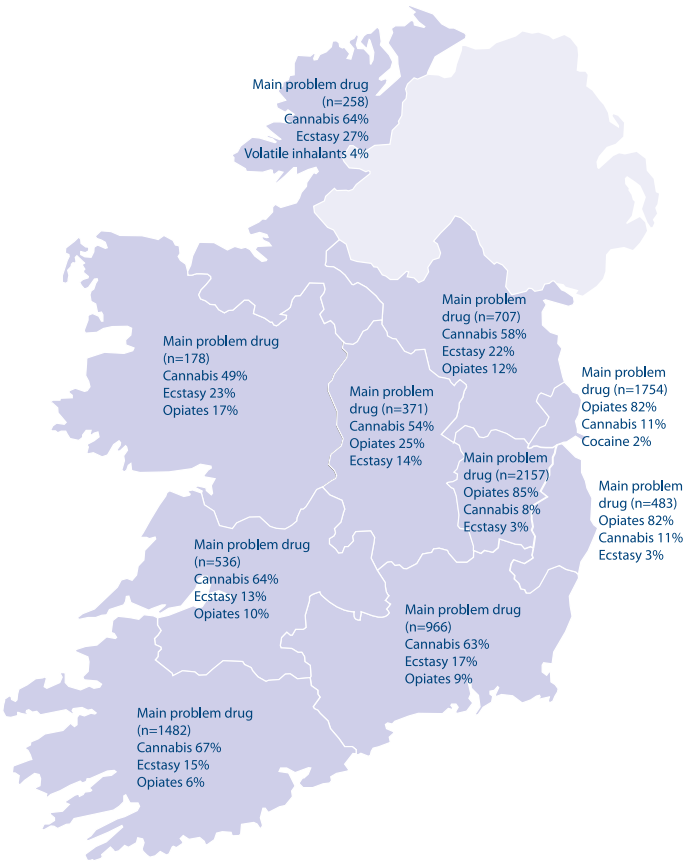

Figure 4 The three most common main problem drugs, by HSE area, for new cases living and treated in Ireland, reported to the NDTRS, 1998 to 2002

Figures 5a and 5b present the age at which new cases living and treated in Ireland commenced use of their main problem drug for the period 1998 to 2002. It is clear that young teenagers initiated drug use with cannabis and, to a lesser extent, ecstasy and volatile inhalants. The majority commenced use of opiates and amphetamines in their mid to late teens. The number reporting benzodiazepines and cocaine as their main problem drug was small, but these are more common as additional drugs. Benzodiazepines and cocaine were also more common among older and previously treated problem drug users.

