

# **Spending Review 2021**

Focused Policy Assessment of Reducing Harm, Supporting Recovery: An analysis of expenditure and performance in the area of drug and alcohol misuse.

LUCY BRUTON, SARAH GIBNEY & TERENCE HYNES

DEPARTMENT OF HEALTH

DEIRDRE COLLINS & PATRICK MORAN

DEPARTMENT OF PUBLIC EXPENDITURE AND REFORM

**JULY 2021** 

This paper has been prepared by IGEES staff in the Department of Health and the Department of Public Expenditure and Reform. The views presented in this paper do not represent the official views of either Department or Minister.



# **Acknowledgments**

The authors would like to thank the following stakeholders for their contributions to the paper; the Health Research Board [in particular Suzi Lyons and Anne Marie Carew, Lucy Dillon and Brian Galvin], HSE Social Inclusion, staff of the Healthcare Pricing Office (HPO) Hospital In-Patient Enquiry information system, staff of the Irish Prison Service, Tusla, as well as, colleagues in the Department of Health Drug Policy and Social Inclusion Unit and Research Services and Policy Unit.

# Contents

Executive Summary	5
1. Introduction	8
1.1 Overview	8
2. Overview of Reducing Harm, Supporting Recovery	9
2.1 Policy Context	9
2.1.1 Key trends and developments prior to 2017	9
2.1.2 Key issues to be addressed in Reducing Harm Supporting Recovery	9
2.1.3 Complementary policy developments	10
2.2 Reducing Harm, Supporting Recovery in focus	11
2.3 Current Context	14
2.3.1 Outbreak of Covid-19	14
2.3.2 Homelessness	15
3. Expenditure	16
3.1 Labelled Expenditure	17
3.2 Unlabelled Expenditure	18
3.2.1 Unlabelled expenditure and societal costs associated with alcohol use	18
3.2.2 Unlabelled expenditure and societal costs associated with drug misuse	20
3.2.3 Methods	20
3.2.4 Results	25
3.2.5 Discussion of unlabelled expenditure estimates	27
4. Performance	30
4.1 Methodology	30
4.1.1 Data Scoping	30
4.1.2 Data Sourcing	31
4.1.3 Data Analysis	35
4.2 Analysis of findings under Goal 1	35
4.2.1 Use of drugs and alcohol among children and young people	36
4.3 Analysis of findings under Goal 2	40
4.3.1 Timely access to treatment for people who use substances	40
4.3.2 Timely access to treatment for people who use alcohol	46
4.3.3 Successful Exits	50
4.3.4 Opioid Substitution Treatment	55

4.3.5 Harm Reduction Initiatives	56
4.4 Analysis of findings under Goal 3	58
4.4.1 Offences associated with drug use	58
4.4.2 Drug Seizures	61
4.4.3 Participation of relevant Sectors and Experts in the Early \ Trends Sub-Committee	
4.5 Analysis of findings under Goal 4	63
4.6 Analysis of findings under Goal 5	66
4.7 Discussion of findings under each goal	68
5. Overall Discussion of Findings	72
5.1 Discussion	72
5.2 Continued Relevance	74
5.2.1 Impacts of Covid-19	74
5.2.2 Resource allocation	76
5.3 Conclusions	77
References	78
Appendix 1	82

# **Executive Summary**

#### Introduction

- Reducing Harm, Supporting Recovery 2017 to 2025 (RHSR), continues the work of previous strategies on reducing the harms associated with substance misuse in Irish society but places a greater emphasis on supporting a health-led response to drug and alcohol use, and a further move away from a criminal justice approach. Alcohol misuse is also included in RHSR, the firsttime alcohol has been included within the substance misuse strategy in an Irish context.
- The main aims of this Focused Policy Assessment (FPA) were to; profile labelled expenditure on drug and alcohol misuse; estimate unlabelled expenditure based on medical and judicial costs and lost productivity; and, examine the performance of RHSR.
- Having an estimate of the total economic burden that problem drug and alcohol use places on society, both in terms of the labelled expenditure on initiatives to ameliorate this problem, as well as the costs of dealing with the consequences of it, is a first step in generating the economic evidence base with which to evaluate public policy on substance misuse. This FPA analysed available data on labelled expenditure and sought to characterise, for the first time, drugrelated unlabelled expenditure in the context of RHSR performance indicators over the period 2014-2019.

# **Expenditure**

 The examination of labelled and unlabelled expenditure, and lost productivity costs included here, gives an indication of the scope of the economic costs of drug and alcohol misuse in Ireland.

# Labelled Expenditure

- Labelled expenditure refers to planned spending targeted at drug or alcohol issues (e.g treatment of addiction), usually reported as such in public accounts. Data on labelled expenditure is collected annually by the Department of Health and provided to the HRB as part of their role within the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Limitations in this dataset point to the need for improved data collection for the next stage of RHSR.
- Although complete and consistent annual reporting from all reporting bodies has not yet been achieved, it is estimated that labelled expenditure on drug and alcohol misuse in Ireland exceeds €200 million per year.
- HSE Addiction Services accounted for over €100 million of labelled expenditure in 2019, with average year-on-year increases of 4% since 2014.

### Unlabelled Expenditure & Productivity Costs

- Unlabelled expenditure refers to unplanned drug and alcohol related spending that is not
  explicitly categorised as such in public accounts (e.g. imprisonment for drug-related crime),
  making it more difficult to disaggregate and quantify.
- Productivity costs capture the indirect cost of lost production resulting from imprisonment, morbidity and premature death, which is an important component of the economic burden of drug and alcohol misuse from a societal perspective.
- Previous estimates of the societal cost of problem alcohol use have produced estimates ranging from €2.4 to €3.7 billion per year, with annual healthcare costs alone having been estimated at between €0.8 and €1.5 billion.

- This paper is the first to estimate unlabelled expenditure on problem *drug* use, finding that approximately €87 million is spent annually within hospitals, prisons, and the criminal justice system in dealing with the medical and legal consequences of drug use. Productivity losses associated with drug use are estimated to be in the region of €61 million per annum.
- Calculation of cross-sectional, annual costs fails to capture the longer-term financial implications of multi-year prison sentences or future productivity losses due to premature mortality. When a longitudinal approach is used to assess the net present value of current and future unlabelled expenditure and productivity costs due to drug misuse, the combined estimate rises to over €650 million.

#### **Performance of RHSR**

- RHSR includes 5 goals which are broken down into objectives, strategic actions and performance indicators. In total there are 50 strategic actions and 29 performance indicators. Data for 12 of the 29 performance indicators were available and sourced for a trend analysis, these are reported in Section 4. The performance of RHSR is analysed based on available data from the performance indicators listed under each of the 5 goals:
  - 1. Promote and protect health and wellbeing
  - 2. Minimise the harms caused by the use and misuse of substances and promote rehabilitation and recovery
  - 3. Address the harms of drug markets and reduce access to drugs for harmful use
  - 4. Support participation of individuals, families and communities
  - 5. Develop sound and comprehensive evidence-informed policies and actions
- Limitations in the availability of data has constrained the conclusions that can be drawn on the
  progress made under each goal. It is clear that some indicators are moving in the right direction
  (for example rates of alcohol use among 10-17 year olds are reducing), some are moving in the
  wrong direction (for example increases in non-uptake of treatment among vulnerable groups)
  and for some it is difficult to determine (for example, increases in numbers in receipt of certain
  services could be positive if demand is being met but could also indicate increased prevalence
  of harmful drug use).
- This paper has also highlighted the importance of understanding demand and unmet need for treatment services as it contextualises whether these services are meeting population needs and therefore whether the strategy is achieving its objectives.
- An assessment of the status and availability of each of the 29 performance indicators was produced as part of the analysis which will inform the mid-term review of the strategy. A summary of this assessment is included in Appendix 1. Improvements in data availability and quality will support the ongoing monitoring of RHSR out to 2025 and any future evaluations in this area.

#### **Conclusions**

- The available evidence base on the costs of drug and alcohol misuse is typically limited by data
  availability and is estimated using varied methodological approaches. Opportunities exist to
  improve reporting of labelled expenditure across Government Departments, and consensus is
  needed on what the optimal approach is to estimating the direct and indirect costs of drug and
  alcohol misuse.
- Notwithstanding these limitations, our findings indicate that unlabelled expenditure and productivity costs contribute significantly to the overall economic burden of problem drug and

- alcohol use. Therefore they are an important component (alongside labelled expenditure) of any examination of the value of policies to address drug and alcohol misuse which relates changes in inputs (planned programmes to tackle these issues) to changes in outputs and costs.
- The performance of RHSR has been examined in terms of available data on the performance indicators under the five goals of the strategy. However, limitations in the availability and quality of data has constrained the conclusions that can be drawn. For some performance indicators, data will become available as time goes on, while others will need to be revised to be able to more accurately reflect the performance of goals in RHSR and to ensure their usefulness in future evaluations.
- It was not possible to break down labelled expenditure by the proportion which was directed towards a health led response to drug and alcohol misuse (e.g. expenditure on prevention) and that which relates to a criminal led response (e.g. expenditure on incarceration). It was similarly not possible to break down expenditure by that part which principally served each goal listed in RHSR. As such, an assessment of what was achieved for such expenditure was not possible in this FPA. Addressing the limitations of datasets and the performance indicators identified in this FPA are necessary steps for improved monitoring and future evaluation of RHSR and public expenditure on drug and alcohol programmes more generally.
- Improved ability to evaluate public expenditure would ensure that the health and wellbeing of
  individuals, their families and communities are best served by public policies that address the
  harms associated with drug and alcohol misuse.

# 1. Introduction

### 1.1 Overview

Reducing Harm, Supporting Recovery – A health-led response to drug and alcohol use in Ireland, was the name given to the Government's latest national strategy (1) to address the harm caused by substance misuse in Irish society. The strategy, Reducing Harm, Supporting Recovery (RHSR) spans from 2017 to 2025, and identifies key actions to be delivered between 2017 and 2020, with the opportunity to develop a further action plan from 2021 to 2025. In this way, RHSR can address any new and/or changing needs that may have emerged during the lifetime of the strategy and be reactive to change in the substance use situation over time, ensuring its continued relevance – a feature which is particularly salient given the ongoing Covid-19 pandemic and its impacts.

The EU have developed an Action Plan on Drugs 2017-2020 (2), which lays out fifteen indicators for measuring its achievements, one of which includes reporting developments in national drug strategies and the production of evaluations and public expenditure estimates in EU Member States. In this context and to inform the remainder implementation of RHSR, this paper presents an evaluation of *RHSR* in the form of a Focussed Policy Assessment (FPA). This FPA is being completed alongside the midterm review of *RHSR* and the development of a further action plan to be undertaken from 2021 up to 2025.

An FPA is an evidence-based methodology designed to answer specific issues of policy configuration and delivery. This type of assessment can address cross cutting issues and/or discrete evaluations of expenditure programmes, by reference to one or more assessment criteria. This paper forms part of the FPA series of the Irish Government Economic and Evaluation Services (IGEES) publications (3). The objective of this FPA is to review the rationale, expenditure, and performance of *RHSR*. To meet this objective the assessment will:

- Outline the background to the strategy and its objectives;
- Profile labelled expenditure, in line with the current EU requirement for public expenditure estimates;
- Estimate unlabelled expenditure based on medical and judicial costs and lost productivity;
- Examine strategy performance in terms of inputs, outputs and outcomes; and,
- Consider the continued relevance of the inputs in terms of alignment with the current strategy and in light of the Covid-19 pandemic.

# 2. Overview of Reducing Harm, Supporting Recovery

# 2.1 Policy Context

Reducing Harm, Supporting Recovery: a health-led approach to drug and alcohol use in Ireland 2017—2025 is the latest long-term national drug strategy adopted for Ireland. It is the first strategy to move towards an integrated public health approach to drug and alcohol misuse in Ireland and reflects a public health approach, and a further move away from a criminal justice approach to drug use. Ireland's previous national drugs strategies covered the period from 2001 to 2008 (4) and 2009 to 2016 (5) respectively, and aimed to reduce the harm caused by the misuse of drugs, through a focus on supply reduction, prevention, treatment, rehabilitation and research. The new strategy similarly advocates a harm reduction approach but places a greater emphasis on supporting a health-led response to drug and alcohol misuse in Ireland than previous strategies.

# 2.1.1 Key trends and developments prior to 2017

According to *The drugs situation in Ireland: an overview of trends from 2005 to 2015* (6) past-year-use of any illicit drug increased in Ireland over the decade before RHSR was launched, with particular increases in ecstasy and cannabis use amongst young people aged 16-34 years, and between the years 2011 and 2015. Heroin use, having dropped between 2007-2010 had risen once again and was at a similar rate in 2015 as it was in 2007. Treatment cases had also risen in this decade, with a large notable increase in the number of treatment cases for benzodiazepines. Other developments included the wider spread of drug related issues, in cities, towns and rural areas across the country. A broader range of methods for sourcing drugs had developed, with the internet representing a new avenue in this regard, as well as worsened violence associated with the drugs trade (1).

