Drug Misuse Research Division

Trends in treated problem opiate 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 opiate 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 the 1,495 opiate cases who lived and were treated in the seven health board areas between 1998 and 2002. In this paper, treated problem opiate use is described in relation to person, place and time. This paper will assist policy makers, service planners and practitioners to develop appropriate responses to problem opiate use in the seven health board areas.

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:

- The incidence of treated problem opiate use increased sharply, from 2.0 in 1998 to 8.3 in 2002, per 100,000 of the 15–64-year-old population. The increase in new problem opiate users at treatment services indicates a spread of heroin use in the seven health board areas, indicating the need to expand the number and range of treatment services.

- The prevalence of treated problem opiate use has also increased steadily, from 6.6 per 100,000 of the 15–64-year-old population in 1998 to 25.4 in 2002, and this is an indicator that problem heroin use has a chronic element requiring continued care or repeated treatment over time.

- There was a spread by county in demand for treatment for problem opiate use among new cases living in the seven health board areas, with very high rates of treated problem opiate use in counties Carlow, Cavan, Louth, Meath, and Westmeath. These data will be useful when assessing the adequacy of existing services or identifying new sites for treatment services.

- The lowest rates of treatment for problem opiate use were along the western seaboard, although this may be partly due to under-reporting.

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HRB Health Research Board

Drug Misuse Research Division
Health Research Board
Holbrook House
Holles Street
Dublin 2

- For new cases reporting problem opiate use, the time interval between commencing opiate use and starting treatment remained between 3.5 and 3.8 years from 1999 to 2002. Polydrug-using practices may be initiated during the interval between first taking any drug and the age at which opiate treatment is sought. During the time interval between commencing opiate use and seeking treatment, opiate users may change from smoking to injecting opiates and, subsequently, may contract blood-borne viruses, such as hepatitis C, indicating the need for proactive interventions to discourage the move from smoking to injecting and bring opiate users into treatment earlier. The reason for, and effect of, opiate users delaying treatment for almost four years requires investigation.

- The proportion of opiate cases treated in the seven health board areas who reported polydrug use decreased from 80 per cent in 1998 to 74 per cent in 2002. The reason for the decrease is not clear but it may be as a result of an increasing proportion of newer opiate users who have yet to develop chronic polydrug-using practices. Polydrug use is one of the factors that may impede successful treatment for problem opiate use unless specific interventions are introduced to address this problem.

- For cases treated in the seven health board areas who reported opiates as their main problem and reported using more than one drug, the most common secondary drug used was cannabis. During the period under review, the use of cocaine and benzodiazepines as second drugs increased, while the use of amphetamines as a second drug decreased. An exact knowledge of polydrug use is very important for the correct and comprehensive management of opiate users.

- From 1999 to 2002, decreasing proportions of cases reported that injecting was their primary route of administration, while correspondingly increased proportions reported smoking opiates. This observation is possibly a phenomenon of increased service availability and increasing numbers of newer opiate users entering treatment, rather than a change in the opiate-using practices of individuals *per se.* It is important to note that proactive intervention through outreach may prevent the move from smoking to injecting opiates.

- Of note, there was an increase in the actual number of injectors in the seven health board areas. Opiate injectors have a higher risk of acquiring blood-borne viral infections and of experiencing overdose than non-injectors. This suggests that the incidence of blood-borne viral infections and opiate-related deaths has increased in the seven health board areas during the period under review, but specific data are not available.

- Problem opiate users' educational characteristics indicate that individuals who leave school early are more likely to become problem opiate users, or that the lifestyle of problem opiate users renders it difficult to stay in full time education, or a combination of both factors. In line with national employment trends, there was an increase in the proportion of new and previously treated opiate cases who reported having regular employment up to 2001 and a subsequent decrease in 2002. Taken together, these two findings indicate the importance of a social, educational and economic reintegration strategy for the successful treatment of opiate users.

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 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.

- 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. 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.

As a result of small numbers in 1998 and a high rate (22%) 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 opiate treatment services 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 opiate 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 opiate 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 opiate use, calculates the time interval between starting opiates and first treatment, describes the initial treatment(s) provided, documents other drugs associated with treated problem opiate use and risk behaviours and describes socio-demographic characteristics of cases.

Coverage of opiate-related treatment

The total number of treatment outlets for problem opiate use available 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 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 49 general practitioners prescribing methadone treatment outside the Eastern Regional Health Authority area but only four of these provided returns to the NDTRS. In 2002, general practitioners treated approximately 180 cases for problem opiate use in the seven health board areas (unpublished data from the Central Methadone Treatment List) and information was submitted to the NDTRS on six cases (3%), while other health professionals (mainly counsellors) providing shared care with general practitioners completed forms for a further 93 (52%) cases. Of the cases receiving methadone from general practitioners, 45 per cent were not reported to the NDTRS.

Table 1 Number and type of services providing treatment for problem opiate use 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	22	(109)	25	(141)	31	(221)	44	(326)	49	(413)
Residential	10	(94)	8	(100)	7	(116)	12	(159)	13	(188)
General practitioner	0	(0)	5	(8)	3	(4)	5	(14)	4	(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.

Numbers treated

In total, 1,899 cases sought treatment for problem opiate use in the seven health board areas between 1998 and 2002. Of these, 1,495 (79%) lived in one of the seven health board areas, 390 (21%) lived in the Eastern Regional Health Authority area and 13 (1%) lived outside Ireland; one case had no place of residence recorded. The remainder of this analysis is based on the 1,495 cases treated for problem opiate use who lived and were treated in the seven health board areas.