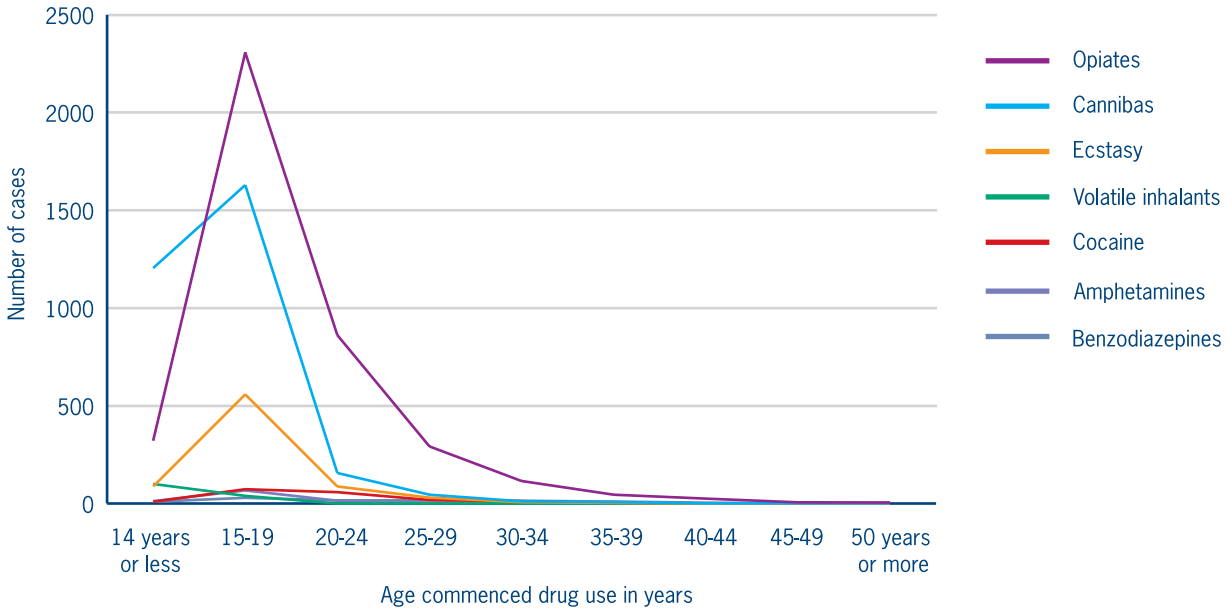

Figure 5a Age commenced use of main problem drug for new cases living and treated in Ireland, reported to the NDTRS, 1998 to 2002

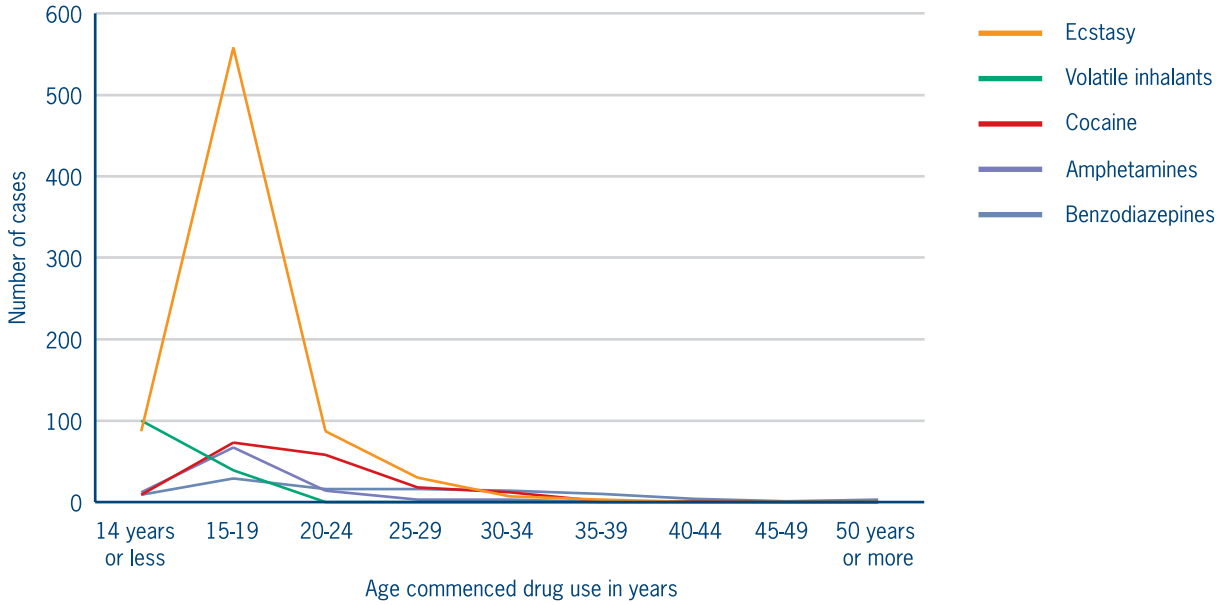

Figure 5b Age commenced use of main problem drug (excluding opiates and cannabis) for new cases living and treated in Ireland, reported to the NDTRS, 1998 to 2002

Figures 6a and 6b present the age at which new cases sought treatment in Ireland, by the main problem drug, for the period 1998 to 2002. Although the numbers using volatile inhalants are small, it is the main problem drug for a very young client group. It is clear that cannabis and ecstasy are the drugs that young people seek treatment for in the late teens, while the majority of opiate users seek treatment in their early twenties. Taken together, Figures 5a and 5b and Figures 6a and 6b present the delay between initiation of the main problem drug (such as cannabis and opiates) and seeking treatment for problem drug use.

