

International Journal of Prisoner Health

Trends in addiction treatment in Irish prisons using national surveillance data, 2009–2014, Aoife Cannon, Fiona Nally, Anne Collins, Ronnie Fay, Suzi Lyons,

Article information:

To cite this document: Aoife Cannon, Fiona Nally, Anne Collins, Ronnie Fay, Suzi Lyons, (2019) "Trends in addiction treatment in Irish prisons using national surveillance data, 2009–2014", International Journal of Prisoner Health, <https://doi.org/10.1108/IJPH-02-2018-0006>

This is the post-print (accepted version) of this paper. For the full published version see the journal website: <https://www.emeraldinsight.com/doi/abs/10.1108/IJPH-02-2018-0006>

To copy this document contact permissions@emeraldinsight.com

The authors would like to acknowledge all the services that provide the annual data to the NDTRS and the NDTRS team, because without their hard work this study would not be possible.

Aoife Cannon was based at National Health Information Systems, Health Research Board, Dublin, Ireland.

Fiona Nally was based at Pavee Point Traveller and Roma Centre, Dublin, Ireland.

Anne Collins is based at Irish Prison Service, Midlands Prison, Portlaoise, Ireland.

Ronnie Fay is based at Pavee Point Traveller and Roma Centre, Dublin, Ireland.

Suzi Lyons is based at National Health Information Systems, Health Research Board, Dublin, Ireland.

Abstract

Purpose – Many studies show that incarcerated populations have higher rates of problem drug use than the general population. The purpose of this paper is to analyse trends in addiction treatment demand in prisons in Ireland from 2009 to 2014 using available national surveillance data in order to identify any implications for practice and policy.

Design/methodology/approach – National surveillance data on treatment episodes for problem drug and alcohol use from 2009 to 2014, collected annually by the National Drug Treatment Reporting System (NDTRS), were analysed.

Findings – In total, 6 per cent of all treatment episodes recorded by the NDTRS between 2009 and 2014 were from prison services. The number of prison service treatment episodes increased from 964 in 2009 to 1,063 in 2014. Opiates were the main reason for treatment, followed by alcohol, cocaine and cannabis. The majority (94–98 per cent) of treatment episodes involved males (median age of 29 years) and low educational attainment, with 79.5–85.1 per cent leaving school before completion of second level. The percentage of treatment episodes with a history of ever injecting drugs increased from 20.9 per cent in 2009 to 31.0 per cent in 2014.

Practical implications – This study can help policy development and service planning in addiction treatment in prison as it provides an insight into the potential needs of incarcerated populations. It also provides a baseline from which to measure any changes in provision of treatment in prison over time.

Originality/value – This is the first study to analyse treatment episodes in prison using routine surveillance data in Ireland. Analysis of these data can provide useful information, not currently available elsewhere.

Keywords Health in prison, Prison, Injecting drug use, Prisoners, Drug dependence, Drug abuse

Introduction

Many studies have shown that incarcerated populations have a higher rate of problem drug and alcohol use, compared to the general population (Boys et al., 2002; Dolan et al., 2007; Lukasiewicz et al., 2007; EMCDDA, 2012a; Kissell et al., 2014; Fazel et al., 2017). In the European Union, approximately half of the prison population have used illicit drugs in their lifetime (Zurhold et al., 2005). This poses a challenge to prison services to provide addiction treatment options and care for this population within the confines of the prison system and also on release to the community. Therefore, prison treatment services are a very important source of data for gaining a better understanding of the trends in problem drug and alcohol use, and for informing service design and delivery.

In addition to problem drug and alcohol use among incarcerated populations, other characteristics of prisoners need to be considered when planning and providing treatment. Typically, high rates of unemployment, low level of education and poor health are observed among prisoners in Ireland (Barry et al., 2010). A 2003 report by Morgan and Kett presented data showing that 52.8 per cent of the prison population

have a low level of literacy. This is particularly remarkable when compared to the general population, where considerably fewer people (22.6 per cent) have low literacy (Morgan and Kett, 2003). Members of minority ethnic groups tend towards over-representation in prison systems (All Ireland Traveller Health Study Team, 2010). Travellers are a minority ethnic group with their own distinct culture, tradition and customs.