The Steering Group Report on a National Substance Misuse Strategy, 2012 (11), focuses on alcohol in particular and was developed alongside the 2009-2016 National Drugs Strategy (5), with the vision that alcohol would be incorporated into the next national drug strategy. The National Substance Misuse Strategy takes a population health approach to reducing alcohol consumption and alcohol related harm. This strategy led to the passing of the Public Health (Alcohol) Act in 2018 (12) which aimed to reduce alcohol consumption to the OECD average of 9.1 litres per person per annum by 2020 and to reduce the harms associated with alcohol. The measures contained in the Act relate to ensuring that the supply and price of alcohol is regulated and controlled in order to minimise the possibility and incidence of alcohol related harm and; to delay the initiation of alcohol use by children and young people. The resulting regulations have begun to be implemented and continue to come into effect.

# 2.1.2 Key issues to be addressed in Reducing Harm Supporting Recovery

A range of evidence, reviews, and consultative inputs informed RHSR (6–9). These sources highlighted a clear need for a shift in attitude, whereby drug misuse should be treated as a medical or public health issue rather than a criminal issue, and separately, the need for a focus

on alcohol (misuse) as a major drugs issue. Wider geographic access to addiction services, wider coverage of the Drug and Alcohol Task Forces and wider access to Suboxone (a Methadone alternative) and Naloxone (an opioid overdose anti-dote) were also highlighted. The legalisation of cannabis for medical use was called for, as well as an update of the strategy to reflect changing patterns of drug use and profiles of people using drugs, e.g. the increased use of cocaine, new psychoactive substances, and the new more diverse social background of users. Tackling new issues related to online markets and communities and the globalisation of the drug market were also raised, as was the need to synergise the national drug strategy with other relevant policies and strategies, for example related to health, inclusion, and education.

# 2.1.3 Complementary policy developments

In addition to these key trends and emerging issues, several policy developments occurred in the years leading up to the current drugs strategy in Ireland that are relevant to this FPA. Healthy Ireland, a framework for improved health and wellbeing 2013–2025 (10) provides an overarching context for the development of the 2017-2025 drug strategy. Healthy Ireland sets out four health related goals for Ireland. These are; to increase the proportion of people who are healthy at all stages of life; to reduce health inequalities; to protect the public from threats to health and wellbeing and; to create an environment where every individual and sector of society can play their part in achieving a healthy Ireland. Another key element of Healthy Ireland relates to supporting social connectedness and involvement in community life, building awareness of the social determinants of health and assisting communities to face their unique challenges.

Better Outcomes Brighter Futures, the national policy framework for children and young people, 2014-2020 (13) aims to promote and protect the health and wellbeing of children and young people. The framework sets out a whole-of-Government and whole-of-society approach to supporting children and young people to achieve good physical, mental, social and emotional health and wellbeing and to make positive choices to be safe and protected from harm and realise their potential. One of the commitments of the framework is to address the high rate of premature and risky alcohol consumption, use of illicit drugs and the incidence of smoking among young people through a combination of legislative, regulatory and policy mechanisms.

Efforts to address substance misuse and associated risks and harms are apparent in a wide range of national strategies and action plans; the Homeless Strategy National Implementation Plan; the Mental Health Strategy; Ireland's National Strategy to Reduce Suicide 2015-2020; The National Sexual Health Strategy 2015-2020; Ireland's National Action Plan for Social Inclusion 2007-2016; The Joint Irish Prison Service and Probation Service Strategic Plan 2015-2017; An Garda Siochana's 2016 National, Regional and Divisional Policing Plans; The Action Plan for Education 2016-2020 and The National Traveller and Roma Inclusion Strategy 2016—2020, among others.

# 2.2 Reducing Harm, Supporting Recovery in focus

#### The vision of *RHSR* is for:

"A healthier and safer Ireland, where public health and safety is protected and the harms caused to individuals, families and communities by substance misuse are reduced and every person affected by substance use is empowered to improve their health and wellbeing and quality of life".

Substance use here refers to the harmful or hazardous use of psychoactive substances, including alcohol, illegal drugs, and the abuse of prescription medicines. As such, it is the first integrated drug and alcohol strategy developed in Ireland, complimenting both the alcohol-focused National Substance Misuse Strategy from 2012 and the Public Health (Alcohol) Act, 2018.

To achieve the above vision, five strategic goals have been identified in the strategy as follows;

- 1. To promote and protect health and well-being;
- 2. To minimise the harms caused by the use and misuse of substances and promote rehabilitation and recovery;
- 3. To address the harms of drug markets and reduce access to drugs for harmful use;
- 4. To support participation of individuals, families, and communities; and
- 5. To develop sound and comprehensive evidence-informed policies and actions.

Key objectives, alongside strategic actions, have also been established for each goal, as well as performance indicators to measure progress. The strategy is also underpinned by six values:

- 1. Compassion (a focus on harm reduction and recognition that substance misuse is a healthcare issue);
- 2. Respect (the right of individuals to receive person centred care);
- 3. Equity (access to high quality services and support for all);
- 4. Inclusion (wide participation and support for particular groups);
- 5. Partnership (a joined up approach between statutory, community and voluntary bodies as well as wider society), and;
- 6. Evidence informed (the use of high quality evidence to inform policies and actions) (14).

The structure of the strategy is summarised in Figure 1. In line with the recommendation from the expert review of the previous drugs strategy (9), *RHSR* also highlights its synergy with other relevant strategies and policies, such as those mentioned above (Healthy Ireland, the National Substance Misuse Strategy among many others).

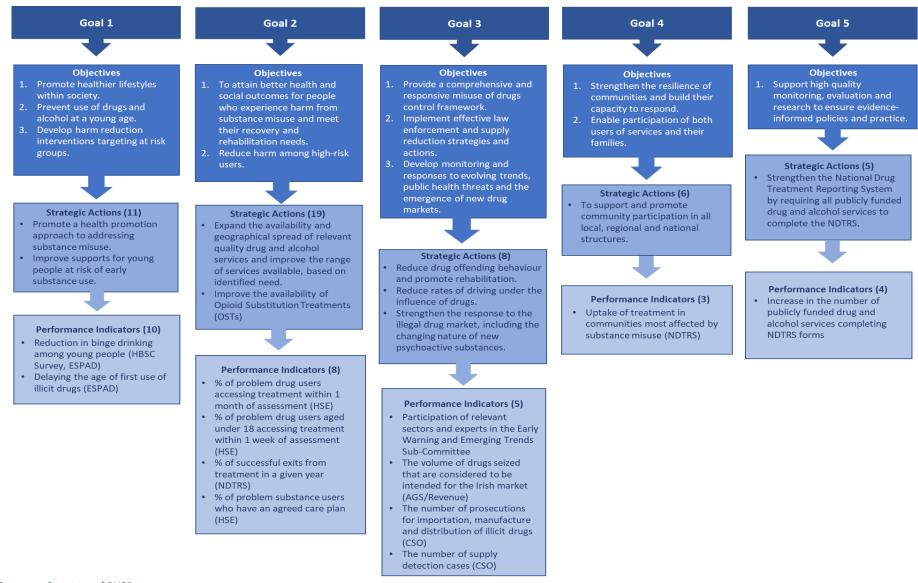


Figure 1: Summary Structure of RHSR

Note: This is not a full list of the Strategic Actions and Performance Indicators in RHSR. There are 50 Strategic Actions in total in the document, the numbers in brackets indicate the total number of strategic actions under each goal. Strategic actions were chosen for illustrative purposes to provide examples of strategic actions most relevant to the paper. There are 29 Performance indicators in total in the document, again the number in brackets indicate the total number under each goal, performance indicators presented here have been chosen based on the data presented in the paper. See Appendix 1 for a full list of indicators.

RHSR is also the first strategy to take a health-led, rather than a criminal justice approach to drug and alcohol misuse and addiction, with a commitment in the strategy to review the legislation on possession of drugs for personal use. The Government established a Working Group to consider alternative approaches to the possession of drugs for personal use in December 2017 and have since announced a Health Diversion Approach, to be implemented in 2021. Under this approach, a person in possession of drugs for personal use, on the first occasion would be referred to the Health Service Executive (HSE) for a health screening and brief intervention. The Minister of Health described this new approach as, 'One that offers people a helping hand, not handcuffs'. Other noteworthy developments in the strategy include plans for a pilot supervised injecting facility in Dublin City centre, increased availability of Suboxone, expansion in availability and geographical spread of drug and alcohol services including services for women, and, increased detoxification beds. The strategy is also designed to ensure its own continued relevance with the inclusion of one action plan between 2017 and 2020, followed by a midterm review, and then by a second action plan from 2021 up to 2025. This will ensure the strategic actions address any changing needs that may have emerged over time.

The measurement system developed within the strategy to assess progress is worth describing here as a noteworthy feature of the strategy. Delivery of the strategy is measured in three ways; performance indicators related to each goal; annual reports to the Minister by the various bodies responsible for delivering the actions in the strategy and; a new Performance Measurement System (15). This system has been described as the most 'innovative' element of the strategy. "The performance measurement system developed to assess the response to problem substance use at a population level is both an evaluation instrument and a mechanism to enable funding to be allocated on a more equitable and rational basis. The successful implementation of this system during the lifetime of this strategy will be the clearest expression of its commitment to fairness, efficient use of resources and the use of evidence." (15, p.2). This system was under development at the time of writing.

Oversight of the strategy involves an organisational structure responsible for implementation and delivery. At the top of the structure is the Minister for Health and the Minister of State with responsibility for Health Promotion and the National Drugs Strategy. The National Oversight Committee has cross-sector membership appointed by the Minister from the statutory, community and voluntary sector, as well as clinical and academic expertise, and provides leadership for the strategy. The Standing Subcommittee drives the implementation of the strategy and promotes co-ordination between national, local and regional levels, including the local and regional drug and alcohol task forces (DATFs). The DATFs coordinate the implementation of the strategy at a local level, based on the local need. The Drugs Policy Unit within the Department of Health provides analysis and advice to the National Oversight Committee, with the Health Research Board leading on monitoring, research and evaluation, acting as the Irish national focal point to the EMCDDA. The Early Warning and Emerging Trends (EWET) Sub-Committee monitor and share information on emerging trends of drug use, new psychoactive substances and changing drug markets and distribution networks. Oversight of the strategy is summarised in the below figure.

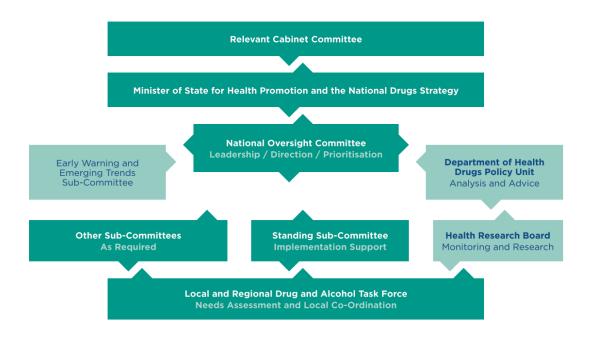


Figure 2: Oversight of the national drug strategy

#### 2.3 Current Context

#### 2.3.1 Outbreak of Covid-19

The outbreak of the novel coronavirus, Covid-19, has had significant impacts on all aspects of society and the economy. Health related services have been particularly impacted, and drug and alcohol services have similarly had to adapt to the pandemic context. Due to the health implications of using drugs, such as a reduced lung capacity and a weakened immune system, people who use drugs are more susceptible to the negative effects of Covid-19. There are also increased risks of infection for this cohort associated with close social contact: sharing drugtaking paraphernalia; precarious accommodation; and, not being able to self-isolate. A rapid research brief was undertaken by the HRB to assess the impact of Covid-19 on drug services in four countries (16). In Ireland, there have been administrative changes, legislative changes, and changes to the delivery of services, as well as new guidance documents in order to help drug and alcohol services and their clients to cope with the challenges of Covid-19.

Administrative changes in HSE addiction services have allowed faster processing of clients into treatment programmes, while certain prescriptions (e.g. Benzodiazepines) have been increased in efforts to stabilise drug use during isolation. Legislative changes include temporary amendments to the Medicinal Products (Prescription and Control of Supply) Regulations (2003) and the Misuse of Drugs Regulations (2017) to ensure continuity of care throughout the pandemic. Measures include electronic transfer of prescriptions between doctors and pharmacies and extending the validity of a prescription from 6 to 9 months. In terms of service delivery, as with many sectors, remote services have been deployed where possible, including e-consultations, and videoconferencing for recovery groups, as well as the delivery of medications to clients. Protective measures were put in place in physical locations,

and letters were issued to clients (stating the date and time of appointments) to ensure clients had proof of permission to travel during the period of restricted movement and could continue attending treatments where suitable. Extensive guidelines on Opioid Substitution Therapy (OST) were released by the HSE including standard operating procedures (SOP) for emergency induction of OST; a medicines management policy, a SOP for dispensing medication in isolation, and guidance on remote consultation. The focus was on inducting those identified as opioid dependent to OST as quickly as possible in order to reduce the potential for viral transmission among this cohort, and to reduce the risk of harm to the person.