The total numbers who sought treatment for problem opiate use in the seven health board areas increased by almost 300 per cent, from 132 cases in 1998 to 511 cases in 2002 (Table 2). The proportion reporting that heroin was their problem opiate increased from 76 per cent in 1998 to 88 per cent in 2002. The proportion reporting opiates as their main problem drug rather than a secondary drug, while high, decreased marginally from 88 per cent in 1998 to 86 per cent in 2002. During the period under review, the number of new opiate cases increased by 300 per cent, while the number of previously treated opiate cases increased by almost 400 per cent.

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

Opiates	1998		1999		2000		2001		2002	
	Number (%)									
All opiate cases	**132**		**170**		**272**		**410**		**511**	
Heroin	100	(75.8)	138	(81.2)	236	(86.8)	358	(87.3)	448	(87.7)
Other opiates	32	(24.2)	32	(18.8)	36	(13.2)	52	(12.7)	63	(12.3)
Main problem drug	116	(87.9)	151	(88.8)	220	(80.9)	362	(88.3)	439	(85.9
Second, third or fourth drug	16	(12.1)	19	(11.2)	52	(19.1)	48	(11.7)	72	(14.1)
Treatment status										
Previously treated cases	61	(46.2)	118	(69.4)	151	(55.5)	247	(60.2)	302	(59.1)
Main problem drug	54	(88.5)	106	(89.8)	127	(84.1)	223	(90.3)	260	(86.1)
Second, third or fourth drug	7	(11.5)	12	(10.2)	24	(15.9)	24	(9.7)	42	(13.9)
New cases	42	(31.8)	45	(26.5)	111	(40.8)	148	(36.1)	178	(34.8)
Main problem drug	35	(83.3)	39	(86.7)	83	(74.8)	126	(85.1)	148	(83.1)
Second, third or fourth drug	7	(16.7)	6	(13.3)	28	(25.2)	22	(14.9)	30	(16.9)
Unknown	29	(22.0)	7	(4.1)	10	(3.7)	15	(3.7)	31	(6.1)

* 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 opiate use among cases living and treated in the seven health board areas. The incidence of treated problem opiate use increased sharply from 2.0 in 1998 to 8.3 in 2002 per 100,000 of the 15–64-year-old population. The increase in new cases of problem opiate use at treatment services indicates a spread of the epidemic in the seven health board areas. The prevalence of treated problem opiate use also increased steadily, from 6.6 in 1998 to 25.4 in 2002. This increase indicates that problem opiate use has a chronic element requiring continued care or repeated treatment over time.

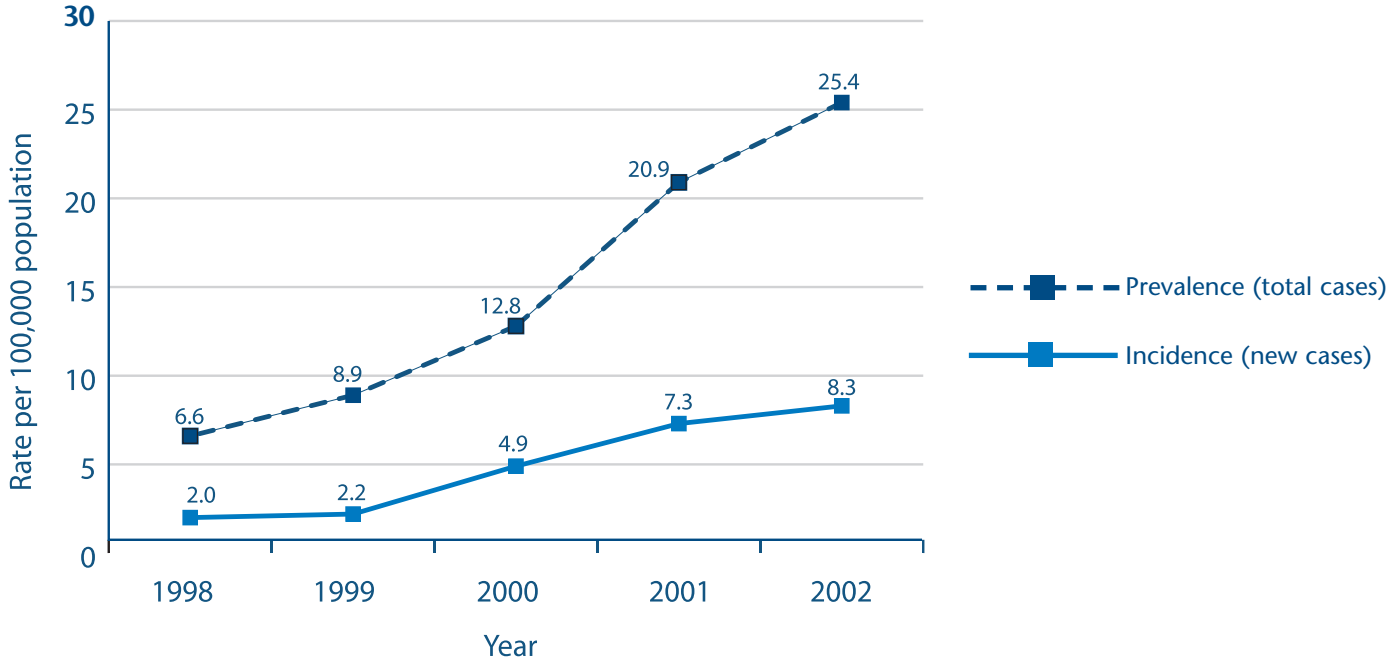

Figure 1 Incidence and prevalence of treatment for an opiate as a main problem drug among persons living and treated in the seven health board areas per 100,000 of the 15–64-year-old population (Central Statistics Office 2003), based on returns to the NDTRS, 1998 to 2002

Geographical spread of treated problem opiate use

In order to examine the spread of treated problem opiate use throughout Ireland it was necessary to calculate and map geographically the average annual rate of new opiate 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 opiate 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 opiate use between the earlier period (1996–2000) and the later period (1998–2002).