According to the All Ireland Traveller Health Study, Traveller men are at least five times more likely to be imprisoned than non-Traveller men and Traveller women are 18 times more likely to be imprisoned than non-Traveller women (All Ireland Traveller Health Study Team, 2010). Information on drug and alcohol treatment in Ireland is provided by the National Drug Treatment Reporting System (NDTRS), the national database on treated problem drug and alcohol use in Ireland. The NDTRS is co-ordinated by the Health Research Board on behalf of the Department of Health.

In 2008, the NDTRS began to collect information on drug treatment in prison, mainly from in-reach voluntary services which provided counselling only. Up to 2013, the medical units of the Irish Prison Services (IPS) did not participate in the NDTRS; however, in 2014, the medical unit in the largest male prison provided data on opiate substitution treatment (OST) and detoxification.

To date, the NDTRS information collected from the prison service has not been analysed or reported on. This study is the first to report on in-prison treatment trends and prisoner demographics in Ireland and it covers a six-year period from 2009 to 2014. The aim of this study is to describe trends in addiction treatment in prison, using routine surveillance data from the NDTRS, in order to identify any implications for practice and policy in treatment in this setting.

Methodology

All participating addiction treatment services in the NDTRS are required to return data on every new treatment episode in the service annually. The types of addiction treatment services included in the NDTRS range from inpatient detoxification and long-term residential places to outpatient treatment clinics providing counselling, psychiatric treatment or OST, for example. Both publically-funded and voluntary addiction treatment services participate in the NDTRS, with national coverage around 70 per cent. The NDTRS collects anonymous, standardized information as per the Treatment Demand Indicator questionnaire of the EMCDDA (2012b). The NDTRS also collects additional information such as self-defined nationality and ethnicity as well as type of treatment provided.

In the NDTRS, a treatment episode encompasses the period from the date a person is assessed for suitability for addiction treatment through to when the person leaves treatment (for whatever reason) in one specified addiction treatment service. A person may receive more than one intervention such as individual counselling and psychiatric treatment if the service provides those treatments. However, for example, if a person also requires OST, and the service does not provide that treatment, the person must go to a different addiction treatment service to receive OST. If this occurs, it will be recorded as a separate treatment episode in that service. In prison, if a prisoner had OST and/or detoxification and/or counselling during the same treatment episode, this information was captured in the same episode and did not create a duplicate episode. There is currently no unique health identifier in Ireland. Therefore, it is not possible to identify or “match” the treatment episodes that a person may have had in the different services if attended more than one service in the same calendar year.

Treatment episodes are classified into two groups: “never treated” (i.e. the person has never received addiction treatment at any service, anywhere) and “previously treated” (i.e. the person has been treated previously, either at this service or another service, at any time in the past). Treatment status is self-reported and verified by the service provider. Data for the group “never treated” can be considered to be comparable to individual-level data as it is their first ever appearance in the NDTRS. The two groups, “never treated” and “previously treated”, are compared in the analysis to determine if there are any differences and if so, it is hoped that those differences can be used to inform provision of addiction services for the different groups.

Treatment episodes from prisons were identified from the data for the years 2008 to 2014. There were 203 treatment episodes recorded in 2008, which have been excluded from the analysis as a full year’s data were not available. Data were entered and stored securely on a Microsoft Access database. Analysis was carried out using IBM SPSS Statistics for Windows,

Results

Overview

During the reporting period 2009–2014, the vast majority of all treatment episodes recorded by the NDTRS, for drugs and alcohol, occurred in outpatient facilities in Ireland. Outpatient treatment episodes comprised approximately 60 per cent of the total number of treatment episodes. During the same reporting period, the number of treatment episodes recorded in prison comprised between 5.9 and 6.4 per cent of the total number of treatment episodes in the NDTRS (data not shown). Over the reporting period, the total number of persons committed to Irish prisons has remained relatively stable, with minor fluctuations each year, as reported by the IPS (Table I). Of note, the percentage of female committed has increased year on year from almost 12 per cent in 2009 to 20 per cent in 2014. Between 2009 and 2014, 6,084 treatment episodes in prison were recorded by the NDTRS (Table II). The proportion of treatment episodes as a percentage of the total committed has remained relatively constant over the last six years, between 7.4 and 8.0 per cent. An exception to this occurred in 2012 where the proportion dropped to 6.6 per cent.