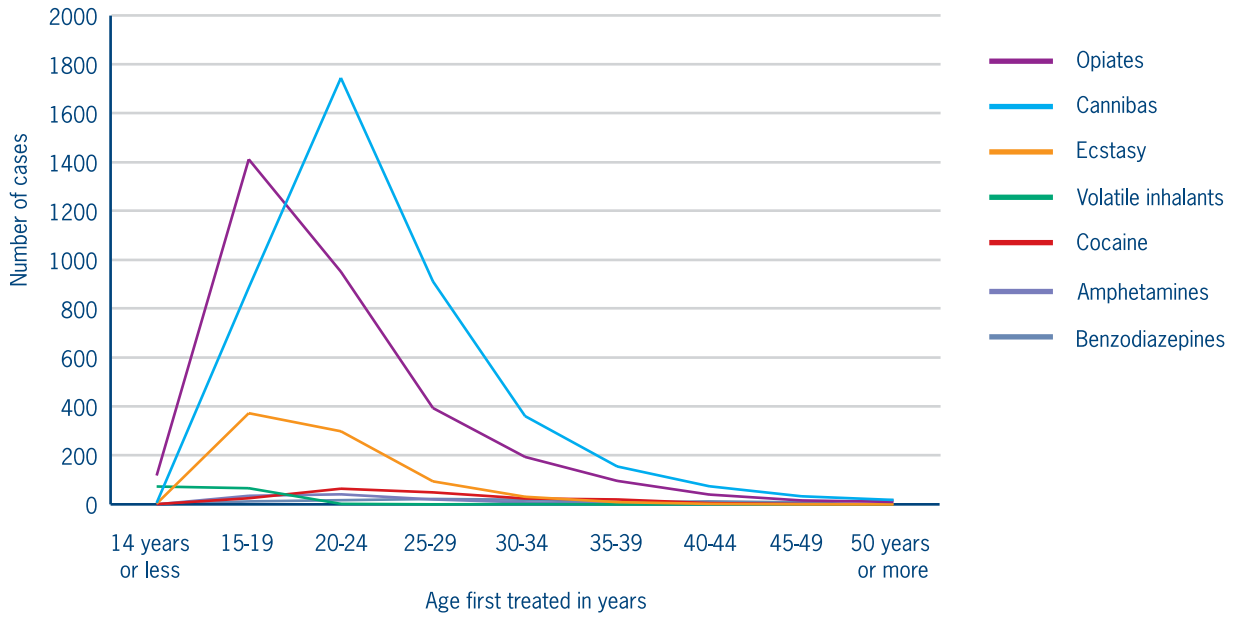

Figure 6a Age attended first treatment, by main problem drug, for new cases living and treated in Ireland, reported to the NDTRS, 1998 to 2002

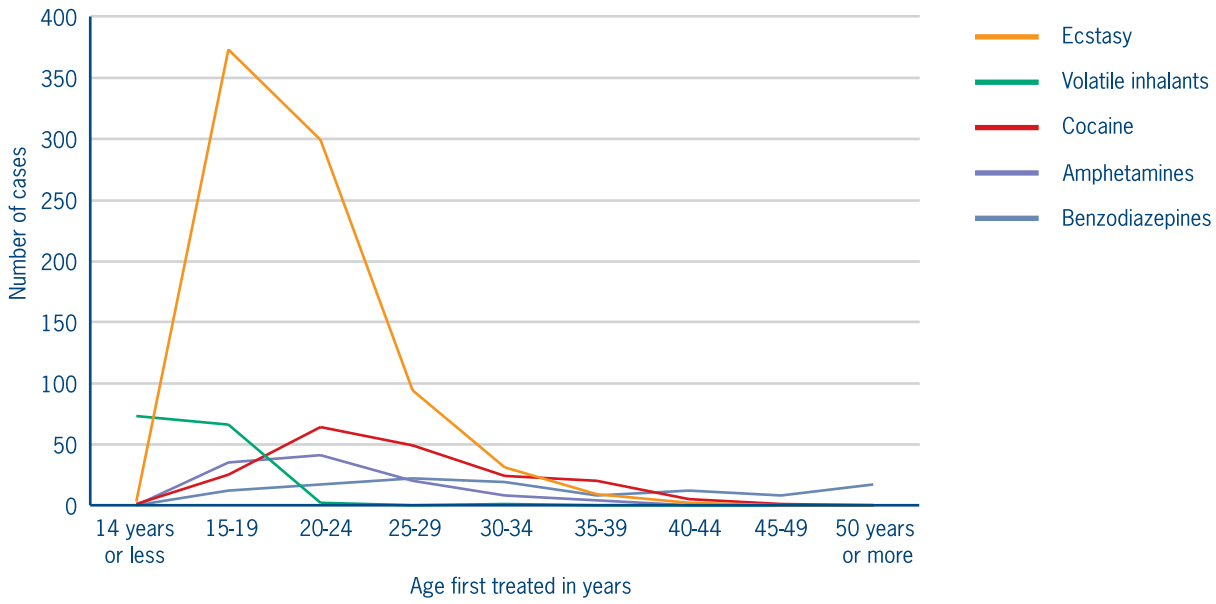

Figure 6b Age attended first treatment, by main problem drug (excluding opiates and cannabis), for new cases living and treated in Ireland, reported to the NDTRS, 1998 to 2002

