

Chapter 4

1

Women, Children and Drug Use

Eimear Farrell

4.1 Introduction

This paper provides an overview of the issues relevant to women and children affected by drug misuse in Ireland. It attempts to bring together very disparate sources of information in order to gain an understanding of the main issues facing women drug users and their children. The main areas covered are:

- 4.2 Historical and Cultural Background
- 4.3 Epidemiology of Female Drug Use
- 4.4 HIV/AIDS, Women, Children and Drug Use
- 4.5 Drug Use among Female Prisoners
- 4.6 Pregnancy and Drug Use
- 4.7 Children and Drug Use
- 4.8 Demand Reduction (Prevention, Treatment and Care) and Female Drug Users
- 4.9 Barriers to Service Access
- 4.10 Conclusion
- 4.11 References

One of the most striking features of the available Irish research is the emphasis on pregnancy and drug use, and the scarcity of studies focusing on children of drug users.

¹ This chapter was written in 1999 as a 'Key Issues' chapter for inclusion in Moran, R., O'Brien, M., Farrell,

E. & Dillon, L. (1999). National Report on Drug Issues Ireland 1999. Internal document. Dublin: Drug Misuse Research Division, The Health Research Board. Only National Drug Treatment Reporting System figures have been updated in the current chapter.

4.2 Historical and Cultural Background

According to the United Nations Drug Control programme (UNDCP), female involvement in drug use may be divided into three categories:

1. female non-drug users with drug-abusing families or partners;
2. females who consume drugs illicitly; and
3. females who are involved in the production and/or distribution of drugs.

In Ireland, very little is known about both non-drug-using women who have a drug-using partner or family, and women who are involved in the production and/or distribution of drugs.

No estimate is available of the number of women affected by familial drug use. However, a number of support groups have been set up for parents and partners of drug users. These support groups include the Coolmine Family Association and a group established for parents of drug users, entitled 'Le Chéile' (Together), which was established in 1993 but has since been discontinued.

The only Irish data available on women and drug production and distribution are police statistics on drug offences. These statistics indicate that between 1990 and 1994, approximately 14 per cent of people charged with drug offences were female (An Garda Síochána, 1991, 1992, 1993, 1994). In the following two years (1995 and 1996), this figure decreased, with about 10 per cent of drug-related offences being committed by women (An Garda Síochána, 1995, 1996). In 1997 this figure almost doubled, increasing to 22 per cent (An Garda Síochána, 1997). There is some anecdotal evidence that women in general, and pregnant women in particular, are increasingly being used in drug trafficking, which may explain the sudden increase in the percentage of women being charged with drug-related offences in 1997.

Although more information is available on women drug users in Ireland relative to the other two categories, it is not possible to examine long-term trends, as the collection of epidemiological data on drug use is a relatively recent phenomenon.

4.3 Epidemiology of Female Drug Use

An important issue when considering women and drug use is the extent to which male and female drug users differ in terms of drug-using history, patterns of risk behaviour and health issues.

The main source of information on gender differences and drug use in Ireland is the National Drug Treatment Reporting System (NDTRS), which provides statistics on treated drug misuse. An analysis of the NDTRS data for 1998 indicates that almost a third (30%) of drug users presenting for treatment were female. Male and female clients were similar in age, the mean age of female clients being 24 and the mean age of male clients being 25 (NDTRS)². As with the general population, women seeking treatment were more likely to be classified as lone parents (9%) than were men (0.3%). Women were also more likely to be living with a drug-using partner: 36 per cent of women lived with a drug user compared to 22 per cent of men. This finding may relate to the fact that women are generally more likely to be introduced to drugs by a male partner (Ettore, 1992). The majority of both male (70%) and female drug users (75%) seeking treatment were unemployed. Interestingly, more women (88%) than men (78%) reported that opiates were their primary drug of misuse. However, a lower proportion of male (35%) than female (39%) users reported that they were currently injecting. In terms of risk behaviour, of those who were currently injecting, women (28%) were slightly more likely to be sharing injecting equipment than were men (25%).

Gender differences in drug usage, risk behaviour and health have also been studied among drug users attending an inner-city Dublin needle exchange programme (Cox, O'Shea & Geoghegan, submitted for publication). Over a year and a half, 934 consecutive new attendees at the needle exchange were interviewed. The study found that female clients were significantly younger than male clients and were more likely to inject their primary drug daily. Women were also more likely to suffer from injecting-related problems such as difficulty finding injecting sites. Men were less likely to have a partner who was injecting and less likely to be living with an injecting drug user. In terms of risk behaviour, women were more likely to share injecting equipment with their sexual partner and to report recent sharing of injecting paraphernalia. However, women had a shorter interval between injecting and attending a needle

exchange than did men. In terms of health and general well being, women were more likely to

² National Drug Treatment Reporting System.

report weight loss and abscesses and were less likely to have had a hepatitis B vaccination than men. Women were also more likely to report mental health problems such as depression, suicidal tendencies, isolation and anxiety. However, women were more likely to have visited a general practitioner in the last three months and to have a medical card. Thus, the findings suggest that women were more likely than their male counterparts to engage in risk behaviour, but were more likely to acknowledge these difficulties and to seek help.

Summary

Consistent with the European situation, about a quarter of drug users who present for treatment in Ireland are female (EMCDDA, 1998). Although fewer women than men are captured in the treatment figures, research suggests that women in Ireland are more likely to suffer negative consequences from drug use than men. It also suggests that women in Ireland are more likely than men to engage in risk behaviour, to be living with a drug-using partner and to suffer from drug-related health problems.

4.4 HIV/AIDS, Women, Children and Drug Use ²

Drug use can have serious health-related consequences, particularly in relation to HIV and hepatitis B and hepatitis C. While no national information is available on hepatitis B and C, statistics on the incidence of HIV in the population are routinely published by the Department of Health and Children. These statistics contain information on the percentage of HIV-positive cases that are related to intravenous drug use (IDU).

As Table 4.1 indicates, from January 1986 to December 1998, 42 per cent of all those who tested positive for HIV (n=1,986) were IDUs. Of these, almost a quarter (24%) were female. During the same period, a total of 149 children were deemed 'at risk' of becoming HIV positive, representing 7.5 per cent of all HIV-positive cases. The HIV statistics for children do not indicate the route of infection and, therefore, it is not known to what extent HIV among children is

attributable to maternal drug use or other sources, e.g. transfusions or heterosexual transmission.