Table I Number and gender of persons committed to Irish prisons (2009–2014)

	2009	2010	2011	2012	2013	2014
Total	12,339	13,758	13,952	13,860	13,055	13,408
Female (% of total persons committed)	1,459 (11.8%)	1,701 (12.4%)	1,902 (13.6%)	2,151 (15.5%)	2,326 (17.8%)	2,685 (20.0%)
Male (% of total persons committed)	10,880 (88.2%)	12,057 (87.6%)	12,050 (86.4%)	11,709 (84.5%)	10,729 (82.2%)	10,723 (80.0)

Note: ^aPercentage of male/female committed per total prison population

Source: Irish Prison Service (2014)

Table II Number of treatment episodes and main problem drug, in prison, NDTRS (2009–2014)

	2009	2010	2011	2012	2013	2014
No. of treatment episodes (n)	964	1,096	1,033	913	1,015	1,063
% of total committed	7.8	8.0	7.4	6.6	7.8	7.9
<i>Main problem drug</i>						
Opiates	502 52.1%	570 52.0%	435 42.1%	307 33.6%	436 42.9%	471 44.3%
Alcohol	177 18.4%	167 15.2%	272 26.3%	271 29.7%	268 26.4%	219 20.6%
Cocaine	146 15.1%	157 14.3%	116 11.2%	114 12.5%	84 8.3%	110 10.3%
Cannabis	81 8.4%	115 10.5%	104 10.1%	107 11.7%	123 12.1%	121 11.4%
Hypnotics and sedatives	47 4.9%	73 6.7%	83 8.0%	91 10.0%	92 9.1%	132 12.4%
Stimulants	8 0.8%	7 0.6%	11 1.1%	9 1%	8 0.8%	9 0.8%
Others ^a	^b 0.3%	7 0.6%	12 1.2%	14 1.5%	^b 0.4%	^b 0.1%
Total	964 100%	1,096 100%	1,033 100%	913 100%	1,015 100%	1,063 100%

Notes: ^aIncludes volatile inhalants; ^bto protect against the indirect identification of individuals, items with less than five entries have been removed

Source: NDTRS (2015), Health Research Board

Treatment for problem opiate use comprised the largest proportion of treatment episodes in prison for the entire reporting period (between 33.6 and 52.1 per cent) (Table II). There was a yearly decrease in the number of treatment episodes for opiates from 2009 (52.1 per cent) to a low in 2012 (33.6 per cent). Alcohol was the second most common drug (between 15.2 and 29.7 per cent) for which treatment was sought in prison. Of note, hypnotics and sedatives saw a 2.5-fold increase, the largest increase as the main reason for referral for treatment episodes during the reporting period.

Socio-demographics

Over the period, the reported age ranged from 16 to 66 years old, with a median age per treatment year of between 28 and 30 years. The proportion of treatment episodes that were male is considerably higher than that of the total proportion of people committed who were male (94–98.4 vs 80–88.2 per cent) (Tables I and III). This is likely due to the lack of data available from female prisons during this reporting period. Other socio-demographic factors examined included nationality, education, age of first drug use and injecting history.

Ethnicity and nationality. Irish Traveller ethnicity was identified between 4.6 and 8.3 per cent of treatment episodes, which is considerably higher than the proportion of Irish Travellers in the general population (0.6 per cent) (Central Statistics Office, 2011). In 2014, almost 17 per cent of the prison population was comprised of non-Irish nationals (Irish Prison Service, 2014). However, during the reporting period, less than 4 per cent of treatment episodes in prison were reported as non-Irish nationals (Table III).