Figure 7 presents the gender of new cases who sought treatment in Ireland, by the main problem drug, for the period 1998 to 2002. The proportion of males treated for cocaine, cannabis and amphetamine use was very high compared to that of their female counterparts. Although the proportion of males treated for opiate and benzodiazepine use was higher than the proportion of females, the gender difference pertaining to the use of these drugs was not as striking as that pertaining to cocaine, cannabis, amphetamine and ecstasy use.

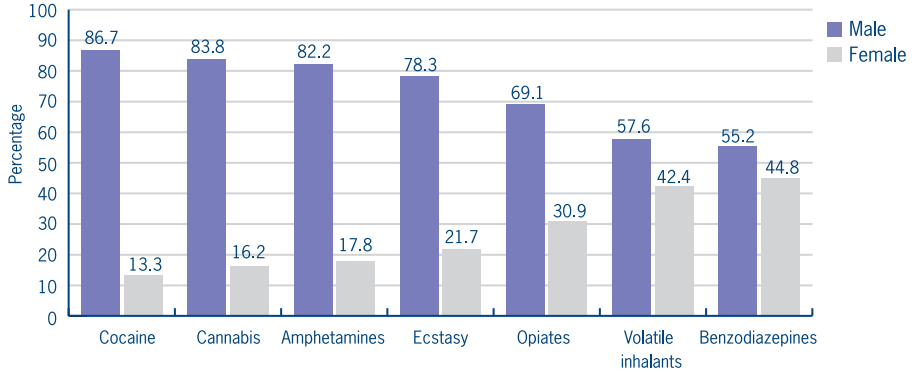

Figure 7 Main problem drug, by gender, for new cases living and treated in Ireland, reported to the NDTRS, 1998 to 2002

Figure 8 presents the employment status of new cases who sought treatment, by the main problem drug, for the period 1998 to 2002. The highest rates of employment were among those who used drugs commonly associated with social events, and the lowest rates of employment were among those who used opiates and benzodiazepines. This has important implications for the social and occupational reintegration of opiate and benzodiazepine users.

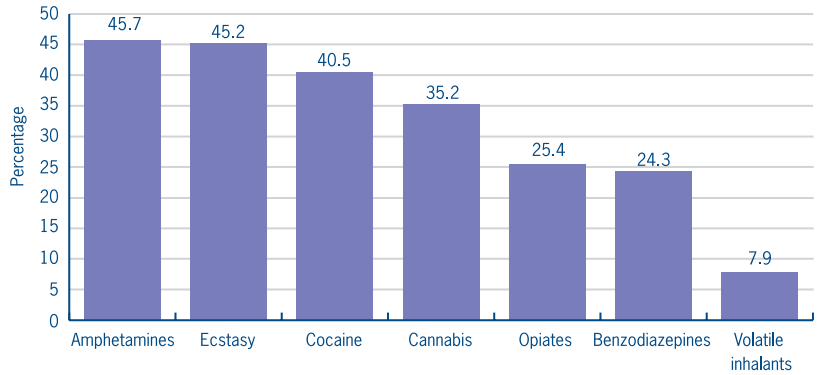

Figure 8 Main problem drug, by regular employment, for new cases aged between 16 and 64 years living and treated in Ireland, reported to the NDTRS, 1998 to 2002

Figure 9 presents the route of administration of the main problem drug reported by new cases who sought treatment between 1998 and 2002. Injecting drug use was associated with opiates and, to a lesser extent, with amphetamines and cocaine. Of the new cases reporting benzodiazepines as their main problem drug, none reported injecting the drug.