#### 2.3.2 Homelessness

The RHSR strategy was implemented during a period where homelessness was on the rise. Its development was conscious of this rise and the complex relationship between homelessness and substance misuse. It highlighted that homelessness was rising mainly as a consequence of limited housing supply rather than as a result of increased drug use. However, it was clear that homelessness can lead to increased problematic substance use for the individual. Table 1 below shows details of adults accessing local authority managed emergency accommodation during a given week. The increase in adults who are homeless from December 2016 to December 2019 is 1,666 which is an increase of 35%. The number drops from 6,309 to 5873 in the twelve months from December 2019 to December 2020 which may reflect public policy in the intervening period (e.g. increase in the social housing stock, as well as Covid-related emergency measures preventing evictions and rent increases.

		Dec-16	Dec-17	Dec-18	Dec-19	Dec-20
<b>Homeless Adults</b>		4643	5508	6194	6309	5873
Age Groups	18-24	765	818	869	784	728
	25-44	2829	3413	3653	3629	3335
	45-64	965	1156	1539	1735	1687
	65+	84	121	133	161	123

Table 1: Details of adults accessing local authority managed emergency accommodation during a given week

Source: The Department of Housing, Planning & Local Government Homelessness Reports accessed at: https://www.gov.ie/en/collection/80ea8-homelessness-data/

# 3. Expenditure

Expenditure on drug misuse is incurred across a variety of different functions and by different public and private organisations. While some of this is labelled expenditure<sup>1</sup>, that is, drug expenditure that is labelled and reported in public accounts, a significant proportion of expenditure on drug misuse is not categorised as such. For example, health expenditure on morbidity associated with drug use or needle sharing. This is referred to as unlabelled expenditure<sup>2</sup>. This creates obvious challenges in identifying an estimate for total expenditure on drugs, and in turn on evaluating the efficacy of this expenditure in aggregate. These challenges are shared internationally, and in response the EMCDDA have provided guidance for countries in improving their expenditure estimates for drug treatment<sup>3</sup> (17).

The data sources, methodologies, and conceptual frameworks advised by the EMCDDA are inchoate. Their current state of development bears similarity to the early work taken in the late 2000s to create the System of Health Accounts (SHA). Indeed, their work relies partly on the SHA methodology and the data included to guide the estimation of drug expenditure. This paper first looks at labelled expenditure on drugs programmes. Section 3.2 includes a short review of estimates of the unlabelled costs of alcohol misuse before presenting estimates of unlabelled expenditure on drugs for the first time in an Irish context.

-

<sup>&</sup>lt;sup>1</sup> According to the EMCDDA labelled expenditure on drugs refers to the ex-ante planned public expenditure made by general government in the budget that reflects the public and voluntary commitment of a country in the field of drugs. This is drug-related public expenditure that can be traced back directly in the government's budget and accountancy documents (see https://www.emcdda.europa.eu/topics/public-expenditure).

<sup>&</sup>lt;sup>2</sup> According to the EMCDDA, unlabelled expenditure concerns the non-planned or non publicly announced expost public expenditure incurred by the general government in tackling drugs that is not identified as drug-related in the budget. This expenditure needs to be estimated with models and secondary data sets (see https://www.emcdda.europa.eu/topics/public-expenditure).

<sup>&</sup>lt;sup>3</sup> For more information on estimating public expenditure on drugs see the following publications: <a href="https://www.drugsandalcohol.ie/27458/1/Public expenditure Pompidou Group EMCDDA.pdf">https://www.drugsandalcohol.ie/27458/1/Public expenditure Pompidou Group EMCDDA.pdf</a> <a href="https://www.drugsandalcohol.ie/21459/1/EMCDDA">https://www.drugsandalcohol.ie/21459/1/EMCDDA</a> Estimating public expenditure on druglaw offenders.pdf

# 3.1 Labelled Expenditure

Department/Agency	2014 (€m)	2015 (€m)	2016 (€m)	2017 (€m)	2018 (€m)	2019 (€m)
Health Research Board	€0.908	€1.013	€1.247	€0.756	€0.786	€0.786
<b>HSE Addiction Services</b>	€86.122	€91.523	€93.43	€97.87	€99.828	€103.419
HSE Drugs and Alcohol Task Force Projects	€21.570	€22.064	€22.78	€22.14	€22.63	€22.920
An Garda Síochána *	€43.000	€43.000	€46.00	€47.00	€14.25	€13.17
D/Children & Youth Affairs	€19.548	€19.548	€20.05	€20.04	€20.46	€20.46
D/Justice	€18.762	€19.363	€20.56	€7.30	€6.95	-
Revenue Customs Service	€16.235	€17.445	€17.36	€17.36	€19.60	-
D/Social Protection (former FÁS area)	€14.063	€13.900	€16.41	€17.98	€17.22	€20.07
D/Health	€7.266	€7.323	€6.08	€5.54	€6.015	€5.955
Irish Prison Service	€4.200	€4.235	€4.40	€4.20	-	-
D/Education & Skills	€0.748	€0.748	€0.77	€0.76	€0.76	€0.72
Total	€232.422	€240.162	€249.087	**€240.95	** <b>€208.499</b>	**€187. <b>5</b> 0

Table 2: Labelled Expenditure: public expenditure directly attributable to drug programmes, 2014-2019

Source: Table IV in Drug Policy sections of Focal Point Ireland: national reports for 2014-2019 (published 2015-2020). Reports available at <a href="https://www.drugsandalcohol.ie/php/annual\_report.php">https://www.drugsandalcohol.ie/php/annual\_report.php</a>

Table 2 shows public expenditure directly attributable to drugs programmes between 2014 and 2019.<sup>4</sup> A wide range of Government Departments, state agencies, and the community and voluntary sector have responsibility for delivering on the actions of RHSR and consequently there are a number of different organisations which register expenditure on drugs programmes. Over the period, expenditure appears to drop from €232 million to €187.5 million. However, this apparent decrease in expenditure can reflect limitations in reporting for An Garda Síochána, Department of Justice and Equality, the Irish Prison Service and Revenue Customs Service. In 2018 alone, there was a drop of approximately €32.41 million for this reason. From 2014 to 2016 expenditure increased from €232.53 million to €249.087 million. This is an increase of over 3%. If expenditure for An Garda Síochána, the Revenue

<sup>\*</sup> After 2017 An Garda Síochána moved from reporting on 'policing/investigation costs' to 'policing/investigation costs of Garda National Drugs and Organised Crime' only.

<sup>\*\*</sup> The decrease in expenditure between 2017 and 2019 reflects limitations in reporting of expenditure from An Garda Siochana, Department of Justice and Equality, Irish Prison Service and Revenue Customs Service, rather than a reduction in expenditure per se.

<sup>•</sup> 

<sup>&</sup>lt;sup>4</sup> Breakdowns of this expenditure for 2017 by COFOG classification are available in Table 1.4.2 of the HRB National Report 2018 here: <a href="https://www.drugsandalcohol.ie/31879/1/NRDrug%20policy2018.pdf">https://www.drugsandalcohol.ie/31879/1/NRDrug%20policy2018.pdf</a>. More up to date breakdowns were not available at the time of publication. This data is available for all years in the HRB National Reports from 2013 onwards.

Customs Service, and the Department of Justice is excluded there is an increase over the period from €150 million to €174 million. This is an increase of 16%. The largest increase for any organisation in absolute terms was for HSE Addiction Services which increased by €17 million from 2014 to 2019, equivalent to average annual year on year increases of 4% per annum over this period. Expenditure for the Department of Education and skills has reduced somewhat from 2018-2019. See Figure 3 below.

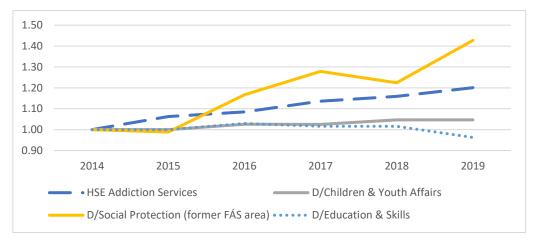


Figure 3: Indexation of labelled annual expenditure by selected reporting body since 2014

Source: Table IV in Drug Policy sections of Focal Point Ireland: national reports for 2014-2019 (published 2015-2020), authors calculations. Reports available at 
<a href="https://www.drugsandalcohol.ie/php/annual">https://www.drugsandalcohol.ie/php/annual</a> report.php

# 3.2 Unlabelled Expenditure

As described above, information on labelled expenditure is collected by the Drugs Policy Unit and then provided to the Health Research Board (HRB) in their role as the national focal point for the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). No similar exercise is conducted annually to estimate unlabelled expenditure.

# 3.2.1 Unlabelled expenditure and societal costs associated with alcohol use

A number of studies have examined the economic burden of alcohol use in Ireland. A 2016 report from the HRB examined unlabelled costs associated with alcohol-related discharges from acute hospitals, as well as productivity losses associated with alcohol-related absenteeism from work (18). This reported that treatment of alcohol-related illness accounted for approximately €1.5 billion in 2012, or 11% of total public expenditure on health in that year. €118 million (8%) of this was on wholly alcohol-attributable health problems (for which alcohol is a necessary cause for the conditions, such as alcohol poisoning and alcohol-induced pancreatitis), with the remainder spent treating partially alcohol-attributable diseases (for which alcohol is a component cause, such as cancer, cardiovascular disease and

road traffic injuries). The report also estimated that alcohol-related absenteeism from work was associated with costs of €41 million in 2013, based on employee survey data.

A 2014 report for the HSE on societal costs of problem alcohol use (19) provided an overall estimated cost of €2.35 billion for 2014. This included almost €0.8 billion in healthcare costs, and €0.7 billion in alcohol related crime. Figure 4 shows the relative breakdown of the overall societal cost by category. Premature mortality contributes only 3% of the overall costs, as this was estimated as one third of the cost of lost output due to alcohol related absenteeism (€195 million).

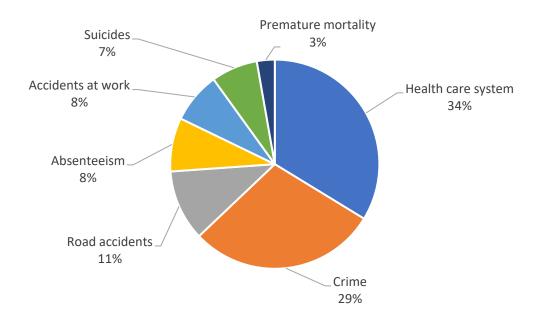


Figure 4: Estimated breakdown of alcohol related costs – 2013\* Source: Based on data in Hope, 2014.

An earlier report published by the HSE (20) generated comparatively higher estimates of productivity losses due to alcohol-related absenteeism of €330 million based on some rather tenuous assumptions about the percentage of all work absences that are attributable to alcohol, which were made in the absence of hard data. The report also provided an estimate of expenditure on alcohol-related illness of €1.2 billion in 2007. It also estimated other alcohol related costs such as premature deaths (€277 million), road traffic accidents (€526 million) and alcohol-related crime (€1.2 billion), to produce an overall cost of €3.7 billion in 2007.

Though all studies to date indicate that problem alcohol use has a significant economic impact, there is a considerable degree of heterogeneity in the methods used to calculate these costs, and in the resulting point estimates produced. On the face of it, these very large numbers suggest that interventions to reduce problem alcohol use would not have to be very effective to be cost-effective, since even relatively small improvements at a population level may amount to significant expenditure reductions in absolute terms. However, for some of the biggest expenditure categories, such as healthcare and crime, alcohol is only one of a number of factors that interact in complex ways over an extended period of time, which poses

significant challenges for forecasting the magnitude and timing of any expenditure decreases associated with reductions in alcohol consumption.

# 3.2.2 Unlabelled expenditure and societal costs associated with drug misuse

The authors are aware of no previous work that has been carried out to estimate the unlabelled costs associated with problem drug use in Ireland. The absence of these data are an obstacle to assessing the cost-effectiveness of publicly funded interventions, since any examination of the value of measures to alleviate the clinical, social and environmental harms of illegal drugs ought to relate changes in inputs (planned programmes to tackle this issue) to changes in outputs and costs.

This section reports a de novo analysis that seeks to characterise drug-related prison and acute hospital costs in Ireland. These two areas were selected on the basis that they are likely to account for a relatively large proportion of unlabelled expenditure. Several economic (productivity losses associated with hospital treatment, imprisonment) and societal costs (premature drug-related death) are also examined.