Education. A large proportion (79.5 and 85.1 per cent) of treatment episodes were recorded as early-school leavers (i.e. where the highest level of education attained was lower second level or below, or received no education) (Table III). This is in contrast to the national average of 25 per cent of early-school leavers in 2014 (Central Statistics Office, 2015) (current prison average not available).

Table III Characteristics of all treatment episodes in prison (drugs and alcohol), NDTRS (2009–2014)

	2009	2010	2011	2012	2013	2014
All cases	964	1,096	1,033	913	1,015	1,063
Median age at treatment commencement (in years)	28	28	29	29	30	30
Male	906	1,078	1,005	888	985	1,019
	94.0%	98.4%	97.3%	97.3%	97.0%	95.9%
Irish	881	976	906	812	911	971
	91.4%	89.1%	87.7%	88.9%	89.8%	91.3%
Irish Traveller	44	81	82	76	65	58
	4.6%	7.4%	7.9%	8.3%	6.4%	5.5%
Non-Irish	36	33	32	23	33	29
	3.7%	3.0%	3.1%	2.5%	3.3%	2.7%
Early-school leaver	806	933	856	761	840	845
	83.6%	85.1%	82.9%	83.4%	82.8%	79.5%
Median age start drug use (in years)	14	14	14	13	14	14
Ever injected	201	289	249	223	252	329
	20.9%	26.4%	24.1%	24.4%	24.8%	31.0%
Of those who reported injecting						
Ever shared injecting equipment	60	135	99	88	107	159
	29.8%	46.7%	39.8%	39.5%	42.5%	48.3%
Median age started injecting (in years)	22	21	22	22	22	21

History of injecting. The number and proportion of treatment episodes where injecting drugs was reported increased over the period from 201 (20.9 per cent) in 2009 to 329 (31.0 per cent) in 2014 (Table III). Of those treatment episodes where injecting was reported, between 60 (29.8 per cent) and 159 (48.3 per cent) reported having ever shared injecting equipment. The median age to start injecting ranged between 21 and 22 years.

Problem alcohol use

Between 2009 and 2014, problem alcohol use was reported for 1,373 treatment episodes. The median age reported was 27–30 years (Table IV). Between 44.6 and 57.1 per cent of treatment episodes were classified as “never treated” for problem alcohol use. A comparison of the socio-demographic characteristics between the groups “never treated” and “previously treated” showed only some differences. The proportion of early-school leavers was higher for treatment episodes in the “never treated” group compared to treatment episodes in the “previously treated” group (70.4–87.5 and 35.9–56.1 per cent, respectively). Irish Traveller ethnicity was identified more often among episodes “never treated” (10.9–14.0 per cent) compared to “previously treated” (0.3–12.1 per cent).

Problem drug use

Between 2009 and 2014, problem drug use was reported for 4,710 treatment episodes. The median age recorded for treatment episodes for problem drug use was 26–30 years (Table V). Between 33.8 and 56.9 per cent of treatment episodes were never treated before for problem drug use. A comparison of the socio-demographic characteristics of those treatment episodes in the “never treated” group before compared to those “previously treated” showed some differences. The proportion of early-school leavers was higher in treatment episodes in the “previously treated” group compared to treatment episodes in the “never treated” group or problem drug use (81.6–87.1 and 35.8–55.3 per cent, respectively). Irish Traveller ethnicity was identified more often among treatment episodes never treated (5.8–11.8 per cent) compared to “previously treated” (up to 4.5 per cent). A history of drug injecting was reported for 25.4 per cent of treatment episodes in 2009 and increased year on year to 38.6 per cent of treatment episodes in 2014. The “previously treated” group reported much higher rates of injecting compared to “never treated” (37.1–47.5 vs 17.4–24.0 per cent, respectively).