TABLE 4.1
Total Number of HIV/AIDS Cases in Ireland: IDU Related, by Gender; and Children at Risk. Numbers and Percentages. Cumulative figures January 1986 - December 1998.

Total HIV Cases	IDU Cases	Female IDUs	Male IDUs	Children at Risk
1,986	844 (42%)	202 (23.93%)	628*	149 (7.5%)

Source: Department of Health and Children.

* In 14 of the 844 IDU-related cases of HIV, the gender was not known.

The available statistics for AIDS present a similar picture. Two-fifths (41%) of the 650 AIDS cases diagnosed between January 1986 and 31 December 1998 were IDU related, of which, again, a quarter were female (see Table 4.2). An age breakdown is also available for AIDS cases, which indicates that twenty-six cases of AIDS (representing 4% of all AIDS cases) occurred among children under the age of 15. Unlike the HIV figures, the AIDS figures for children provide information on the route of infection. These figures indicate that from 1982 to 1998, thirteen children born to IDUs developed AIDS, representing 2 per cent of all AIDS cases over this time period.

TABLE 4.2
Total Number of AIDS Cases in Ireland: IDU-Related, by Gender; among Children < 15; and among Children born to IDUs. Numbers and Percentages. Cumulative Figures January 1986 - December 1998.

Total AIDS Cases	IDU-Related AIDS Cases			AIDS Cases among Children Aged < 15	AIDS Cases among Children born to IDUs
	Total	Gender Breakdown			
		Male	Female		
650	266 (41%)	200 (75.2%)	66 (24.8%)	26 (4%)	13 (2%)

Source: Department of Health and Children.

Figures are also available for AIDS-related deaths (see Table 4.3). These figures indicate that between 1982 and 1998, 44.6 per cent of AIDS-related deaths were IDU related, and of these, 26.4 per cent were female. An age breakdown of known AIDS deaths shows that eleven (3.3%) occurred among children under the age of 15. The figures also reveal that eight children (representing 2.4% of all AIDS-related deaths) born to IDUs are reported to have died from AIDS.

TABLE 4.3

Total Number of AIDS Related Deaths in Ireland: IDU-Related, and Gender; among Children < 15; and among Children born to IDUs. Numbers and Percentages. Cumulative Figures January 1986 - December 1998.

Total AIDS Deaths	IDU-Related AIDS Deaths			AIDS-Related Deaths among Children Aged < 15	AIDS-Related Deaths among Children born to IDUs
	Total	Gender Breakdown			
		Male	Female		
332	148 (44.6%)	109 (73.6%)	39 (26.4%)	11 (3.3%)	8 (2.4%)

Source: Department of Health and Children.

It is also possible to identify trends in known cases of IDU-related HIV among women and known cases of HIV among children (see Table 4.4). An analysis of these figures over a three-year period (1996-1998) indicates that the proportion of IDU-related cases of HIV among females more than doubled in 1998, compared with 1997 and 1996. Similarly, the number of new cases among children doubled between 1997 and 1998. This may be a reflection of increased testing for HIV among pregnant women. Routine antenatal testing for HIV was introduced in 1999, in order to allow a mother infected with HIV to receive special treatment that could reduce the likelihood of her baby becoming infected by up to 66 per cent (Department of Health and Children, 1999b). The testing was introduced following a five-year study (1992-1997), which estimated the incidence of HIV among new-borns, using unlinked, anonymous antenatal HIV screening. The screening was carried out on blood specimens routinely collected for rubella serology from pregnant women attending antenatal clinics. A total of 287,099 tests were carried out over the five years, of which 64 were positive for

HIV, giving an incidence rate of 0.02 per cent. However, the extent to which HIV-positive results were drug-related is not known.

Ireland, 1996-1998: Number of IDU-Related HIV Cases among Women, and Number of New Childhood Cases. Numbers and Percentages.

1996		1997		1998	
Women	Children	Women	Children	Women	Children
3 (15%)*	8	3 (14%)*	10	10 (38.4%)*	20

Source: Department of Health and Children.

* Percentages are calculated based on the total number of new, IDU-related HIV cases.

A study of HIV infection among women attending thirteen genitourinary medicine/HIV clinics in England, and one clinic in both Dublin and Edinburgh, found that women in Dublin and Edinburgh were more likely to have contracted the disease through IDU rather than sexual intercourse (MRC Study Group, 1996). For over two-thirds of the seventy-three women interviewed in Dublin and for four-fifths of the forty-two women interviewed in Edinburgh, the most probable route of transmission was drug use; whereas in London (n=266) and in the rest of England (n=19), only one-fifth (21%) of women were thought to have been infected through drug use. Although not directly comparable, an analysis of Irish statistics on the route of infection among women with AIDS (collected by the Department of Health and Children) indicates that, across all cases, a smaller percentage of women contracted AIDS as a result of drug use than is suggested by the MRC study. The Department of Health and Children statistics indicate that 54 per cent of registered female AIDS cases were IDU related (Department of Health and Children, 1999a).

Although basic epidemiological data are available for the incidence of HIV, very little is known about the needs of female drug users with HIV. However, one Dublin study has investigated the needs of HIV-positive women by consulting with HIV-positive women and healthcare workers involved in their care (Butler & Woods, 1992). The results indicate that Dublin women who were HIV-positive were primarily concerned with taking care of their families and saw their own health problems as being of secondary importance. The healthcare workers interviewed stated that HIV-positive women in Dublin tended to be

young, working-class and to have contracted HIV through IDU and/or sexual relationships with drug-using men. When asked about the services available to HIV-positive women, respondents acknowledged that, while a broad range of services was available, many of these were poorly co-ordinated. They also felt that there was a lack of practical support for those who were ill and that the drug services could not yet be described as 'user friendly'. It was also suggested that HIV-positive women did not take up health and social services to the same extent as men for two reasons. Firstly, women were often too busy with child-minding and other chores to avail of services and, secondly, they feared being labelled as 'unfit' mothers. However, since this study was conducted, there has been a major expansion of drugs services.

Summary

The proportion of female IDU-related HIV and AIDS cases is similar to the ratio of male to female drug users in treatment. Approximately one-quarter of IDU-related AIDS and HIV cases occur among women. The number of IDU-related HIV cases appears to have increased in recent years. Very little information is available about the needs of female IDUs with HIV/AIDS. One study suggests that HIV-positive drug-using women with children may be inhibited from seeking treatment owing to concerns about being seen as an 'unfit mother' (Butler & Woods, 1992).