#### 3.2.3 Methods

### Prison and criminal justice system costs

The costs of incarcerating people for controlled drug offences, and for drug-related crime, was estimated from a longitudinal and cross-sectional perspective. The longitudinal analysis is designed to capture the net present value of the multi-year cost commitment of all drug-related prison sentences using a time horizon sufficient to cover the longest sentences handed down in this category, while the cross-sectional analysis provides an estimate of total prison costs and costs to the judicial system for drug offences in one year only.

While attribution of costs for controlled drug offences (importation, manufacture, or possession) is straightforward, estimating the causal link between drug use and other types of crime is more difficult. A distinction has been drawn between 'instrumental' drug-related crimes, such as stealing money to buy heroin, and 'related' offences, such as, say, a murder committed while under the influence of cocaine. Whether these offences would have occurred in the absence of illicit drug use can never be definitively known, and estimation of both relies on data from prisoner surveys that ask about the motivation and circumstances pertaining to the crime for which they were sentenced.

In the absence of Irish data, US estimates of the proportions of different types of crime that are attributable to illicit drug use were used (21). Drug attribution factors (DAFs) used in this analysis are shown in Table 3.

Type of Crime	DAF
Homicide Offences	0.12
Sexual Offences	0.12
Attempts/Threats to Murder, Assaults and Related Offences	0.12
Dangerous or Negligent Acts	0.08
Kidnapping and Related Offences	0.12
Robbery, Extortion & Hijacking Offences	0.12
Burglary and Related Offences	0.31
Theft and Related Offences	0.31
Fraud, Deception & Related Offences	0.31
Controlled Drug Offences	1
Weapons & Explosives Offences	0.08
Damage to Property & to the Environment	0.08
Public Order & Other Social Code Offences	0.08
Road and Traffic Offences	0.08
Government, Justice Procedures & Organisation of Crime Offences	0.08
Offences Not Elsewhere Classified	0.08
Table 3: Drug Attribution Fractions by type of crime	
Source: National Drug Intelligence Center, 2011	
DAF - Drug attribution factor	

These attribution factors were combined with information on the duration of sentences among those imprisoned for each of these types of offences from the Irish Prison Service to provide an estimate of drug-related crime costs. The distribution of sentence duration within the current cohort of prisoners for controlled drug offences and non-controlled drug offences in Ireland is shown in Figure 5. For simplicity it is assumed that all prisoners receive the standard remission of 25% of their sentence and no adjustment for temporary release has been made.

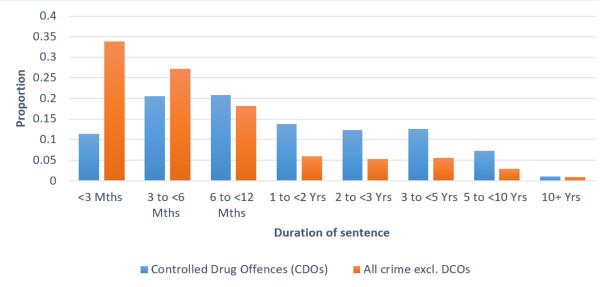


Figure 5: Length of sentence among those in prison for drug-related crimes Sources: Irish Prison Service data and DAFs sourced from National Drug Intelligence Center, 2011

Data on the overall size and age-sex structure of the current cohort of people in prison for each category of offence was obtained from the Irish Prison Service.

To estimate the costs to the criminal justice system of dealing with drug-related offences, CSO data on the average number of such offences from 2017-2019 was combined with a previously derived estimate of average costs per offence (22) that provided an estimate of the total cost of personal possession offences in 2017, broken down under a number of headings. The costs under the Gardaí, District Court and Probation headings are only included, omitting Drug Treatment Court and Diversion Programme costs based on a conservative assumption that some element of these may be included in labelled expenditure estimates, and/or prison service costs. An approximate cost per drug-related offence is estimated by dividing the total annual cost in 2017 by the total number of personal possession offences recorded in that year.

Table 4 provides a list of the parameters used in the estimation of drug crime costs, along with the source of these data and point estimates.

Parameter Description	Source	Value
Average number of people in prison for controlled drug offences per year, 2017-2019	Irish Prison Service	416
Estimated number of people in prison for drug-related crime per year, excluding controlled drug offences (using DAFs <sup>1</sup> ), 2017-2019	Irish Prison Service	764
Average age of people in prison for drug-controlled offences 2017-2019	Irish Prison Service	33 years
Average age of people in prison for all offences, 2017-2019	Irish Prison Service	33 years
Percentage of people in prison for drug-controlled offences who are male, 2017-2019	Irish Prison Service	94%
Percentage of people in prison for all offences who are male, 2017-2019	Irish Prison Service	87%
Average number of controlled drug offences per year 2017-2019	CSO (Under reservation <sup>2</sup> )	18,819
Average number of drug-related offences per year, excluding controlled drug offences (using DAFs <sup>1</sup> ), 2017-2019	CSO (Under reservation <sup>2</sup> )	37,292
Standard rate of remission applied to prison sentences	S.I. No. 252/2007	25%
Cost of prison incarceration, per day	Irish Prison Service	€206
Average cost of Gardaí, District Court and Probation Service per controlled drug offence	IGEES, Department of Justice and Equality	€363
Discount rate	Public Spending Code	4%

Table 4: Model Parameters

Note 1: DAFs – Drug Attribution Factors; Note 2: The CSO have highlighted data quality issues in relation to these statistics, which may be revised in the future pending ongoing work, see https://www.cso.ie/en/releasesandpublications/ep/p-rc/recordedcrimeq42017/underreservationexplanation/ for more details

To capture longitudinal costs of prison sentences a two state Markov model<sup>5</sup> was developed with a one-day cycle length that estimated the net present value of committed expenditure on all drug-related prison sentences using a discount rate of 4%. Sentence duration for drug controlled offences was available in days, while drug-related crime sentence duration was provided in the categories specified in Figure 5. These were converted to days by taking the midpoint of each category, with sentences of >10 years being conservatively treated as though they were 10 years exactly, and life sentences assumed to be 17.5 years in duration (23). The time horizon of the model is 8,500 days, which is sufficient to cover the longest sentence handed down between 2017 and 2019 (8,401 days). Average cost estimates are generated using microsimulation to repeatedly draw entire cohorts of prisoners from a probability distribution of sentence duration, and calculating the cumulative discounted cost of time served in prison within those cohorts.

#### *Healthcare costs*

Acute hospital costs were estimated for admissions directly related to drug use, as well as admissions for health problems associated with intravenous drug use. Drug-related admissions (based on ICD diagnostic groups) and drug attributable fractions are shown in Table 5, adapted from previous studies (24,25), in consultation with the Healthcare Pricing Office (HPO). Average number of daycase and inpatient episodes of care were obtained from the HIPE database from 2017-2019 for all drug-related illnesses with the exception of Hepatitis. Data for this disease were instead obtained from the National Hepatitis C Strategy 2011-2014 (26), which provided information on discharges of patients with hepatitis who were also drug users. The cost of a hepatitis-related hospital discharge was also taken from the Hep-C strategy, adjusted to 2021. Unit costs for all other episodes of care were estimated using weighted averages of 2020 Activity Based Funding prices for treatment of patients with each of these health problems.

-

<sup>&</sup>lt;sup>5</sup> A Markov Model provides a framework for analysing costs over time by defining a number of discrete states that members of a given cohort can move between. In this case we model the cohort of people currently in jail for drug related crimes over the course of their incarceration to estimate the cost to the State of detaining them, as well as the productivity losses resulting from their detainment.

Description	DAF	Daycase episodes per year	Inpatient episodes per year	Mean Age	Mean Length of Stay	Daycase cost per episode	Inpatient cost per episode	DRG Codes					
Mental and behavioural disorders due to use of opioids	1	133	2350	41	14	303	3324	V66Z, V61A, V61B, V63Z					
Mental and behavioural disorders due to use of cannabinoids	1	34	485	33	8	303	303	303	303	303	303	2941	V66Z, V61A, V61B, V64Z
Mental and behavioural disorders due to use of sedatives or hypnotics	1	0	165	46	5								
Mental and behavioural disorders due to use of cocaine	1	0	111	31	2								
Mental and behavioural disorders due to use of other stimulants, including caffeine	1	0	41	32	2								
Mental and behavioural disorders due to use of hallucinogens	1	0	0	0	0								
Mental and behavioural disorders due to use of volatile solvents	1	0	0	0	0								
Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances	1	0	45	40	9								
Poisoning by narcotics and psychodysleptics [hallucinogens]	1	0	386	39	7	397	397 2286	X62A, X62B					
Poisoning by psychotropic drugs, not elsewhere classified	1	0	764	36	3								
Poisoning by anaesthetics and therapeutic gases	1	0	20	33	2								
HIV	0.22	55	99	N/A	16	1033	13587	S65A, S65B, S65C					
Hepatitis C and Drug use <sup>1</sup>	1	0	747	N/A	10	0	9516	See note 1					
Endocarditis	0.14	3	19	N/A	24	779	23278	F61A, F61B					

Table 5: Healthcare resource use and costs for conditions associated with problem drug use

Note 1: Taken from https://www.hse.ie/eng/services/publications/healthprotection/hepcstrategy.pdf, adjusted to 2020 using CSO CPI Index

# **Productivity losses**

From a societal perspective, time spent in prison or hospital, and premature death due to drug misuse represent a loss in economic output. The human capital approach was used to estimate these losses, including only the costs of displaced paid labour, using median annual earnings and employment rates by age and gender from the CSO (Fig 6).

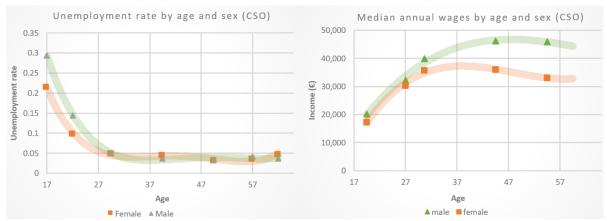


Figure 6: Employment rates and median annual earnings by age and gender in Ireland 2018

Lost productivity due to incarceration is estimated by applying these data to the age gender profile of the current cohort of people in prison for controlled drug offences and non-controlled drug offences. In the longitudinal analysis productivity losses were estimated as the net present value of these losses over the entire length of sentence, adjusted for remission, as described above. For the cross-sectional analysis productivity costs were capped at 1 year.

Productivity costs associated with premature death were estimated using 2017 data from the HRB on the number and age-gender profile of poisoning and non-poisoning drug-related deaths, excluding deaths where alcohol was deemed the sole contributing drug-related factor (27). Productivity losses were estimated using data on cumulative discounted median earnings from age of death to 65 years, and for 1 year.

Productivity losses due to acute hospital treatment were calculated using mean ages supplied for drug-related admissions, and an assumption that the gender breakdown was the same as for drug related deaths (i.e. 70% male). Productivity losses were only estimated for time spent in hospital for daycase (1 day) or inpatient care (using mean length of stay), with no post-hospital recovery period factored in.

#### 3.2.4 Results

### *Criminal justice system costs*

Between 2017 and 2019 approximately 1 in 5 of the prison population were serving sentences for controlled drug offences or drug-related crime. Based on the cost of a staffed prison space in 2019, this equates to an annual cost of approximately €44.3 million. The net present value of the resources committed to this cohort of prisoners over the entire duration of imposed

sentences (adjusted for remission) is €82.5 million. Forty-five percent of these prison costs are associated with controlled drug offences, with 55% attributed to drug-related crime.

Between 2017 and 2019 the average number of controlled drug and drug-related crimes recorded by An Garda Síochána was just over 56,000 per year. Estimated costs to the criminal justice system of Garda, district court and probation service resource use associated with these offences is €20.4 million per annum. Two thirds of these costs are attributable to drug-related crime, with a third related to controlled drug offences, mainly personal possession offences (73% of controlled drug offences).

# Acute hospital costs

Drug-related hospital admissions account for approximately 53,000 inpatient bed days per year, as well as 225 daycase episodes of care. The estimated costs of this treatment is €22 million per annum, with 60% of this being attributable to overdoses and mental or behavioural disorders due to drug use, and the remaining 40% being attributable to health problems associated with intravenous drugs use (HIV, hepatitis C and endocarditis).

# **Productivity costs**

Based on the age and gender profile of the current cohort of 1,180 people serving sentences for controlled drug and drug-related crime, the net present value of lost economic productivity due to imprisonment is estimated at €43.7 million. Taking a cross sectional approach that excludes productivity losses associated with sentences beyond 1 year in duration, annual productivity losses are estimated to be approximately €23.3 million.

Productivity losses associated with time spent receiving hospital treatment (inpatients and daycases) is estimated at €5.9 million.