Table IV Characteristics of treatment episodes in prison for problem alcohol use, NDTRS (2009–2014)

	2009		2010		2011		2012		2013		2014	
	n	%	n	%	n	%	n	%	n	%	n	%
All cases	177		166		272		271		268		219	
Median age (range)	29	(16–58)	27	(16–65)	27	(17–58)	30	(16–66)	29	(18–62)	28	(17–59)
Male	164	92.7	164	98.8	266	97.8	268	98.9	261	97.4	209	95.4
Early-school leaver	138	78.0	131	78.9	199	73.2	220	81.2	207	77.2	167	76.3
Irish Traveller	14	7.9	19	11.4	23	8.5	31	11.4	17	6.3	27	12.3
Never treated ^a	101		80		125		121		130		98	
Median age (range)	27	(16–58)	29	(16–61)	26	(17–55)	30	(17–66)	29	(18–57)	26	(17–59)
Male	95	94.1	80	100.0	123	98.4	120	99.2	126	96.9	96	98.0
Early-school leaver	78	77.2	70	87.5	88	70.4	99	81.8	103	79.2	76	77.6
Irish Traveller	11	10.9	10	12.5	16	12.8	17	14.0	13	10.0	13	13.3
Previously treated ^a	74		78		139		139		129		107	
Median age (range)	31	(19–58)	27	(16–65)	28	(17–58)	30	(16–65)	29	(18–62)	28	(18–59)
Male	67	90.5	75	96.2	135	97.1	137	98.6	126	97.7	105	98.1
Early-school leaver	39	52.7	28	35.9	66	47.5	71	51.1	64	49.6	60	56.1
Irish Traveller	^b	4.1	7	9.0	6	4.3	12	8.6	^b	^b	13	12.1

Notes: ^aTreatment status was known for 1,321 cases, unknown for 53 cases; ^bfigures less than 5 are not routinely presented

Table V Characteristics of treatment episodes in prison for problem drug use, NDTRS (2009–2014)

	2009		2010		2011		2012		2013		2014	
	n	%	n	%	n	%	n	%	n	%	n	%
All cases	787		929		761		642		747		844	
Median Age (range)	26	(16–53)	27	(16–53)	27	(16–56)	27	(17–58)	28	(18–57)	30	(16–58)
Male	742	94.3	912	98.2	737	96.8	617	96.1	721	96.5	806	95.5
Early-school leaver	668	84.9	800	86.1	656	86.2	539	84.0	632	84.6	677	80.2
Irish Traveller	30	3.8	62	6.7	59	7.8	45	7.2	48	6.4	31	3.7
Ever injected	200	25.4	287	30.8	239	31.4	207	32.2	243	32.5	326	38.6
Never treated	447		471		338		264		270		285	
Median age (range)	26	(16–53)	26	(16–53)	27	(16–56)	26	(17–58)	27	(18–56)	27	(17–58)
Male	433	96.9	467	99.2	331	97.9	257	97.3	265	98.1	272	95.4
Early-school leaver	227	50.8	256	54.4	187	55.3	122	46.2	137	50.7	102	35.8
Irish Traveller	26	5.8	44	9.3	40	11.8	27	10.2	30	11.1	19	6.7
Ever injected	78	17.4	101	21.4	81	24.0	58	22.0	53	19.6	64	22.5
Previously treated	315		419		400		330		450		514	
Median age (range)	26	(17–48)	27	(16–52)	27	(16–55)	27	(17–50)	29	(18–57)	31	(16–55)
Male	284	90.2	406	96.9	383	95.8	312	94.5	429	95.3	496	96.5
Early-school leaver	257	81.6	365	87.1	333	83.3	284	86.1	381	84.7	408	79.4
Irish Traveller	^a	^a	15	3.6	18	4.5	11	3.3	16	3.6	10	1.9
Ever injected	117	37.1	175	41.8	149	37.3	125	37.9	180	40.0	244	47.5

