The drugs situation in Ireland: an overview of trends from 2005 to 2015.

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Contents

List of acronyms

BBV	Blood borne virus
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ESPAD	European School Survey Project on Alcohol and Other Drugs
EU	European Union
HBSC	Health Behaviour in School-aged Children survey
HPSC	Health Protection Surveillance Centre
HRB	Health Research Board
LGBT	Lesbian, gay, bisexual and transgender
NACDA	National Advisory Committee on Drugs and Alcohol
NDTRS	National Drug Treatment Reporting System
NPS	New psychoactive substances
OST	Opiate substitution therapy
PWID	People who inject drugs
RDTF	Regional Drugs Task Force

Glossary

Blood borne virus	Viruses that are carried in the blood and can be transmitted to other individuals through blood or other body fluids. Common routes of transmission include sexual intercourse, sharing injecting equipment and childbirth.
Cross sectional study	Examination of the relationship between disease and other variables of interest as they exist in a defined population at one particular time.
Current drug use	Drug use that has taken place within the past month.
Detox	The process through which individuals who wish to become drug free eliminate opioids from their body, whilst minimising risk of unpleasant withdrawal symptoms.
Drug dependency	A state resulting from repeated administration of a drug in which the individual can only function normally in the presence of a drug, characterised by tolerance to that drug and physical withdrawal symptoms when the drug is removed.
Drug task force	There are 10 regional and 14 local drugs task forces in Ireland to support the aims of the Government's drugs strategy by facilitating regional and local responses to problem drug use.
Drug treatment	Interventions delivered to an individual or group of individuals with the aim of achieving abstinence from drugs or reducing drug use. The nature of treatment will depend on the drug used, severity of misuse and the individual.
Methadone maintenance	Long term prescription of methadone.
New psychoactive substances	Substances, often acquired legally, that produce similar effects to illegal drugs.
Non-poisoning deaths[1]	Deaths in individuals with a history of drug dependency or non-dependent abuse of drugs whether or not the use of a drug was directly implicated in the death
Opiate substitution therapy	Treatment for individuals with opioid dependency where an illegal drug is replaced with prescribed alternative medicine (for example, oral methadone).
Polydrug use	Where an individual uses a combination of two or more drugs.
Poisoning deaths	Deaths due to the toxic effect of the presence in the body of one or more drugs and/ or other substances

[1]Definition of poisoning and non-poisoning deaths is consistent with the definition provided by the Health Research Board in their report into Drug related deaths in Ireland which is the source of this data in this review (HRB, 2014).

The HRB National Drugs Library commissioned the Centre for Public Health at Liverpool John Moores University to prepare this overview of trends on the drugs situation in Ireland from 2005. This overview analyses ten years of data up to the most recent available with respect to the five European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) key indicators (prevalence of drug use, high risk drug use, treatment demand, drug-related deaths and mortality and drug-related infectious diseases) as well as drug-related crime and supply.

The library makes the most recent information relating to these indicators available on its **Key Irish Data** page on the library website www.drugandalcohol.ie.

This information is presented in a variety of formats and is updated as new data becomes available:

- Interactive tables for National Drug Treatment Reporting System (NDTRS) data on eight different types of drug, including alcohol for treatment cases 2004-15
- Factsheets presenting the most recent Irish prevalence, treatment, deaths and other consequences information on alcohol, opiates, cocaine, cannabis and sedatives and tranquilisers
- Annual national reports from 2004 on the drug situation in Ireland submitted to the European Monitoring Centre for Drugs and Drug Addiction
- HRB Bulletins on drug treatment and drug-related deaths published regularly by the National Health Information Systems unit

The HRB National Drugs Library supports those working to develop the knowledge base around drug, alcohol and tobacco use in Ireland.

We have a unique and comprehensive collection of Irish, and key international, drugs research available through our website www.drugsandalcohol.ie

In order to facilitate evidence informed practice in the drugs area we also have a number of useful online resources, including a practitioner portal, interactive treatment tables, course directory and factsheets.

Summary

Introduction
This report presents an overview of trends in the drugs situation in Ireland over a 10 year period. The report analyses the most recent data available with respect to the five European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) key indicators (prevalence of drug use, high risk drug use, treatment demand, drug-related deaths and mortality and drug-related infectious diseases) as well as drug-related crime and supply. Where data is available, trends under these six headings since 2005 are reported. In addition to presentation of national trends this reported includes additional evidence looking at trends in data relating to specific sub-populations including people who inject drugs, prisoners, homeless individuals, sex workers and the Travelling community.

Methods
The Irish focal point's National Reports to the EMCDDA were used to identify suitable data sources for this report, with additional searching carried out where gaps in data were identified. Where available, comparable data since 2005 was used in order to highlight any key changes in trends. However, high quality data was typically only available for the general population, whereas data relating to higher risk populations were often derived from small, cross sectional studies which meant that the identification of trends was problematic.

Key findings
The main findings under each of the six headings are summarised here:

Prevalence
Data in this section suggests that rates of past year and current drug use increased between 2007 and 2015. The most recent All Ireland Prevalence Survey in 2015 was notable for increases in past year and current cannabis and ecstasy use (although overall prevalence of ecstasy use was still low). The greatest increases in drug use appear to be amongst younger people, although past year and current use of any illegal drug, cannabis, and ecstasy all increased slightly amongst those aged 35-64 years between 2011 and 2015. Amongst schoolchildren aged 15-16 years cannabis remains the most commonly used drug. Between 2007 and 2015 current prevalence of cannabis use fell slightly amongst both young males and females (Hibell et al., 2009; 2012), (Kraus et al., 2016). Use of other drugs also fell in this time period amongst this population. Amongst children aged 13-17 years in 2014 only a small proportion (10%) had used cannabis with use increasing with age and amongst males (Perry et al., 2015). An EU-wide opinion survey in 2014 indicated that young people in Ireland were more likely than in other countries to have used NPS with 22% reporting this outcome in comparison to the EU average of 8%, and 10% in the UK (TNS Political & Social, 2014). Findings from the most recent All Ireland Prevalence Survey however indicate lower lifetime (5.0%) and past year (1.9%) use amongst this age group, although the reasons for this difference are not clear.

In terms of prevalence of drug use amongst high risk populations, data indicated high risk of substance use amongst sex workers (Cox and Whitaker, 2009) and homeless individuals (O'Reilly et al., 2015; Mayock and Sheridan, 2012). Amongst prisoners (Drummond et al., 2014) with around four in ten male (43.7%) and female (38.6%) prisoners having used cannabis in the past month and over one in ten (11.1%) having used heroin. Lifetime prevalence of cannabis (86.9%), powder cocaine (74.2%), heroin (45.3%) and crack cocaine (35.6%) were reported at a far greater rate than in the general population and notably female prisoners reported higher lifetime and past month use of heroin and both crack and powder cocaine. Evidence relating to Travellers in contact with drug treatment suggests that Travellers have greater risk of problematic opiate drug use compared to the general population, particularly amongst females, and increasing risk of problematic benzodiazepine and cannabis use in comparison the general population (Carew et al., 2013, 2014).

High risk drug use
Data in this section suggests that rates of injecting, predominantly amongst individuals using heroin, were similar in 2015 as they were in 2007 (approximately 45%), but in that time

period the rate of injecting decreased to 33% in 2010 before climbing again. Prevalence of opiate use in Ireland was estimated using a four-sample capture-recapture method in 2014. This study indicated the number of opiate users in Ireland, including the hidden population not known to services, has remained stable. The estimate from the 2014 study is only slightly less than a similar study undertaken in 2006. Data for polydrug use was available in 2007 and 2011 and 2015 and suggested high rates of polydrug use amongst cannabis, amphetamine and cocaine users. Amongst individuals who primarily used these substances, rates of simultaneous alcohol use was very high. In terms of high risk populations, data featured here highlighted very high rates of recent injecting and risk of frequent injecting, cocaine injecting and sharing of injection equipment amongst a sample of sex workers; higher risk of injecting drug use amongst female prisoners and Travellers; and greater risk of polydrug use amongst male Travellers.

Treatment demand

Data in this section was presented for numbers of individuals entering treatment for different drug use between 2006 and 2015. Key findings were that overall number of cases treated for problem opiate use (mainly heroin) have increased between 2006 and 2015, but with fluctuations in numbers depending on the year. New treatment cases for cannabis more than doubled during this time. For cocaine, the number of cases treated fluctuated slightly between 2007 and 2014, with a notable increase in cases in 2015. There was a large increase in the number of treatment cases for benzodiazepines, with 873 individuals entering treatment in 2015 compared to 98 in 2006. In 2013, data indicated some differences between individuals entering treatment for different drugs. In particular, those entering treatment for cannabis use were younger (mean age: 24 years, under 25 years: 65%) than all drugs together (mean age: 30 years, under 25 years: 35%). Those receiving treatment for opioid use were most likely to be unemployed (75%) and homeless (13%).

The report identified relating to drug treatment amongst three vulnerable groups: prisoners, Travellers and the homeless population. Data from a sample of prisoners in 2011 (Drummond et al. 2014) indicated that availability of treatment services was often limited in prisons, but that where services were available they were used by high proportions of prisoners who needed them. Using unpublished data it is demonstrated that the total number of prisoners receiving treatment fluctuated in recent years but was similar in 2009 as to in 2015. The number of new treatment entrants decreased in this period. Between 2009 and 2015 the most frequently reported primary problem drug in each year amongst prisoners entering drug treatment was reported to be heroin although the proportion decreased over time. The proportions of cases where cannabis or benzodiazepines were the primary problem drug increased in this period and each represented 15% of the prison population who entered treatment by 2014.

Unpublished NDTRS data indicates that numbers of cases of treatment amongst Travellers more than doubled between 2007 and 2010, but then levelled off up to 2013 (the most recently available data). Additionally from 2007-2010, 1.6% of individuals seeking treatment were from the Travelling community, where numbers of individuals increased from 162 in 2007 to 427 in 2010 (Carew et al., 2013). In comparison to the general population, Travellers seeking treatment were less likely to be employed, in stable accommodation or completed education, and more likely to be male and younger (Carew et al., 2013). Findings from a survey of 601 homeless individuals in Dublin and Limerick suggested that in 2013, treatment uptake was high amongst participants with a drug or alcohol problem. The majority of these individuals were prescribed methadone with the majority reporting use of other substances acquired either legally or illegally (O'Reilly et al., 2015).

Drug related deaths and mortality

Data in this section indicate that the number of drug related deaths, higher in Ireland in comparison to European average, rose overall between 2005 (503) and 2014 (697), although this number levelled off from 2009 onwards. Deaths due to non-poisoning increased at a greater rate than poisoning deaths, which remained a higher proportion of all deaths. Key statistics relating to poisoning deaths included i) female median age at time of death was approximately ten years older than males; ii) rate of poisoning deaths involving

polydrug use increased between 2005 and 2014; and iii) in 2014 opiates were the drug most likely to have been taken (249/354), followed by benzodiazepines (228/354). Numbers of deaths that involved benzodiazepines or prescription medicines increased rapidly between 2005 and 2014. Deaths involving new psychoactive substances were recorded separately from other stimulants from 2009 and they increased to 28 in 2013 from eight the previous year. The number of deaths involving NPS in 2014 reduced slightly to 23.

Key statistics relating to deaths from non-poisonings included i) the proportion of deaths that were caused by medical rather than traumatic factors increased; ii) hanging deaths were the most common traumatic cause of death; iii) for medical causes cardiac factors were the most frequent cause of death; and iv) there were differences between age groups for cause of non-poisoning drug related death with younger individuals at greater risk of traumatic cause of death, and older individuals at greater risk of medical cause of death.

Drug related infectious diseases

Findings suggested that the rate of infectious diseases is declining amongst PWID. In comparison to an overall increase in number of new cases in HIV between 2005 and 2014, the number amongst PWID declined in this time from 67 to 27 new cases, although there was a small increase since 2012 and data from quarter 1 and 2 in 2015 (HPSC, 2015) points towards an outbreak amongst PWID in the Dublin area. Evidence suggests that the rate of hepatitis C amongst injecting drug users is declining, although this population makes up the majority of all cases of hepatitis C. In terms of vulnerable populations, amongst a sample of sex workers in 2009, evidence suggested high risk of HIV and hepatitis C, and high uptake of testing for BBVs.

Drug supply and crime

Increased numbers of seizures of herbal cannabis and plants compared with greatly reduced seizures of cannabis resin between 2005 and 2013 may be linked with increased use of higher potency cannabis in Ireland, the UK and throughout Europe and increased cultivation of cannabis in Ireland linked to organised crime. Numbers of seizures for other substances generally increased in the time period 2005 to 2007, before decreasing again up to 2013. Seizures of ecstasy have increased however in recent years, but remain lower in comparison to 2005 levels. Evidence suggests that the majority of young people find it easy to obtain cannabis and around half find it easy to obtain ecstasy, with a sizable minority reporting that they believe other substances including cocaine, heroin and new psychoactive substances to be easily accessible. Notably, young people in Ireland report finding substance easier to obtain in comparison to EU averages.

Key findings relating to drug related offending were that i) the majority of offences throughout the past decade were possession of drugs for personal use, ii) a minority of offences in each year from 2005 to 2014 were for cultivation or manufacture of drugs, but the number of these offences each year has increased sevenfold in this time period, iii) the most common outcomes of cases heard in District Courts in the most recent year that data is available (2014) were that cases were struck out with imprisonment the outcome in just 3% of cases.

Conclusion

This review was undertaken to identify trends relating to the drug situation in Ireland to inform the development of drug policy and strategy. Evidence presented in this review indicates that patterns of drug use and harms have changed in Ireland over the past decade in several ways and highlights key issues that should be considered including recent increases in use of cannabis and ecstasy, particularly amongst younger people, and increased risk of cannabis related problems that may be associated with increased use of high potency cannabis. Additionally, increase in treatment demand relating to benzodiazepines, as well as rapid increase in related deaths, provide indications of new issues of concern. More positively, rate of new entrants for heroin treatment has declined in recent years as has prevalence of cocaine use. Rate of new cases of HIV and hepatitis C amongst PWID has declined, although a recent outbreak of HIV in Dublin is a reminder that trends can quickly change. The review highlights examples of research undertaken with subgroups who frequently appear at increased risk of drug use and related harms in

comparison to the general population. However, due to the lack of consistent research with these populations it is difficult to draw any conclusion on trends in this data and suggests the need to monitor trends amongst subgroups through increasing the amount of high quality research with vulnerable populations and following up these studies over time.

Introduction

This report reviews the current drug situation in Ireland, analysing the most recent data available with respect to the five European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) key indicators, as well as drug related crime and supply. It provides an overview of drug use in the general population as well as data relating to sub-populations at higher risk of drug related harm. Where data is available trends since 2005 are reported.

The EMCDDA reports data from National Focal Points on five key epidemiological indicators in order to provide factual, objective, reliable and comparable information on drugs and drug addiction at both European and Member State level, including Ireland (EMCCDA, 2015). These five epidemiological indicators are also a means of assessing the impact of policy actions:

1) **General population surveys**:
    - The prevalence and pattern of drug use among the general population, as measured by probabilistic surveys of the adult and school population.
2) **High risk drug use**:
    - Prevalence and incidence of high-risk drug use, e.g. injection of drugs and associated behaviours that increase the risk of spreading blood-borne viruses (BBVs). This indicator also focusses on the characteristics of vulnerable population groups that are at greater risk of such harms (e.g. homeless individuals).
3) **Treatment demand indicator:**
    - Numbers and characteristics of drug users presenting to drug treatment facilities.
4) **Drug-related deaths and mortality:**
    - Comprises two components: i) deaths directly caused by illegal drugs (drug-induced deaths); ii) mortality rates among problem drug users, i.e. someone who is an injecting drug user, has used drugs for a long period of time or is a regularly uses opioids, cocaine and or amphetamines (EMCDDA , 2015).
5) **Drug-related infectious diseases:**
    - Extent of infectious diseases – primarily HIV, hepatitis C and hepatitis B– among people who inject drugs (PWID). Data is obtained from both serological testing systems and monitoring of routing diagnostic testing for infectious diseases.

In addition to these five epidemiological indicators, the report reviews evidence under a 6th heading **Drug-related crime and supply**. In this section, evidence is reviewed on i) drug seizures; ii) drug availability; and iii) drug-related offending.

Whilst much data is collected on drug use in the general population, it is of equal importance to gain insight into how certain sub-populations (e.g. PWID, prisoners, homeless individuals, sex workers and the Travelling community) fare in the extent of their drug use and associated risk related behaviours. Such information can help to monitor who is at current and future risk of harmful drug use, inform intervention planning, development and targeting, and assist in policy monitoring. In addition to presentation of national trends this report therefore includes additional evidence looking at trends in data relating to these specific sub-populations in Ireland.

Methods

This report provides an overview of the drugs situation in Ireland based on data published since 2005 relating to the five EMCDDA key epidemiological indicators. The Irish focal point's National Reports to the EMCDDA were used to identify suitable data sources that could be used for this report, with additional searching carried out where gaps in data were identified.

Where available, comparable data since 2005 was used in order to highlight any key changes in trends. However, high quality data was typically only available for the general population, whereas data relating to higher risk populations were often derived from small, cross sectional studies which meant that the identification of trends was problematic.

Notes about the data
The Irish focal point's National Reports to the EMCDDA includes sections relating to each of the five epidemiological indicators. The National Reports also include sections on crime and drug markets. For each indicator and report section the following method was used for identifying and selecting data:

- Reports cited in the National Reports were identified and retrieved
- Tables were produced to map what data was available for each indicator, population type (i.e. general population or sub-population), and substances of interest
- The reports to be included were selected on the basis of the following criteria:

    - For general population data - quality of survey, included data of the key indicators, allowed identification of time trends, reported up to date information (previous 10 years)
    - For sub-populations and other groups of interest - reports were selected if they presented data on the key indicators within the included time frame.

- Data from these reports were supplemented by studies identified through hand searching (e.g. HRB National Drugs Library website) and requests to expert contacts and networks. Details of searches carried out on the HRB National Drugs Library website are provided in.