Figure 2 presents the average annual rate of treatment for an opiate 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 higher rates in the north-east, midlands and south-east. The highest rate was observed in Westmeath (17.3 per 100,000 population) followed by Carlow (9.7), and Meath (7.4). The lowest rates were observed in the west and north-west.

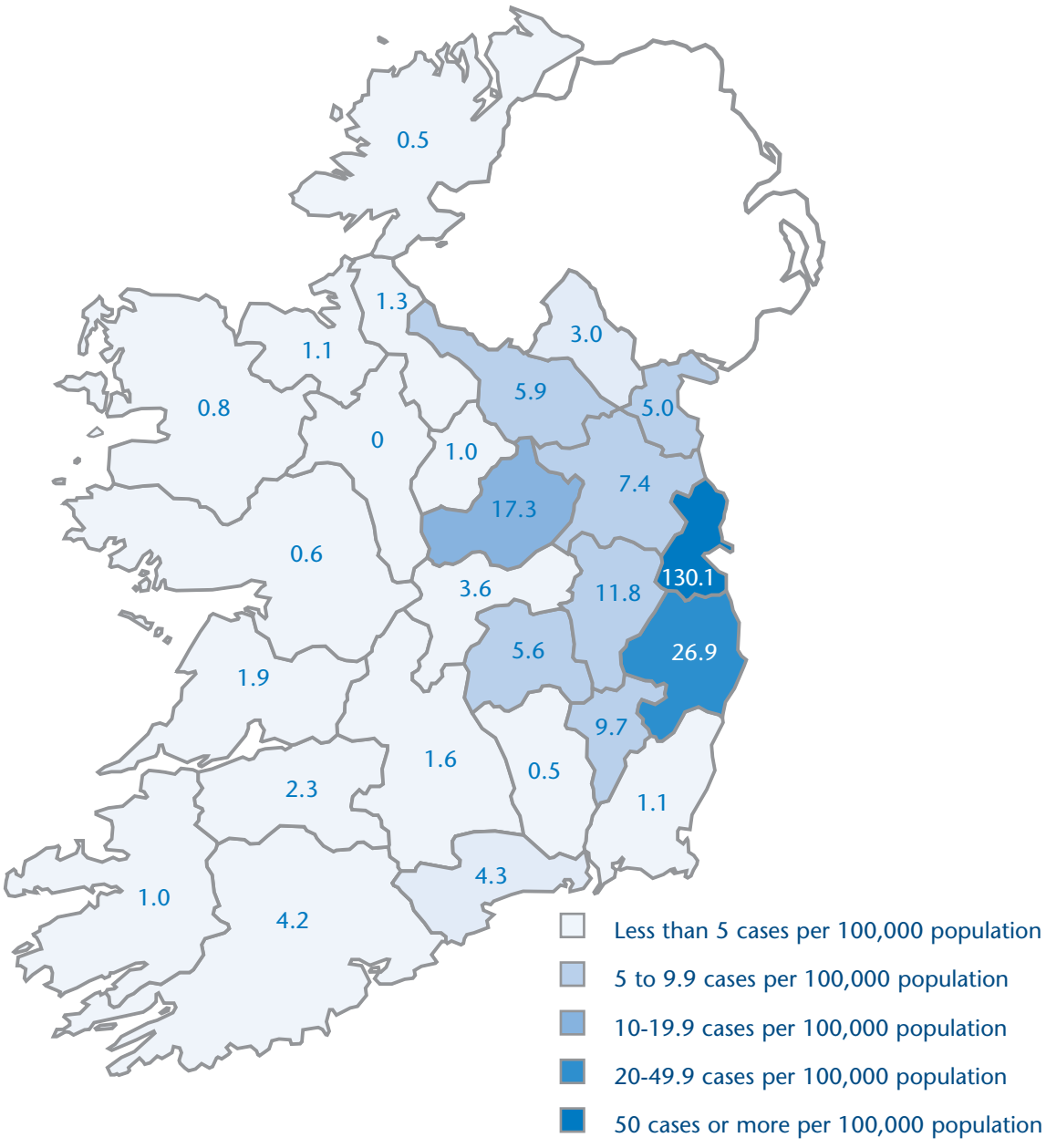

Figure 2 Average annual incidence of treatment for an opiate as a main problem drug among persons aged 15 to 64 years by county of residence per 100,000 population (Central Statistics Office 2003) based on returns to the NDTRS, 1996 to 2000

Figure 3 presents the average annual rate of treatment for an opiate as the 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 Longford, Roscommon and Cork. A very large increase in the demand for treatment was noted in Carlow (21.2 per 100,000, up from 9.7), while large increases were noted in Meath (11.5, up from 7.4), Louth (10.3, up from 5.0) and Cavan (10.0, up from 5.9). Though the rate of new cases seeking treatment in Westmeath was high, it decreased marginally over the two time periods, from 17.3 to 16.8.