Note: ^aFigures less than 5 are not routinely presented

Discussion

This is the first paper to describe trends in in-prison addiction treatment for problem drug and alcohol use and the socio-demographic characteristics of those accessing treatment using treatment episodes from routine surveillance data in Ireland. Overall, the number of treatment episodes in prison each year over the reporting period remained relatively stable, with the exception of 2012. The reason for the reduction in number of treatment episodes for 2012 is not clear, but it is likely to be related to overall participation levels in the NDTRS rather than a true decrease in the number of treatment episodes in prison. This is because there was a decrease recorded in the number of treatment episodes reported across all service types in 2012, not just in prison. There is a very notable difference in the number of females reported through the NDTRS compared to males, which is not reflective of the proportion of committed females. The lower proportion of females in the data compared to the total prison populations is due to the fact that treatment data were not collected in Dóchas, the main Irish female prison during the study period. However, since 2015, Dóchas has participated in the NDTRS. It is expected that future analyses of these data will capture more accurate data for female committals.

The most common treated problem drug reported was opiates (mainly heroin), followed by alcohol. This does not reflect trends among episodes reported from services in the community. For that group alcohol is the drug most commonly treated in Ireland, followed by opiates (mainly heroin) (National Drug Treatment Reporting System Team, 2017). However, this result is not surprising as a recent report found that 43 per cent of prisoners had used heroin in their lifetime, with 21 per cent reporting recent use (within the last year) (Drummond et al., 2014). One significant finding was the large increase in the number of treatment episodes reporting problem hypnotics and sedatives use over the reporting period, from 4.9 per cent in 2009 to 12.4 per cent in 2014. This does reflect the findings of 2011 study where prisoners reported taking both prescribed and un-prescribed benzodiazepines in prison (Drummond et al., 2014).

A notable finding was that, while one-third of the prison population is comprised of non-Irish nationals, the proportion of treatment episodes recorded as non-Irish nationals was less than 4 per cent. This study is the first to highlight the potentially low rate of drug and alcohol treatment uptake for non-Irish nationals committed to prison in Ireland. The reason for this low figure is not clear. It was beyond the scope of this study to examine in more detail the characteristics of the non-Irish nationals. There can be significant differences in the prevalence of drug use and drug use habits between nationalities which may be linked to ethnicity. This has been identified as an area that requires further research by the UK Drug Policy Commission (2010). The low representation of non-Irish nationals in the treatment data could be due to cultural or linguistic barriers to addiction treatment in prison. Furthermore, in the UK, policy documents have recommended the need for culturally appropriate information. Additionally, there may exist cultural barriers to accessing treatment for some individuals, for example, social stigma around drug use or fear of legal repercussions may hamper some individuals accessing treatment (UK Drug Policy Commission, 2010). Racism and discrimination are also widely cited as barriers for treatment for ethnic minorities (All Ireland Traveller Health Study Team, 2010; UK Drug Policy Commission, 2010). While there are low numbers of non-Irish nationals, a high proportion of Travellers were recorded in the treatment episode data in prison, in particular the “never treated” group. This over-representation has been noted in another Irish study and is not unique to Ireland (Costello, 2014). Collection of standardised, disaggregated data on ethnic minorities has been found to be ad hoc, fragmented and lacking in uniformity across all sectors in the country, including health services (Pavee Point Traveller and Roma Centre, 2016). This issue needs to be addressed, not only in in prisons but also at a national level (Pavee Point Traveller and Roma Centre, 2016). The NDTRS is one of the few national surveillance systems to successfully collect these data.

The routine data collected for treatment demand by the NDTRS also enabled the examination of other sociodemographic characteristics, e.g. education level. The results showed that the majority of treatment episodes (79.5–85.1 per cent) involved early-school leavers, having left full-time education before the completion of secondary education. This is particularly striking when compared to the national average of early-school leavers, which was reported as 25 per cent in 2014 (Central Statistics Office, 2015). This is not an unexpected finding as many prisoners have obtained a lower level of education compared to the non-prison population (Morgan and Kett, 2003; Barry et al., 2010).