For the most part, data refers to illicit substances only, however there were some exceptions. For example, Section 2 refers to high risk drug use, and discussion of polydrug use includes data relating to alcohol consumption alongside illicit drug consumption. Additionally, Section 4 summarises information on drug related which also includes deaths involving prescribed drugs and alcohol.

Throughout the report the dates cited in tables and figures refer to the year the data was collected (where this information was reported), which may differ from the dates of publication in some cases. Consistency of reporting of data varied across reports, for example, different drugs were grouped together, or the use of whole percentages or fractional percentages. Generally, percentages are reported as whole numbers with the exception of general population prevalence data, where percentages were frequently under 10% so fractional percentages are reported.

1. Prevalence

In this section, data is provided relating to the prevalence of substance use across Ireland. Firstly, adult general population data is presented and this is broken down by age group and sex. Secondly, data for cannabis dependence and young people's substance use data is presented. Finally, data is reported from studies investigating substance use in a range of vulnerable populations.

1.1 Overview of substance use in Ireland

1.1.1 Adult substance use data by drug type

The data presented in this section has been taken from National Advisory Committee on Drugs and Alcohol reports containing findings from the All Ireland Survey Drug Prevalence Survey from the 2006/07, 2010/11 and 2014/15 waves of the survey (NACDA, 2016). The survey uses a representative sample of people aged 15 and over and records lifetime use, recent use (past year) and current use (last month). The data presented shows the percentage reporting use of any illegal drug and then presents figures for cannabis, cocaine

(crack and powdered cocaine are not differentiated) and ecstasy[2]. The data also shows differences between sex and age categories in terms of recent and current use, as well as changes over the time period by drug task force[3].

The data for past year use of any illicit substances showed a small overall decrease in use between 2006/07 (7.2%) and 2010/11 (7.0%), but an increase in 2014/15 (8.9%; Table 1) with increases in cannabis and ecstasy use. Although ecstasy use was low in 2006/07, this proportion decreased between 2006/07 and 2010/11, and then increased greatly by 2014/15 particularly amongst younger people and males (Tables 2-3). Rates of past year cocaine use decreased slightly through the time period. There were gender differences with females reporting a smaller increase than males of overall substance use (Table 4). Different drug task forces saw either increases or decreases between 2006/07 and 2010/11.

The data relating to current (last month) substance use showed an increase between 2006/07 and 2014/15 for cannabis and ecstasy, particularly amongst younger people, although cocaine use remained the same (Tables 5-7). Both males and females showed increases in current cannabis and ecstasy use in this time period, with a greater increase amongst females. There were some small increases and decreases in current illicit substance use across the different drugs task forces between 2006/07 and 2010/11.

In addition to figures reported here, the NACDA (2016) report includes data for individuals aged 65 and over. Both last year and current prevalence of illegal drug use was reported at 0.0% for this age group.

Table 1: Prevalence of past year substance use

	06/07 (%)	10/11 (%)	14/15 (%)
Any Illegal Drug*	7.2	7.0	8.9
Cannabis	6.3	6.0	7.7
Cocaine (crack and powder)	1.7	1.5	1.5
Ecstasy	1.2	0.5	2.1

*It should be noted that following the Criminal Justice (Psychoactive Substances) Act 2010, reported use of new psychoactive substances is included within figures for 'any illegal drug'.

Table 2*: Prevalence of past year substance use by age group (2006/07,2010/11 & 2014/15)*[4]

	06/07 15-34 years (%)	10/11 15-34 years (%)	14/15 15-34 years (%)	06/07 35-64 years (%)	10/11 35-64 years (%)	14/15 35-64 years (%)
Any Illegal Drug*	12.1	12.3	15.7	2.9	2.9	3.6
Cannabis	10.4	10.3	13.8	2.6	2.6	3.0
Cocaine (crack and powder)	3.1	2.8	2.9	0.5	0.5	0.5
Ecstasy	2.4	0.9	4.4	0.2	0.2	0.4

*It should be noted that following the Criminal Justice (Psychoactive Substances) Act 2010, reported use of new psychoactive substances is included within figures for 'any illegal drug'.

[2] New Psychoactive Substances are included in the survey and findings are discussed in section 1.14 Young people's substance use. Additionally, heroin use is recorded in the survey, but last year and current prevalence is very low (under 0.5% in all cases) so is not detailed here.

[3] These breakdowns of data are currently available for the 2006/07 and 2010/11 surveys only.

[4] The reporting of prevalence by age group changed between 2010/11 and 2014/15, with the population broken down into smaller age groups in the most recent years. Therefore, this data for the 2014/15 survey is presented separately as it is not possible to aggregate data for different age groups.

Table 3: Prevalence of past year substance use by gender

	06/07 Males (%)	10/11 Males (%)	14/15 Males (%)	06/07 Females (%)	10/11 Females (%)	14/15 Females (%)
Any Illegal Drug*	9.6	10.4	12.9	4.7	3.6	4.9
Cannabis	8.6	9.1	11.2	3.9	2.9	4.3
Cocaine (crack and powder)	2.3	2.3	2.6	1.0	0.7	0.5
Ecstasy	1.8	0.6	3.1	0.6	0.3	1.1

*It should be noted that following the Criminal Justice (Psychoactive Substances) Act 2010, reported use of new psychoactive substances is included within figures for 'any illegal drug'.

Table 4: Prevalence (%) of current (past month) substance use

	06/07 (%)	10/11 (%)	14/15 (%)
Any Illegal Drug*	2.9	3.2	4.7
Cannabis	2.6	2.8	4.4
Cocaine (crack and powder)	0.5	0.5	0.5
Ecstasy	0.3	0.1	1.0

*It should be noted that following the Criminal Justice (Psychoactive Substances) Act 2010, reported use of new psychoactive substances is included within figures for 'any illegal drug'.

Table 5: Prevalence (%) of current (past month) substance use by age

	06/07 15-34 years	10/11 15-34 years	14/15 15-34 years	06/07 35-64 years	10/11 35-64 years	14/15 35-64 years
Any Illegal Drug*	4.8	5.3	8.5	1.2	1.6	1.7
Cannabis	4.2	4.5	8.1	1.2	1.4	1.5
Cocaine (crack and powder)	1.1	1.0	0.9	0.1	0.1	0.2
Ecstasy	0.6	0.1	2.1	0.1	0.0	0.1

*It should be noted that following the Criminal Justice (Psychoactive Substances) Act 2010, reported use of new psychoactive substances is included within figures for 'any illegal drug'.

Table 6: Prevalence (%) of current (past month) substance use by gender

	06/07 Males (%)	10/11 Males (%)	14/15 Males (%)	06/07 Females (%)	10/11 Females (%)	14/15 Females (%)
Any Illegal Drug*	4.3	5.3	7.1	1.4	1.1	2.2
Cannabis	4.0	4.7	6.6	1.2	0.9	2.1
Cocaine (crack and powder)	0.8	0.8	0.9	0.2	0.3	0.2
Ecstasy	0.5	0.1	1.1	0.2	0.0	0.8

*It should be noted that following the Criminal Justice (Psychoactive Substances) Act 2010, reported use of new psychoactive substances is included within figures for 'any illegal drug'.

1.1.2 Cannabis dependence and abuse

Data presented here has been taken from a reports examining 2010/11 drug prevalence survey data (NACDA, 2013) and 2014/15 data (NACDA, 2017), which examined cannabis abuse and dependence[5]. These are recognised as possible consequences from regular cannabis use. The proportion of the general population with cannabis dependence and abuse was estimated at 0.6% and 1.3% respectively from the 2010/11 prevalence data. Using the 2014/15 data 1.5% of those aged 15 and over in the general population were classed as cannabis dependent and the rate for cannabis abuse was 2.0%. The rate of cannabis dependency was found to be significantly higher in males (2.5%) than females

[5] Abuse and dependence were diagnosed using the Munich-Composite International Diagnostic Interview (M-CIDI)

(0.5%), and also significantly higher in young adults (3.6%) than older subjects (0.4%). Over 65s reported no cannabis dependence or abuse.

Among people who used cannabis in the last year (Table 1), 24.3% fulfilled the criteria for cannabis dependence. The rate was higher for males (26.8%) than for females (16.7%) and higher for young adults (25.5%) than for older respondents (19.4%).

1.1.3 Young people's substance use

1.1.3.1 Illicit substances

The data presented in this section has been taken from the European School Survey Project on Alcohol and Other Drugs (ESPAD) 2007 (Hibell et al., 2009) and 2011 (Hibell et al., 2012) and 2014 (Kraus et al., 2016). The survey is carried out across Europe every 4 years with 15-16 year olds. It considers young people's current and lifetime use of alcohol, tobacco and cannabis as well as collecting data about lifetime use of other illicit substances. Additional data on cannabis use has been taken from the Health Behaviour in School-aged Children (HBSC) 2014 study (Perry et al., 2015) undertaken with 7,320 13-17 year olds across Ireland. Results from the ESPAD 2015 (Kraus et al., 2016) survey suggest a decline in the use of alcohol and cigarettes among school-aged children in the Republic of Ireland. The use of cannabis, inhalants and other illicit substances may have stabilised, with an overall reduction over the six data collection waves from 1995 to 2015.

Findings from the HSBC survey (Perry et al., 2015) indicated that a small yet substantial proportion of children aged 13-17 years (10%) had ever used cannabis. Similarly to 2011 ESPAD survey data[6], lifetime cannabis use was slightly higher amongst boys at all ages and, unsurprisingly, rate of ever having used cannabis increased with age amongst both males (3% amongst 13 years vs 25% amongst 17 year olds) and females (2% amongst 13 year olds to 22% amongst 17 year olds) (Figure 1).

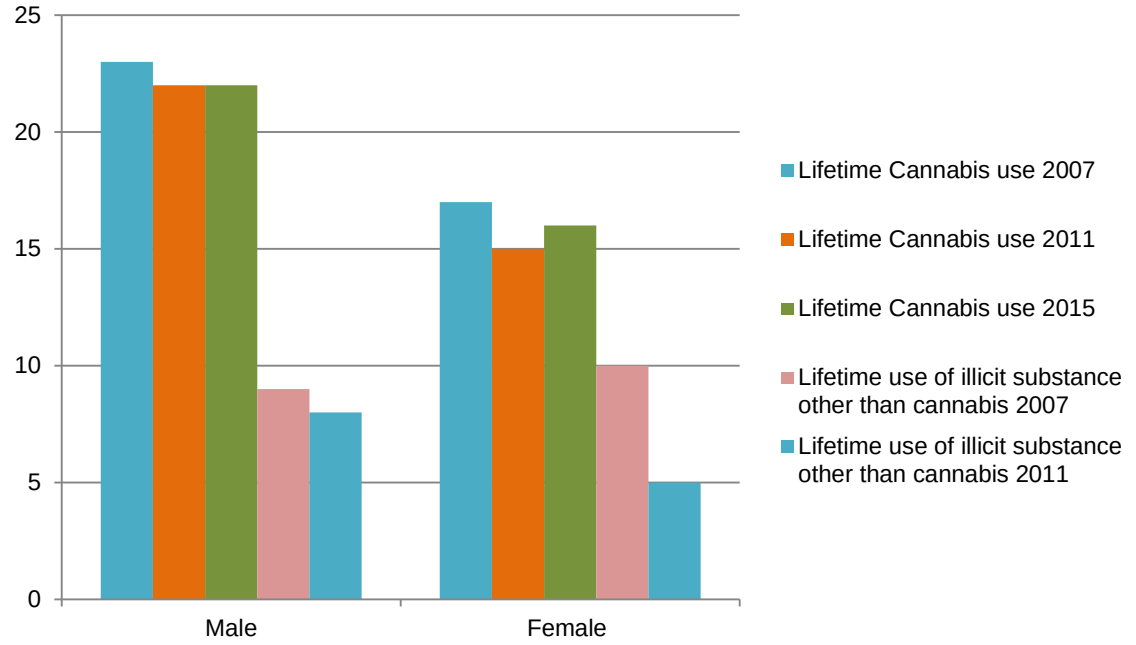

Figure 1: Prevalence (%) of lifetime substance use amongst 15-16 year olds in the 2007 & 2011 & 2015 ESPAD survey

[6] Due to the nature of the survey methodologies and reporting of data it is not possible to provide an accurate comparison between 2011 ESPAD and 2014 HBSC survey data, although where identified potential patterns in the data are highlighted.

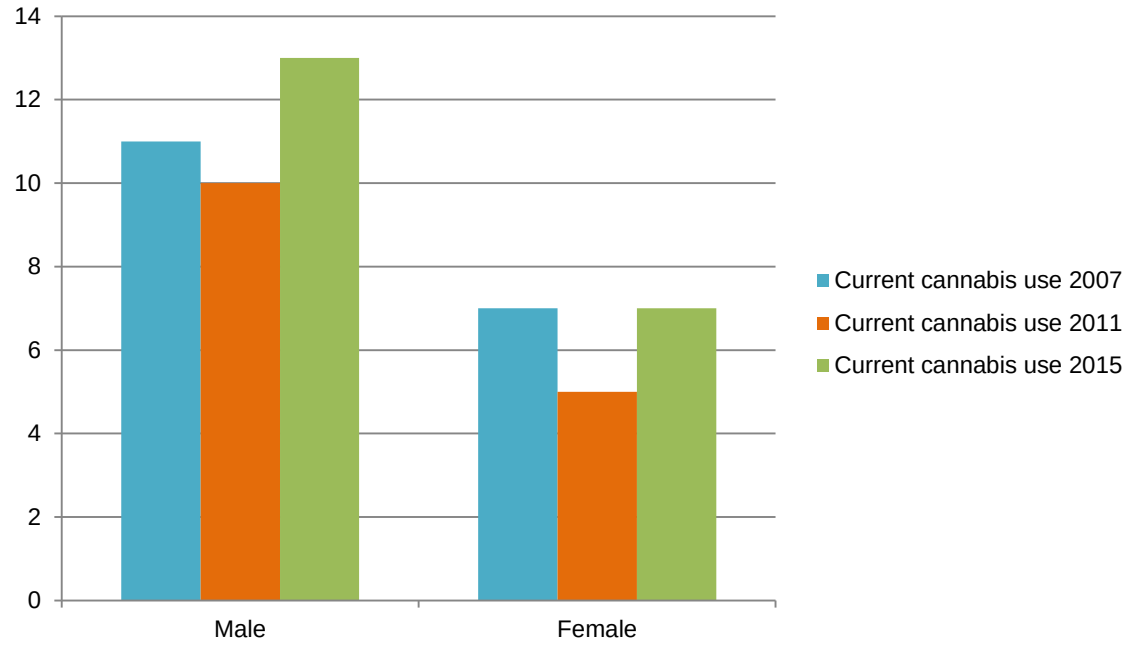

Figure 2: Prevalence (%) of current cannabis use amongst 15-16 year olds in the 2007 & 2011 & 2015 ESPAD survey

Where cannabis use was reported during the previous 12 months, the majority of participants indicated infrequent use (use on one or two days only). Prevalence of current cannabis use (defined as use in the previous 30 days) was low amongst both male and female 13 and 14 year olds (all 3% or lower, Table 7) and prevalence of current use amongst older children aged 15-17 years were comparable with 2011 ESPAD survey data (Figure 2). Finally, data suggested that only a very small proportion (approximately 1-1.5%) of the sample initiated cannabis use before the age of 13.

Table 7: Prevalence (%) of 13-17 year olds who reported current cannabis use by age and gender in the 2014 HBSC survey

	Total	Males	Females
13 years	0.9	1.1	0.7
14 years	2.6	3.0	2.4
15 years	6.7	8.8	5.2
16 years	9.0	11.3	7.3
17 years	11.0	13.8	8.8

1.1.3.2 New psychoactive substances

Use of new psychoactive substances (NPS) has increased in Ireland and throughout Europe in recent years (commonly referred to as 'legal highs'). These substances are often advertised as legal alternatives to illicit substances that have similar effects for the user. There has been a rapid increase in availability of these drugs and the market changes frequently: for example, in 2014, 101 new substances were reported in Europe to the EU Early Warning System (Evans-Brown et al., 2015).

Findings from a survey of over 13,000 young people aged 15-24 years within European Union (EU) countries indicate that young people in Ireland were most likely to report ever having used 'new substances that imitate the effects of illegal drugs' (TNS Political & Social, 2014). In Ireland, over one fifth (22%) of survey participants indicated that they had tried a legal high, considerably higher than the next highest proportion of 13% in Spain, 10% in the UK and the EU average of 8%. However, the majority of cases had tried these substances before the previous year (13%) and while the proportion to have done so in the past year (9%) was higher than the average across all EU countries (7%), it was comparable with

Spain and the UK. In an earlier version of the survey (The Gallup Organization, 2011), 16% young people in Ireland reported ever using NPS, substantially higher than in the second highest country (Latvia: 9%).

These findings suggest that while lifetime use of NPS in Ireland by young people is the highest in Europe and that a sizeable minority have experience with these substances, the number of new and current users is closer to, although still higher, than the average in the EU and comparable with other countries. However, findings from the latest All Ireland Drug Prevalence Survey (NACDA, 2016) indicates lifetime use of NPS at just 3.0%, with past year use at 0.7%. Amongst young people aged 15-24, lifetime NPS use was reported at 5.0%, compared to 6.8% amongst those aged 25-34 although past year use was higher amongst 15-24 year olds (1.9% compared to 1.3%).

It is unclear why figures differ greatly for 15-24 year olds between the latest All Ireland Drug Prevalence Survey (2015) and EU wide survey (2014) reported here. This may be due to factors including: the nature of survey design and recruitment, changes in use of NPS, and changes in reporting of NPS use reflecting the changing legal status and media profile of NPS.