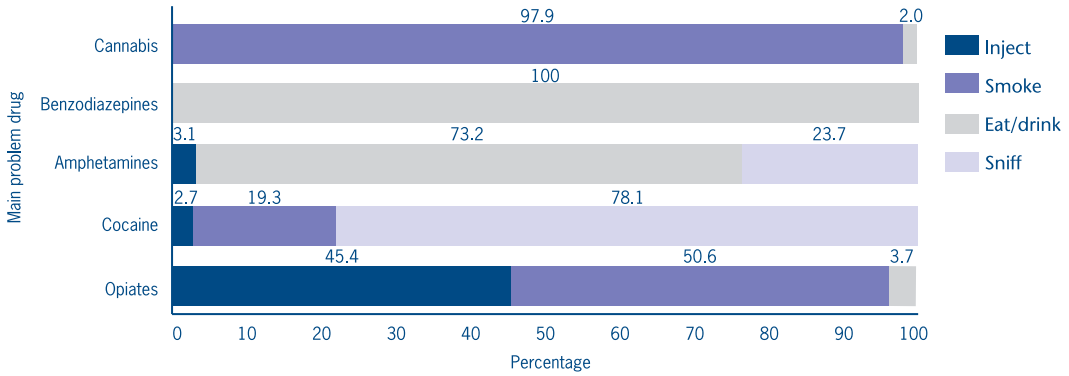

Figure 9 Route of administration of selected main problem drugs for new cases living and treated in Ireland, reported to the NDTRS, 1998 to 2002

Conclusions

The increased prevalence of treated problem drug use indicates that this is a chronic health condition that requires repeated treatment over time. The decreased incidence observed in 2002 masks two separate trends. The first trend is that the incidence of treated problem drug use in the area outside the HSE Eastern Region almost trebled, from 24.8 per 100,000 of the population in 1998 to 69.7 per 100,000 in 2002 (Long *et al.* 2004). The second trend is a decrease in the incidence of treated problem drug use (specifically opiates) in Dublin between 2000 and 2002 (Kelly *et al.* 2005). The decrease in the incidence of treated problem opiate use may reflect a decrease in new opiate users in Dublin, saturation of the more vulnerable populations in Dublin, a switch to other drugs (such as cocaine), a combination of these factors, or another factor not yet identified. The most common main problem drugs reported by cases treated are opiates and cannabis. In 2002, three-quarters of cases reported use of more than one drug as a common practice, which increases the complexity of such cases and is associated with poorer treatment outcomes. The pattern of additional drugs used was linked to the main problem drug. For example, where an opiate was the main problem drug the most common additional problem drugs were cannabis, followed by benzodiazepines and cocaine. Information about the combinations of drugs used is important in terms of individual clients' care plans. In general, problem drug users are young, male, have low levels of education and are unlikely to be employed, indicating the importance of personal development, educational and employment opportunities as part of the drug treatment and reintegration process.

The main problem drug reported by new cases was examined by selected socio-demographic and drug-using characteristics and some important relationships were identified. The types of drug used by new cases differed by HSE area. In the HSE Northern (Dublin), HSE East Coast, HSE South Western, HSE North Eastern and HSE Midland Areas, both opiates and cannabis were the more common main problem drugs reported by new cases treated. In the HSE Southern, HSE South Eastern and HSE Western Areas, cannabis and ecstasy were the more common main problem drugs reported by new cases. This may reflect the types of drug used or the types of treatment service provided in the area, or a combination of both factors. Young teenagers initiated drug use with cannabis and volatile inhalants. The use of opiates, ecstasy and amphetamines was commenced in mid to late teens. There were differences in type of drug used by males and females, with very high proportions of males treated for cocaine and cannabis use compared to their female counterparts. The highest rates of employment were among those using drugs commonly associated with social events and the lowest rates of employment were among those who used opiates and benzodiazepines; this observation, along with the high rates of early school leaving, has important implications for the social and occupational reintegration of opiate and benzodiazepine users. Injecting drug use was associated with opiates and to a lesser extent with amphetamines and cocaine.

These treatment data are important in guiding future drug policy and planning. They will provide baseline data for the HSE regions and regional drugs task forces. The increasing importance of alcohol as an additional problem drug and the overlap between problem alcohol and drug use point to the need for an integrated approach to the management of problem substance use.

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Acknowledgements

The authors would like to express sincere thanks to all those who contribute to the work of the DMRD. Without the ongoing support of staff at drug treatment services throughout the country it would not be possible to maintain the NDTRS. Their co-operation is very much appreciated and valued. We thank Dr Ide Delargy and Ms Brigid Pike for their helpful comments on earlier drafts of this paper. We would also like to thank Ms Joan Moore for editing the work.

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