4.5 Drug Use among Female Prisoners

Drug use among women in prison has received some attention in Ireland. A study of 100 consecutive women prisoners entering the main prison in Dublin suggests that drug misuse is a significant problem among the female prison population. The study, conducted over a six-week period in February and March 1994, found that sixty of the women interviewed had used drugs (Carmody & McEvoy, 1996). Among the sixty women who used drugs, heroin was the most frequently-used drug (95%), followed by methadone (83%) and benzodiazepines (83%). Cocaine had been used by almost two-thirds (63%) of the women, and amphetamines by over a third (35%). All except one of the sixty women were using drugs on imprisonment, as indicated by a positive urine test for opiates. The vast majority of the drug-using women (92%) were daily users, and 86 per cent stated that injecting was the primary route of administration. Almost half of

those who had injected had shared a needle in the last month. Interestingly, 43 per cent of the women described methadone as one of their drugs of first choice. When asked about their history of drug treatment, four-fifths of the drug-using women stated they had been detoxified at least once, and over half (57.1%) had been detoxified three or more times. Over half (53%) had been detoxified in prison. About half the drug-using women had been on methadone maintenance at some stage in the past, and 43.3 per cent were on methadone maintenance at the time of imprisonment. The results of the study also indicate a possible link between drug use and psychiatric problems among this population, as 61 per cent of the forty-nine women who had received psychiatric treatment were drug users.

A more recent survey of male (n=1,148) and female prisoners (n=57) found that women prisoners were more likely than their male counterparts to smoke heroin and/or inject drugs (Allwright, Barry, Bradley, Long & Thornton, 1999). Almost three-fifths (59.6%) of the women surveyed, reported smoking heroin, compared to 45.2 per cent of male respondents. Three-fifths (59.6%) of women also reported ever injecting, compared to just over two-fifths (42.4%) of men.

Summary

The results of two surveys of the prison population suggest that opiate use is a serious problem among women in the Irish prison system. Furthermore, women in prison appear more likely than their male counterparts to smoke or inject heroin (Allwright et al., 1999).

4.6 Pregnancy and Drug Use

Maternal drug addiction was first recognised as a problem in Ireland in 1981, when nine babies were born to heroin-addicted mothers attending one of the main maternity hospitals in Dublin (Ryan, Arthurs, Kelly & Fielding, 1982). This represented a marked increase, as the previous eight years (1973-1980) had seen only a total of six babies born to heroin-addicted mothers. A socio-demographic profile of thirteen of the fifteen opiate-addicted mothers indicated that the majority (69%) were under 20 years of age, half were unemployed and only one had completed post-primary education. All the women were heavy cigarette smokers. One third of the women had a parent with a nervous or psychiatric

history and less than a quarter described their relationship with their parents as good. Furthermore, nine of the thirteen women had received treatment for emotional or psychiatric disorders. In terms of physical health, seven had hepatitis and two had venereal diseases. The profile of the partners of these women indicates that twelve of the thirteen partners were drug addicts and only two gave the mother any support or assistance when she was pregnant. Although none of the infants were small for gestational age, anxiety about the social conditions of mothers led to longer hospitalisation and separation of the infants from their mothers. This study also investigated the short-term outcome for the infants and their mothers. The results indicated that two mothers were drug free, two had developed serious neurotic illnesses following withdrawal, one was hospitalised for a drug-related psychiatric illness, and the remainder were still addicted. Furthermore, three of the babies had been taken into care.

A similar profile of the pregnant drug user emerges from a study of the characteristics of thirty pregnant women who attended the National Drug Advisory and Treatment Centre, Jervis Street, Dublin, between 1969 and 1983 (Kelly, Roche, Stafford-Johnson & Honeyman, 1983). Interestingly, the age of first contact for pregnant drug users was, on average, a year and a half younger than non-pregnant women attending the same service. The study found that the majority (87%) of pregnant opiate users had left school before the age of 16. A third of the women were married and living with their husbands. The majority (83%) of the women's partners misused drugs or alcohol and over a third (37%) had a record of crime or violence. Only three of the women had partners who gave them consistent support and assistance during their pregnancies. Almost three-quarters (73.3%) of the women had a behavioural disorder or received psychiatric treatment prior to drug taking. An investigation of the family background of these women revealed that a quarter of the women had mothers who had a psychiatric problem or were excessive drinkers. A third of the women's fathers were excessive drinkers and a quarter were reported as being violent or criminal. On a more positive note, over half the women received ongoing support from their mothers, and almost half were described as having a good relationship with their own family. Similar to the earlier study, babies born to drug-addicted mothers were hospitalised for longer and therefore separated from their mothers at an early age. The women appeared reluctant to avail of healthcare services both prenatally and postnatally. Only half the women attended for antenatal care at an early stage. Many of the mothers were resistant to any health board involvement postnatally and many refused to attend for the normal developmental checks and vaccinations.

In terms of outcome, at least 65 per cent of the mothers were known to have returned to serious drug misuse (21.5% lost contact with the Centre and their outcome is unknown), and three (11%) remained drug free. In the majority of cases (70.3%), babies were in the care of their mother; in the remainder of cases, babies were either in the care of a grandmother or jointly cared for by the grandmother and the mother (11%), or had been adopted (11%). In two cases, the outcome was unknown.

Another retrospective study, of twenty-nine narcotic-addicted mothers and their forty-two babies born between 1982 and 1985, found that the average maternal age was 23 and, in all cases where information was available (29 of 38 pregnancies), all fathers were drug users (Thornton, Clune, Maguire, Griffin & O'Connor, 1990). Twenty-three of the twenty-nine mothers (79%) were on a methadone maintenance programme during pregnancy, but they all continued to use heroin intermittently. All the women were from socially-deprived areas and all, except one, smoked cigarettes. In terms of physical health, four of the mothers had a hepatitis B infection and thirteen had a previous history of hepatitis B infection. In comparison to a matched control group, babies born to heroin-using mothers had significantly lower birth weights and mean gestational periods and were more likely to develop jaundice. In addition, heroin-using mothers made fewer antenatal visits and were admitted to hospital more often and for longer stays than were the control group. A high incidence of withdrawal symptoms was recorded, with 84 per cent of babies suffering some symptoms of withdrawal. The incidence of multiple births (i.e. twins) was also much higher among drug-using mothers (10.5%) compared to the control group (1.2%).