When asked where NPS had been acquired from in the EU survey, the majority (61%) indicated the source was a friend, one quarter (24%) had purchased them from a dealer and 16% purchased the substance from a specialised shop (TNS Political & Social, 2014). The most common settings for use of NPS were with friends (52%) and in a nightclub/ party/ festival setting (62%). These findings were comparable with the average ages throughout the EU. In comparison to other EU countries, young people in Ireland were more likely to report that they had received information about the effects and risks of NPS through all sources included in the survey including school prevention (30%), friends (29%), family (15%), the media (38%) and the police (9%).

1.2 Vulnerable groups and substance use prevalence

1.2.1 Substance use within the prison population

The data presented in this section shows the prevalence of substance use in the prison population in 2011 (Drummond et al., 2014). This data is based upon questionnaires completed by 824 prisoners across 15 prisons; the number of participants per prison were randomly selected in proportion to the size of the prisons. The data refers to recent substance use (last year, Table 8) and current substance use (last month, Table 9) and is displayed in terms of the general prison population and is also broken down according to age and sex. In line with the first section relating to substance use in the general adult population, the data presented in this section refers to cannabis, heroin, crack cocaine and cocaine powder (the two forms of cocaine were reported separately).

The data shows that cannabis was the most frequently used substance in terms of lifetime, recent, and current use across males and females and all age groups. Following this, cocaine powder was the second highest used substance in terms of lifetime use, and heroin was the second most used substance in terms of recent and current use. In terms of use by sex there were more females than males that reported lifetime, recent and current use of both heroin and crack cocaine.

Table 8: Prevalence (%) of substance use in the previous year in the prison population by gender and age (n=824)

	All	Male	Female	18-24 years	25-34 years	35-64 years
Cannabis	68.6	68.6	68.9	84.0	72.6	45.7
Heroin	29.5	28.4	46.7	29.7	36.0	20.4
Crack cocaine	11.7	10.5	31.8	10.5	15.2	8.0

	All	Male	Female	18-24 years	25-34 years	35-64 years
Powder cocaine	28.6	27.8	41.9	38.9	32.3	11.8

Table 9: Prevalence (%) of substance use in the last 30 days in the prison population by gender and age (n=824)

	All	Male	Female	18-24 years	25-34 years	35-64 years
Cannabis	43.4	43.7	38.6	51.2	46.8	29.4
Heroin	11.1	11.0	13.3	10.9	12.9	8.8
Crack cocaine	1.9	1.8	4.6	0.8	2.3	2.7
Powder cocaine	5.3	5.4	2.4	4.6	6.1	4.6

1.2.2 Substance use within the Traveller population

Data regarding prevalence of substance use presented here is based upon an analysis of National Drug Treatment Reporting System (NDTRS) data of drug treatment presentations between 2007 and 2010 (Carew et al. 2013) and two studies published in academic journals based upon focus groups with Travellers examining their health and drug use (Hodgins and Fox, 2012; Van Hout, 2010).

Prevalence of substance use amongst Travellers accessing treatment

Compared to the general population, the main problem drug reported by Travellers accessing treatment between 2007 and 2010 (Carew et al., 2013) was less likely to be alcohol (42% vs 53%) but more likely to be opiates (37% vs 29%). It was noted that between 2007 and 2010 there was an increase in the numbers of Travellers seeking treatment for benzodiazepines and cannabis and this was above the rate of increase in the general population. The prevalence of main problem drugs were similar for male Travellers as the general population, but amongst female Travellers, opiates were reported more frequently as the main problem drug (47% vs 29% in the general population).

Perceptions about substance misuse amongst Travellers

Findings from focus groups with 57 Travellers in Ireland (Van Hout, 2010) suggest that ecstasy, speed, cannabis and cocaine were the most common drugs amongst this population, particularly amongst males with female substance use uncommon. It was reported that single males of all ages were the most likely to use illegal drugs, but that use of prescription medications such as anti-depressants and tranquilisers were common amongst both genders and linked to mental and physical health problems. Findings indicated that drug use was stigmatised in the Travelling community leading to attempts to hide addiction. Findings from focus groups with 34 male Travellers in Ireland regarding their health (Hodgins and Fox, 2012) identified drug use as one form of risky behaviour in this population that leads to poor health. Participants agreed that drug use was increasing amongst Travellers and that males were increasingly likely to be using cocaine and combining this with alcohol. Drug use amongst Travellers was linked in both studies to the opportunity to make money from selling drugs (Hodgins and Fox, 2012; Van Hout, 2010), and Van Hout (2010) reported that participants commented that drug trafficking may be enabled by the nature of the Traveller lifestyle.

1.2.3 Substance use prevalence amongst sex workers

Evidence from one study of a small sample of sex workers who self-identified as problematic drug users in Dublin between August 2007 and July 2008 (total n=35, female n=31) (Cox and Whitaker, 2009) indicated high levels of drug use in this population. All participants had previously injected drugs, with over half (53%) injecting drugs in the 90 days prior to their interview. Drugs used included primarily heroin (65%), cannabis (36%), powder cocaine (29%) and crack cocaine (15%). In a second study examining prostitution and sex working in Dublin in 2008 (Nelson et al., 2010) of 106 females, half (49%) were current drug users including heroin users (42%) and two women who used cocaine.

1.2.4 Substance use amongst the LGBT population

Evidence from a survey with 173 lesbian, gay, bisexual and transgender (LGBT) individuals in Ireland (Sarma et al., 2007) included data on substance use from a subsample of 155 individuals. Of the full sample, the majority were male (84%), gay (74%) and located in Dublin (68%) with a mean age of 22 years. Of this subsample, the majority (60%) had used drugs in the past year with substantial proportion in comparison to the general population reporting past month (40%) and past week (29%) drug use. The most frequently used drug (lifetime use) was cannabis (56%) followed by ecstasy (33%), cocaine (32%) and amphetamines (20%). A small proportion (but substantial in comparison the general population) reported ever using heroin (3%).

Additionally one study investigated the health and service needs of 134 older individuals in the LGBT population (Higgins et al., 2011). Fewer than half the sample had ever used illicit drugs (39%) with low past year (4%) and past month (3%) use. Narratives from interviews carried out as part of this study (n = 36) also elucidated the issue that those using illicit drugs (either currently or previously) did so as a means to come to terms with their sexuality or escape stigma and negative emotions associated with their LGBT status.

1.2.5 Substance use prevalence amongst the homeless population

Data in this section is taken from three reports of studies with samples of homeless individuals including a survey undertaken with 601 homeless adults in Dublin and Limerick in 2013 (O'Reilly et al., 2015), interviews with 60 homeless women (Mayock and Sheridan, 2012) and a health needs assessment with homeless women accessing services in Cork in 2011 (Good Shepherd Services, 2011); and one study of the health needs of homeless individuals in Dublin published in an academic journal (Keogh et al., 2015)

Amongst a sample of 601 homeless and predominantly male adults (O'Reilly et al., 2015), most participants (78%) reported lifetime use of illicit drugs, and over half (55%) were current users (used in the previous three months). Amongst current users, the most common substances used in the past three months included: cannabis (45%), benzodiazepines (34%), heroin (29%), cocaine (13%), methadone (14%), crack (11%), ecstasy (7%). The most commonly reported main problem drug was opiates (41%), with the same proportion reporting their main problem substance to be alcohol. A report detailing findings from interviews with 60 homeless women suggests that over half (53%) of the sample had a current substance abuse problem (Mayock and Sheridan, 2012) and the most common main problem drug was heroin followed by alcohol. In both these studies, a number of participants identified that their substance use had been a contributing factor to their homelessness.

In the study of homeless individuals in Dublin (Keogh et al., 2015), over half (60%) of the sample reported lifetime illicit drug use and one third (33%) reported current drug use. Findings from a further study examining the health of 115 homeless women (Good Shepherd Services, 2011) indicated that in Cork, a lower proportion of the sample were current drug users (20%) with the most commonly reported drugs heroin (10%) and cannabis (9%). Heroin was more prevalent amongst those aged over 26 years, and cannabis more prevalent amongst those aged 16-26 years. The sample included women accessing support services and it is possible that they individuals may have been less likely to use drugs than those not in contact with health services. However, higher proportions of the sample (40%) indicated problem alcohol use.

There were differences between Dublin and Limerick reported (O'Reilly et al., 2015), for example in the main reported problem drug (opiates 44% and alcohol 40% in Dublin vs opiates 16% and alcohol 58% in Limerick) and in prevalence of drug use (e.g. current drug use 54% in Dublin vs 49% in Limerick) and individual substances (e.g. heroin prevalence 31% in Dublin vs 19% in Limerick). It is beyond the scope of this review to examine these regional differences in detail, but the differences between Dublin, Limerick and Cork highlights that the homeless population nationally is unlikely to be a homogenous group with regard to their substance use.

Changes in substance use in the homeless population from 2005-2013

Data was available (O'Reilly et al., 2015) on changes in lifetime substance use in Dublin by comparing the 2013 sample with a previous survey amongst the homeless population in 2005[7]. While caution must be used in interpreting the data it was noted that lifetime use of injecting drugs had dropped slightly, increases in having ever used illegal drugs including cocaine, benzodiazepine and methadone were reported in 2013 (all 5-15%) while use of heroin remained constant. Amongst young homeless people in Dublin, it was reported that heroin use decreased between 2005 and 2013, and while the 2005 survey did not examine cannabis use it was reported that the vast majority (79%) of this population reported lifetime use in 2013.

1.3 Prevalence section summary

Data in this section suggests that rates of past year and current drug use increased between 2007 and 2015. The most recent All Ireland Prevalence Survey in 2015(NACDA, 2016) was notable for increases in past year and current cannabis and ecstasy use (although overall prevalence of ecstasy use was still low). The greatest increases in drug use appear to be amongst younger people, although past year and current use of any illegal drug, cannabis, and ecstasy all increased slightly amongst those aged 35-64 years between 2011 and 2015. Amongst children aged 15-16 years cannabis remains the most commonly used drug, although between 2007 and 2011 current prevalence of cannabis use fell slightly amongst both young males and females (Hibell et al., 2009; 20112). Use of other drugs also fell in this time period amongst this population. Amongst children aged 13-17 years in 2014 only a small proportion (10%) had used cannabis with use increasing with age and amongst males (Perry et al., 2015). Evidence from an EU-wide survey indicates that young people in Ireland in 2014 were more likely than in other countries to have used NPS with 22% reporting this outcome in comparison to the EU average of 8%, and 10% in the UK (TNS Political & Social, 2014). Findings from the most recent All Ireland Prevalence Survey however indicate lower lifetime (5.0%) and past year (1.9%) use amongst this age group, although the reasons for this difference are not clear.

In terms of prevalence of drug use amongst high risk populations, data indicated high risk of substance use amongst sex workers (Cox and Whitaker, 2009) and homeless individuals (O'Reilly et al., 2015; Mayock and Sheridan, 2012). Amongst prisoners (Drummond et al., 2014) with around four in ten male (43.7%) and female (38.6%) prisoners having used cannabis in the past month and over one in ten (11.1%) having used heroin. Lifetime prevalence of cannabis (86.9%), powder cocaine (74.2%), heroin (45.3%) and crack cocaine (35.6%) were reported at a far greater rate than in the general population and notably female prisoners reported higher lifetime and past month use of heroin and both crack and powder cocaine. Evidence relating to Travellers in contact with drug treatment suggests that Travellers have greater risk of problematic opiate drug use compared to the general population, particularly amongst females, and increasing risk of problematic benzodiazepine and cannabis use in comparison the general population (Carew et al., 2013).

[7] The prevalence of substance use in 2005 and 2013 was not reported fully for each drug, so cannot be reproduced here

2 High risk drug use

This section refers to substance use that is classed as high risk. This includes long term or regular use of opioids, cocaine and amphetamines and injecting drug use, increasing risk of harms. This section presents specific opioid prevalence studies and data relating to the number of individuals in treatment who inject and rates of polydrug use, as well as case studies of populations whose substance use places them at a higher risk of experiencing harms.

2.1 Overview of high risk drug use behaviours

2.1.1 Opiate prevalence

The number of opiate users in Ireland in 2006 was estimated using a capture-recapture method (Kelly et al., 2009). In 2006 it was estimated that there were 20,790 opiate users in Ireland including a large 'hidden population' who were not known to services (approximately 43%). This estimate was an increase of 42% from 2001. In 2006 the majority of estimated opiate users were male (71%) and aged between 25 and 34 years (51%), with one fifth (21%) aged 15 to 34 years. The majority of estimated opiate users were in Dublin in 2006 (n=14,904), but in comparison to 2001 the estimate of opiate users outside Dublin, whilst relatively small (n=5,886) had increased at a greater rate.

There were an estimated 18,988 opiate users in Ireland in 2014 (Hay, 2017). This prevalence was measured using a four-sample capture-recapture method. The majority were male (70%) with approximately two thirds in the older 35 to 64 age group. The estimate for Co. Dublin (Dublin City, Dún Laoghaire-Rathdown, Fingal and South Dublin) was 13,458. The prevalence rate for Co. Dublin was higher than the rest of the State at 15.15 per thousand population aged 15 to 64. Estimates were also provide for Cork City, Galway City, Limerick City and Waterford City, with Cork having an estimated prevalence rate of 5.67 per thousand population, Galway having an estimated prevalence of 1.93 per thousand, Limerick with an estimated prevalence of 8.82 per thousand and Waterford with a prevalence of 6.72 per thousand.

2.1.2 Individuals in treatment who inject

Data from the NDTRS show that in 2015, 37% of those treated for problem opiate use reported injecting as their primary route of administration. The proportions fluctuated over the period, from a peak of 48.4% in 2004 to its lowest level of 30.2% in 2010. Since then the proportion injecting increased to 41.1% in 2012, but then decreased slightly year-on-year since then to 37% in 2015 (HRB, 2017). Heroin represents almost 100% of the opiate drugs injected.

2.1.3 Overview of polydrug use

This section presents data from the 'All Ireland Drug Prevalence Survey' 2006/07, 2010/11 & 2014/15 relating to polydrug use. Polydrug use is considered to be high risk behaviour because it is associated with a range of negative outcomes and is a common trait amongst people seeking drug treatment. The data is presented in Table 10 and refers to current (i.e. within the last month) polydrug use, with the term 'polydrug use' referring to a person using at least two substances within the same time period (NACDA 2017).

Table 10: Total proportion of people using one substance by proportion using another substance, 2006/07, 2010/11 and 2014/15.

	Last month prevalence			**Use of Alcohol**			**Use of Tobacco**			**Use of Cannabis**		
	06/07	10/11	14/15	06/7	10/11	14/15	06/7	10/11	14/15	06/7	10/11	14/15
Total weighted N	4967	5126	5937	3653	3621	3856	1619	1451	1629	128	143	259

	Last month prevalence			Use of Alcohol			Use of Tobacco			Use of Cannabis		
Alcohol	73.4	70.6	65.0				81.2	78.3	71.5	90.6	84.5	87.4
Tobacco	32.6	28.3	27.4	36.1	31.4†	30.2				88.3	76.7	82.9
Cannabis	2.6	2.8	4.4	3.2	3.3	5.9*	7.0	7.6	13.2			
ATS[1]	0.4	0.1	1.0	0.5	0.1†	1.5*	1.0	0.3†	3.4	11.7	2.2	20.2
Cocaine	0.5	0.5	0.5	0.7	0.7	0.8	1.2	1.4	1.5	11.7	7.4	8.9
ST[2]	3.0	2.8	3.3	2.6	2.6	2.7	4.1	4.5	4.6	5.5	9.0	4.6
AD[3]	3.1	4.1	4.8	2.6	3.7†	4.2	4.8	6.3	7.7	7.0	8.9	7.2

	Last month prevalence			Use of ATS[1]			Use of Cocaine			Use of ST[2]			Use of AD[3]		
	06/07	10/11	14/15	06/7	10/11	14/15	06/7	10/11	14/15	06/7	10/11	14/15	06/7	10/11	14/15
Total weighted N	4967	5126	5937	19	5	60	25	26	30	147	142	193	154	209	285
Alcohol	73.4	70.6	65.0	100.0	100.0	97.1	100.0	100.0	100.0	65.3	65.2	54.8	62.1	63.5	56.3
Tobacco	32.6	28.3	27.4	84.2	88.3	90.9	80.0	77.2	83.6	45.6	46.1	38.6	50.0	43.5	44.1
Cannabis	2.6	2.8	4.4	78.9	62.4	87.4	60.0	40.9	76.6*	4.7	9.0	6.1	5.8	6.1	6.5
ATS[1]	0.4	0.1	1.0				25.0	14.1	50.1*	0.7	0.4	1.3	0.6	1.2	2.6
Cocaine	0.5	0.5	0.5	33.3	74.1	25.1*				0.7	2.1	1.0	0.0	1.5	1.9
ST[2]	3.0	2.8	3.3	5.3	11.7	4.0	4.0	11.4	6.7				38.3	26.2†	30.8
AD[3]	3.1	4.1	4.8	5.3	52.9†	12.1*	0.0	12.4	17.6	40.1	38.5	45.3			

[1] ATS – Amphetamine-type stimulants (Ecstasy and Amphetamines)
[2] ST – Sedatives or Tranquillisers
[3] AD – Anti-depressants

2.2 Vulnerable groups and high risk drug use

2.2.1 High risk drug use and the prison population

The data presented in this section shows the prevalence of substance use in the prison population in 2011 (Drummond et al., 2014). This data is based upon questionnaires completed by 824 prisoners across 15 prisons that were randomly selected in proportion to the population of the prisons. The data refers to lifetime injecting drug use and heroin use and recent and current heroin use with injecting as the route of administration. The data is displayed in terms of sex and age differences.

The data shows a higher number of female than male prisoners who reported lifetime, recent and current injecting heroin use, as well as a higher number of female prisoners reporting having injected any drug. In terms of age differences, those aged 25-34 years were more likely to have injected heroin or another drug during their lifetime, and were more likely to have recently used or currently inject heroin (Tables 11-13).