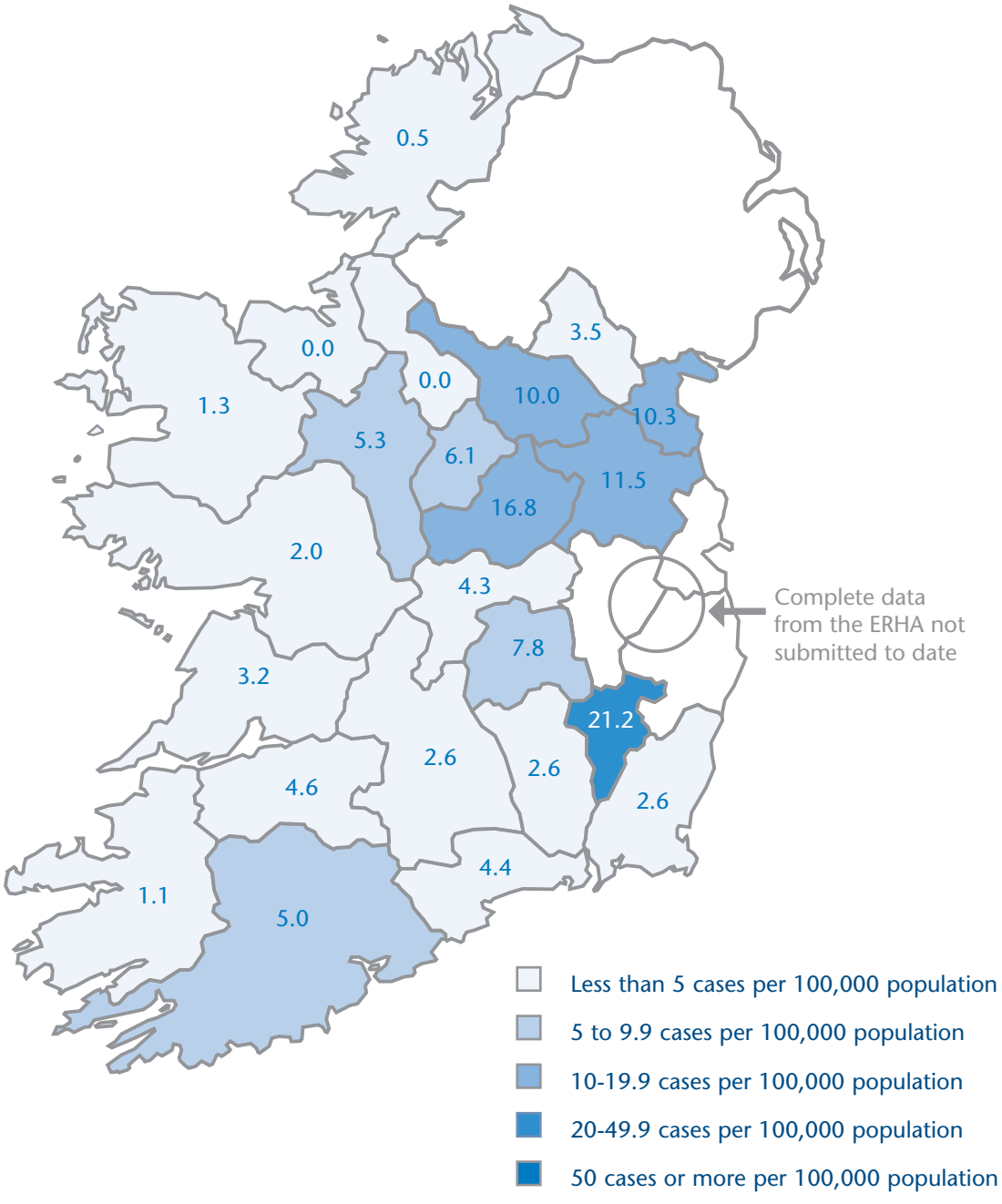

Figure 3 Average annual incidence of treatment for an opiate as a main problem drug among persons aged 15 to 64 years by county of residence per 100,000 population (Central Statistics Office 2003) based on returns to the NDTRS, 1998 to 2002

Time to treatment

Between 2000 and 2002, 50 per cent of new opiate 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 opiates increased from 19 years in 1998 to 21 years in 2001 and decreased to 19 years in 2002. This finding indicates that opiates were unlikely to be among the first drugs used by these new opiate cases. Over the period under review, the median age of new cases seeking initial treatment increased from 25 in 1998 to 27 in 2001 and decreased to 25 in 2002. The median interval between commencing opiate use and initial treatment remained between 3.5 and 3.8 years from 1999 to 2002. Polydrug-using practices may be initiated during the interval between first taking any drug and the age at which treatment is sought. During the time interval between commencing opiate use and seeking treatment, many opiate users change from smoking to injecting opiates and, subsequently, may contract blood-borne viruses, such as hepatitis C, indicating the need for proactive interventions to discourage the move from smoking to injecting, and bring opiate users into treatment earlier.