Data from the HRB National Drug-Related Deaths Index (NDRDI) indicates that in 2017 there were 376 poisoning deaths (of which 61 were due to alcohol alone), with an average age of approximately 43 years, and 74% were male (27). A further 410 non-poisoning deaths were among those with a history of lifetime drug use, even if drug use was not directly related to the cause of death. The primary cause of overall non-poisoning deaths in 2017 was hanging (28%). The most commonly used drugs among these cases were cannabis and cocaine, and 60% had a history of mental health problems (27).

In an effort to omit alcohol related deaths from our calculation we excluded 61 alcohol poisoning deaths from 2017, along with 33 non-poisoning deaths due to liver disease in that year. The net present value of lost productivity associated with drug-related premature death is estimated at €456.6 million. The annual productivity loss associated with all deaths in a given year (which excludes future losses beyond one year) is €30.3 million.

Table 6 provides estimates of unlabelled costs associated with problem drug use under each of the four headings examined. This suggests that the net present value of direct costs of hospital treatment, criminal offences and prison committals for an annual cohort of affected individuals in Ireland is approximately €125 million, and when indirect productivity costs are

included (mainly as a result of premature deaths) this rises to over €630 million. If all costs are capped at one year, the corresponding estimate of direct unlabelled expenditure on drugs is €87 million, rising to €146 million when productivity losses are included.

	Longitudinal analysis	Cross-sectional analysis
Hospital expenditure*	€21,982,647	€21,982,647
% of which drug-related admissions	59%	59%
% of which drug-implicated admissions	41%	41%
Prison expenditure	€82,522,521	€44,338,862
% of which controlled drug offences	45%	43%
% of which drug-related crime	55%	57%
Criminal justice system expenditure*	€20,391,062	€20,391,062
% of which controlled drug offences	34%	34%
of which drug-related crime	66%	66%
Productivity costs	€527,741,831	€60,707,970
% of which prison related	8%	38%
% of which premature death related	91%	52%
% of which hospital treatment related	1%	10%
Total unlabelled direct costs	€124,896,230	€86,712,571
Total unlabelled direct and indirect costs	€652,638,061	€147,420,542

Table 6: Average annual unlabelled drug expenditure and productivity cost estimates 2017-2019

#### 3.2.5 Discussion of unlabelled expenditure estimates

The aim of this analysis was to characterise, rather than precisely estimate, the different types of unlabelled expenditure and productivity costs associated with problem drug use that are not routinely reported within the EMCDDA framework. The results presented here indicate that these costs contribute significantly to the overall economic burden of problem drug use, and are therefore an important component of any policy-orientated analysis of the marginal costs and effects of changes to the provision of addiction and treatment services.

Labelled drug expenditure is usually reported as an annual cost within the budget line from which it is allocated. While a similar type of cross-sectional analysis of unlabelled costs can provide an informative metric for activity that tends to be completed within a relatively short period of time, such as hospital treatment, it fails to capture the multi-year nature of other types of costs, such as prison sentences. These types of costs were estimated using both cross-sectional and longitudinal approaches, showing the significantly different estimates obtained by capping prison costs at 1 year compared to including the total value of the resources that society allocates to imprisoning the current cohort of people who are serving sentences for controlled-drug and drug-related crime. One of these approaches is not intrinsically superior to the other, however, so the choice depends on the nature of the research question to which they are being applied. For instance, any forward-looking analysis of the impact of policy

<sup>\*</sup>Note: for simplicity it is assumed that these costs are all incurred in the same year so are the same from a longitudinal and cross-sectional perspective

changes that may decrease the number of people in prison ought to include long-term savings that will accrue from this, whereas these kinds of temporal issues may be less important for analysis undertaken in the context of the annual budgetary cycle.

Productivity losses represent the largest share of overall unlabelled drug costs, with 90% of this being attributable to premature death. This includes drug poisoning deaths, whether intentional, accidental, or undetermined, and all non-poisoning deaths among those with a lifetime history of drug use. Deaths among those with a history of problem alcohol use only and/or poisonings as a result of adverse events from medication taken under medical supervision do not meet the inclusion criteria for the National Drug-Related Deaths Index (NDRDI). The inclusion of productivity losses in any examination of the performance of the health system from a societal perspective is uncontroversial, but there remains a good deal of debate over the most appropriate methods to use to quantify these losses (28). In this paper lost productivity is estimated in terms of displacement of paid labour due to absence from the labour market. Costs of unpaid labour (such as informal care, household work, etc.), losses associated with drug-related presenteeism (diminished functioning while in work), or multiplier effects were not included. Paid production losses were estimated using the human capital approach informed by data on median wages and rates of employment by age and gender. One might argue that this overestimates productivity losses, since earnings and employment rates among problem drug users are likely to be lower than that of the overall population. Equally, however, it could be argued that since drug use is one of the main reasons for poorer labour market outcomes in this cohort we underestimate these costs by not including lost productivity when problem drug users are available to participate in the labour market.

International data on the proportion of different types of crime that are related to drug use were used to estimate the number of drug-related offences and prison committals in Ireland. The issue of the transferability of international data is a concern, and requires consideration of whether there are intrinsic differences in the propensity for, and consequences of, criminal behaviour between drug users in Ireland and elsewhere. There is some variation in these estimates between countries, with the most detailed analysis having been conducted within the US prison population (21,29,30). For the purposes of this analysis, and in the absence of better data, it was assumed that the US estimates of the proportion of people in prison for drug-related crimes are comparable to those in Ireland.

From an economic perspective, the costs of incarceration include direct State expenditure and lost inmate productivity, and the benefits include the value of the crime prevented while in prison or after release due to any rehabilitative or deterrent effect of prison (31). This paper only estimates the former. While this is informative from the point of view of assessing the scale of the economic burden associated with problem drug use at present, any assessment of the cost effectiveness of measures to decrease incarceration rates would need to examine marginal changes in both.

Our estimates of the costs of hospital treatment are also subject to a high degree of uncertainty owing to the use of 2020 Diagnostic Related Group (DRG) prices for inpatients and daycases. While this represents the best available information for timely estimation of

the costs of these types of admissions, the HIPE activity data does not map directly onto the DRG codes used. Rather we assume that the cost of each drug-related admission was the weighted average price for drug-related DRG episodes of care. While this simplification was necessary to proceed with the analysis, a fuller exploration of drug related hospital costs would involve mapping all relevant admissions to a broader range of DRGs than were used here, and finding a reliable way to exclude costs that were not directly related to drug use. This would be particularly important for those with a secondary diagnosis related to drug use. A further limitation of the use of DRG prices is that they do not include co-payments to hospitals for such things as high cost oncology drugs and tertiary referral hospitals, although it is unclear to what extent this may alter any cost estimates.

There are many other types of costs that were not included in this analysis, some due to practical issues with obtaining the necessary data, and others because it was unclear whether their inclusion would be consistent with the normative foundations of economic analysis of this area. This includes the unlabelled costs of community healthcare services for those with drug-related health problems, out-of-packet payments for health care, the impact of problem drug use on other people, including the person's family, the victims of drug-related criminality, or the community as a whole, or the costs to the user of purchasing drugs.

From a methodological perspective, studies like this one that examine the economic burden of a particular health problem, often referred to as cost of illness studies, are associated with a number of limitations. Since expenditure has not been linked with outcomes, these results cannot be used to guide decision-making about the efficient use of resources. Furthermore, just because an area is associated with a high level of expenditure does not in itself make it a policy priority, either because it may be relatively insensitive to improvements in services, or because the high costs are driven by significant pre-existing investment in this area (32). However, having an estimate of the total economic burden that problem drug use places on society, both in terms of the labelled expenditure on initiatives to ameliorate this problem, as well as the costs of dealing with the consequences of it, is the first step in generating the economic evidence base with which to address more practically useful policy questions in the future.

# 4. Performance

In this chapter, the performance of RHSR is analysed in terms of the performance indicators included in the RHSR document, under each of the five goals of the strategy;

- 1. Promote and protect health and wellbeing;
- 2. Minimise the harms caused by the use and misuse of substances and promote rehabilitation and recovery;
- 3. Address the harms of drug markets and reduce access to drugs for harmful use;
- 4. Support participation of individuals, families and communities and;
- 5. Develop sound and comprehensive evidence-informed policies and actions.

Examples of the performance indicators are listed at the beginning of each section and those for which data was accessed are presented. The full list of performance indicators is presented in Appendix 1. The process by which the relevant data was accessed and analysed is detailed in the Methodology section below. There are many strategic actions under each goal that are not reflected in the performance indicators, this paper does not assess performance for all strategic actions included in RHSR. It is also important to note that RHSR is the latest in a series of national drugs strategies with ongoing impacts likely reflected in performance indicators. Furthermore, performance indicators will be impacted by a wide range of complex societal issues and changes in indicators are not necessarily causally linked to the RHSR strategy.

# 4.1 Methodology

To analyse the performance of RHSR three main processes were undertaken; data scoping, data collection and data analysis. These will be described in turn.

#### 4.1.1 Data Scoping

All 29 performance indicators (see Appendix 1 for full list) were included in an initial scoping exercise to determine what data was available for inclusion in the paper. It is important to note that the indicators were not always developed in consultation with stakeholders of the named data sources and so in some cases the supporting data did not exist and/or the indicator was still to be fully defined. Data was not available, was not available from during the lifetime of RHSR (i.e. from the year 2017 onwards) or did not exist as specified in the performance indicator for n=16 of the indicators<sup>6</sup>. In some cases, the exact data referred to in the indicator was not available and proxy data was used, in other cases additional relevant data was obtained and presented. In total, data for 12 of the 29 indicators was secured, as

<sup>&</sup>lt;sup>6</sup> The indicator 'Annual Prioritised research programme agreed' under goal 5 was not analysed as an indicator in this FPA but is listed in Appendix 1.

well as additional data from named sources that were not included as indicators in RHSR but were deemed relevant to an assessment of the strategy's performance.

### 4.1.2 Data Sourcing

Data was gathered from a range of sources including the CSO, the HSE and the HRB. In some cases, this involved extensive liaising and work on defining the indicators for the purposes of the paper. Data sources and limitations are described in this section.

#### HRB Treatment Data

The National Drug Treatment Reporting System (NDTRS) (33), is an epidemiological database on treated cases and problem drug and alcohol use in Ireland. The NDTRS was established in 1990 in the greater Dublin area and was extended in 1995 to cover all areas of the country. For the purposes of the NDTRS, treatment is broadly defined as 'any activity which aims to ameliorate the psychological, medical or social state of individuals who seek help for their substance misuse problems'. NDTRS data provides information about drug treatment in Ireland to the EMCDDA and the data is used in compiling EU-wide statistics, and in developing drug policy for the EU. 8 The system is coordinated by staff at the HRB on behalf of the Department of Health. RHSR requires all publicly funded drug and alcohol services to complete the NDTRS for all people who use services (action item 5.1.47 of RHSR), and while many service level/funding agreements between statutory agencies and community/voluntary groups also specifically require services to provide NDTRS data, this is not always the case. Approximately 30,000 records (including both treatment entries and exits) on average are reported annually.

The NDTRS captures cases (or episodes) of treatment for problem drug and alcohol use during the calendar year, in any given year. As there is currently no national system wide unique identifier in the Irish health system, individuals may appear more than once if treated in different centres or if they return to treatment in the same centre. Data is provided by statutory and non-statutory drug treatment centres in Ireland including outpatient services, residential services, general practitioners (GPs) who provide OST, and prisons. Data from prisons in the NDTRS is not complete as it is currently only provided by addiction counselling services contracted by the Irish Prison Service, and community/voluntary sector in-reach services. The addiction treatment services provided by the medical units in prisons (including methadone substitution, detoxifications etc) are not routinely captured in the NDTRS because

.

<sup>&</sup>lt;sup>7</sup> Drug treatment options include one or more of the following: medication (detoxification, methadone reduction, substitution programmes and psychiatric treatment), brief intervention, counselling, group therapy, family therapy, psychotherapy, complementary therapy, and/or life-skills training.

<sup>&</sup>lt;sup>8</sup> The NDTRS follows a standard European-wide protocol for collecting data on treatment demand (protocol available at <a href="http://www.emcdda.europa.eu/publications/manuals/tdi-protocol-3.0">http://www.emcdda.europa.eu/publications/manuals/tdi-protocol-3.0</a> en), this methodology ensures that information on people entering drug treatment is collected in a harmonized, reliable and comparable way across all European countries.

these consultant-led in-reach addiction services and addiction specialist GP services, do not actively participate in the reporting system.

Service providers collect data including client demographic and socioeconomic information, referral and assessment details, current problem drugs (up to four substances), treatment history, injecting risk behaviours, treatment interventions provided, and details of treatment outcome at the time of discharge or transfer to another service. National recording of treatment discharge data was implemented in 2009 and provides a complete picture of treatment provided and reasons for discharge.