Table 11: Prevalence (%) of lifetime injecting drug use (%) in prison population by age and gender (n=824)

	All	Male	Female	18-24 years	25-34 years	35-64 years
Any drug	25.5	24.4	44.4	18.2	34.1	22.2
Heroin	19.1	17.7	43.2	10.4	26.4	19.2

Table 12: Prevalence (%) of recent injecting heroin use (%) in prison population by age and gender (n=824)

	All	Male	Female	18-24 years	25-34 years	35-64 years
Heroin use	6.9	6.1	20.9	8.0	8.7	3.6

Table 13: Prevalence (%) of current injecting drug use (heroin) in prison population by age and gender (n=824)

	All	Male	Female	18-24 years	25-34 years	35-64 years
Heroin use	0.9	0.7	4.6	0.8	1.0	0.9

Overall, 49% of the sample who injected drugs had ever shared needles or syringes, and 52% had shared other injecting equipment. This type of risky behaviour was greatest among females, who were more likely to have had ever shared needles or syringes than males (78% versus 46%) or any other injecting equipment (94% versus 47%, Figure 3).

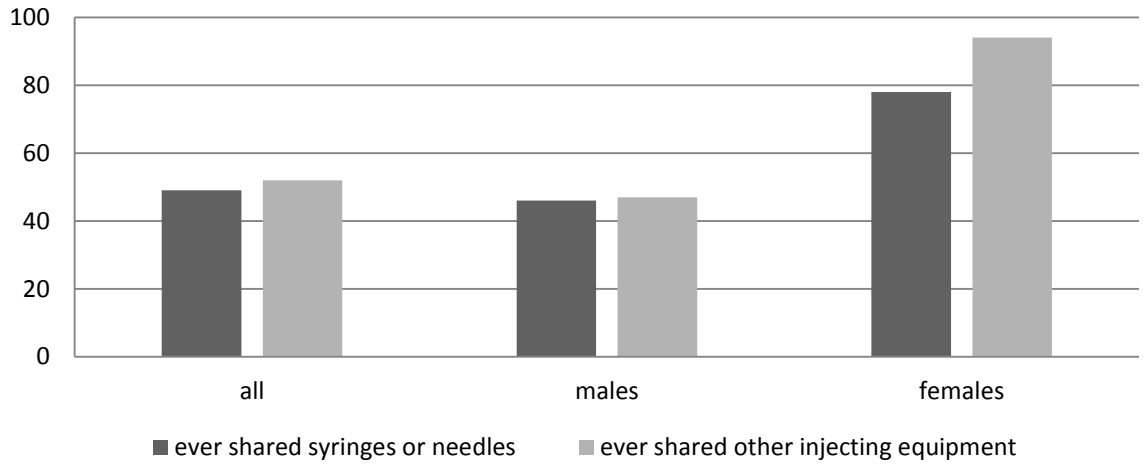

Figure 3: Percentage of prisoners who engage in risky behaviour out of all prisoners reporting injecting drug use

2.2.2 High risk drug use and sex workers

A National Advisory Committee on Drugs (NACD) report (Cox and Whitaker, 2009) identified that of 35 sex workers in Dublin, all of the participants had a history of injecting drug use and half (53%) reported recently injecting drugs (within the last 90 days). Furthermore, 20% of participants were frequently injecting drugs (daily injecting over the last 90 days) with half of these participants injecting cocaine on a daily basis. The report described that the majority of participants who injected drugs reported having shared injecting equipment although the exact proportion was not provided. In a second survey of 106 sex workers in Dublin (Nelson et al., 2010), 42% of the sample were injecting drug users and all injected heroin.

In addition to the risks associated with injecting drug use, other potential harms were identified (Cox and Whitaker, 2009). For example, drugs were often used to enable the participants in their work through lowering inhibitions and increasing energy and stamina, however working whilst under the influence of substances also increased the risk of the participant engaging in unprotected sex or being more likely to put themselves in situations where they could come to harm.

2.2.3 High risk drug use and the Traveller population

Carew and colleagues (2014) in their research into substance use within the Traveller population found that compared to the general population, Travellers entering drug treatment were less likely to have lifetime prevalence of injecting drug use (15% of the Traveller population compared to 18% in the general population). However, there were differences between sexes; Traveller males entering drug treatment reported lower rates of injecting drug use compared to the general population of treatment clients (13% of Traveller males compared to 19% general population males) while females reported higher rates of lifetime injecting drug use (24% Traveller females compared to 16% general population females). Additionally, Travellers entering drug treatment were more likely to report polydrug use (53%

of Travellers compared to 42% of the general population), particularly males, with cannabis the most frequently reported second problem substance.

2.2.4 High risk drug use and the homeless population

Data in this section is taken from a report of findings from surveys with 601 predominantly male homeless individuals in Dublin and Limerick in 2013 (O'Reilly et al., 2015) and a study published in an academic journal into health and use of services with 105 homeless individuals in Dublin (Keogh et al., 2015).

Injecting drug use

Findings from a survey with 601 homeless individuals in Dublin and Limerick (O'Reilly et al., 2015) indicate that one quarter (24%) of the sample had injected drugs, primarily heroin, within the previous year with some injecting drug users reporting injecting cocaine and a range of other drugs. In a further survey with 105 homeless individuals in Dublin (Keogh et al., 2015) a similar proportion (22%) reported injecting drugs within the last 3 months.

Needle sharing and re-use

In the study with 105 homeless individuals in Dublin (Keogh et al., 2015), of those who had ever injected drugs over half of participants (56%) reported re-using their own needles or syringes, or had injected using a needle or syringe used previously by another person.

Polydrug use

In the survey of homeless individuals in Dublin and Limerick (O'Reilly et al., 2015) of 323 individuals for whom there was information on the number of illicit drugs used in the past three months, the majority reported polydrug use (71%) and a sizeable proportion (28%) reported using four or more illegal drugs in that time period. Amongst those reporting use of illegal drugs, nearly half reported current use of prescribed methadone (46%) and other prescribed drugs were commonly reported including sedatives (40%) and anti-psychotics (19%). Data indicated that amongst those using illicit benzodiazepines half of participants (49%) also received them through a prescription. In the study by Keogh and colleagues (2015), the majority (81%) of the sample reported receiving prescribed medications.

2.3 High risk drug use section summary

Data in this section suggests that the number of opiate users in Ireland were similar in 2014 as they were in 2006. The headline figure for the State is that there are an estimated 18,891 opiate users in 2014, with an estimate 13,458 in Co. Dublin and 5,530 in the rest of the State (Hay, 2017).

The rates of injecting, predominantly amongst individuals using heroin, were similar in 2013 as they were in 2007 (approximately 45%), but in that time period the rate of injecting decreased to 33% in 2010 before climbing again. Data for polydrug use was available in 2007 and 2011 and suggested high rates of polydrug use amongst cannabis, amphetamine and cocaine users. Amongst individuals who primarily used these substances, rates of simultaneous alcohol use was very high. In terms of high risk populations, data featured here highlighted very high rates of recent injecting and risk of frequent injecting, cocaine injecting and sharing of injection equipment amongst a sample of sex workers; higher risk of injecting drug use amongst female prisoners and Travellers; and greater risk of polydrug use amongst male Travellers.

3 Treatment demand

In this section, data is provided relating to numbers of clients receiving treatment for their substance use. Firstly, data over the past decade for all individuals initiating treatment is presented, broken down by different substances on a national basis. Further detail is then provided using data from 2015 (the most recent data available) on the characteristics of those receiving treatment for different substances. Finally, an overview of available evidence for vulnerable population groups is provided.

3.1 Overview of numbers of substance use treatment cases

3.1.1 Treatment cases by drug type

The National Drug Treatment Reporting System is an epidemiological surveillance system which collects national data on treated problem drug and alcohol use. This data is available from 2006-2015 and is presented here by drug (Figure 4, Tables 14-15). Overall numbers of cases treated for problem opiate use (mainly heroin) have increased between 2006 to 2015, but with fluctuations in numbers depending on the year. Numbers of cannabis treatment cases use more than doubled during the time period and the number of cases treated for problem benzodiazepines use increased from 98 in 2006 to 873 in 2015. For cocaine, the number of cases treated fluctuated slightly between 2007 and 2014. However there was a notable increase in cases in 2015 (HRB, 2017).

Although numbers of treatment cases for stimulant use were low and remained relatively stable during the time period. The number of cases who were treated for MDMA decreased by over 50%. Novel Psychoactive Substances (NPS) were first recorded by the NDTRS in 2009. The proportion of cases reporting problem use of NPS peaked in 2010, at 2.5% of all cases treated, and dropped to 0.4% of all cases treated in 2012. Since then it has increased slightly to 0.9% of all cases treated in 2015.

3.1.2 New treatment cases

The numbers of new cases treated increased between 2006-2015 (Figure 5). The most notable changes were in the numbers of new cases treated for problem cannabis use, which rose rapidly in the time period, and for benzodiazepines, which rose steadily between 2008 and 2015, with a small decrease recorded in 2015.

The NDTRS collects data about individuals receiving drug treatment from a range of sources including general practitioners, outpatient centre, inpatient centres and services providing methadone or drop-in treatment facilities.

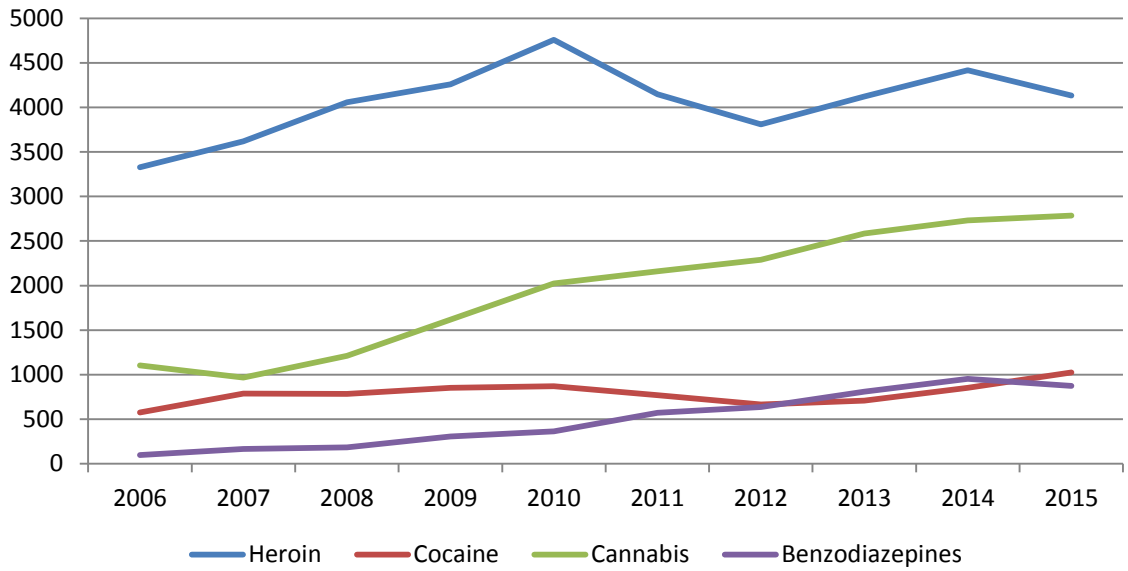

Figure 4: Changes in total number of drug treatment cases by drug type 2006 to 2015

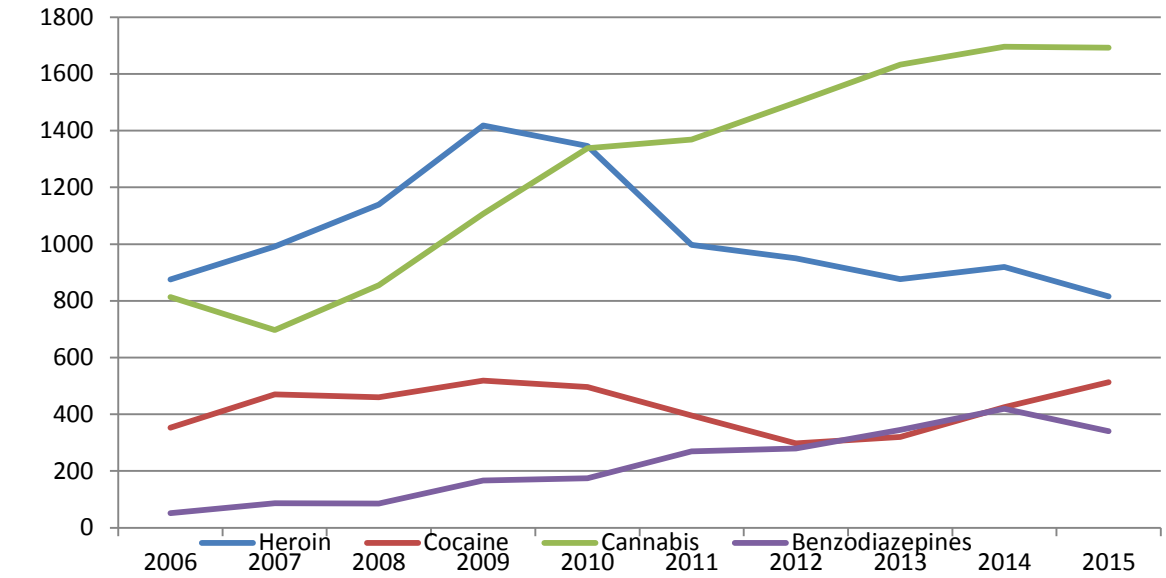

Figure 5: Changes in total number of new entrants to drug treatment by drug type 2006-2015

3.1.3 Opiate substitution treatment (OST)

The number of clients in receipt of OST as of 31st December each year has increased steadily between from 7,620 in 2006 to 9,917 in 2015. (Table 14).

Table 14: Numbers of clients in OST as of 31st December each year, 2005-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
All OST	7,620	7,942	8,266	8,551	8,727	8,729	8,923	9,640	9,764	9,917

Source: Central Treatment List

3.2 Characteristics of individuals receiving drug treatment in Ireland in 2015

The latest available national data in 2015 includes a range of demographic and social characteristics of the drug treatment population. A summary of data is provided in Table 15, broken down by drug type.

Table 15: Characteristics of treated cases 2015 in Ireland, NDTRS

	Total number entering treatment	Median age at treatment	Male (%)	Number aged <18 (%)	Homeless (%)	In detention (%)	Unemployed (%)
All drugs	9,892	30	7,146 (72)	691 (7)	910 (9)	827 (8)	6368 (64)
Opioids	4,732	33	3,190 (67)	<5	669(14)	489 (10)	3,475 (73)
Cocaine	1026	30	822 (80)	21 (2)	40 (4)	121 (12)	539 (52)
Cannabis	2786	22	2,218 (80)	584 (21)	120 (4)	113 (4)	1,480 (53)
Benzodiazepines	873	27	608 (70)	41 (5)	41 (5)	80 (9)	587 (67)

3.3 Vulnerable groups and drug treatment

3.3.1 Drug treatment in the prison population

Data presented here is based upon evidence from unpublished national data from 2009-2015 submitted to the EMCDDA. These data exclude those who attended for additional treatment in the calendar year. Other data was obtained from a study using a cross-sectional random sample of 824 prisoners in Ireland in 2011 (Drummond et al, 2014).

Trends in drug treatment in the prison population

As reported in submissions to the EMCDDA under the Treatment Demand Indicator (TDI), between 2009 and 2015, 5,450 cases received treatment in prison (Table 16). The treatment, mainly counselling, was provided by in-reach voluntary services or the prison medical service. Between 2009 and 2015, 9.2% of all cases reported to TDI received treatment in prison. Of those cases treated in prison, 42.8% were new to treatment (Figure 9).

Table 16: Prison treatment cases 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Total	793	916	753	636	743	835	774
New treatment entrants	461	471	337	264	270	285	244
Previously treated	307	406	393	324	446	505	517
Treatment status unknown	25	39	23	48	27	45	13

The primary problem drug (excluding alcohol) for all cases entering treatment in prison annually since 2009 is detailed in Figure 6. For between approximately 50-60% of all cases annually, the main problem drug was an opiate and primarily heroin. All other drugs were individually the main problem drug in under 20% of cases annually. The proportion of cases where cocaine was the primary drug decreased slightly, while treatment for cannabis and benzodiazepines increased slightly. Amongst new treatment entrants (Figure 7), opiates (primarily heroin) were also the main problem drug in the majority of cases, but the proportion decreased greatly from 2009 (59%) to 2014 (32%). By 2014 benzodiazepines were the second most common problem drug (25%) after opiates, a large increase since 2009 (6%).