A high proportion (25.4–38.6 per cent) of treatment episodes receiving treatment for problem drug use had a history of ever injecting, with the proportion even higher among treatment episodes reported as “previously treated” (37.1–47.5 per cent). The most recent study on injecting drug behaviour in prison found that 26 per cent of all prisoners reported ever having injecting drugs (Drummond et al., 2014). This higher range is likely

to be due to the fact that the cohort in this study was made up of those who sought treatment for problem drug use, mainly opiates, were thus a high-risk group for injecting. This hypothesis is supported by the very low rate of ever injecting reported for treatment episodes for problem alcohol use. In this study, treatment episodes categorised as “never treated” for problem drug use had lower rates of injecting from 17.4 per cent in 2009 to 22.5 per cent in 2014. This result could be due to incorrect reporting to the NDTRS due to misunderstandings in relation to the question. To avoid misunderstandings, training on data collection is provided by NDTRS staff to all services including those working in the prisons. Even given the possibility of error, it is concerning that the proportion of those injecting has not reduced, given the increased focus on harm reduction within the Irish addiction services over the past years. It is recommended that harm reduction programmes should be revisited to see how to reduce injecting in this high-risk group. Drummond and colleagues reported in their study (conducted in 2011) that the expressed need for services was high among their cohort of participants who had ever injected and that their uptake of available services was very high, which appears to be supported by these data (Drummond et al., 2014). The high number of treatment episodes which were categorised as “never treated” shows that the prison service is an important link in addiction treatment in Ireland, often a first point of contact for individuals who have never before availed of treatment.

This study has a number of limitations. One important consideration is that there is no unique health identifier in Ireland so it is not possible to control for duplication across services that report data to the NDTRS. For this reason, it is possible that the same individual could appear as more than one treatment episode in a calendar year if they received treatment in more than one addiction treatment service, either in prison or the community. The planned roll out of the new individual health identifier in Ireland should address this issue in the future. It is not currently possible to estimate the extent of the duplication which means that the variables presented in the analysis could be inflated by this duplication. However, the data for the group “never treated” can be considered to be much closer individual-level data as it is their first time to be recorded in the NDTRS. Within the data for this study, a high proportion of the treatment episodes were recorded as “never treated”.

In the absence of other routinely accessible and available data on treatment in prison in Ireland, presenting treatment episodes can give an understanding of treatment demand in prison. It can assist with planning of services pointing to the potential needs of incarcerated populations accessing addiction treatment in prison in Ireland. In the prison service, this reflects issues which need to be considered such as having appropriate documentation and strategies for people with low literacy rates, addressing the specific cultural needs of Irish Travellers and non-Irish nationals and providing harm reduction mechanisms for those that inject drugs. Another important caveat to this paper is that the numbers refer to treatment episodes and do not represent the total population with drug or alcohol addiction problems in prison. In addition, the majority of the data used in this study comes from voluntary services that provided in-reach counselling services to prisoners on behalf of the prison service, not from the prison medical units.

The strengths of the data are that the NDTRS conforms to the standardised European Monitoring Centre for Drugs and Drug Addiction Treatment Demand Indicator questionnaire and, as such, allows comparison of the data across other European countries. This study provides a baseline from which to measure any changes in provision of addiction treatment in prison over time.

This study is the first to present data on treatment episodes for problem drug and alcohol use in prison in Ireland and the associated sociodemographic characteristics. The findings of this study support the high requirement and demand for accessible treatment for problem drug and alcohol use in the prison services, with the need for culturally appropriate approaches. These in-prison treatment services are an important part of the national addiction services and allow incarcerated problem drug and alcohol users to engage with services, often for the first time, which can enable rehabilitation after release. The findings from this study will contribute to service planning for drug and alcohol treatment services in prison.