Data is transmitted to the HRB electronically or using a standard form. In 2019, 96% of cases reported were submitted electronically. NDTRS data allows for the calculation of incidence and prevalence rates of drug and alcohol treatment. The NDTRS also collects information on cases where the main problem was not drugs or alcohol e.g. gambling, these were not included in the paper. Data for several of the performance indicators were requested from the NDTRS in close consultation with the HRB, data was received and is presented in the paper.

NDTRS data presented for Goals 2, 4 and 5 relate to treatment entrants. Within Goal 2, section 4.3.3 relates to treatment exits or discharges. Treatment discharge information and discharge status is categorised by the treatment practitioner at the time of discharge. Only cases with valid discharge information are included in section 4.3.3 (excluded are assessed only cases, those still in treatment and those with incomplete discharge information).

#### *Limitations*

As there is no unique health identifier in Ireland, the NDTRS records episodes of care rather than individual records and thus cannot provide a longitudinal view of individual treatment patterns. The database provides limited data on treatment history.

The number of services participating in the NDTRS varies annually, making small fluctuations in the numbers of cases difficult to interpret. It must be noted that not all addiction treatment services were participating in the NDTRS during the period under review. Notwithstanding the HRB's efforts and also the requirement for all publicly funded services to make NDTRS returns, some alcohol treatment services managed by the addiction and mental health services do not participate. Therefore, it may be assumed that the data presented underestimates the true extent of treated drug use in Ireland.

The NDTRS database strives for as complete coverage of services as possible. In 2019, the HRB reported that 70% of services known to them report data to the NDTRS. The HRB have estimated that their register of current services (services known to them) is more than 90% accurate. Further, not every addiction service would fall under the remit of the NDTRS, for example, services that only provide needle exchange are not included. Coverage of the NDTRS will be further discussed under Goal 5, (Develop sound and comprehensive evidence-informed policies and actions). The vast majority of NDTRS services are public. There are a small number of services which are part publicly funded, for example the HSE may purchase places in a residential service and other places in that same residential service may be funded

through private health insurance for example. In this case, the NDTRS receives data for all episodes in these services regardless of the funding stream.

In the early 2000s, the HSE's Addiction Service's performance indicators were integrated into the NDTRS, therefore it should be noted that there is some overlap. As the NDTRS includes data from both HSE addiction services and non-statutory service providers, it is a more comprehensive measure of treatment demand nationally.

### HSE Performance Data

The HSE Social Inclusion (office) collects data from HSE addiction services within the nine CHOs on a range of indicators related to substance misuse services. Some of these indicators are reported internally and aligned with the HSE Operational Plan, with others reported publicly and aligned with the HSE National Service Plan. The type of data recorded includes; number of people who use substances who present for treatment; percentage of people who use substances who commence treatment within a designated timeframe after assessment; percentage of clients who have a written care plan; number of clients in receipt of Opioid Substitution Therapy (OST); average wait time to OST; and number of pharmacies and individuals engaged in the Needle Exchange Programme. The HSE Social Inclusion Key Performance Indicator Metadata 2019 (34) report outlines the indicators aligned with the National Service Plan that are published by the HSE. Data for the years 2014-2016 were extracted from published HSE Management Data Reports and data from 2017 onwards was received from HSE social inclusion. However, due to data quality issues it was not possible to report HSE data related to timely access to treatment for both alcohol and drug misuse and, data on written care plans.

#### Limitations

As mentioned above HSE data from 2014-2016 was extracted from published HSE management data reports, whereas data from 2017 onwards was received directly from the HSE Social inclusion office. HSE social inclusion data is collected manually with datasets evolving over time. This has led to variations in the data reported for a particular time point in management data reports. For example to illustrate, data for the month of March on a particular indicator may differ slightly in the April management data report when compared to the May data management report. Collection of data has also improved over time, therefore the 2014-2016 data is less complete than the data from 2017 onwards. Further, there are also likely slight discrepancies between the figures reported for 2014-2016 versus final figures maintained by the HSE, however the overall trend should remain consistent. Data quality issues were identified for certain HSE performance indicators related to timely access to treatment and written care plans and as such these could not be included in the paper.

# Revenue and An Garda Síochána Customs Data

Data for drug seizures are recorded independently by both the Revenue Commissioners Customs Division and An Garda Síochána (AGS). Revenue annual reports include data on drug seizures occurring each year by Revenue Commissioners Customs Division. The number of

seizures, quantity (kg) and value of seizures are reported in total and for three categories of drugs, - cannabis (herbal & resin), cocaine, heroin and amphetamines, ecstasy and other. Seizures conducted by AGS are reported by the HRB in their national report on drug markets and crime (35) in their capacity as the Irish Focal Point to the EMCDDA. The total number of seizures and the number of seizures by drug type are reported for each year. Data was extracted from published reports and collated for presentation in the paper.

#### CSO Crime Data

The CSO publish recorded crime statistics based on the provision of PULSE data by AGS. This data includes the number of criminal offences related to possession, cultivation, and importation of drugs, as well as driving under the influence of drugs and alcohol. Data is reported quarterly. It is important to note that the CSO publishes this data under a new category "Under Reservation". This categorisation indicates that the quality of these statistics do not meet the standards required of official statistics published by the CSO. This data was downloaded from the CSO website for inclusion in the paper.

#### Limitations

As indicated above, CSO crime statistics are 'under reservation' meaning they do not meet the standards required of official statistics published by the CSO. Although they are presented in this paper there should be cautious interpretation of this data.

### Survey Data

Data from two international surveys of children and young adults were accessed for this assessment. The European School Survey Project on Alcohol and Other Drugs (ESPAD) (36) undertook its seventh data-collection wave in 2019. The main purpose of the ESPAD is to collect comparable data on substance use and other forms of risk behaviour among 15-to-16-year-old students in order to monitor trends within, as well as between, countries. Between 1995 and 2019, seven waves of data collection were conducted across 49 European countries. The ESPAD target population is defined as students who reach the age of 16 years in the calendar year of the survey and who are present in the classroom on the day of the survey. Data from ESPAD was accessed via a published dataset.

The Health Behaviour in School Aged Children (HBSC) (37,38) is a World Health Organization collaborative cross-national study which collects data every four years on children and adolescent's health and well-being, social environments and health behaviours. The first wave of data collection in Ireland took place in 1998, with the most recent wave taking place in 2018. HBSC Ireland surveys school-going children aged 9-18 years. The survey includes a number of questions on substance use. Data from HBSC was extracted from published reports of findings.

# Limitations

Data from ESPAD was extracted from publicly available data only, there is likely further data available on request. There were some discrepancies between figures reported in waves of

the HBSC research, in this case the most recently reported data was used. Both sets of data are also limited by their nature as survey datasets, with issues in relation to self-reporting at play.

### Department of Health Data on Participation of Subcommittee of RHSR

Data was requested from within the Department of Health on the participation of relevant sectors and experts in the Early Warning and Emerging Trends Sub-Committee, one of the subcommittees detailed in Figure 2 on the oversight of RHSR. Data was received and presented in the paper.

# 4.1.3 Data Analysis

Data from all sources were collated and processed in Excel, with charts created to facilitate a trend analysis of each indicator. The year 2014 was chosen as the starting year for most indicators to allow for an analysis of the trends before RHSR was launched, thus demonstrating trends from the previous national drugs strategy, as well as since RHSR was launched. The exceptions to this are for survey data where data is presented from 2006/2007 as this data is collected every four years and starting from 2014 would not provide enough data for a meaningful analysis of trends. Differences between groups and over time were highlighted for each indicator. It is important to note that unless specified, these differences are not necessarily statistically significant.

# 4.2 Analysis of findings under Goal 1

# Goal 1 - Promote and protect health and wellbeing

Goal 1 of *RHSR* largely focuses on the prevention of children and young people turning to substance misuse (both currently and later in life) and on the promotion of healthier lifestyles in line with Healthy Ireland. The actions under this goal include; improving the delivery of substance use education; improving the supports for young people at risk of early substance use; encouraging the completion of education for all; mitigating the risk and reducing the impact of parental substance misuse on babies and young children; and strengthening early harm reduction responses to current and emerging trends and patterns of drug use. Delaying the age of first drink, reduction in binge drinking among young people and reduction in the prevalence of illicit drug use among young adults are some of the indicators included under Goal 1.

# 4.2.1 Use of drugs and alcohol among children and young people

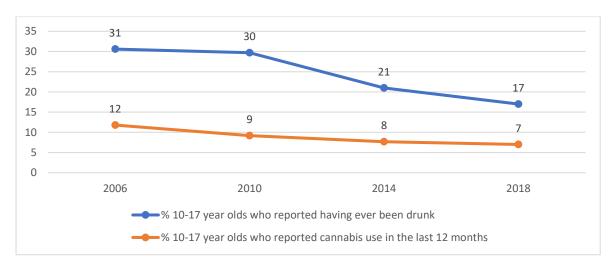


Figure 7: Percentage of children who have ever been drunk and used cannabis in past 12 months

Sources: 1998-2014 data extracted from HBSC Trends Report 98-14, 2018 data extracted from HBSC 2018 report

According to Health Behaviour in School Aged Children (HBSC) survey results in Ireland, the percentage of children aged 10–17 who reported having ever been drunk has been gradually declining, with the biggest drop evident between 2010 and 2014. The number of children reporting being drunk has continued to decline in recent years falling from 21% to 17% between 2014 to 2018.

The HBSC study also reports on cannabis use in this age cohort. Cannabis use among children has declined since 2006, reducing to 9% in 2010 and continuing to gradually decline to 7% by 2018.

Of particular relevance to this paper is the period from 2014-2018 during which RHSR was implemented. Within this period, having ever been drunk reduced by 19%, dropping by a lesser extent than the previous 4-year period 2010-2014, where there was a 30% drop, but more than all other previous 4-year periods. The proportion of children reporting cannabis use in the past 12 months dropped by the same amount between 2014-2018 as it did between 2010-2014.

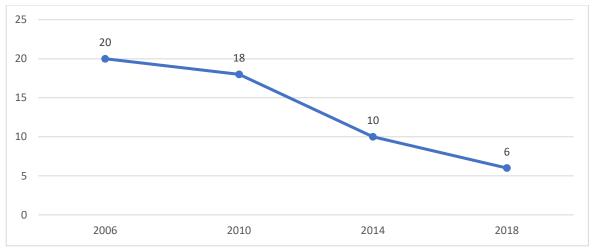


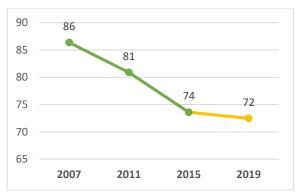
Figure 8: Percentage of children aged 10-17 who have been drunk in the past 30 days

Source: Extracted from HBSC reports Note: This data is available from 2006.

The HBSC survey also collects data on the number of children who have been drunk recently, i.e. in the past 30 days. Figure 8 above shows the percentage of children aged between 10-17 who reported being drunk in the past 30 days. This gives an indication of the prevalence of binge drinking among children and young adults in Ireland. Rates for this indicator have been declining since 2006 to a low of 6% in 2018. The biggest decline occurred between 2010 – 2014, but a considerable drop is also evident since RHSR was launched between 2014-2018. These figures reflect the rates among all children aged 10-17, however, the HBSC report (37) provides further detail on these rates by different groups. According to the report, there are statistically significant differences by age group with younger children less likely to report having been drunk in the last 30 days than older children. There are no significant differences across gender or social class groups. Binge drinking is further explored below.

The ESPAD is another valuable source on drug and alcohol use of young adults aged 15-16 years in Ireland. Results of ESPAD are presented below for the years 2007 to 2019 (where available). The ESPAD target population is defined as students who reach the age of 16 years in the calendar year of the survey and who are present in the classroom on the day of the survey.

Notes on analysis				
Legend for ESPAD results:	The colours in the following graphs refer to the comparison of a data point with the previous wave. Green denotes that the data point is statistically significantly lower than the previous wave,			
Significantly lower	yellow denotes that the data point is not significantly different			
Not significantly different	from the previous wave, and red denotes that a data point is significantly higher than the previous wave. The colours depict			
Significantly higher	the change from the second data point onwards.			





50 40 40 32 30 28 32 10 0 2007 2011 2015 2019

Figure 10: Heavy episodic drinking (5 or more drinks on one occasion during the last 30 days): 2011-2019 (percentage)

Source: Published ESPAD tables, 1995-2019

Lifetime use of alcohol among 15-16-year-olds has been declining steadily since 2007, from a prevalence of 86% in 2002 to 72% in 2019. Lifetime use refers to having ever used the substance. There were significant reductions between the years 2007 and 2011 and again between 2011 and 2015. In 2019, lifetime use of alcohol continued to decline though not to the same degree as the previous two waves.