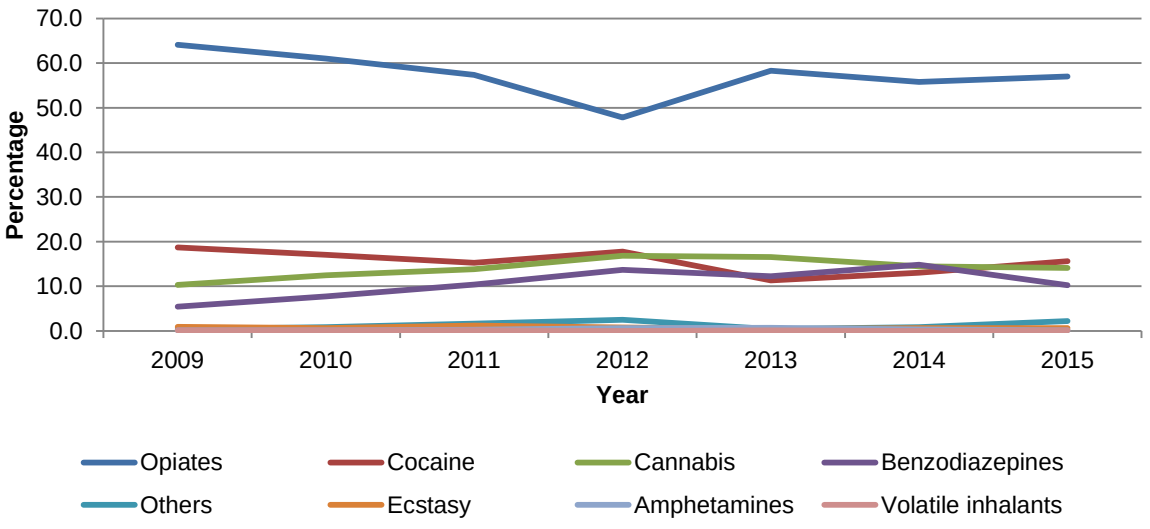

Figure 6: Proportion (%) of all treatment entries in prison 2009-2015 by main problem drug

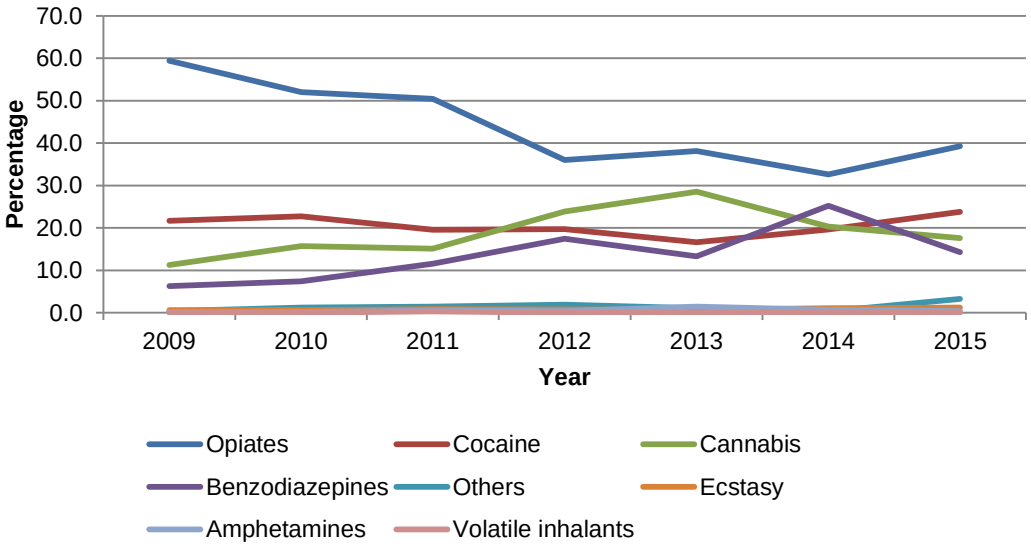

Figure 7: Proportion (%) of new treatment entries in prison 2009-2015 by main problem drug

Need, availability and uptake of services in prisons

Data relating to drug treatment need, availability and uptake amongst a sample of prisoners is adapted from Drummond and colleagues (2014) and presented in Table 17. Need for a range of treatment services was reported by between 19-44% of prisoners, the most common need reported being for an addiction counsellor and a drug free wing. The data indicates that where services were available, a high proportion of prisoners needing services used them. However, service availability ranged greatly. Methadone maintenance, counselling and detox from opiates were available more than half the time when needed. Other services were available less than half the time when needed.

Table 17: Need (%), availability (%) and uptake (%) of treatment services in prisons in 2011 (n=824)

	Reported need of this service in prison	Availability of the service when needed in prison	Use of service whilst in prison (amongst those reporting needing it only)
Detox from benzodiazepines	19	22	84
Detox from opiates (prison detox)	19	54	85
Detox from opiates (slow detox)	15	33	94
Methadone maintenance	25	73	95
Drug free wing or landing	41	43	91
Drug free treatment programme	33	33	92
Addiction psychiatrist	27	49	87
Addiction nurses	25	37	88
Addiction GP	33	42	93
Addiction counsellor	44	63	94

3.3.2 Drug treatment and the Travelling community

Data presented here is based upon unpublished analysis of NDTRS data by the HRB and an analysis of NDTRS data from 2007-2010 (Carew et al. 2014).

Trends in cases of Travellers accessing drug and alcohol treatment services

The number of cases of Travellers accessing treatment services for drug or alcohol use from 2007 to 2013 is reported in unpublished NDTRS data, and presented in Figure 8. In total there were 2,381 cases of Travellers accessing treatment in this time period, the majority of which were males (75%). The total number of cases increased steadily after 2007, but levelled off from 2010. The proportion of female cases in this time period increased overall from 21% in 2007 to 29% in 2013, but fluctuated annually.

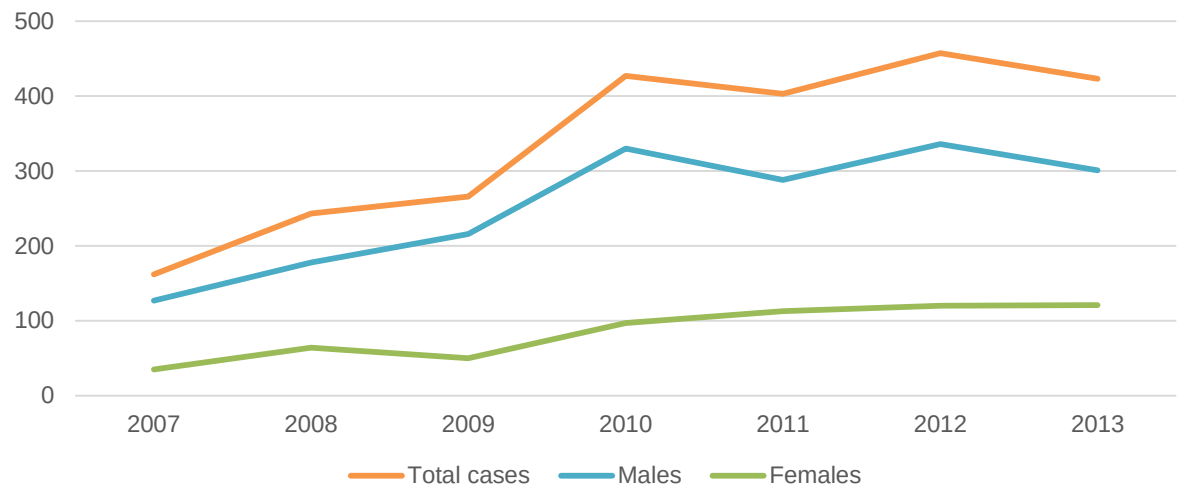

Figure 8: Number of Traveller drug and alcohol treatment cases from 2007 to 2013

Characteristics of Travellers seeking Substance Misuse Treatment

Of 68,329 cases recorded for people seeking substance use treatment from 2007-2010 (Carew et al., 2013), 1,098 were Irish Travellers (2%). The most frequent problem substance use reported was alcohol (42%) followed by opiates (36%), cannabis (10%) and cocaine (7%). The number of Travellers seeking substance use treatment (including alcohol and drugs) increased by 163% between 2007 (162 cases) to 2010 (427 cases).

Compared to the general drug using population of treatment clients, Travellers seeking treatment were more likely to be unemployed (69% vs 55%) and less likely to be in regular employment (3% vs 20%). Rates of stable accommodation and completing education were considerably lower amongst Travellers. A slightly higher proportion of the travelling community seeking treatment were males (78% vs 71%). Travellers were more likely to be younger with higher proportions aged under 18 years (9% vs 6%) and aged 18-24 years (29% vs 20%) and, amongst men, median age of first drug use was younger (14 years vs 16 years) than the general population.

The unpublished NDTRS data includes characteristics of accommodation and source of referral into treatment from 2007-2013. Traveller males accessing treatment services for drug or alcohol use were less likely than males in the general population to be in stable accommodation (57% cases vs 80% cases) and more likely to be in an institution (25% vs 9%) or homeless (10% vs 7%). There were differences in source of referral to treatment too, with Traveller males less likely than males in the general population to self-refer (30% compared to 37%) or be referred to treatment by family (6% vs 10%) and more likely to be referred by the criminal justice system (16% vs 8%), prison (14% vs 5%) or social services (9% vs 6%).

Similar patterns were identified for female Travellers. In comparison with treatment cases for females in the general population, a lower proportion of female Travellers were in stable accommodation (68% vs 89%) and higher proportions of female Travellers were in an institution (7% vs 3%) or homeless (17% vs 4%). Similarly to males, higher proportions of treatment cases for female Travellers in comparison with females in the general population were referred through the criminal justice system (7% vs 3%), prison (6% vs 1%) or social services (19% vs 9%), and lower proportions of cases self-referred (28% vs 37%) or referred to treatment by family (4% vs 9%) or GP (6% vs 10%).

Key points include that in terms of accommodation, the proportion of male Traveller treatment cases in stable accommodation decreased from 70% in 2007 to 55% in 2013 while the proportion of Traveller males in an institution increased from 5% to 27% in that time period. For female Travellers, the proportion of cases in an institution increased from under 5% in 2007 to 9% in 2013 and the proportion homeless decreased from 20% to 12% in that time period. For both male and female Travellers, the proportion of cases self-referred to treatment increased and the proportion referred through the criminal justice system decreased between 2007 and 2013.

3.3.3 Drug treatment and the homeless population

Data presented here is taken from the report examining findings from a survey of 601 homeless individuals in Dublin and Limerick in 2013 (O'Reilly et al., 2015). Findings are limited, but provide a snapshot regarding treatment uptake amongst this population.

Use of addiction services

Of all participants in Dublin and Limerick who self-identified as having a drug or alcohol problem, the majority (78%) had used a drug service in the previous year with the most common service accessed being drug counselling (45%, O'Reilly et al., 2015). The majority (89%) of individuals with an opiate addiction had used an addiction service within the previous six months and, of injecting drug users, approximately three quarters had used a needle exchange.

Methadone maintenance treatment

Of all current or lifetime heroin users in the sample surveyed in Dublin and Limerick (n=309 O'Reilly et al., 2015), over two thirds (lifetime users 68%, current users 69%) were currently prescribed methadone with a small proportion previously but no longer prescribed methadone (11%). Amongst those receiving methadone maintenance treatment, use of a range of legally and illegally obtained substances was reported including cannabis, street and prescribed benzodiazepines and heroin (all approximately 60%); and street methadone, crack and cocaine (all approximately 25%). The majority of former heroin users were currently prescribed methadone. The authors report that findings in 2013 compared to the 2007 Dublin survey suggested an increase in methadone maintenance coverage amongst the heroin using homeless population in Dublin.

3.4 Treatment section summary

Data in this section was presented for numbers of individuals entering treatment for different drug use between 2006 and 2015. Key findings were that in the time period numbers of treatment cases per year for heroin increased overall from 3,328 to 4,131 with a notable increase in numbers of females entering treatment for heroin use. Additionally, new treatment cases for cannabis increased from 1,105 to 2,786 while numbers for cocaine remained similar until 2015 when there was a sharp increase. There was a large increase in the number of treatment cases for benzodiazepines, with 953 individuals entering treatment in 2014, dropping slightly in 2015, compared to 96 in 2006. In 2015, data indicated some differences between individuals entering treatment for different drugs. In particular, those entering treatment for cannabis use were younger (mean age: 24 years, under 25 years: 65%) than all drugs together (mean age: 30 years, under 25 years: 35%). Those receiving treatment for opioid use were most likely to be unemployed (73%) and homeless (14%).

There was data identified relating to drug treatment amongst three vulnerable groups: prisoners, Travellers and the homeless population. Data from a sample of prisoners in 2011

(Drummond et al. 2014) indicated that availability of treatment services was often limited in prisons, but that where available services were used by high proportions of prisoners who needed them. Using unpublished data it is demonstrated that the total number of prisoners receiving treatment fluctuated in recent years but was similar in 2009 as to in 2014. The number of new treatment entrants decreased in this period. Between 2009 and 2014 the most frequently reported primary problem drug in each year amongst prisoners entering drug treatment was reported to be heroin although the proportion decreased over time. The proportions of cases where cannabis or benzodiazepines were the primary problem drug increased in this period and each represented 15% of the prison population who entered treatment by 2014.

Unpublished NDTRS data indicates that numbers of cases of treatment amongst Travellers more than doubled between 2007 and 2010, but then levelled off up to 2013 (the most recently available data). Additionally from 2007-2010, 1.6% of individuals seeking treatment were from the Travelling community, where numbers of individuals increased from 162 in 2007 to 427 in 2010 (Carew et al., 2013). In comparison to the general population, Travellers seeking treatment were less likely to be employed, in stable accommodation or completed education, and more likely to be male and younger (Carew et al., 2013). Findings from a survey of 601 homeless individuals in Dublin and Limerick suggested that in 2013, treatment uptake was high amongst participants with a drug or alcohol problem. The majority of these individuals were prescribed methadone with the majority reporting use of other substances acquired either legally or illegally (O'Reilly et al., 2015).

4 Drug related deaths

In this section, data is provided relating to numbers of drug related deaths including poisonings and non-poisonings[8]. Firstly, drug related deaths data over the past decade is presented. Further detail is then provided on poisonings followed by non-poisonings[9]. Data in this section is taken from the Health Research Board (HRB) 2015 report*: National Drug-Related Deaths Index 2004 to 2014 data*, which includes data up to 2014.

4.1 Overview of numbers of drug related deaths

4.1.1 Total numbers of deaths by year

Between 2005 and 2014, 6,266 drug-related deaths in Ireland including poisonings and other causes were recorded (HRB, 2016). There was an annual increase in deaths after 2005 particularly until 2009, with number of deaths continuing to increase slightly after this date (Figure 9, Table 18). In comparison to the rest of Europe, drug-related deaths are high in Ireland with figures for 2013 indicating mortality rate amongst adults in Ireland at 71.1 deaths per million people compared to the European average of 19.2 deaths per million people (EMCDDA, 2016).

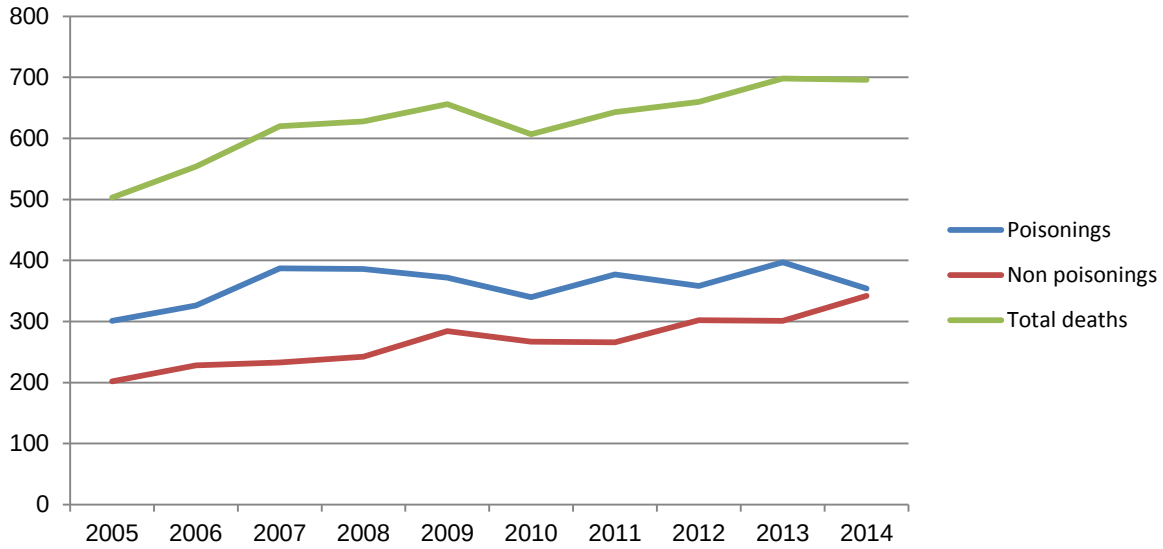

Figure 9: Changes in number of drug related deaths 2005-2014

4.1.2 Poisoning deaths

The proportion of poisonings that were male increased slightly from 2005 to 2014 (Table 19) (HRB, 2016). There were differences between the age of females and males involved in poisoning deaths throughout the time period, with the median age for females approximately 10 years older in each year. The evidence suggests that deaths owing to poisoning affected all age groups.

[8] Poisoning deaths refer to deaths directly related to the toxic effects of one or more drugs; non-poison deaths refer to deaths where the individual has a history of drug dependency or non-dependant abuse of drugs whether or not the use of drugs was directly implicated in the death (HRB, 2016).

[9] Throughout this section, overall data regarding deaths by poisoning includes illegal and prescription drugs and alcohol. Non-poisoning deaths however do not include deaths amongst individuals who were not drug users (i.e. alcohol only). This reflects the nature of the data reported by the Health Research Board.

Table 18: Changes in numbers of drug related deaths 2005-2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Poisonings	301	326	387	386	372	340	377	358	397	354
Non poisonings	202	228	233	242	284	267	266	302	301	342
Total deaths	503	554	620	628	656	607	643	660	698	696

Table 19: Characteristics of individuals involved in poisoning deaths in Ireland by year from 2005-2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
All deaths (total)	503	554	620	628	656	607	643	660	698	697
Poisonings (3,864)	301	326	387	386	372	340	377	358	397	354
Poisonings male	*199*	*228*	*270*	*274*	*254*	*252*	*274*	*266*	*270*	*254*
Poisonings female	*102*	*98*	*117*	*112*	*118*	*88*	*103*	*92*	*127*	*100*
Median age	39	36	36	38	38	40	39	40	40	39
Non-poisonings (2,833)	202	228	233	242	284	267	266	302	301	343
Non-poisonings male	*176*	*192*	*177*	*196*	*212*	*206*	*217*	*231*	*233*	*269*
Non-poisoning females	*26*	*36*	*56*	*46*	*72*	*61*	*49*	*71*	*68*	*74*
Median age trauma	27	27	28	27.5	30	31.5	30	31	33.5	33
Median age medical	38	42	41	42	40	43	44	46	47	47

The HRB (2016) report provided data on polydrug poisoning deaths. In 2005, 45% or 118 deaths were due to a cocktail of drugs, with an average of two drugs taken. In 2014, this had risen to 66% or 235 deaths, with an average of four different drugs taken, whilst number of single drug poisoning deaths increased slightly overall between 2005 and 2007, but decreased after this time point (Figure 10). Deaths owing to single substance poisoning were most likely to involve alcohol followed by opiates. In 2014, of all 354 deaths due to poisoning 249 involved opiates and 228 involved benzodiazepines. Poisoning deaths involving opiates and benzodiazepines increased in the time period, with both peaking in 2011 before dropping in 2012. Poisoning deaths involving NPS were low (under 10) up until 2012, but increased to 30 in 2013, decreasing a little to 23 in 2014.