Another similar study, conducted in 1988, examined the characteristics and treatment progress of forty-five opiate addicts referred to a treatment centre between 1984 and 1986 (O'Connor, Stafford-Johnson & Kelly, 1988). The psychosocial profile of this group indicates that all were unemployed, were regular smokers and had left school on average at the age of 14. The average age of first use of heroin was 16.5 years and the average age at the time of the study was 23.3 years. Almost half (46.6%) of the women had used heroin intravenously as their first illicit drug. The average length of time on drugs before referral was three years. Interestingly, the majority of mothers (86.7%) were attending the clinic for an average of 2.5 years before becoming pregnant. Four-fifths were single. Almost all (95.5%) had been convicted of a criminal offence. In terms of family profiles, nearly half the women had fathers who suffered from alcoholism and a

third had mothers who suffered from alcoholism or depression. Over half (55.5%) reported severe family disharmony. This study also investigated HIV status and found that fifteen of the forty-five women were HIV positive. Over half the women had a history of hepatitis B infection. Almost half (45%) the women responded positively to treatment during pregnancy, as indicated by regular attendance, non-abuse of drugs (as detected through the results of supervised urinalysis), discontinuation of criminal behaviour and improved awareness of their children's needs (O'Connor et al., 1988).

A six-year follow-up of these women was conducted, focusing on their drug use and the outcome for their children (Keenan, Dorman & O'Connor, 1993). On follow-up, seven of the forty-five women (15%) could not be contacted. Of the remaining thirty-eight, ten were on methadone maintenance, eighteen were either attending another service or abusing chaotically, three had become drug free and seven had died from drug-related illnesses. Of the women who had died, four had died from AIDS and three from drug overdoses, two of which were accidental and one deliberate. Over the six-year period, all but two of the women (4.5%) had re-attended at the treatment centre at least once, and twenty-five women (55.6%) had attended at least four times. There was an increase in the number of women with HIV, from one-third of the group to over half the group (53.4%) during the six years (1986-1992), and a quarter of the fifteen children born to HIV-positive mothers before 1996 had become HIV positive. More worrying was the fact that fourteen of the eighteen HIV-positive women, who were still alive, were not attending any medical service on a regular basis. This may be, in part at least, related to a fear of being seen as an unfit mother, a reason cited earlier among HIV-positive women for not accessing services (Butler & Woods, 1992). The increase in the incidence of HIV among the women is interpreted by the authors as signifying instability and poor compliance with advice and treatment. On a more positive note, since 1986 only three of the women (6.6%) had contracted hepatitis B infections, compared to twenty women (45%) prior to 1986. Over half the women (55.5%) had no further children and there was also a decrease in the level of criminal activity among the women. Before 1986, nearly all the women (97.8%) had a forensic history. However, since 1986 just over half the women had been in contact with the criminal justice system.

All the studies discussed so far have specifically focused on opiate-using mothers. A more recent study has examined the prevalence of drug and alcohol use in an obstetric population in the Dublin area (Bosio et al., 1997). This

prospective study involved anonymous urinalysis of 504 'first-visit' antenatal patients and 515 postnatal patients six weeks after delivery. The study found that the prevalence rate for drug use in antenatal patients was 2.8 per cent; the corresponding postnatal figure was 5.6 per cent. Cannabis was found to be the most commonly-misused substance. Women who tested positive for drugs antenatally were almost twice as likely to be single, unemployed and on a second or subsequent pregnancy. The higher postnatal rate of drug use is interpreted as possibly indicating a more responsible pattern of behaviour during pregnancy, in an effort to minimise exposure of the foetus to chemical substances. Bosio et al. (1997) conclude that drug abuse does not appear to be a serious problem among Dublin's pregnant population. However, they acknowledge that drug users may present late in pregnancy, as has been found in previous studies of pregnant opiate users (Kelly et al., 1983; Thornton et al., 1990).

Summary

The research available on opiate addiction and pregnancy in Ireland suggests that opiate-dependent pregnant women are a high-risk medical category, with many psychological and social problems. Numerous studies have shown that opiate-using pregnant women tend to be young, poorly educated, regular tobacco smokers, and from socially-deprived areas. Research also indicates that these women tend to be involved with a partner who also misuses drugs and to have poor family relationships, or come from families with a history of alcohol misuse, drug abuse and/or psychological problems. The level of psychological difficulties among the families of these women is consistent with findings internationally that dysfunctional family life, rather than poverty, seems to be one of the most significant predisposing factors to drug use (United Nations Drug Control Programme, 1997).

4.7 Children and Drug Use

In Ireland, the issue of how children are affected by parental drug dependence is emerging as a new social and clinical concern (Hogan, 1998). In an exploratory study, Hogan had noted that little is known about the social and psychological effects on children of parental drug use: 'the main focus of existing research in Ireland has been on prenatal chemical exposure of children to drugs rather than on postnatal social exposure' (Hogan, 1997: 4).

Although the prevalence of parenthood among drug users is unknown, the fact that the majority of treated drug abusers in Ireland are of child-bearing years (Moran et al., 1997), coupled with anecdotal evidence that many drug users are parents, suggests that a large number of children may be affected by drug abuse. The statistics for treated drug misuse indicate that, in 1998, 9 per cent of women presenting for treatment stated, when asked about their living status, that they were lone parents (NDTRS)³. However, the NDTRS does not capture parental status *per se* and the number of drug-using women who have children is likely to be much higher. A study of the parental status of clients attending a voluntary drug agency (Ana Liffey Project) found that over three-quarters of the 186 women attending the service during 1992 were parents (Woods, 1994). Over three-fifths (62.8%) of the 142 mothers were caring for their own children. A possible explanation for the high level of attendance of mothers at the voluntary agency may be that voluntary services are perceived as less threatening than statutory services among drug-using women with children (Woods, 1994). It is likely that some women with children may be reluctant to approach treatment services because of concerns about being seen as an 'unfit mother' (Butler & Woods, 1992).

One of the earliest references to children and drug misuse, in the Irish context, is a case study of a boy who had begun misusing drugs before his eleventh birthday (Ryan et al., 1982). The boy, who was 12 years old on admission to the Drug Advisory and Treatment Centre, had been abusing a number of drugs including diconal, palfium, cocaine and heroin for eighteen months. At this time, it was discovered the boy had chronic hepatitis B infection with cirrhosis. The boy was from a large family (he was third eldest in a family of ten), his father was unemployed and his mother suffered from a neurotic disorder with agoraphobic symptoms. He was also on probation, having broken into a car. He had been attending a special school for two years and had presented with behavioural problems at 7 years of age. Ryan et al. (1982) comment on the difficulties encountered in the hospitalisation and placement of very young offenders with drug problems, as exemplified by this case.