In terms of heavy episodic drinking (or binge drinking) in the past 30 days, between 2011 – 2015, there was a significant decline in prevalence among 15-16-year-olds dropping from 40% to 28%. However, between 2015 and 2019 prevalence has risen significantly once again, with 32% of 15-16-year-olds having engaged in binge drinking during the last 30 days in 2019.

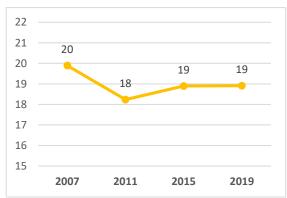


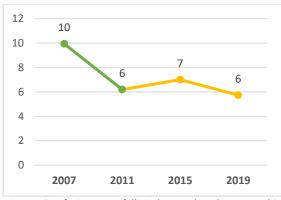


Figure 11: Lifetime use of cannabis: 2007-2019 (percentage)

Figure 12: Current use of cannabis: 2007-2019 (percentage)

Source: Published ESPAD tables, 1995-2019

Lifetime use of cannabis has remained relatively stable since 2007, with in and around one fifth of 15-16-year-olds having used cannabis at least once in their lifetime. Current use of cannabis has also remained relatively stable in the period with about 10% of 15-16-year-olds using cannabis in the past 30 days.



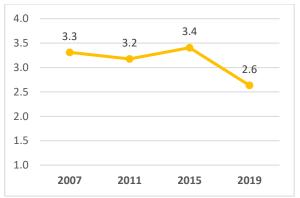


Figure 13: Lifetime use of illicit drugs other than cannabis: 2007-2019 (percentage)

Figure 14: Lifetime use of tranquilisers or sedatives without a doctor's prescription: 2007-2019 (percentage)

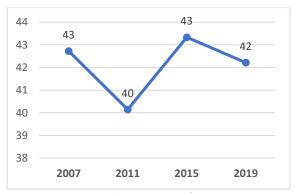
Source: Published ESPAD tables, 1995-2019

Note: Illicit drugs includes amphetamine, cocaine, crack, ecstasy, LSD or other hallucinogens, heroin and (since 2007) GHB.

Lifetime use of illicit drugs among 15-16-year-olds declined significantly from 2007 to 2011 falling from 10% to 6% in this period. The prevalence of illicit drug use has remained stable since 2011 and was at 6% in 2019. The use of tranquilisers or sedatives has remained at 3% between 2007 and 2019.

### **Notes on Analysis**

There was other relevant trend data reported in ESPAD results and this data is included below. However, information on the statistical significance of changes over the waves of ESPAD were not available for this data.



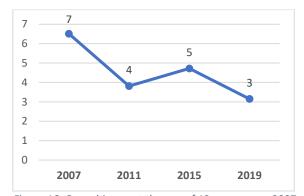


Figure 15: Perceived availability of cannabis: students responding cannabis 'fairly easy' or 'very easy' to obtain 2007-2019 (percentage)

Figure 16: Cannabis use at the age of 13 or younger: 2007-2019 (percentage)

Source: Published ESPAD tables, 1995-2019

Figure 15 demonstrates the perceived availability of cannabis from 2007-2019 among 15-16-year-olds in Ireland. This figure has remained relatively stable over the period, with  $^{\sim}40\%$  of Irish 15-16-year-olds reporting that cannabis is easy to obtain.

Figure 16 shows the percentage of 15-16-year-olds who reported that they first used cannabis at the age of 13 or younger. The data shows that the rates of early onset of cannabis use have been reducing over the period.

# 4.3 Analysis of findings under Goal 2

# Goal 2: Minimise the harms caused by the use and misuse of substances and promote rehabilitation and recovery

Goal 2 of RHSR focuses on improving access to drug and alcohol services and service outcomes, preventing relapse and minimising the harms associated with substance use. The actions under this goal include; expanding the availability, geographical spread, and range of drug and alcohol services; improving the availability of Opioid Substitution Treatments; improving relapse prevention and aftercare services; increasing the range of progression options for those recovering from drug use; improving the availability of services and outcomes for at risk groups (women, people who are homeless, people with a co-occurring mental health and substance use problem, people in contact with the criminal justice system, members of ethnic minority groups, people who have used substances long term, among others); expanding harm reduction initiatives focused on people who inject drugs; and, continuing to target a reduction in drug-related deaths and non-fatal overdoses. The percentage of successful exits from treatment in a given year, and the percentage of people with problematic drug use accessing treatment within 1 month of assessment are some of the indicators included under Goal 2.

### 4.3.1 Timely access to treatment for people who use substances

The NDTRS collects data on the time between assessment and access to treatment for all drug treatment services in Ireland. The HSE similarly reports on the percentage of people with problematic substance use (drugs and alcohol) aged 18 years and over who, having completed a needs assessment, commenced treatment for their substance use at a HSE treatment centre within one calendar month of that assessment, as well as, the percentage aged under 18 who, having completed a needs assessment, have commenced treatment at a HSE treatment centre within one week of that assessment. However, it was not possible to present this data due to the data quality issues specified above. NDTRS data for treatment entrants is presented in this section.

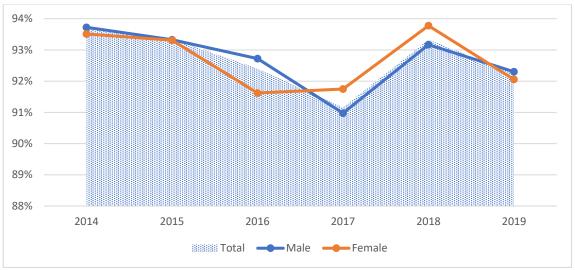


Figure 17: Percentage of cases accessing services within 1 month where their main problem was drugs, by sex, NDTRS 2014-2019 (Unpublished data)

Note: The total is based on cases where gender is known. In a small number of cases gender was not reported (n<5) and these have been excluded from the total percentage calculated.

Figure 17 shows the percentage of cases accessing treatment for drug use within one month of assessment for the total sample and by sex. As noted previously, the NDTRS captures cases of treatment, rather than distinct individuals due to the absence of a unique health identifier in Ireland. The overall percentage of cases accessing treatment within one month of assessment drops slightly over the period from 94% to a low in 2017 of 91% before climbing slightly to 92%. There is no consistent difference in access times by sex with cases for males exceeding females in 2014-2017 and a reversal from then onwards. Differences between the sexes at any point in time are never more than 1%. RHSR includes actions related to improving the availability of services and outcomes for women, which may have contributed to this shift from 2017. Additionally, the NDTRS moved to a new online portal in 2017 which could have had an effect on these rates, as well as changes in service participation in the NDTRS database.

As mentioned above, promoting recovery by improving access to services for specific groups of people and for all regions are key elements of Goal 2 of RHSR. Timely access is therefore analysed by various groups in this section based on data available from the NDTRS, including age, residence type, CHO, ethnic background, and drug type.

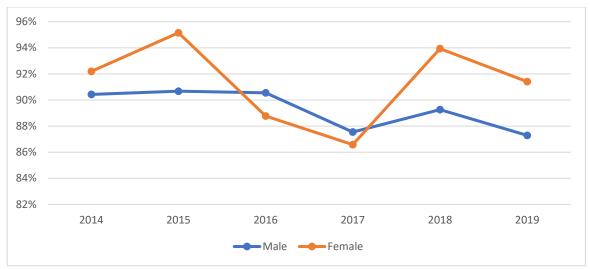


Figure 18: Percentage of cases of Under-18s accessing treatment in under 1 week, by sex, NDTRS 2014-2019 (unpublished data)

Note: Total is not reported due to a larger proportion of cases under 18 where gender is not known.

Figure 18 shows the percentage of cases of under-18s accessing treatment in under a week where either drugs or alcohol is the problem substance. There is no consistent difference in access times for either males or females though it should be noted that the percentage of cases of males accessing in under a week has dropped from 90% to 87% over the period. The average access rate across both sexes for the period is 90%.

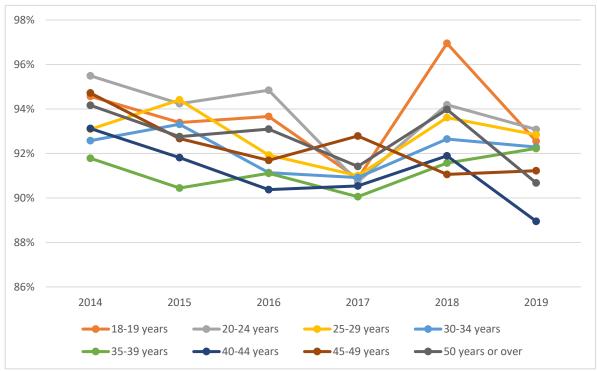


Figure 19: Percentage of cases accessing services within 1 month where their main problem was drugs, by Age, NDTRS 2014-2019 (unpublished data)

Figure 19 depicts access to drug treatment services for cases within one month by eight different age groups. Cases for younger cohorts tend to have slightly higher rates of access than cases for older age cohorts. The highest average rate over the period 2014-2019 is evident among cases of 18–19-year-olds and 20–24-year-olds at 94%. Cases for 18-19 years experienced a considerable increase in access from 2017 to 2018. Again, the move to an online portal and changes in participation for the NDTRS may be playing a role here. The cases for 35-39-year-olds and 40-44-year-olds have the lowest rates of access within a month of assessment, though the average for this group over the period is still high at 91%.

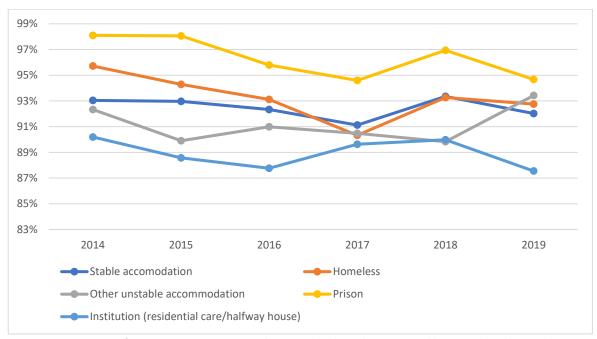


Figure 20: Percentage of cases Accessing Services within 1 month where their main problem was drugs, by residence type, NDTRS 2014-2019 (unpublished data)

Figure 20 shows the percentage of cases accessing treatments for drug use within 1 month by residence type. Cases for those residing in prisons have the highest access times. In interpreting this it is important to note that data for people residing in prisons comes mainly from in-reach services. There are significant data gaps in the data for the prison population using drug services as currently the IPS does not provide data on addiction treatment to the NDTRS, with the exception of counselling. As such, the Prison data series is not representative of the total access time for cases in prison. Access times are in general lowest for those in institutions (residential care/halfway house) with the percentage between 88% and 90% over the period. Timely access has reduced somewhat for cases of those who are homeless and those who reside in institutions in the period. This may reflect the increase in homelessness in the later period under investigation here.

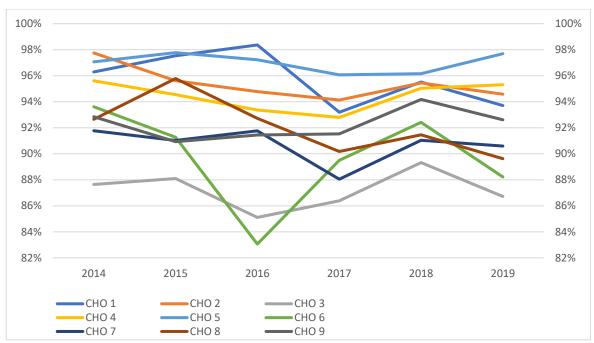


Figure 21: Percentage of cases accessing services within 1 month where their main problem was drugs, by CHO, NDTRS 2014-2019 (unpublished data)

Figure 21 shows the percentage of cases accessing services within one month where their main problem was drugs, by Community Healthcare Organisation (CHO). In general, the percentage of cases accessing drug services within CHO 5 was highest while the lowest was CHO 3. CHO 5 includes Carlow, Kilkenny, South Tipperary, Waterford and Wexford and CHO 3 includes Clare, Limerick, and North Tipperary. The lowest recorded percentage in the period was for CHO 6 in 2016 at 83%. CHO 6 includes south-east Dublin, and east Wicklow. It should be noted that NDTRS coverage for CHO 3 is below the national average with just 65% of addiction treatment services located in this region actively participating in the NDTRS. Coverage for CHO 6 ranks second lowest nationally with just 59% of services in this region actively participating in the NDTRS.