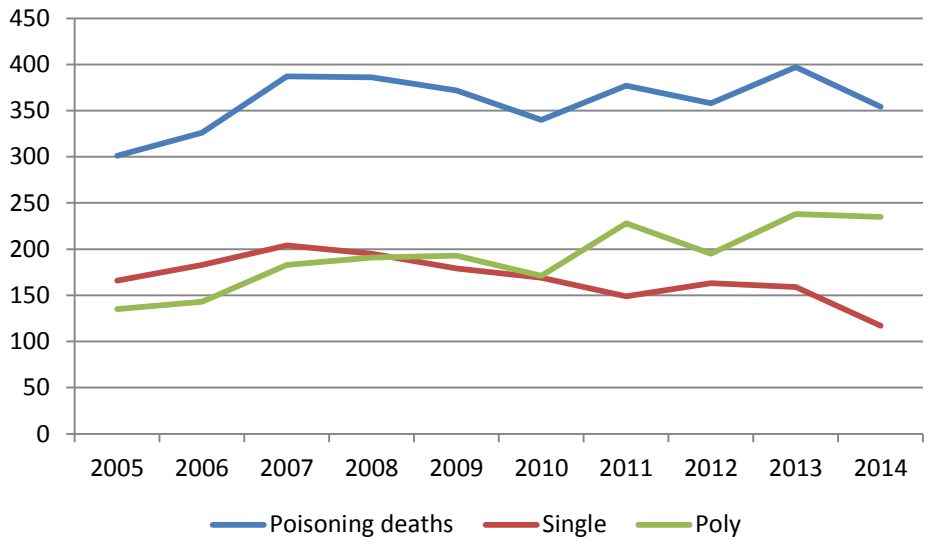

Figure 10: Changes in numbers of poisoning single and polydrug use deaths 2005-2014

4.1.3 Non-poisoning deaths

Non-poisoning deaths are deaths among people with a history of drug dependency or non-dependent abuse of drugs (ascertained from toxicology results and from Central Treatment List, medical or coronial records) whether or not the use of the drug had a direct impact on the cause of death.

The number of non-poisoning deaths increased from 202 in 2005 in 2014 to 343 in 2014 Drug related hanging deaths were the greatest traumatic cause of drug related death with this number increasing from 37 in 2005- to 93 in 2014. For medical causes, cardiac factors were the greatest cause of deaths in each year and number of cardiac drug related deaths increased from 20 in 2005 to 51 2014. Overall, numbers of respiratory caused drug related deaths increased slightly in the time period, but decreased after 2007 and numbers of liver disease drug related deaths increased from 11 in 2010 to 21 in 2014. When age of death is compared in the case of medical and traumatic causes in 2014, data indicates that risk of death by traumatic cause is greatest amongst younger drug users, but in those over 40 years non-poisoning deaths are more likely to have a medical cause (Figure 11 and 12).

Table 20: Numbers of deaths due to poisoning 2005-2014 by drug type

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Opiates	159	183	190	219	236	190	260	224	251	249
Benzodiazepines	79	116	124	123	134	132	254	175	234	228
Antidepressants	53	43	48	87	67	67	100	90	120	120
Other prescription medications	41	41	63	62	60	77	94	103	139	190
Stimulants[+]	46	62	85	68	56	22	35	38	43	55
New Psychoactive Substances	-	-	-	-	5	6	8	8	28	23
Other drugs*	23	21	24	31	44	31	31	29	34	35

[+]Stimulants include cocaine, MDMA and New Psychoactive Substances;
*Other drugs includes solvents, insecticides, herbicides, amphetamines, hallucinogens, cannabis and other chemicals excluding prescription drugs

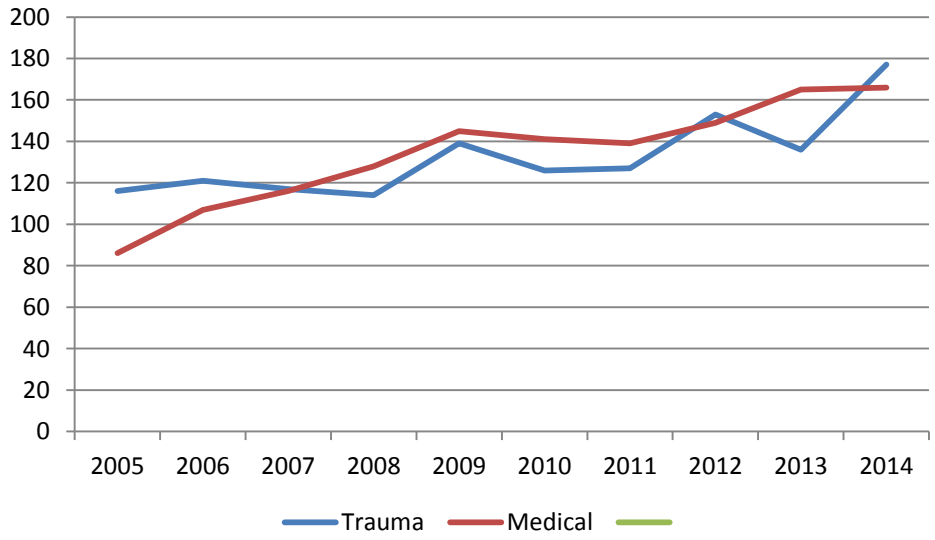

Figure 11: Changes in numbers of traumatic and medical caused non-poisoning drug related deaths, 2005-2014

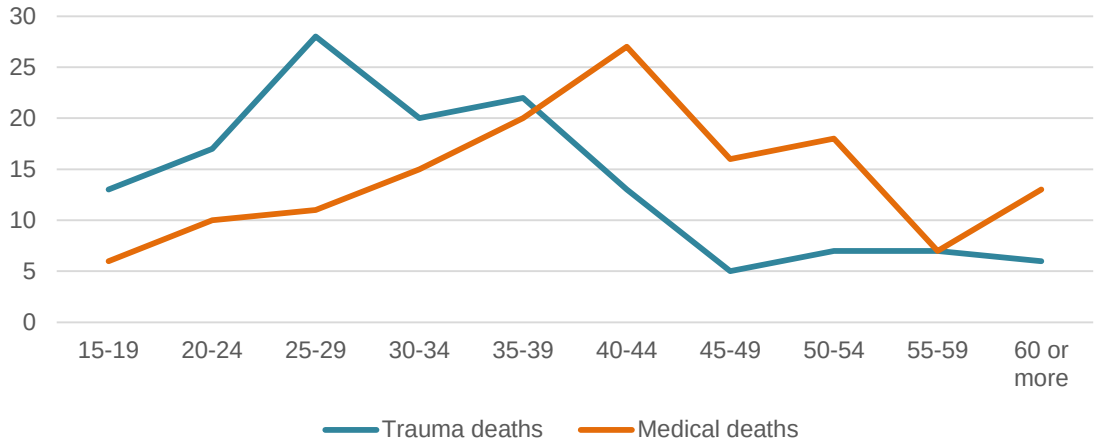

Figure 12: Numbers of non-poisoning deaths in 2014 including traumatic causes (n=138) and medical causes (n=143) by age group

4.2 Drug related deaths section summary

Data in this section indicate that the number of drug related deaths, is higher in Ireland in comparison to the European average, rose overall between 2005 (503) and 2014 2014 (697), although this number levelled off from 2009 onwards. Deaths due to non-poisoning increased at a greater rate than poisoning deaths, which remained a higher proportion of all deaths. Key statistics relating to poisoning deaths included i) female median age at time of death was approximately ten years older than males; ii) rate of poisoning deaths involving polydrug use increased between 2005 and 2014; and iii) opiates were the drug most likely to have been taken (249/354 in 2014), followed by benzodiazepines (228/354 in 2014). Numbers of deaths that involved benzodiazepines or prescription medicines increased rapidly between 2005 and 2014. Deaths involving NPS were recorded separately from other stimulants from 2009 and increased to 28 in 2013 from eight the previous year.

Key statistics relating to deaths from non-poisonings included i) the proportion of deaths that were caused by medical rather than traumatic factors increased; ii) hanging deaths were the most common traumatic cause of death with cases more than doubling from 37 in 2005 to 93 in 2014; iii) for medical causes cardiac factors were the most frequent cause of death; and iv) there were differences between age groups for cause of non-poisoning drug related death with younger individuals at greater risk of traumatic cause of death, and older individuals at greater risk of medical cause of death.

5 Drug related infectious diseases

In this section, data is provided on the numbers and characteristics of the injecting drug using population in Ireland with infectious diseases. Firstly, we refer to data that has been recurrently recorded by the Health Protection Surveillance Centre (HPSC) from 2005 to 2014 in relation to the numbers and characteristics of PWID across Ireland. Data is then presented from two reports also relevant to PWID including prisoners (Drummond et al., 2014) and sex workers (Cox and Whitaker, 2009).

5.1 New cases of HIV infection among PWID in Ireland from 2005-2014

Data was available on rates of HIV infection attributable to injecting drug use from 2005-2014 through a series of reports (HPSC 2008-2014) from the HPSC (Figure 13). Key data from these reports is presented here.

Data is compared here with the overall number of new cases of HIV in the same time period. Data showed a gradual decline from 2005 of new cases of HIV amongst PWID from 2005 (n = 67) to 2012 (n=16), with a slight increase from 2012 to 2014 (n=27). In comparison the overall number of new cases of HIV increased in the same time period. Similarly, although

the proportion of PWID out of the total sample gradually declined from 2005 (n = 67; 21%) to 2012 (n = 13; 5%), it slightly increased to 7% (n = 27) by 2014 (Figure 14).

Data is available for new cases of HIV for the first two quarters of 2015 (HPSC, 2015)[10], with a total of 203 cases recorded (the same as in the first two quarters of 2014). In this time period, 25 new cases of HIV amongst PWID were recorded however, compared to 27 in the whole of 2014. This increase was noted to relate to an outbreak amongst PWID in Dublin.

There was a greater proportion of PWID with HIV who were male than female in each year from 2007 to 2014. However, although the proportion of males amongst those with HIV rose from 66% in 2005 to 82% in 2010, it reduced from 81% in 2011 to just 52% in 2015 (Figure 17).

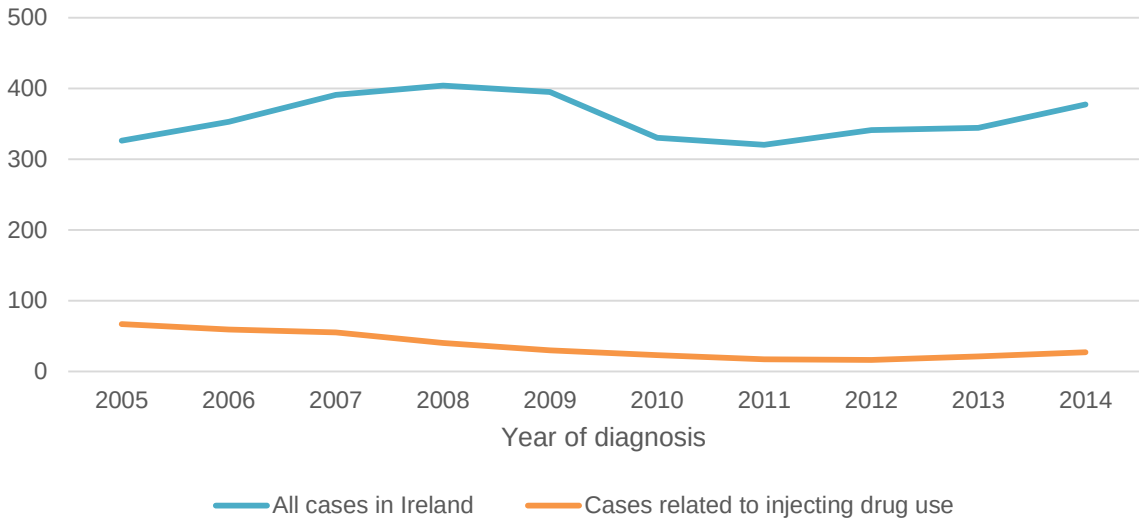

Figure 13: Changes in number of new cases of HIV in Ireland, 2005-2014

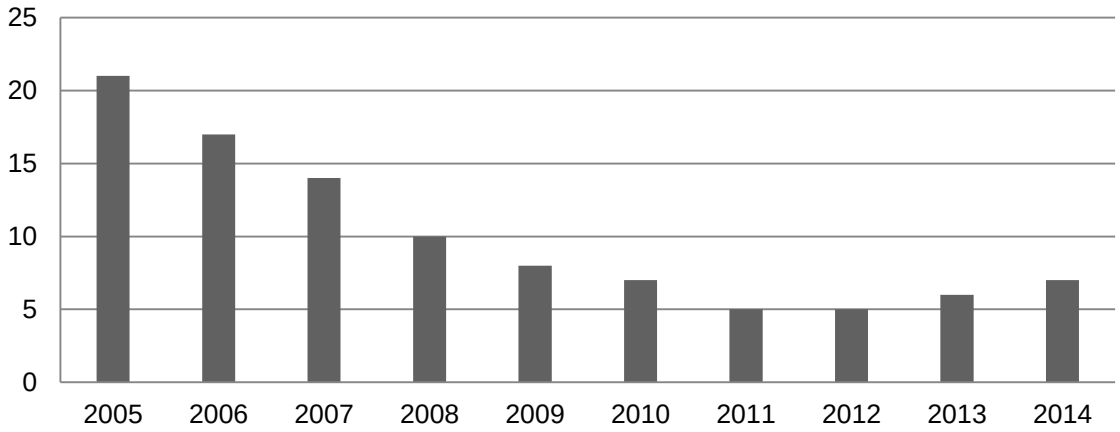

Figure 14: The proportion (%) of new HIV diagnoses related to injecting drug use out of all new diagnoses, 2005-2014

[10] Data available at: http://www.hpsc.ie/A-Z/HIVSTIs/HIVandAIDS/SurveillanceReports/File,14947,en.pptx

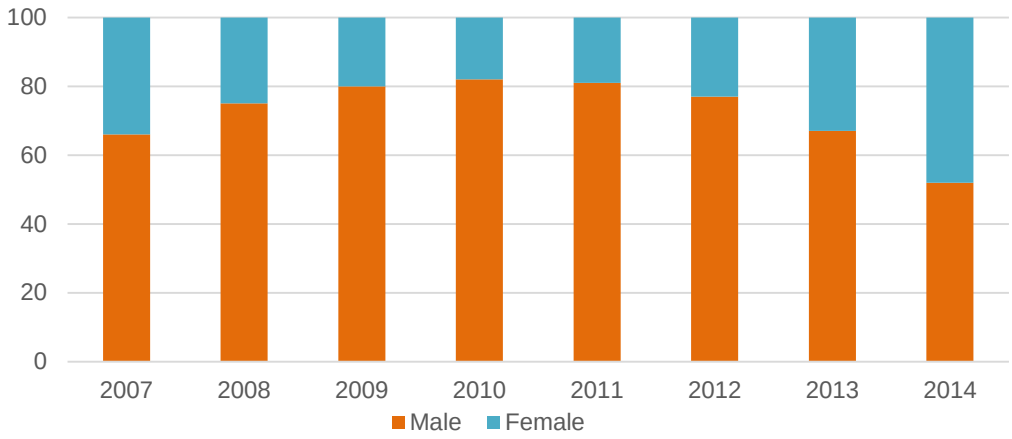

Figure 15: The proportion (%) of male to female injecting drug users with new diagnoses of HIV, 2005-2014

At the time of HIV diagnosis in 2011, 85% of PWID were classified as late presenters, whereby their CD4 count was <350 cells/mm^3 [11]. This percentage declined to 63% in 2012, 56% in 2013, and 44% in 2014 suggesting earlier diagnosis of new HIV cases (Figure 15).

5.2 Hepatitis B and C

Evidence regarding the change in overall numbers of diagnosis for hepatitis B and C, and an estimate of prevalence amongst the injecting drug user population, was reported in the HPSC epidemiological report (HPSC, 2013). Between 2005 and 2013, numbers diagnosed with hepatitis C in the overall population fell from 1400 to 786 cases, with a rapid decline since 2011. The majority of cases were male (68%) and between 25 and 54 years (86%). The most likely risk factor was estimated to be injecting drug use amongst the majority (79%, 351/445) of individuals for whom this information was available in 2013. The decline in number of hepatitis C cases where the most likely risk factor was injecting drug use between 2011 and 2013 was consistent with the pattern for all cases.

Amongst the overall population, numbers of hepatitis B diagnoses declined from 849 cases in 2005 to 429 cases in 2013. The most likely risk factor for transmission of hepatitis B in 2013 was estimated to be injecting drug use amongst a small proportion (9%, 7/78) of chronic cases and in none of the 32 acute cases for whom this information was available.

5.3 Vulnerable populations and infectious diseases

5.3.1 Blood-borne viruses amongst sex workers

Characteristics of a sample of 35 sex workers (Cox and Whitaker, 2009) are presented in Table 21. Almost all of this sample, had a history of injecting drug use and over half were current or recent drug users, had been tested for HIV (97%) and one fifth (21%) self-reported being HIV positive. The majority (79%) reported having a positive test for Hepatitis C, but only a small proportion (13%) reported ever having received treatment. This study did not report on any infectious diseases diagnosed by serological testing.

5.3.2 Blood-borne viruses in the prison population

In a sample of 824 prisoners in 2011 (Drummond et al., 2014), prevalence of BBVs based upon serological testing was reported as 0.3% for hepatitis B, 12.9% for hepatitis C and 1.9% for HIV. Female prisoners were particularly at risk of transmission of hepatitis C (22.2%) and HIV (8.9%). The authors concluded that the most important factors associated with a positive test for hepatitis C (n=100) and a positive test for HIV (n=15) were ever having injected drugs and ever having shared injecting equipment.