Table 3 Age commenced drug use and time to treatment for new cases, reporting opiates 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	16 (11–37)	16 (11–25)	15 (11–26)	15 (11–25)	15 (12–28)
Commenced opiate use	19 (13–40)	19 (13–31)	20 (15–39)	21 (14–41)	19 (15–33)
Sought first treatment for opiate use	25 (17–53)	25 (17–41)	24 (17–46)	27 (18–46)	25 (18–41)
Time to treatment	2.2 (0.0–16)	3.8 (0.2–20)	3.7 (0.3–8)	3.5 (0.4–13)	3.6 (0.6–13)

* 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 age are within this range).

Treatment provision

Given the complex nature of problems associated with opiate 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. Of the 1,363 cases who received treatment and were resident in the seven health board areas between 1999 and 2002 and were reported to the NDTRS, 1,308 had an initial treatment recorded and 55 had no treatment recorded. Of the 1,308 cases for whom initial treatment was documented, 82 per cent (1,076) received counselling or advice, 22 per cent (292) commenced methadone maintenance, 13 per cent (174) commenced medically assisted detoxification, 10 per cent (129) had medication-free therapy, and four per cent (53) attended a social or occupational rehabilitation programme at their first treatment visit. Of the 1,308 cases for whom initial treatment was documented, 405 (31%) had more than one type of initial treatment; therefore the total number of treatments is greater than the number of cases (1,308).

The low numbers of problem opiate users receiving methadone treatment may indicate inadequate completion of this question on the NDTRS form, a participation bias due to a lack of compliance by general practitioners (who supervise a large proportion of those on methadone maintenance outside the Eastern Regional Health Authority area), or that the commencement of methadone treatment is delayed and counselling is provided while waiting for a place for methadone treatment.

Polydrug use and second problem drug

The proportion of cases treated and living in the seven health board areas who reported opiates as their main problem drug and were also taking one or more other drugs (polydrug use) decreased from 80 per cent in 1998 to 74 per cent in 2002 (Table 4). The decrease in polydrug use was observed among both new and previously treated opiate cases, but was more marked among the new cases. The reason for the decrease is not clear, but it may be the result of either an increase in the number of newer opiate users who have yet to develop chronic polydrug-using practices, or poor completion of the reporting form. Polydrug use is one of the factors that may impede successful treatment for problem opiate use unless specific interventions are introduced to address this problem.

Table 4 Use of two or more drugs by cases reporting an opiate 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	93	(80.2)	112	(74.2)	179	(81.4)	269	(74.3)	324	(73.8)
Previously treated cases	45	(83.3)	81	(76.4)	101	(79.5)	161	(72.2)	200	(76.9)
New cases	29	(82.9)	27	(69.2)	72	(86.7)	99	(78.6)	104	(70.3)

* 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.

The most common secondary drug used was cannabis (Table 5). The proportion reporting cannabis as their second problem drug increased from 42 per cent in 1998 to 52 per cent in 2001 and decreased to 47 per cent in 2002. During the period under review, the use of cocaine and benzodiazepines as second drugs increased, while the use of amphetamines as a second drug decreased. There was a similar increasing trend in cannabis as a second problem drug among both new and previously treated cases. A small, but increasing, number of new opiate cases and previously treated cases reported using cocaine and benzodiazepines as a second drug.

Table 5 Second problem drug used by cases reporting an opiate 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	**93**		**112**		**179**		**269**		**324**	
Cannabis	39	(41.9)	42	(37.5)	86	(48.0)	140	(52.0)	153	(47.2)
Other opiates	15	(16.1)	15	(13.4)	18	(10.1)	21	(7.8)	29	(9.0)
Alcohol	11	(11.8)	9	(8.0)	9	(5.0)	10	(3.7)	30	(9.3)
Cocaine	6	(6.5)	13	(11.6)	25	(14.0)	34	(12.6)	42	(13.0)
Amphetamines	6	(6.5)	10	(8.9)	5	(2.8)	0	(0.0)	3	(0.9)
Benzodiazepines	5	(5.4)	11	(9.8)	19	(10.6)	37	(13.8)	36	(11.1)
Ecstasy	4	(4.3)	10	(8.9)	14	(7.8)	17	(6.3)	23	(7.1)
Volatile inhalants	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.3)
Other substances	7	(7.5)	2	(1.8)	3	(1.7)	10	(3.7)	7	(2.2)
Previously treated cases	**45**		**81**		**101**		**161**		**200**	
Cannabis	20	(44.4)	29	(35.8)	44	(43.6)	78	(48.4)	96	(48.0)
Other opiates	6	(13.3)	12	(14.8)	12	(11.9)	16	(9.9)	24	(12.0)
Alcohol	5	(11.1)	7	(8.6)	5	(5.0)	7	(4.3)	18	(9.0)
Benzodiazepines	4	(8.9)	9	(11.1)	14	(13.9)	27	(16.8)	27	(13.5)
Cocaine	3	(6.7)	11	(13.6)	17	(16.8)	19	(11.8)	17	(8.5)
Amphetamines	2	(4.4)	5	(6.2)	3	(3.0)	0	(0.0)	2	(1.0)
Ecstasy	1	(2.2)	6	(7.4)	5	(5.0)	11	(6.8)	11	(5.5)
Volatile inhalants	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Other substances	4	(8.9)	2	(2.5)	1	(1.0)	3	(1.9)	5	(2.5)
New cases	**29**		**27**		**72**		**99**		**104**	
Cannabis	14	(48.3)	13	(48.1)	40	(55.6)	60	(60.6)	49	(47.1)
Alcohol	6	(20.7)	2	(7.4)	3	(4.2)	3	(3.0)	12	(11.5)
Cocaine	3	(10.3)	2	(7.4)	8	(11.1)	13	(13.1)	17	(16.3)
Ecstasy	2	(6.9)	2	(7.4)	8	(11.1)	4	(4.0)	11	(10.6)
Amphetamines	1	(3.4)	4	(14.8)	2	(2.8)	0	(0.0)	1	(1.0)
Benzodiazepines	1	(3.4)	2	(7.4)	4	(5.6)	9	(9.1)	8	(7.7)
Other opiates	0	(0.0)	2	(7.4)	5	(6.9)	5	(5.1)	5	(4.8)
Volatile inhalants	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Other substances	2	(6.9)	0	(0.0)	2	(2.8)	5	(5.1)	1	(1.0)

* 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.