Another study, which is relevant in this context, although it does not focus on children *per se*, is a study that looked at the risks associated with methadone storage. Following a coroner's hearing into the death of a 3-year-old boy, who died after ingesting methadone stored in a baby's feeding bottle, a study was conducted to investigate the extent to which babies' bottles were used to

m e a s u r e

³ National Drug Treatment Reporting System

and store methadone (Harkin, Quinn & Bradley, 1999). The study involved nine general practitioners, who asked 186 patients in receipt of a methadone prescription whether or not they used a baby's bottle to measure methadone, and if they had children under the age of 14. The results indicated that almost a quarter of patients (n=48) had used a baby's bottle to measure methadone in the previous month, and twenty-one (43%) of these had a child under the age of 14. Furthermore, seven patients had used a baby's bottle to store methadone in the previous month, and four of these had a child under the age of 14. Although it is difficult to draw conclusions from these findings, they suggest that the use of a baby's bottle to measure and/or store methadone may present a threat to the health of children

In an attempt to redress the lack of research on children of drug users in Ireland, Hogan (1997) is conducting a two-stage study on the social and psychological effects on young children of parental heroin use. The first part of the study, which involved a qualitative study of ten families, in which one or both parents were opiate users, has been completed. Interviews were conducted with thirty informants consisting of parents, teachers, professional workers and non-parental caregivers. The study found that all the children (n=10) in the sample had at least one parent who had been incarcerated and that the majority had experienced separation from their parents owing to parental drug use (Hogan, 1997). From the interviews with teachers and parents, it emerged that only a few children showed evidence of social-emotional problems; however, the majority were experiencing difficulties at school. Parents expressed three main concerns about how their drug use might impact adversely on their parenting. The first concern related to their pre-occupation with obtaining drugs, which might result in inadequate attention being paid to their children. The second worry was that their drug use would affect their social interaction with their children. The third related to a prevailing atmosphere of secrecy in the home owing to parental drug use and the possible development of distrustful relationships between the parents and children. Key workers interviewed were particularly concerned about the questionable quality and consistency of care-giving by drug-using parents, the danger of physical neglect, and the possibility that children might witness drug use. Interestingly, all these concerns were raised in a recent editorial in the journal *Addiction* (Barnard, 1999). Key workers also emphasised that there were a number of parents about whom no concerns existed and whose competence they stressed. Thus, as Barnard (1999) points out, it cannot be assumed that drug dependence automatically results in diminished capacity to

parent adequately or that the development of children is necessarily adversely affected by parental drug use.

Hogan (1997) also identifies a number of variables that mediate the effects on children of parental drug use, including the living arrangements of the child, the social support available to parents, the extent to which one or both parents are in treatment, whether or not the drug-using parent is in treatment, the history of drug use and treatment, the age of the child when parents begin using heroin and whether or not this drug use is chaotic. Stage 2 of Hogan's study, which is currently under way, investigates the extent to which children are exposed to the drug culture and aims to examine the consistency and adequacy of care provided to children of drug users.

Summary

Although the extent to which children in Ireland are affected by drug misuse is unknown, a study of drug-using women attending a voluntary agency suggests that many drug-using women are also parents (Woods, 1994). Very little is known about the needs of children of drug users in Ireland; however, a study is under way that aims to investigate the needs of drug users and their children (Hogan, 1997). The first phase of this study has been completed and has found that the majority of children experienced separation from one or both of their parents owing to drug use. Parents, key workers and teachers interviewed expressed concerns about the possible impact of drug use on children. The study also identifies a number of variables such as the social support available to children and drug-using parents that can influence the extent to which parental drug use affects children.

4.8 Demand Reduction (Prevention, Treatment and Care) and Female Drug Users

A small number of initiatives have been developed specifically for women in Ireland. The focus of these initiatives has been on treatment, rehabilitation and care rather than prevention. There is at least one harm-reduction programme in place especially for women.

Harm Reduction

A harm-reduction programme for women sex workers who are using drugs has been set up by the Merchant's Quay Project, a voluntary organisation providing services to drug users and persons with HIV/AIDS in Dublin's city centre (Merchant's Quay Project, 1998). The harm-reduction programme is overseen by a healthcare worker and operates on a weekly basis, offering services such as needle exchange and condom distribution. The programme has produced some positive outcomes, with some clients subsequently progressing to the Mobile Clinic (a low-threshold service) and to detoxification programmes.

Treatment

Some treatment facilities in Ireland have support groups or drop-in times designated for women only (e.g. Ana Liffey Project). One service, the Merchant's Quay Project, accommodates mothers wishing to access the needle exchange, by allocating hours in the morning, found to be more suitable for women with children. However, there are very few treatment services dedicated to providing programmes specifically for women drug users. The treatment services available in Ireland specifically for women drug users include a drug-free residential programme, and services developed for pregnant women.

The Coolmine Therapeutic Community provides a residential drug-free programme specifically for women at Ashleigh House, Clonee, County Meath. This programme, based on the Minnesota Model,⁴ involves an abstinence-orientated approach. At the time of writing there were twenty-five women participating in this programme. Ashleigh House is currently being renovated to accommodate mothers and their children, as part of a project funded through a Local Drug Task Force. When completed, the facility will allow five to ten mothers, with up to two children each, to participate in the programme.

A special programme for pregnant opiate addicts in Ireland was established by the then National Drug Advisory and Treatment Centre in 1984, in response to the growing numbers of pregnant clients attending the clinic (O'Connor et al., 1988). The programme involved low-dose methadone maintenance, weekly group therapy and fortnightly attendance at antenatal clinics (Keenan et al., 1993). Participants in the programme were also encouraged to attend

⁴ Associated with the Alcoholics/Narcotics Anonymous programmes, the Minnesota model offers a 12 step programme to long term abstinence based on the idea that addiction is a disease. Devised by the Hazelden Hospital in Minnesota, the programme offers spiritual as well as practical guidance. (www.drugscope.org.uk)

programmes outside the clinic where appropriate. Postnatally, women were given advice about contraception and encouraged to address their addiction. Participation in the programme was conditional on non-consumption of drugs, as monitored by daily, supervised urinalysis, engagement in weekly group meetings, and attendance at antenatal care.