[11] A CD4 count is a laboratory test that measures the number of CD4 lymphocytes (CD4 cells) in a sample of blood. CD4 count of an adult/ adolescent without HIV who is generally in good health ranges from 500 cells/mm3 to 1200 cells/mm^3. A cell count of less than 350 cells/mm^3 within 91 days of diagnosis is a proxy indicator of a late diagnosis.

Table 21: Injecting practices and BBV-related information among current and previous sex workers (n=35)

	%
Currently receiving methadone maintenance	88
Injected 90 days preceding interview	53
Daily injecting	20
Contact with health care 90 days prior to interview	65
Tested for HIV	97
Self-reported HIV positive	21
Self-reported Hepatitis C	79
Received Hepatitis B vaccine	44

5.3.3 Drug related infectious diseases in the homeless population

Data in this section is taken from the survey with 601 homeless individuals in Dublin and Limerick in 2013 (O'Reilly et al., 2015). Over one quarter of the sample (27%) had been diagnosed with a blood borne virus including HIV (4%), hepatitis B (5%) and hepatitis C (29%). The authors do not provide a breakdown of data by drug use status, but one quarter of the sample had injected drugs in the previous year and the authors state that BBV diagnosis was more common amongst those who reported current or lifetime drug use. Rates of treatment uptake were highest amongst those diagnosed with HIV (100%) compared to around half of those diagnosed with hepatitis B and C.

5.4 Drug related infectious diseases section summary

Findings suggested that the rate of infectious diseases is declining amongst people who inject drugs (PWID). In comparison to an overall increase in number of new cases in HIV between 2005 and 2014, the number amongst PWID declined in this time from 67 to 27 new cases, although there was a small increase since 2012 and data from quarter 1 and 2 in 2015 (HSPC, 2015) points towards an outbreak amongst PWID in the Dublin area. Evidence suggests that the rate of hepatitis C amongst injecting drug users is declining, although this population makes up the majority of all cases of hepatitis C. In terms of vulnerable populations, amongst a sample of sex workers in 2009, evidence suggested high risk of HIV and hepatitis C, and high uptake of testing for blood borne viruses (BBVs).

6 Drug supply and crime

There are clear links between drugs and criminal behaviour. The 2014 National Report to the EMCDDA states that "The link between drugs and crime in Ireland exists simply by virtue of prevailing legislation which defines as criminal offences the importation, manufacture, trade in and possession, other than by prescription, of most psychoactive substances". In this section data relating to seizures of drugs, perceptions of drug availability and drug offending in Ireland is presented. Compared to health and drug consumption outcomes, the recording and availability of data in this area is limited and caution is required when interpreting published statistics in this area. Concerns have been raised recently regarding published official crime statistics, with a review of Garda crime data by the Central Statistics Office identifying errors in data accuracy (Central Statistics Office, 2015a)[12].

6.1 Drug seizures

The Irish Focal Point submits data annually on drug seizures in Ireland to the EMCDDA (EMCDDA, 2015). The number of seizures of cannabis (Figure 16) and other drugs (Figure 17) are reported here. The large reduction in number of cannabis resin seizures and increase in herbal cannabis seizures may reflect transition towards greater prevalence of higher potency forms of cannabis (NACD, 2013). A report by the EMCDDA and Europol (2013) suggests that the large size of resin seizures and relatively low use of resin in Ireland indicates that Ireland may be part of the route of resin supply to the UK and mainland Europe. In addition, evidence suggests that increased cultivation in Ireland of cannabis in recent years may be linked to organised crime groups from Vietnam and China (EMCDDA & Europol, 2013).

The number of cocaine and ecstasy seizures decreased in the past decade, particularly since peaking in 2007, although numbers of ecstasy seizures have increased again since 2010. The number of heroin seizures increased greatly between 2005 and 2007, but fell gradually to 2005 levels by 2013.

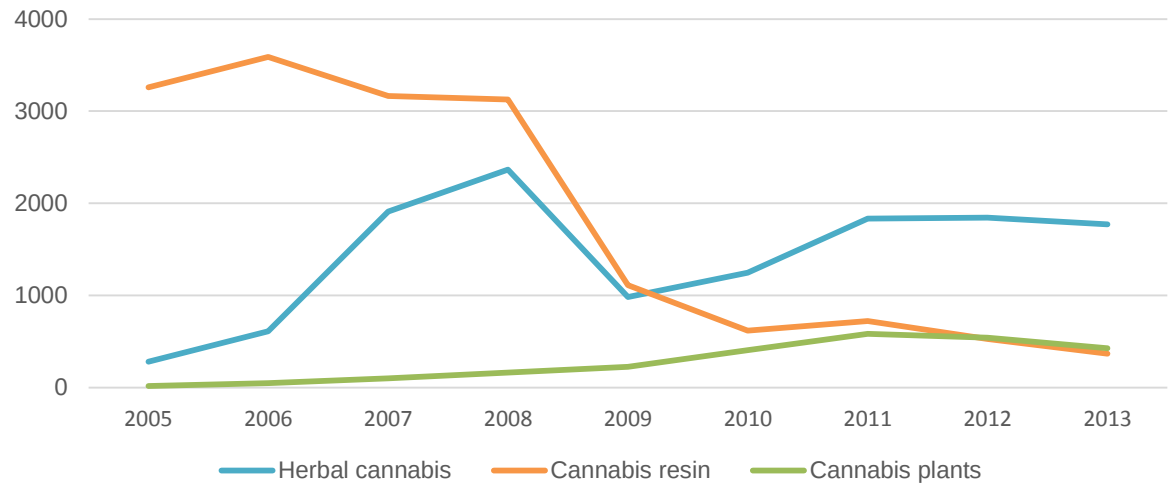

Figure 16: Number of cannabis seizures 2005-2013

[12] Following this review, the Central Statistics Office resumed publication of crime data. They advise that those using the data should consider the identified inaccuracies when interpreting the data and note that they will continue to monitor data accuracy in future, and support the improvement of reporting of Garda crime statistics.

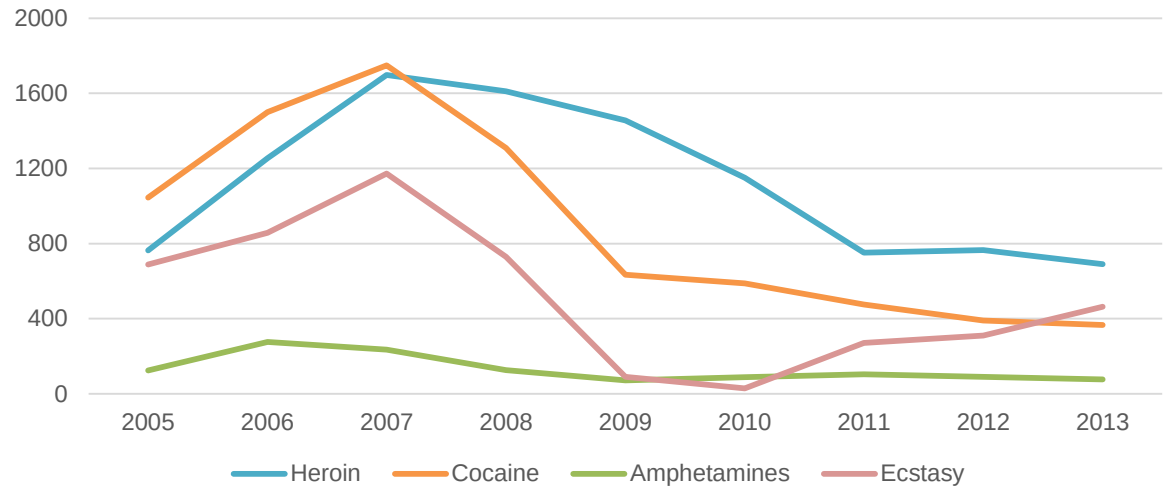

Figure 17: Number of seizures of other substances 2005-2013

6.2 Drug availability

The availability of illicit substances to the general public is difficult to measure and not well evidenced. As part of the 2014 survey of young people in EU member states (TNS Political and Social, 2014), participants were asked how easy or difficult it would be for them to obtain within 24 hours a range of drugs. Although not a robust measure, this provides some indication of the relative availability of different substances to young people in Ireland and data are reported here. As displayed in Figure 18, cannabis was the illicit substance young people found easiest to obtain. Nearly three quarters (72%) reported that they would find it fairly or very easy to obtain this drug and almost half (48%) reported these outcomes for ecstasy. A sizeable minority reported it easy to access cocaine (36%), heroin (17%) and NPS (34%). One quarter or less reported that they would find it impossible to obtain each of any of these substances. When compared with the averages across the EU, young people in Ireland reported finding it easier to obtain all substances, with the most sizeable distinctions regarding ecstasy.

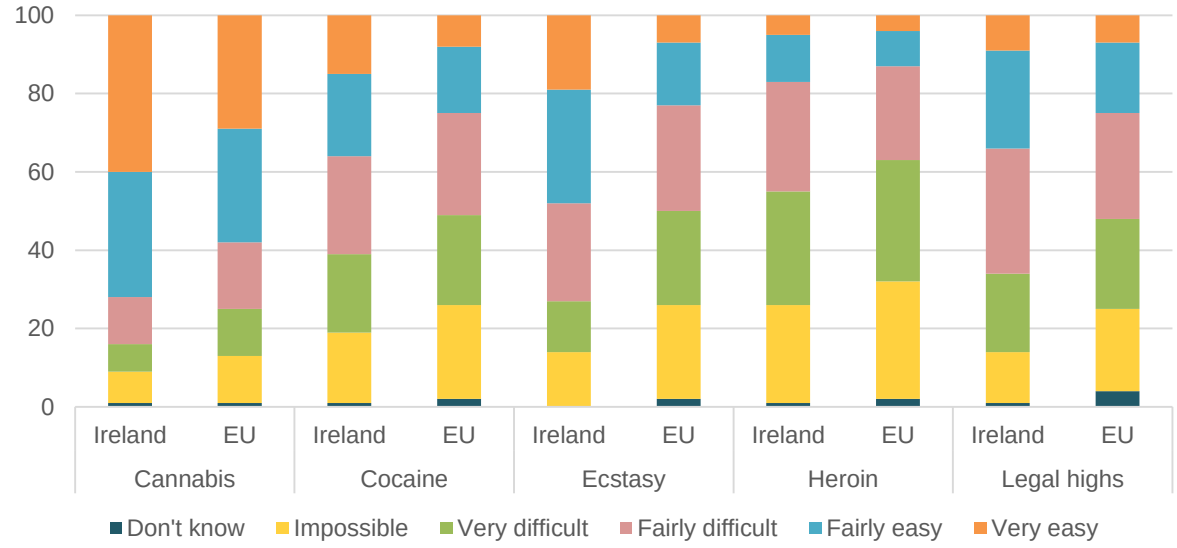

Figure18: Perceived ease of obtaining drugs within 24 hours: Ireland compared to average across EU (source: TNS Political and Social, 2014)

6.3 Drug related offending

As presented in Table 22, the majority of drug offences in 2014 were for possession of drugs for personal use (72%) or to a lesser extent possession for sale or supply (23%; Central Statistics Office, 2015b). The number of cases of possession of drugs for personal use increased rapidly between 2005 and 2008, but have declined since to a similar number to 2005 by 2014; while number of possession for sale or supply has fluctuated slightly but

remained fairly consistent over the past decade (Figure 19). Although numbers of cultivation or manufacture of drugs offences are lower than possession offences, the number of these offences increased by over 1000% between 2005 and 2011, although they have reduced gradually since to 346 offences in 2014.

Table 22: Numbers of different drug related offences 2005-2014 (taken from Central Statistics Office, 2015).

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Possession of drugs for personal use	10,032	10,461	14,007	18,093	16,817	14,522	12,674	11,821	11,188	11,273
Possession of drugs for sale or supply	2,658	3,015	3,602	4,301	4,029	4,159	3,874	3,503	3,261	3,586
Cultivation or manufacture of drugs	50	92	161	218	273	538	580	517	390	346
Importation of drugs	36	43	54	67	46	29	41	30	44	29
Other offences	540	609	729	725	817	756	526	579	489	681

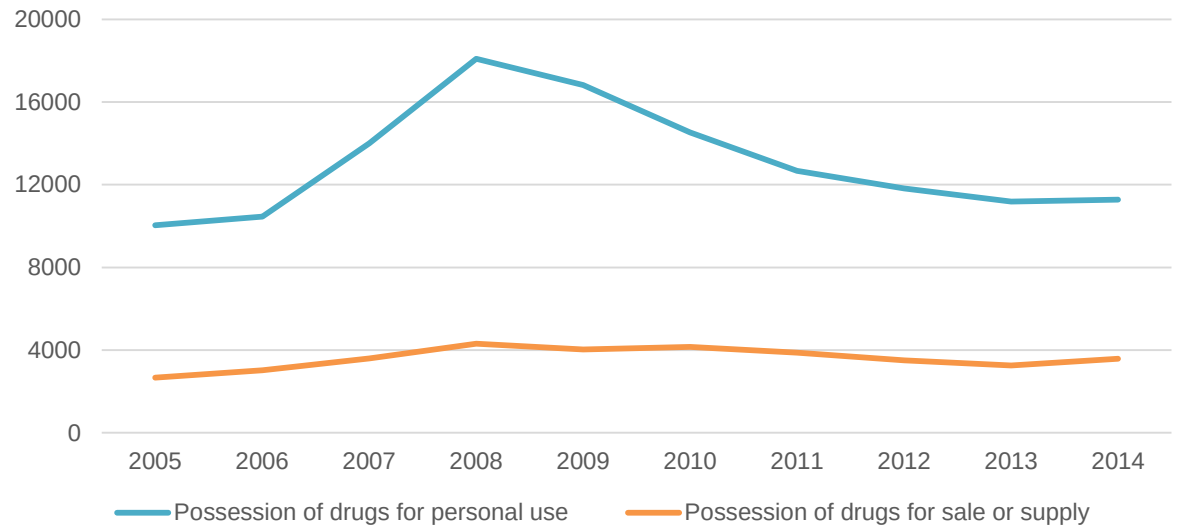

Figure 19: number of offences 2005-2014: possession of drugs for personal use or supply

The outcomes are available from trials heard in the District Court of 11,390 indictable drugs offences involving 10,842 defendants in 2014 (Courts Service, 2015). The most common outcomes were that cases were struck out (24%), resulted in a fine (20%) or the offender being put on probation (14%; Figure 20). Imprisonment was an infrequent outcome (n=358, 3%) compared to trials of all offences in district court in 2014 (10%; Courts Service, 2015). In addition, 1,878 offences involving 533 defendants were heard in the Circuit Criminal Court in 2014 and led to a further 311 imprisonments (Courts Service, 2015). In 2013, 589 (17%) of the total prison population of 3,474[13] had been convicted of a drug offence (Irish Prison Service, 2013), the majority of whom had sentences of between either three and five years (29%) or five and ten years (35%).

[13] This figure represented the total population in prison on one day in 2013.

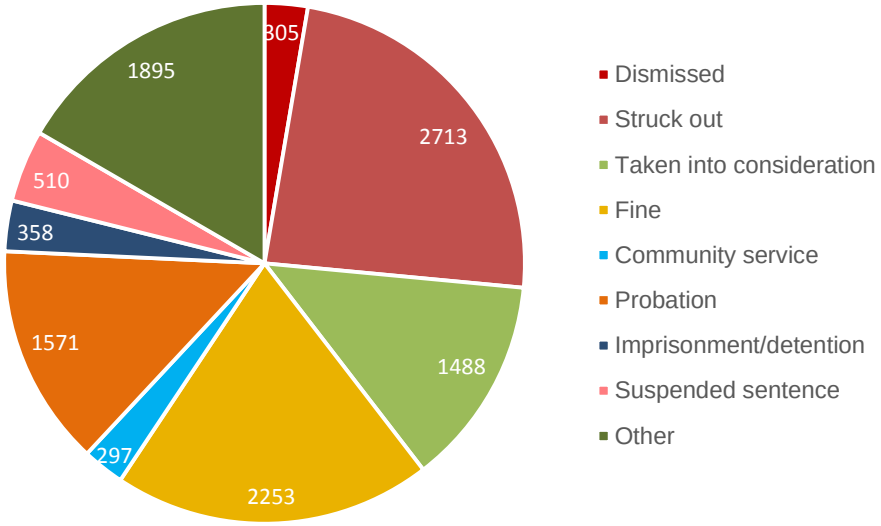

Figure 20: Outcomes in trials of indictable drugs offences in 2014 (n=11,390)

6.4 Drug supply and crime summary

Increased numbers of seizures of herbal cannabis and plants compared with greatly reduced seizures of cannabis resin between 2005 and 2013 may be linked with increased use of higher potency cannabis in Ireland, the UK and throughout Europe and increased cultivation of cannabis in Ireland linked to organised crime. Numbers of seizures for other substances generally increased in the time period 2005 to 2007, before decreasing again up to 2013. Seizures of ecstasy have increased however in recent years, but remain lower in comparison to 2005 levels. Evidence suggests that the majority of young people find it easy to obtain cannabis and around half find it easy to obtain ecstasy, with a sizable minority reporting that they believe other substances including cocaine, heroin and NPS to be easily accessible. Notably, young people in Ireland report finding substance easier to obtain in comparison to EU averages.

Key findings relating to drug related offending were that i) the majority of offences throughout the past decade were possession of drugs for personal use, ii) a minority of offences in each year from 2005 to 2014 were for cultivation or manufacture of drugs, but the number of these offences each year has increased sevenfold in this time period, iii) the most common outcomes of cases heard in District Courts in the most recent year that data is available (2014) were that cases were struck out with imprisonment the outcome in just 3% of cases.