Risk behaviours

From 1999 to 2002, decreasing proportions of cases reported that injecting was their primary route of administration, while correspondingly increasing proportions reported smoking opiates (Table 6). This is similar to an observation made by Smyth and colleagues (2000) in relation to the heroin epidemic in Dublin in the 1990s and may reflect a high proportion of newer opiate users along with corresponding increased treatment availability in the early years of an opiate epidemic. For example, during the initial year of an emerging opiate epidemic the limited treatment services available prioritise the more serious cases, that is, those injecting opiates. As services expand during the acute phase of an epidemic, treatment places will become available for a larger number of opiate users and the newer users will be attracted into treatment at an earlier stage in their opiate-using career than their older counterparts, that is, while still smoking their opiate of choice. Furthermore, in the early stages of an epidemic, there is a large proportion of opiate users who are still smokers (having not yet moved to injecting) among the total opiate-using population. As time goes on, the epidemic will move to an endemic phase, that is, numbers of new cases level off or decrease and the proportion of chronic opiate users (usually injectors) begins to increase and equate to or exceed the proportion of newer opiate users (usually smokers). Therefore, this observation is possibly a phenomenon of increased service availability and increasing numbers of newer opiate users, rather than of a change in opiate-using practices by individuals *per se.* It is important to note that proactive intervention through outreach may prevent the move from smoking to injecting opiates.

Table 6 Route of administration for cases reporting an opiate 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

Route of administration	1998		1999		2000		2001		2002	
	Number (%)									
All cases	**116**		**151**		**220**		**362**		**439**	
Injected	48	(41.4)	67	(44.4)	105	(47.7)	160	(44.2)	183	(41.7)
Smoked	32	(27.6)	45	(29.8)	78	(35.5)	159	(43.9)	208	(47.4)
Eaten	28	(24.1)	26	(17.2)	31	(14.1)	37	(10.2)	39	(8.9)
Sniffed	2	(1.7)	3	(2.0)	1	(0.5)	0	(0.0)	2	(0.5)
Not known	6	(5.2)	10	(6.6)	5	(2.3)	6	(1.7)	7	(1.6)
Previously treated cases	**54**		**106**		**127**		**223**		**260**	
Injected	26	(48.1)	50	(47.2)	72	(56.7)	114	(51.1)	125	(48.1)
Smoked	11	(20.4)	26	(24.5)	32	(25.2)	86	(38.6)	103	(39.6)
Eaten	12	(22.2)	20	(18.9)	20	(15.7)	20	(9.0)	30	(11.5)
Sniffed	1	(1.9)	2	(1.9)	0	(0.0)	0	(0.0)	0	(0.0)
Not known	4	(7.4)	8	(7.5)	3	(2.4)	3	(1.3)	2	(0.8)
New cases	**35**		**39**		**83**		**126**		**148**	
Injected	12	(34.3)	13	(33.3)	26	(31.3)	41	(32.5)	48	(32.4)
Smoked	14	(40.0)	17	(43.6)	45	(54.2)	69	(54.8)	85	(57.4)
Eaten	8	(22.9)	6	(15.4)	10	(12.0)	14	(11.1)	9	(6.1)
Sniffed	1	(2.9)	1	(2.6)	1	(1.2)	0	(0.0)	2	(1.4)
Not known	0	(0.0)	2	(5.1)	1	(1.2)	2	(1.6)	4	(2.7)

* 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.

Figure 4 presents the incidence and prevalence of treated problem opiate use by injector status in the seven health board areas from 1998 to 2002. Although the incidence and prevalence of problem opiate use increased among both injectors and non-injectors (mainly smokers), the increase was more dramatic among non-injectors.