According to Williams & Kinsella (1990), other services available to pregnant opiate addicts in Ireland include group therapy, occupational therapy, individual counselling and support groups for family members. In Ireland, methadone maintenance is generally the preferred treatment option for pregnant opiate users for a number of reasons. Firstly, it is hoped that the prescription of methadone will reduce/eliminate illicit opiate misuse during pregnancy. Secondly, the administration of regulated methadone doses helps to reduce the risk of an infant developing withdrawal symptoms in the immediate postnatal period (Keenan et al., 1993). Thirdly, methadone maintenance encourages better antenatal care and a more stable drug environment for mother and child (Kelly et al., 1983).

The Eastern Health Board (EHB) employs three drug liaison midwives to make contact with substance-misusing pregnant women and to liaise between the obstetric hospitals and the drug-treatment services. The midwives are responsible for ensuring that the medical, psychological, obstetrical and social needs of each woman have been accurately assessed and for drawing up a detailed clinical/psychological/social care plan for each woman (Eastern Health Board, 1998).

A unit, which will provide intensive medical care to stabilise expectant drug-addicted mothers and improve neonatal outcome, is currently being planned and will be located in Dublin's Cherry Orchard Hospital (Vize, 1999). The twelve-bed facility will offer intensive medical treatment by a psychiatrist with a team of specially-trained nurses, and access to counselling and screening. Additionally, the unit will incorporate a facility for female addicts who have delivered and since destabilised, which will allow mother and baby to remain together while treatment is being administered. At present, only three of seventeen beds in the detoxification unit of the hospital are allocated to pregnant women requiring stabilisation. According to Dr Keenan, consultant psychiatrist in the EHB, the new unit should have a significant impact on the prevalence of neonatal complications and morbidity associated with opiate dependent pregnancies (Vize, 1999).

Care and Rehabilitation

At the time of writing, the most recent service plan for the largest health board area in Ireland (Eastern Health Board) has placed an increased emphasis on after-care and rehabilitation. Although there is no particular emphasis on women-only services, SAOL has been established, providing rehabilitation and support for women who are stable opiate users. SAOL stands for Seasmhacht, Abaltacht, Obair, Leann, meaning stability, ability, work and learning - the word 'saol' means life. The project, which began in 1995 in Dublin's north inner city, offers a two-year programme for sixteen women. The project aims to help clients move from addiction and dependency to self-direction and self-reliance. The programme incorporates a wide variety of activities, including literacy skills, English, creative writing, aromatherapy, relaxation and massage. It is based on the principles of social justice, equality and inclusion. A review of the programme by Weaver (1998) indicates that participants view the programme as a 'job', which gives them a perceived status in the community. Participants reported increased levels of self-esteem, ability to re-establish relationships with family members and becoming reintegrated into their communities as a result of the programme.

Summary

Very few services have been developed specifically for women. Some treatment centres accommodate women and children by having more flexible opening hours for this client group. There is one residential drug-free programme for women only. Services have also been developed for pregnant opiate users and a harm-reduction programme is in place in the Dublin area. A women-only rehabilitation service has also been established.

4.9 Barriers to Service Access

In examining the services available to female drug users and their children, it is also important to examine possible barriers, which would prevent or inhibit women from accessing services.

A recent Dublin study found that lack of childcare facilities is a barrier to accessing drug treatment, in particular for women (Moran, 1999). The research found that only nine of forty-five drug-treatment centres in Dublin provided

crèche facilities. Interviews were conducted with a wide variety of personnel (including crèche leaders and workers, treatment staff, parents/guardians, and children attending the crèche) in six of the nine centres offering crèche facilities. The results indicate that crèches are perceived as playing an important role in the children's emotional, psychological and educational development. It was also found that crèche leaders facilitate mothers in their parenting by providing advice and help in relation to parenting skills. Furthermore, having access to a crèche influences parents' willingness to attend treatment and their psychological approach to treatment.

Butler & Woods (1992) found that HIV-positive female drug users were less likely to seek treatment, owing, in part at least, to fears of being judged an unfit parent and having their children taken into care by the State. Similarly, Hogan (1997), in her study of the psychological and social needs of the children of drug users, found that mothers' fears of having their children taken into care were quite pronounced.

Dunne (1994), in a study exploring the service needs of fifty female drug addicts, found that the vast majority (82.5%) had family support, mainly from their mothers. Consistent with other studies, the majority (71%) had drug-using partners. More worrying was the finding that half the women had partners who were described as violent. When asked what services were important to them, 'women-only support groups' were most frequently mentioned, followed by welfare, one-to-one counselling, crèche facilities, relaxation and parenting skills. The study concludes by recommending that female support groups with professional facilitation be established in each treatment centre and that crèche facilities be extended and improved in drug-treatment facilities.

Summary

Lack of crèche facilities and fears of being seen as an 'unfit mother' appear to be the main barriers facing Irish drug-using women seeking treatment. An analysis of the needs of drug-using women also suggests that female support groups are considered an important aspect of treatment.

4.10 Conclusion

It is apparent that research on women, children and drugs in Ireland has focused almost exclusively on pregnant opiate addicts. Consequently, there is a lack of information on how drug use affects women in general and how parental drug use impacts on children.

The available research suggests that Irish female drug users engage in more risk behaviour than their male counterparts, which has significant health implications, increasing their likelihood of contracting HIV and hepatitis B and C infections. The profile of the pregnant opiate user clearly indicates that these women are in need of a very high level of support. The high rate of drug use among women prisoners is also an issue of concern.

Lack of crèche facilities and fears of being seen as an 'unfit mother' appear to be two of the main barriers preventing women from accessing treatment. Consequently, an increase in the provision of crèche facilities would help more women gain access to services. Similarly, it appears that assurances need to be given to female drug users seeking treatment, that accessing services will not jeopardise their custody of their children.

The available indicators all suggest that female drug users have particular needs that require to be taken into account in service planning and provision. Much more research effort is needed into the issues surrounding drug use by women in Ireland and internationally.

4.11 References

Allwright, S., Barry, J., Bradley, F., Long, J. & Thornton, L. (1999). *Hepatitis B, Hepatitis C and HIV in Irish Prisoners: Prevalence and risk*. Dublin: The Stationery Office.

Ana Liffey Drug Project (1994). *Annual Report 1993*. Dublin: Ana Liffey Project.