Discussion

This report provides an overview of the drug situation in Ireland in reference to six indicators (prevalence, high risk drug use, drug treatment, drug related infectious diseases, drug related deaths and crime/ supply). In general, data showed that in Ireland past year use of any illicit drugs has increased over the past decade, with particular increases in ecstasy and cannabis use amongst young people aged 16-34 years between 2011 and 2015. Amongst both adults and young people, cannabis is the most commonly used illicit drug. The number of people seeking treatment for both heroin and cannabis increased between 2006 and 2013, with particular increases in cannabis treatment amongst younger people. This reflects trends elsewhere in Europe for increased treatment demands for cannabis use and is important in the context of increasing availability and risk to health from high-potency cannabis (EMCDDA, 2015). For example, cannabis with high concentration of tetrahydrocannabinol (THC) is associated with increased risk of harms including psychosis (e.g. Di Forti et al., 2009). Increased number of seizures of herbal cannabis and plants over the past decade also points towards increased use of higher potency cannabis. Although prevalence is low, use of ecstasy has increased in recent years and, as with cannabis, use is greatest amongst young people. In comparison to EU averages, young people in Ireland report finding substances including cannabis and ecstasy easy to obtain and young people in Ireland appear more likely to use NPS than other EU countries.

With regards to high risk drug use, data shows evidence of high levels of poly drug use with alcohol being most commonly used alongside other drugs. Polydrug use has been an increasing factor in drug related deaths between 2005 and 2012. There are higher levels of injecting amongst vulnerable groups such as prisoners and Travellers in comparison with the general population, and in these populations females may be particularly at risk from injecting. Rate of drug related deaths in Ireland is high in comparison to European averages and there has been an increase in the number of drug related deaths between 2005 and 2014(although the rates have remained similar between 2009 and 2012), and an increase in the rate of non-poising deaths, particularly due to hanging, compared to poisoning deaths. Responses to reduce the harms of injecting drug use such as drug consumption rooms and the provision of naloxone to PWID and their associates may be considered by policy makers to reduce the risk of overdose and mortality amongst the drug using population. Data suggests that rate of blood-borne virus transmission has declined amongst the drug user population since 2005, however rate of hepatitis C remains high amongst the drug using population in Ireland and throughout Europe (EMCDDA, 2015). While there has been a decline in the number of new cases of HIV in Ireland (compared to an increase in HIV amongst the general population), data for the first half of 2015 indicates an outbreak of HIV amongst PWID in the Dublin area. Work is being undertaken to understand the reasons for this recent increase, and it is important to monitor closely trends in HIV amongst PWID to ensure that the decline in HIV amongst this population continues.

This report includes examples of research examining the indicators explored here with vulnerable populations and highlights the increased risk of drug related harms that members of populations such as Travellers, prisoners and homeless face. This report also highlights the need for repeated and high quality research relating to these populations. While evidence on many sub populations was available it was frequently based upon small samples in one location at one point in time and as a consequence it is difficult to generalise findings and make comparisons between studies. For example, when identifying possible data to include in this report the NACD report ‘Drug Use among the Homeless Population in Ireland’ (Lawless and Corr, 2005) was identified, but no follow up data was available so it is not possible to identify how patterns of drug use have changed in this population over the past decade, or to draw conclusions about the impact of relevant drug policy and strategy. As reflected in the general population data, there may be frequent changes to patterns of substance use and therefore it is likely that changes will also exist within the vulnerable sub-populations

Further, only a small amount of evidence was identified relating to some vulnerable groups in Ireland. For example there is a lack of evidence relating to the LGBT population in Ireland. This is an important population to consider as research has shown that this population may be more likely to use certain illicit substances compared to the general population (Green and Feinstein, 2012). In the UK and amongst large cities in Europe recent research indicates an increase in injecting drug use amongst men who have sex with men who are using substances as part of sexual practices ('chemsex', Bourne et al 2015; EMCDDA, 2015, Mitchell et al 2016), and amongst larger cities in Europe (EMCDDA, 2015). It is therefore important for research to be carried out in Ireland to monitor trends in drug use relating to LGBT populations and other groups such as sex workers, homeless individuals and Travellers to inform the direction of drug policy.

Conclusion

This review was undertaken to identify trends relating to the drug situation in Ireland to inform the development of drug policy and strategy. Evidence presented in this review indicates that patterns of drug use and harms have changed in Ireland over the past decade in several ways and highlights key issues that should be considered including recent increases in use of cannabis and ecstasy, particularly amongst younger people, and increased risk of cannabis related problems that may be associated with increased use of high potency cannabis. Additionally, increase in treatment demand relating to benzodiazepines, as well as rapid increase in related deaths, and higher prevalence of NPS use amongst young people in Ireland in comparison to other European countries provide indications of new issues of concern. More positively, rate of new entrants for heroin treatment has declined in recent years as has prevalence of cocaine use. Rate of new cases of HIV and hepatitis C amongst PWID has declined, although a recent outbreak of HIV in Dublin is a reminder that trends can quickly change. The review highlights examples of research undertaken with subgroups who frequently appear at increased risk of drug use and related harms in comparison to the general population. However, due to the lack of consistent research with these populations it is difficult to draw any conclusion on trends in this data and suggests the need to monitor trends amongst subgroups through increasing the amount of high quality research with vulnerable populations and following up these studies over time.

References

Bourne A, Reid D, Ford H, Torres-Rueda S, Steinberg P and Weatherburn P. (2015) '"Chemsex" and harm reduction need among gay men in South London'. International Journal of Drug Policy; 26: 1171-1176.

Carew AM. (2014) Travellers accessing addiction services in Ireland. Drugnet Ireland; 48: 9-10. Available at: http://www.drugsandalcohol.ie/21209/.

Carew, Anne Marie and Cafferty, Siobhan and Long, Jean and Bellerose, Delphine and Lyons, Suzi (2013) Travellers accessing addiction services in Ireland (2007 to 2010): analysis of routine surveillance data. Journal of Ethnicity in Substance Abuse, 12, (4), pp. 339-335. Available at: http://www.drugsandalcohol.ie/20892/

Central Statistics Office. (2015a) Review of the quality of crime statistics. Cork: Central Statistics Office. Available at: http://www.drugsandalcohol.ie/24887/.

Central Statistics Office. (2015b) Controlled drug offences. Retrieved from: http://cso.ie/Quicktables/GetQuickTables.aspx?FileName=cja01c17.asp&TableName=Controlled+drug+offences&StatisticalProduct=DB_CJ (accessed March 2016).

Courts Service. (2015) Annual Report 2014. Dublin: Courts Service. Available at: http://www.drugsandalcohol.ie/24283/

Cox G. & Whitaker T. (2009) Drug use, sex work and the risk environment in Dublin. Dublin: National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/11907/.

Drummond A, Codd M, Donnelly N, McCausland N, Mehegan J, Daly L, & Kelleher C. (2014) Study on the prevalence of drug use, including intravenous drug use, and blood-borne viruses among the Irish prisoner population. Dublin: National Advisory Committee on Drugs and Alcohol. Available at: http://www.drugsandalcohol.ie/21750/.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Data and statistics. Retrieved from: www.emcdda.europa.eu/data/stats2015 (accessed December 2015).

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). (2015) European drug report. Trends and developments. Luxembourg: Publications Office of the European Union. Available at: http://www.drugsandalcohol.ie/24029/

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). (2016) European drug report. Trends and developments. Luxembourg: Publications Office of the European Union. Available at: http://www.drugsandalcohol.ie/25579/

European Monitoring Centre for Drugs and Drug Addiction and Europol. (2013) EU drug markets report: a strategic analysis. Luxembourg: Publications Office of the European Union. Available at: http://www.drugsandalcohol.ie/19227/

Evans-Brown M, Gallegos A, Francis W, Christie R, Cunningham A, Sekula J, Almeida A, Sedefov R. (2015) New psychoactive substances in Europe. An update from the EU early warning system. European Monitoring Centre for Drugs and Drug Addiction; Luxembourg: Publications Office of the European Union. Available at: http://www.drugsandalcohol.ie/23567/

Di Forti M, Morgan C, Dazzan P, Pariante C, Mondelli V, Marques TR, Handley R, Luzi S, Russo M, Paparelli A, Butt A, Stilo SA, Wiffen B, Powell J & Murray RM. (2009) High potency cannabis and the risk of psychosis. The British Journal of Psychiatry; 195(6): 488-491.

Good Shepherd Services Cork Simon Community (2011) Women's health and homelessness in Cork: a joint snapshot study of the health related needs of women who are homeless in cork 04-10 July 2011. Available at: http://www.drugsandalcohol.ie/16071/.

Green KE, Feinstein BA. (2012) Substance use in lesbian, gay and bisexual populations: an update on empirical research and implications for treatment. Psychology of Addictive Behaviours; 26 (2): 265-278.

Hay G, Jaddoa A, Oyston J, Webster J, Van Hout, MC and Rael dos Santos, A (2017) (Forthcoming) Estimating the prevalence of problematic opiate use in Ireland using indirect statistical methods. Dublin: National Advisory Committee on Drugs and Alcohol. Available at: www.drugsandalcohol.ie/27233

Health Protection Surveillance Centre. (2008) HIV in Ireland 2007 report. Dublin: Health Service Executive. Available at: http://www.drugsandalcohol.ie/12918/.
Health Protection Surveillance Centre. (2009) HIV & AIDS Ireland 2008 Report. Dublin: Health Service Executive. Available at: http://www.drugsandalcohol.ie/12481/.
Health Protection Surveillance Centre. (2010) HIV & AIDS in Ireland 2009 report. Dublin: Health Service Executive. Available at: http://www.drugsandalcohol.ie/13208/.
Health Protection Surveillance Centre. (2011) HIV & AIDS in Ireland 2010 report. Dublin: Health Service Executive. Available at: http://www.drugsandalcohol.ie/15223/.
Health Protection Surveillance Centre. (2012) HIV in Ireland 2011 report. Dublin: Health Service Executive. Available at: http://www.drugsandalcohol.ie/27036/
Health Protection Surveillance Centre. (2013) HIV in Ireland 2012 report. Dublin: Health Service Executive. Available at: http://www.drugsandalcohol.ie/20010/.
Health Protection Surveillance Centre. (2013) Annual epidemiological report. Dublin: Health ServiceExecutive. Available at: http://www.hpsc.ie/AboutHPSC/AnnualReports/File,15139,en.pdf.
Health Protection Surveillance Centre. (2014) HIV in Ireland 2013 report. Dublin. Health Protection Surveillance Centre. Available at: http://www.drugsandalcohol.ie/22099/.
Health Protection Surveillance Centre. (2015) HIV in Ireland. Quarter 1&2 2015. Retrieved from: www.hpsc.ie/A-Z/HIVSTIs/HIVandAIDS/SurveillanceReports/File,14947,en.pptx (accessed December 2015).
Health Research Board (2017) National Drug Treatment Reporting System 2009 to 2015 data. Dublin: Health Research Board. Available at: www.drugsandalcohol.ie/27023
Health Research Board. (2016) National Drug-Related Deaths Index 2004 to 2014 data. Dublin: Health Research Board. Available at: http://www.drugsandalcohol.ie/26299/
Health Research Board. (2015) Drug-related deaths and deaths among drug users in Ireland: 2012 figures from the National Drug-Related Death Index. Health Research Board. Available at: http://www.drugsandalcohol.ie/23003/
Hibell B, Guttormsson U, Ahlstrom S, Balakireva O, Bjarnason T, Kokkevi A & Kraus L. (2009) The 2007 ESPAD report: substance use among students in 35 European countries. Stockholm: The Swedish Council for Information on Alcohol and other Drugs (CAN). Available at: http://www.drugsandalcohol.ie/11930/
Hibell B, Guttormsson U, Ahlstrom S, Balakireva O, Thoroddur B, Kokkevi S & Kraus L. (2012) The 2011 ESPAD report: substance use among students in 36 European countries. Stockholm: The Swedish Council for Information on Alcohol and other Drugs (CAN). Available at: http://www.drugsandalcohol.ie/17644/
Higgins A, Sharek D, McCann E, Sheerin F, Glacken M, Breen M, & McCarron M. (2011). Visible lives: identifying the experiences and needs of older lesbian, gay, bisexual and transgender (LGBT) people in Ireland. Dublin: Gay and Lesbian Equality Network. Available at: http://www.drugsandalcohol.ie/20499/.
Hodgins M, Fox F (2012). Causes of causes: ethnicity and social position as determinants of health inequality in Irish traveller men. Health Promotion International, doi: 10.1093/heapro/das066. Available at: http://www.drugsandalcohol.ie/23272/
HRB National Drugs Library. Drug data – interactive tables. Retrieved from: www.drugsandalcohol.ie/tables/ (accessed December 2016).
Ipsos MORI. (2012) General population survey on drug prevalence 2010/2011. Technical report. Dublin: National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/16970/.
Kelly A, Teljeur C & Carvalho M. (2009) Prevalence of opiate use in Ireland 2006 a 3-source capture recapture study: a report to the National Advisory Committee on Drugs. Dublin: National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/12695/.
Keogh C, O' Brien K, Hoban A, O'Carroll A, & Fahey T. (2015) Health and use of health services of people who are homeless and at risk of homelessness who receive free primary health care in Dublin. BMC Health Services Research, 15:58. doi: 10/1186/s12913-015-0716-4. Available at: http://www.drugsandalcohol.ie/23533/

Kraus, Ludwig and Guttormsson, Ulf and Leifman, Håkan and Arpa, Sharon and Molinaro, Sabrina and Monshouwer, Karin and Trapencieris, Marcis and Vicente, Julian and Már Arnarsson, Ársæll and Balakireva, Olga and Bye, Elin K and Chileva, Anina and Ciocanu, Mihai and Clancy, Luke and Csémy, Ladislav and Djurisic, Tatijana and Elekes, Zsuzsanna and Feijão, Fernanda and Florescu, Silvia and Franelic, Iva Pejnovic (2016) ESPAD report 2015 results from the European School Survey Project on Alcohol and Other Drugs. Luxembourg: Office for Official Publications of the European Communities. Available at: http://www.drugsandalcohol.ie/26114/

Lawless M & Corr C. (2005) Drug use among the homeless population in Ireland. A report for the National Advisory Committee on Drugs. National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/5950/.

Mayock P & Sheridan S. (2012) Women's journeys to homelessness: key findings from a biographical study of homeless women in Ireland. Women and Homelessness in Ireland, Research Paper 1. Dublin: School of Social Work and Social Policy and Children's Research Centre, Trinity College Dublin. Available at: http://www.drugsandalcohol.ie/17047/.

Mitchell KR, Prah P, Mercer CH, Datta J, Tanton C, Macdowall W, Copas AJ, Clifton S, Sonnenberg P, Field N, Johnson AM and Wellings K. (2016) 'Medicated sex in Britain: evidence from the third National Survey of Sexual Attitudes and Lifestyles'. British Medical Journal; DOI:10.1136/SEXTRANS-2015-052094.

National Advisory Committee on Drugs. (2008) Drug Use in Ireland and Northern Ireland: First results from the 2006/2007 drug prevalence survey. Dublin: National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/11529/.

National Advisory Committee on Drugs and Alcohol. (2013) Drug use in Ireland and Northern Ireland. 2010/2011 drug prevalence survey: Cannabis results. Dublin: National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/20139/.

National Advisory Committee on Drugs and Alcohol. (2014) Drug use in Ireland and Northern Ireland. 2010/2011 drug prevalence survey: Polydrug use results. Dublin: National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/22171/.

National Advisory Committee on Drugs and Alcohol. (2016) Prevalence of drug use and gambling in Ireland & drug use in Northern Ireland. Bulletin 1. Dublin: National Advisory Committee on Drugs and Alcohol. Available at: http://www.drugsandalcohol.ie/26364/

National Advisory Committee on Drugs and Public Health Information and Research Branch. (2012) Drug use in Ireland and Northern Ireland 2010/11 drug prevalence survey: Regional Drug Task Force (Ireland) and Health & Social Care Trust (Northern Ireland) Results. Dublin: National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/17753/

National Advisory Committee on Drugs and Alcohol. (2016) Prevalence of drug use and gambling in Ireland and drug use in Northern Ireland 2014/15: regional drug and alcohol task force (Ireland) and health and social care trust (Northern Ireland) results. Bulletin 2. Dublin: National Advisory Committee on Drugs. Available at: http://www.drugsandalcohol.ie/26901/

National Advisory Committee on Drugs and Alcohol. (2017) Prevalence of drug use and gambling in Ireland and drug use in Northern Ireland 2014/15. Bulletin 4. Dublin: National Advisory Committee on Drugs.

Nelson W, McGrath N. & Giaquinto F. (2010) Review of service provision for women involved in prostitution in Dublin 24. Available from: http://www.drugsandalcohol.ie/14546/.

O'Reilly F, Barror S, Hannigan A, Scriver S, Ruane L, MacFarlane A & O' Carrol A. (2015) Homelessness: An unhealthy state. Health status, risk behaviours and service utilisation among homeless people in two Irish cities. Dublin: The partnership for Health Equity. Available at: http://www.drugsandalcohol.ie/24541/.

Perry C, Keane E & Gabhainn SN. (2015) Short report HBSC Ireland 2014: alcohol and cannabis use in school-children in Ireland. Galway, National University of Ireland. Available at: http://www.drugsandalcohol.ie/17680/.

Sarma K. (2007) Drug use amongst lesbian, gay, bisexual and transgender young adults in Ireland. Available from: http://www.drugsandalcohol.ie/6202/.
The Gallup Organization. (2011) Youth attitudes on drugs. European Commission, Directorate-General Communication. Available at: http://www.drugsandalcohol.ie/15497/
TNS Political & Social. (2014) Young people and drugs: Flash Eurobarometer 401. European Commission, Directorate-General for Communication. Available at: http://www.drugsandalcohol.ie/22196/
Van Hout, MC (2010) The Irish Traveller community: social capital and drug use, Journal of Ethnicity in Substance Abuse, 9:3, 186-205, DOI: 10.1080/15332640.2010.500583. Available at: http://www.drugsandalcohol.ie/13758/