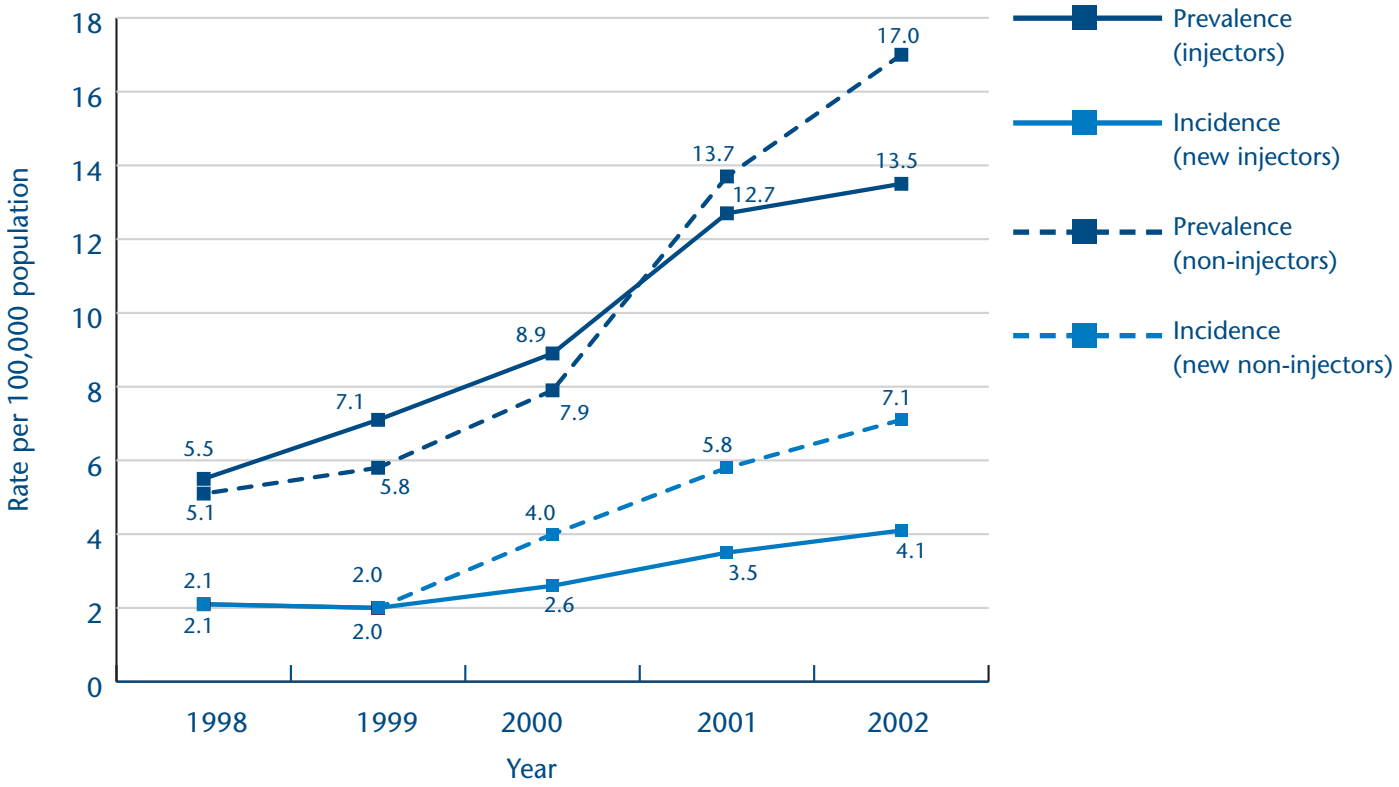

Figure 4 Incidence and prevalence of treatment for opiates as a main problem drug among persons aged between 15 and 64 years per 100,000 population in the seven health board areas (Central Statistics Office 2003), by injector status, based on returns to the NDTRS, 1998 to 2002

Socio-economic and demographic characteristics

The median age of new and previously treated opiate cases living in the seven health board areas remained relatively stable between 1998 and 2002 (Table 7). Overall, the median age of previously treated opiate cases was higher, while the median age of new cases was lower. There was an increase in the proportion of males among opiate cases, from 66 per cent in 1998 to 74 per cent in 2002. There was a decreasing trend in the proportion of opiate cases seeking treatment and reporting that they were homeless, from nine per cent in 1999 to one per cent in 2002. The proportion of opiate cases who reported leaving school before reaching their fifteenth birthday increased substantially, from 12 per cent in 1998 to 23 per cent in 2002. During the period under review, very few opiate cases aged under 18 reported that they were still at school. Taken together, the educational characteristics examined indicate that individuals who leave school early might be more likely to become problem opiate users, or the lifestyle of problem opiate users renders it difficult to stay in full-time education, or a combination of both factors. In line with national employment trends, there was an increase up to 2001 in the proportion of new and previously treated opiate cases who reported having regular employment, and a subsequent decrease in 2002. The proportion of new opiate cases (31%) who reported having regular employment was lower than the proportion of new cannabis cases (36%) (Long *et al.* 2004) suggesting excess disadvantage among opiate users. The socio-economic indicators for opiate users indicate that this group had little educational or economic opportunity and that programmes to address problem opiate use must include strategies that redress disadvantage.