Barnard, M. (1999). Forbidden questions: drug-dependent parents and the welfare of their children. *Addiction*, 94 (8), 1109-1111.

Bosio, P., Keenan, E., Gleeson, R., Dorman, A., Clarke, T., Darling, M. & O'Connor, J. (1997). The prevalence of chemical substance and alcohol abuse in an obstetric population in Dublin. *Irish Medical Journal*, 90 (4), 1-4.

Butler, S., & Woods, M. (1992). Drugs, HIV and Ireland: Responses to women in Dublin. In Dorn, N., Henderson, S. & South, N. (eds) *AIDS: Women, drugs and social care*. London: Falmer Press.

Carmody, P. & McEvoy, M. (1996). *A Study of Irish Female Prisoners*. Dublin: Stationery Office.

Cox, G., O'Shea, M. & Geoghegan, T. (submitted for publication). Gender differences in characteristics of drug users presenting to a Dublin syringe exchange. *Irish Journal of Psychological Medicine*.

Department of Health and Children (1999a). 'Anonymous Unlinked Antenatal HIV Screening in Ireland: Results for the period 4th Quarter 1992 to 4th Quarter 1997'. Internal Report. Dublin: Department of Health and Children.

Department of Health and Children (1999b). 'Press Release: Minister Cowen announces commencement of routine antenatal testing for HIV'. Dublin.

Dunne, C. (1994). 'Female Drug Users and Service Provision. A Study of Female Drug Users' Characteristics and Their Implications for Service Response'. MSc dissertation, University of Dublin.

Eastern Health Board (1998). *AIDS/Drug Addiction Services: Inventory of policies*. Dublin: Eastern Health Board.

EMCDDA (1998). *Annual Report on the State of the Drugs Problem in the European Union 1998*. Luxembourg: Office for Official Publications of the European Communities.

Ettore, E. (1992). *Women and Substance Abuse*. London: Macmillan Press.

An Garda Síochána (1991). *Report on Crime 1990*. Dublin: The Stationery Office.

An Garda Síochána (1992). *An Garda Síochána Annual Report 1992*. Dublin: The Stationery Office.

An Garda Síochána (1993). *An Garda Síochána Annual Report 1993*. Dublin: The Stationery Office.

An Garda Síochána (1994). *An Garda Síochána Annual Report 1994*. Dublin: The Stationery Office.

An Garda Síochána (1995). *An Garda Síochána Annual Report 1995*. Dublin: The Stationery Office.

An Garda Síochána (1996). *An Garda Síochána Annual Report 1996*. Dublin: The Stationery Office.

An Garda Síochána (1997). *An Garda Síochána Annual Report 1997*. Dublin: The Stationery Office.

Harkin, K., Quinn, C. & Bradley, F. (1999). Storing methadone in babies' bottles puts young children at risk. *British Medical Journal*, 318, 329.

Hogan, D. M. (1997). *The Social and Psychological Needs of Children of Drug Users: Report on exploratory study*. Dublin: The Children's Research Centre, Trinity College.

Hogan, D. M. (1998). Annotation: The psychological development and welfare of children of opiate and cocaine users: Review and research needs. *Journal of Child Psychology and Psychiatry*, 39 (5), 609-620.

Keenan, E, Dorman, A. & O'Connor, J. (1993). Six year follow up forty five pregnant opiate addicts. *Irish Medical Journal*, 162, 252-255.

Kelly, M. G., Roche, D., Stafford-Johnson, S. & Honeyman, A. (1983). Drug addiction in pregnancy - The Irish scene. In Dennerstin, L. & Senechens, M. (eds) *The young woman. Psychosomatic aspects of obstetrics and gynaecology. Excerpta med*, 618, 119-129.

Merchant's Quay Project (1998). *The Merchant's Quay Project: Annual Report, 1997*. Dublin: The Merchant's Quay Project Drugs/HIV Service.

Moran, R. (1999). *The Availability, Use and Evaluation of the Provision of Crèche Facilities in Association with Drug Treatment*. Dublin: The Health Research Board.

Moran, R., O'Brien, M. & Duff, P. (1997). *Treated Drug Misuse in Ireland: National report, 1996*. Dublin: Health Research Board.

Moran, R., O'Brien, M., Farrell, E. & Dillon, L. (1999). National Report on Drug Issues, Ireland 1999. Internal document. Dublin: Drug Misuse Research Division, The Health Research Board.

MRC Study Group (1996). Ethnic differences in women with HIV infection in Britain and Ireland: The study group for the MRC collaborative study of HIV infection in women. *AIDS*, 10, 89-93.

O'Brien, M. & Moran, R. (1997). *Overview of Drug Issues in Ireland: A resource document*. Dublin: Drug Misuse Research Division, The Health Research Board.

O'Connor, J. J., Stafford-Johnson, S. & Kelly, M. G. (1988). A review of the characteristics and treatment progress of 45 pregnant opiate addicts attending the Irish National Drug Advisory and Treatment Centre over a two-year period. *Irish Journal of Medical Science*, 157 (5), 146-149.

Ryan, W. J., Arthurs, Y., Kelly, M. G. & Fielding, J. F. (1982). Heroin abuse with hepatitis B virus-associated chronic active hepatitis in a twelve-year old child. *Irish Medical Journal*, 75 (5), 166.

Thornton, L., Clune, M., Maguire, R., Griffin, E. & O'Connor, J. (1990). Narcotic addiction: The expectant mother and her baby. *Irish Medical Journal*, 83, 139-142.

United Nations Drug Control Programme (1997). *World Drug Report*. Oxford: Oxford University Press.

Vize, E. (1999). First unit for pregnant addicts. *Medicine Weekly*, 3 (25), 1.

Weaver, G. (1998). Educating Rita: Adult education and women's stories. ISDD *Drug Link*, July/August, 20-23.

Williams, H. & Kinsella, A. (1990). Depressive symptoms in opiate addicts on methadone maintenance. *Irish Journal of Psychological Medicine*, 7, 45-46.

Woods, M. (1994). Drug using parents and their children: The experience of a voluntary/non-statutory project. *Irish Social Worker*, 12 (2), 10.

Notes On Authors and The Drug Misuse Research Division

Rosalyn Moran, MA, MSc, HDE

Rosalyn Moran is a research psychologist. She has conducted and managed social research in national, European and international contexts from public and private sector environments. She worked on the development of the Framework Programme for European Research and Development as an expert to the European Commission. She has published broadly in health and related areas. Currently, she heads up the Mental Health Research Division at the Health Research Board.