References

- All Ireland Traveller Health Study Team (2010), "All Ireland Traveller Health Study", Department of Health, Dublin.
- Barry, J.M., Darker, C.D., Thomas, D.E., Allwright, S.P. and O'Dowd, T. (2010), "Primary medical care in Irish prisons", *BMC Health Services Research*, Vol. 10 No. 74, pp. 1-6.
- Boys, A., Farrell, M., Bebbington, P., Brugha, T., Coid, J., Jenkins, R., Lewis, G., Marsden, J., Meltzer, H., Singleton, N. and Taylor, C. (2002), "Drug use and initiation in prison: results from a national prison survey in England and Wales", *Addiction*, Vol. 97 No. 12, pp. 1551-60.
- Central Statistics Office (2011), "Census 2011 Results Profile 7 Religion, Ethnicity and Irish Travellers – ethnic and cultural background", Central Statistics Office, Dublin.
- Central Statistics Office (2015), *Statistical Yearbook 2015 – education*, Central Statistics Office, Dublin.
- Costello, L. (2014), "Travellers in the penal system: a qualitative study", Irish Penal Reform Trust, Dublin.
- Dolan, K., Khoei, E.M., Brentari, C. and Stevens, A. (2007), "A global review of incarceration, drug use and drug services", Report No. 12, The Beckley Foundation, Oxford.
- Drummond, A., Codd, M., Kelleher, C., Donnelly, N.A., McCausland, D., Koziol, J. and O'Shea, B. (2014), "Study on the prevalence of drug use, including intravenous drug use, and blood-borne viruses among the Irish prisoner population", National Advisory Committee on Drugs and Alcohol, Dublin.
- EMCDDA (2012a), "Prison and drugs in Europe; the problem and responses", European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) Selected Issues, Lisbon.
- EMCDDA (2012b), "Treatment Demand Indicator (TDI) Standard Protocol 3.0: guidelines for reporting data on people entering drug treatment in European countries", European Monitoring Centre for Drugs and Drug Addiction, Lisbon.
- Fazel, S., Yoon, I.A. and Hayes, A.J. (2017), "Substance use disorders in prisoners: an updated systematic review and meta-regression analysis in recently incarcerated men and women", *Addiction*, Vol. 112 No. 10, pp. 1725-39.
- Irish Prison Service (2014), "Irish Prison Service Annual Report", Irish Prison Service, Port Laoise, available at: www.irishprisons.ie/wp-content/uploads/documents_pdf/12232-Irish-Prison-Service-AnnualReport2015-v7-2.pdf
- Kissell, A., Taylor, P.J., Walker, J., Lewis, E., Hammond, A. and Amos, T. (2014), "Disentangling alcohol-related needs among pre-trial prisoners: a longitudinal study", *Alcohol Alcohol*, Vol. 49 No. 6, pp. 639-44.
- Lukasiewicz, M., Falissard, B., Michel, L., Neveu, X., Reynaud, M. and Gasquet, I. (2007), "Prevalence and factors associated with alcohol and drug-related disorders in prison: a French national study", *Substance Abuse, Treatment, Prevention and Policy*, Vol. 2.
- Morgan, M. and Kett, M. (2003), *The Prison Adult Literacy Survey*, Irish Prison Services, Dublin.
- National Drug Treatment Reporting System Team (2017), "Alcohol treatment in Ireland 2009-2015", HRB Bulletin, Health Research Board, Dublin.
- Pavee Point Traveller and Roma Centre (2016), "Policy and practice in ethnic data collection and monitoring", Pavee Point Traveller and Roma Centre, Dublin.
- UK Drug Policy Commission (2010), "The impact of drugs on different minority groups: ethnicity and drug treatment", UK Drug Policy Commission, London.
- Zurhold, H., Stöver, H. and Haasen, C. (2005), "Female drug users in European prisons – best practice for relapse prevention and reintegration", University of Hamburg, Hamburg.

Corresponding author: Suzi Lyons can be contacted at: slyons@hrb.ie

Declaration of conflict of interest:

The authors of this paper have no conflict of interest to declare. This paper or a similar version has not been published elsewhere and it is not currently under review by another journal. No commercial relationship exists in the form of a financial support or personal financial interest. The authors disclose that there are no financial or personal relationships with other people or organisations that could inappropriately influence this work. The authors would like to acknowledge all the services that provide the annual data to the NDTRS and the NDTRS team, because without their hard work this study would not be possible.