Table 7 Socio-demographic characteristics of opiate cases 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	**132**		**170**		**272**		**410**		**511**	
Median‡ age (range)§ in years	26.8	(18.2-42.6)	26.2	(17.8-44.2)	25.2	(17.4-44.0)	27.5	(19.1-44.7)	27.0	(18.9-43.1)
Number (%) under 18 years of age	5	(4.0)	9	(5.3)	15	(5.5)	11	(2.7)	10	(2.0)
Number (%) of males	84	(65.6)	117	(69.2)	195	(71.7)	290	(70.7)	367	(74.1)
Number (%) living with parents/family	36	(27.3)	74	(43.5)	118	(43.4)	151	(36.8)	197	(38.6)
Number (%) homeless	¶		16	(9.4)	15	(5.5)	21	(5.6)	6	(1.3)
Number (%) of early school leavers**	8	(11.8)	21	(20.0)	47	(22.7)	77	(24.0)	89	(22.9)
Number (%) still in school	0	(0.0)	3	(2.8)	1	(0.5)	2	(0.6)	2	(0.5)
Number (%) aged 16 to 64 years employed	26	(20.8)	36	(21.8)	63	(25.0)	112	(28.7)	135	(28.2)
Previously treated cases	**61**		**118**		**151**		**247**		**302**	
Median‡ age (range)§ in years	28.4	(18.6-48.7)	26.3	(17.9-45.7)	27.1	(17.7-44.7)	27.9	(20.1-42.5)	27.8	(20.0-45.8)
Number (%) under 18 years of age	2	(3.3)	6	(5.1)	7	(4.7)	4	(1.6)	4	(1.3)
Number (%) of males	37	(61.7)	80	(68.4)	104	(68.9)	170	(68.8)	215	(73.1)
Number (%) living with parents/family	16	(26.2)	49	(41.5)	57	(37.7)	84	(34.0)	103	(34.1)
Number (%) homeless	¶		12	(10.2)	8	(5.3)	18	(8.2)	3	(1.1)
Number (%) of early school leavers**	4	(10.5)	14	(19.2)	23	(20.5)	53	(27.5)	49	(21.4)
Number (%) still in school	0	(0.0)	1	(1.4)	0	(0.0)	0	(0.0)	1	(0.4)
Number (%) aged 16 to 64 years employed	7	(11.5)	27	(23.3)	32	(22.9)	50	(21.3)	80	(27.7)
New cases	**42**		**45**		**111**		**148**		**178**	
Median‡ age (range)§ in years	25.1	(17.5-51.5)	25.7	(17.1-39.8)	24.3	(17.2-44.0)	26.5	(18.3-45.4)	25.0	(18.3-39.5)
Number (%) under 18 years of age	3	(7.3)	2	(4.5)	8	(7.2)	7	(4.7)	5	(2.9)
Number (%) of males	28	(66.7)	31	(68.9)	83	(74.8)	107	(72.3)	126	(73.3)
Number (%) living with parents/family	18	(42.9)	21	(46.7)	56	(50.5)	64	(43.2)	81	(45.5)
Number (%) homeless	¶		4	(8.9)	4	(3.6)	3	(2.1)	2	(1.2)
Number (%) of early school leavers**	4	(14.8)	6	(20.7)	23	(25.8)	22	(18.6)	37	(26.2)
Number (%) still in school	0	(0.0)	1	(3.3)	1	(1.1)	2	(1.7)	1	(0.7)
Number (%) aged 16 to 64 years employed	9	(22.5)	6	(14.3)	30	(28.3)	57	(40.1)	49	(29.3)

* 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.
† 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 age are within this range).
¶ Number not available.
** Left school before the age of 15 years.

Conclusions

The incidence and prevalence of treated problem opiate use increased sharply in the four years under review, indicating the need to expand the number and range of treatment services. There was a spread by county in demand for treatment for problem opiate use among new cases living in the seven health board areas, with very high rates of treated problem opiate use in counties Carlow, Cavan, Louth, Meath, and Westmeath. These data will be useful when assessing the adequacy of existing services or identifying new sites for treatment services. The lowest rates of treatment for problem opiate use were along the western seaboard, although this may be partly due to under-reporting.

For new cases reporting problem opiate use, the time interval between commencing opiate use and starting treatment remained between 3.5 and 3.8 years from 1999 to 2002. Polydrug use remains a common practice and may be initiated during the interval between first taking any drug and the age at which opiate treatment is sought. This may increase the rate of treatment failure. For cases treated in the seven health board areas who reported opiates as their main problem and reported using more than one drug, the most common secondary drug used was cannabis. During the period under review, the use of cocaine and benzodiazepines as second drugs increased, while the use of amphetamines as a second drug decreased. An exact knowledge of polydrug use is very important for the correct and comprehensive management of opiate users.

From 1999 to 2002, decreasing proportions of cases reported that injecting was their primary route of administration, while correspondingly increasing proportions reported smoking opiates, but overall numbers increased. This observation is a phenomenon of increased service availability and increasing numbers of newer opiate users entering treatment, rather than of a change in the opiate-using practices of individuals *per se*. It is important to note that proactive intervention through outreach may prevent the move from smoking to injecting opiates. Furthermore, during the time interval between commencing opiate use and seeking treatment, opiate users may change from smoking to injecting opiates and, subsequently, may contract blood-borne viruses, such as hepatitis C, indicating the need for proactive interventions to discourage the move from smoking to injecting and bring opiate users into treatment earlier. Opiate injectors have a higher risk of experiencing overdose than non-injectors. This suggests that the incidence of opiate-related deaths has increased in the seven health board areas during the period under review, but specific data are not available.

Treated problem opiate users' educational characteristics indicate that individuals who leave school early are more likely to become problem opiate users, or the lifestyle of problem opiate users renders it difficult to stay in full time education, or a combination of both factors. In line with national employment trends, there was an increase up to 2001 in the proportion of new and previously treated opiate cases who reported having regular employment and a subsequent decrease in 2002. The proportion of new opiate cases (31%) who reported having regular employment was lower than the proportion of new cannabis cases (36%). Taken together, these two findings indicate the importance of a social, educational and economic reintegration strategy for the successful treatment of opiate users.

When dealing with the opiate epidemic in the seven health board areas that are the subject of this paper, it is important that we learn from the vast experience accumulated in the Eastern Regional Health Authority.

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Authors

Jean Long
Tracy Kelleher
Fionnola Kelly
Hamish Sinclair

Drug Misuse Research Division
Health Research Board
Holbrook House
Holles Street
Dublin 2

t (01) 6761176
f (01) 6618567
e dmrd@hrb.ie
w www.hrb.ie