E-mail address: rmoran@hrb.ie

Lucy Dillon, BA

Lucy Dillon is a sociologist. She has carried out research in the areas of crisis pregnancy, methadone maintenance treatment and drug use in prison. She has expertise in the area of drug-related infectious diseases and drug use in the context of the criminal justice system.

E-mail address: lucy@hrb.ie

Mary O'Brien BA, Dip. Stats., Dip. Soc. & Soc. Res.

Mary O'Brien is a senior social researcher. She is responsible for the co-ordination of the National Drug Treatment Reporting System. She is the DMRD representative on national and European fora in relation to epidemiology of drug misuse, drug treatment demand, and drug related deaths. She is a member of a national committee on Joint Action against new synthetic drugs. Current research includes analysis of trends in drug misuse in Ireland and population survey work. She authors annual reports on treated drug misuse in Ireland.

E-mail address: mary@hrb.ie

Paula Mayock, BEd, MEd

Paula Mayock is a researcher at the Addiction Research Centre, Trinity College, Dublin. She has carried out research on drug use by young people and is continuing work in this area. She has also conducted an exploratory study on cocaine use in Ireland and will be undertaking further work on this topic as part of a European-wide study.

E-mail address: pmayock@tcd.ie

Eimear Farrell , BA, MSc

Eimear Farrell is a research psychologist. She has previously been involved in research in the field of education in Ireland and research into pathological gambling. She carried out research on perceptions of drug-related services while in the DMRD. In September 2000 she began her training on a full-time basis in the doctorate of clinical psychology programme in University College Dublin.

Brigid Pike, MA, MPhil, DBS

Brigid Pike is a writer and editor. She has worked on a range of policy, planning and research documents in the government and community sectors.

E-mail address: brigid.pike@oceanfree.net

Drug Misuse Research Division of the Health Research Board

The Drug Misuse Research Division (DMRD) is a division of the Health Research Board (HRB), a statutory body based in Dublin, and is involved in national and international research and information activities in relation to drugs and their misuse. The DMRD is funded by national and EU sources and contract research. International collaborators include the EMCDDA and Council of Europe Pompidou Group.

The DMRD maintains and develops the national epidemiological database on treated drug misuse in Ireland - the National Drug Treatment Recording System (NDTRS). The NDTRS provides comprehensive data on the numbers and characteristics of those treated for drug misuse in Ireland.

Current and recently completed research studies include research into trends in drug misuse; knowledge, attitudes and beliefs regarding drugs and drug users; drug service provision; crèche availability and use in drug treatment contexts; drug use, impaired driving and traffic accidents; drug use by prisoners and drug use in rural areas.

The DMRD is involved in information and dissemination activities at national and European levels. It publishes research studies on an ongoing basis. These publications are made available to all public and relevant specialist libraries in Ireland. The DMRD also publishes *Drugnet Ireland* twice yearly.

A new National Documentation Centre is being established in the DMRD as an initiative of the National Advisory Committee on Drugs (NACD).

More information on the work of the DMRD can be found on the Health Research Board's website at www.hrb.ie. A number of DMRD publications are available online. The website includes links to local and international sites providing drug-related information.

Health Research Board Publications since 1997

Dillon, L. (2001). *Drug Use among Prisoners: An exploratory study*. Dublin: The Health Research Board.

Moran, R., O'Brien, M., Dillon, L. & Farrell, E., with Mayock, P. (2001). *Overview of Drug Issues in Ireland 2000: A resource document*. Dublin: The Health Research Board.

O'Brien, A., Moran, R. & O'Brien, M. (2001). *Annotated Bibliography of Drug Misuse in Ireland*. Dublin: The Health Research Board.

Browne, C., Daly, A. & Walsh, D. (2000). *Activities of Irish Psychiatric Services 1998*. Dublin: The Health Research Board.

Bryan, A., Moran, R., Farrell, E. & O'Brien, M. (2000). *Drug-Related Knowledge, Attitudes and Beliefs in Ireland: Report of a nation-wide survey*. Dublin: The Health Research Board.

Daly, A. & Walsh, D. (2000) *Activities of Irish Psychiatric Services 1999*. Dublin: The Health Research Board.

Drug Misuse Research Division (2000) *Drugnet Ireland (2)*. Dublin: The Health Research Board.

Drug Misuse Research Division (2000) *Drugnet Ireland (3)*. Dublin: The Health Research Board.

Health Research Board (2000) *Making Knowledge Work for Health: Towards a strategy for research and innovation for health*. Dublin: The Health Research Board.

Mulvany, F. (2000) *Annual Report of the National Intellectual Disability Database Committee 1998/1999*. Dublin: The Health Research Board.

O'Brien, M., Moran, R., Kelleher, T. & Cahill, P. (2000) *National Drug Treatment Reporting System. Statistical Bulletin. 1997 and 1998*. National Data and Data by Health Board Area. Dublin: The Health Research Board.

Browne, C., Daly, A. & Walsh, D. (1999). *Activities of Irish Psychiatric Services 1997*. Dublin: The Health Research Board.

Health Research Board (1999) *Annual Report and Accounts, 1998*. Dublin: The Health Research Board.

Keogh, F., Roche, A. & Walsh, D. (1999) *"We Have No Beds....": An enquiry into the availability and use of acute psychiatric beds in the Eastern Health Board region*. Dublin: The Health Research Board.

Moran, R. (1999) *The Availability, Use and Evaluation of the Provision of Crèche Facilities in Association with Drug Treatment*. Dublin: Drug Misuse Research Division, The Health Research Board.

Health Research Board (1998) *Annual Report and Accounts, 1997*. Dublin: The Health Research Board.

O'Brien, M. & Moran, R. (1998). *Overview of Drug Issues in Ireland: A resource document*. Dublin: The Health Research Board.

Keogh, F. & Walsh, D. (1997) *Activities of Irish Psychiatric Services 1996*. Dublin: The Health Research Board.

Moran, R., O'Brien, M., & Duff, P. (1997) *Treated Drug Misuse in Ireland: National report 1996*. Dublin: The Health Research Board.

National Intellectual Disability Database Committee. (1997) *Annual Report 1996*. Dublin: Health Research Board.

O'Higgins, K. & Duff, P. (1997) *Treated Drug Misuse in Ireland: First national report*. Dublin: The Health Research Board.