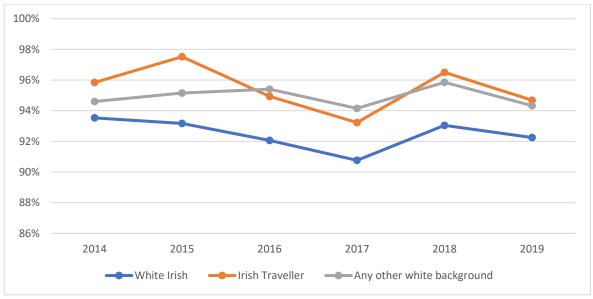


Figure 22: Percentage of cases Accessing Services within 1 month where their main problem was drugs, by self-defined ethnicity, NDTRS 2014-2019 (unpublished data)

Figure 22 shows the percentage of cases accessing services within 1 month where their main problem was drugs by self-defined ethnicity. Other relevant ethnic groups include the Roma community, however, there are small numbers from this group in the NDTRS and as such they are not reported here. Timely access rates are typically higher for those in the Irish Traveller Community than for either Irish people or those of another white background. Cases for members of the Irish Traveller Community have an average access rate of 95% over the period. Improving the availability of services and outcomes for at risk groups, such as members of ethnic minority groups is included under Goal 2 of RHSR.

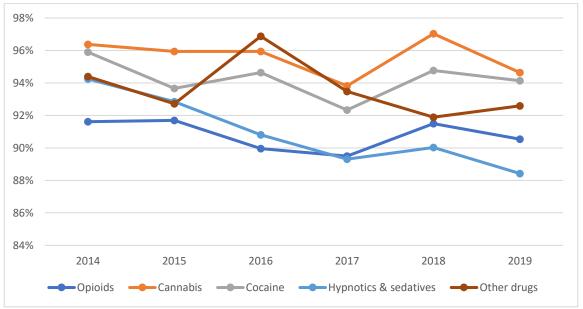


Figure 23: Percentage of cases accessing services within 1 month, by main problem drug, NDTRS 2014-2019 (unpublished data)

Note: some drug types are excluded from this chart due to low numbers reporting use

Figure 23 shows the percentage of cases accessing services within 1 month by their main problem drug. In general, those cases where the main problem drug is cannabis had the highest percentage accessing treatment within 1 month. Those accessing treatment for Hypnotics & Sedatives had the lowest percentage accessing treatment within 1 month in 2019, which is a result of a downward trend over the period. Those cases where the main problem drug is an opioid, experience less timely access than cases where the main problem drug is cannabis, cocaine, or other drugs.

### 4.3.2 Timely access to treatment for people who use alcohol

The NDTRS collects data on the number of cases, where the main problem is alcohol, accessing treatment within 1 month of assessment for all treatment services in Ireland. The HSE similarly reports data on the percentage of people with problematic alcohol use aged 18 years and over who, having completed a needs assessment, commenced treatment for their alcohol use at a HSE treatment centre within one calendar month of that assessment, as well as, the percentage aged under 18 who, having completed a needs assessment, have commenced treatment at a HSE treatment centre within one week (seven days) of that assessment. However, it was not possible to present this data due to the data quality issues specified above. NDTRS data for treatment entrants is presented in this section.

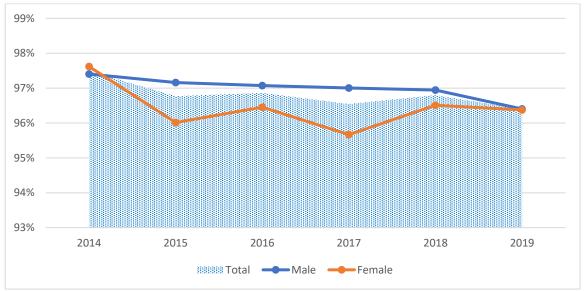


Figure 24: Percentage of cases accessing services where their main problem was alcohol, by Sex, NDTRS 2014-2019 (unpublished data)

Note: The total is based on cases where gender is known. In a small number of cases gender was not reported (n<5) and these have been excluded from the total percentage calculated.

Figure 24 shows the percentage of cases accessing treatment within one month of assessment for the total sample of cases with problematic alcohol use and by sex. The overall percentage

of cases with problematic alcohol use accessing treatment within 1 month of assessment has remained stable over the period between 96-97%. Cases of males who use alcohol appear to have slightly better access than their female counterparts, though differences between the sexes at any point in time are never more than 1%. Overall, timely access to treatment services is better for cases with problematic alcohol use with an average of 97% cases accessing a treatment service within 1 month, compared to an average of 93% for access to drug services within one month.

Again, timely access for cases which use alcohol are analysed by various groups in the figures below, based on available data from the NDTRS.

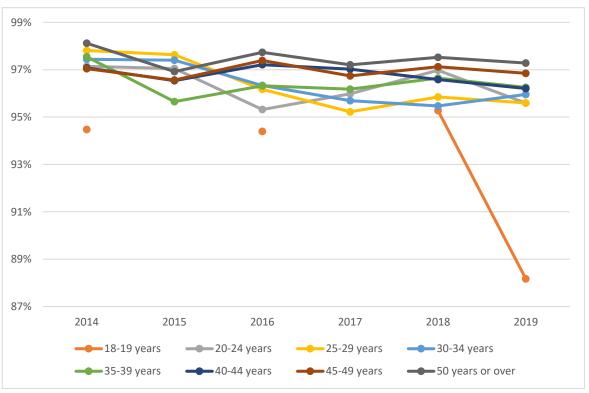


Figure 25: Percentage of cases accessing services where their main problem was alcohol, by Age, NDTRS 2014-2019 (unpublished data)

Note: Due to the reporting of <5 for 18-19 year olds in 2015 and 2017, these data points are not reported here.

Figure 25 depicts access to alcohol treatment services for cases within one month by eight different age groups. Cases for 18-19-year-olds have the lowest rates of access, with an average of 93% over the period whereas this age group had amongst the highest rates of access for substance use services. There was a considerable decline in access for this age group from 2018 to 2019, dropping from 95% to 88%. Cases for 25-29-year-olds and 30-34-year-olds have reduced somewhat over the period, while the trend for cases of 20-24-year-olds has been changeable. Cases for other age groups have remained relatively stable over the period.

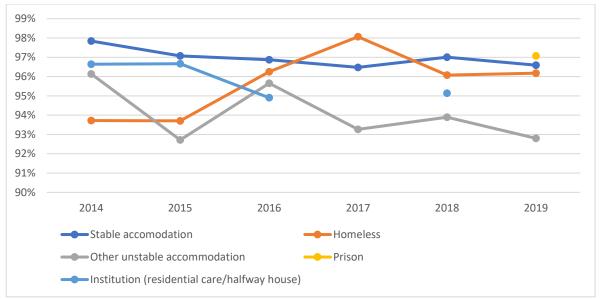


Figure 26: Percentage of cases accessing services where their main problem was alcohol, by residence, NDTRS 2014-2019 (unpublished data)

Note: Due to the reporting of <5 for those in prisons from 2014-2018 data is only available for those in prison in 2019. There are low numbers in general reported to the NDTRS from prisons. There are missing values for Institution in 2017 and 2019 due to the same reporting issue.

The graph above shows the rates of access to treatment services for cases with problematic alcohol use by residence type. Those cases in stable accommodation have the highest and most stable access rates over the period. Access rates within a month for cases of people who are homeless exceeded those in stable accommodation in 2017. Those in other unstable accommodation have the lowest access rates with an average of 94% over the period.

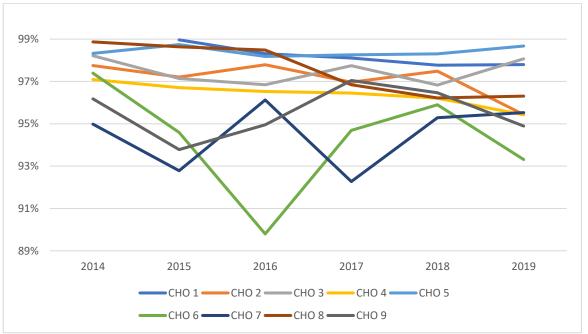


Figure 27: Percentage of cases accessing services where their main problem was alcohol, by CHO, NDTRS 2014-2019 (unpublished data)

Note: Due to reporting of <5 for CHO1 in 2014 on the NDTRS this data point is not reported.

Figure 27 shows the percentage of cases accessing services within one month where their main problem was alcohol by CHO. The percentage of cases accessing alcohol services within one month was highest in CHO 1, CHO 5, and CHO 8 at 98% while the lowest was CHO 6 and CHO 7 at 94%. The lowest recorded percentage in the period was for CHO 6 in 2016 at 90%. CHO 6 includes south east Dublin, and east Wicklow.

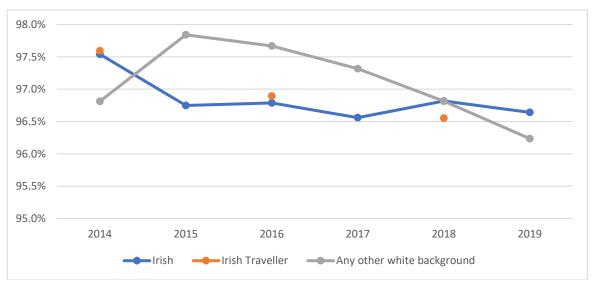


Figure 28: Percentage of cases accessing services where their main problem was alcohol, by ethnicity, NDTRS 2014-2019 (unpublished data)

Note: 2015, 2017, 2019 data points not reported for Irish traveller due to reporting of <5 on the NDTRS. Data on the Roma community are not reported due to small numbers.

Figure 28 shows the percentage of cases accessing a service within one month where their main problem was alcohol by self-defined ethnicity. Other relevant ethnic groups include the Roma community, however there are small numbers of cases from this group in the NDTRS and as such they are not reported here. Improving the availability of services and outcomes for at risk groups, such as members of ethnic minority groups is included under Goal 2 of RHSR. Timely access was highest over the period for those cases of another white background (not Irish) though access has declined slightly over the period for this group from a high of 98% to 96% in 2019. Timely access to treatment for cases who are members of the Irish Traveller Community who use alcohol has declined slightly in the period.

#### 4.3.3 Successful Exits

Goal 2 of RHSR included a performance indicator accounting for the percentage of successful exits from treatment in a given year. Other NDTRS data presented in the paper relates to treatment entrants, this data relates to treatment exits or discharges. Treatment discharge information and discharge status is categorised by the treatment practitioner at the time of discharge. Only cases with valid discharge information are included in this section (excluded are assessed only cases, those still in treatment and those with incomplete discharge information). It is important to note that for all cases entering treatment in the period 2014-2019, the HRB provided data on all treatment discharges status on 01/01/2020. As the latest possible treatment entry date was 31/12/2019 and discharge data was available until at least 01/01/2020, the minimum follow-up period was one day. Similarly, the longest follow-up period was six years (01/01/2014-01/01/2020).

For the purposes of the following figures a successful exit is defined as a treatment discharge whereby the service user has completed treatment or was transferred/referred onwards for additional treatment in another drug/alcohol service. Cases who were assessed but who did not go on to treatment were excluded from this definition. The second group are those who began treatment then declined further treatment, those not returning for appointments, those who have deceased, and those with a premature exit from treatment for noncompliance. For this reason, it is not possible to establish a clear dichotomy between successful treatment and failed treatment. Exits from treatment not defined as 'successful exits' are not by default 'unsuccessful exits', due to the range and complexity of reasons why treatment may have been discontinued. This should be borne in mind when interpreting findings from this section. Again, the data below reflects cases, rather than individuals. The year refers to the year of treatment entry, not exit. It only includes data for those with complete exit data. For example, those cases beginning treatment in 2019 but who were not yet finished treatment are not included. It is also important to say that figures presented are for all treatment exits for all types of substances grouped (alcohol and all drug types). Results may vary by main problem drug type.

\_

<sup>&</sup>lt;sup>9</sup> This second grouping 'exited for other reasons' should not necessarily be interpreted as an unsuccessful outcome. The definition is based solely on the reason for treatment discharge as recorded by the treatment provider. The definition does not capture positive outcomes, for example, a reduction in the use of drugs/alcohol.

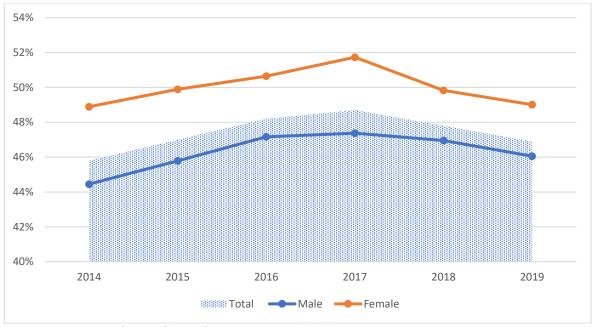


Figure 29: Percentage of successful exits from treatment, total and by sex, NDTRS 2014-2019

Figure 29 shows that among those with complete exit data the rate of successful exits was lowest among the 2014 entry cohort and was greatest among the 2017 entry cohort with a peak of 48.7% in 2017, after which it declined slightly again to 46.9% among the 2019 entry cohort. There is a higher rate of successful exits among females than males, with an average rate of 50% for females and 46.3% for males from 2014-2019.

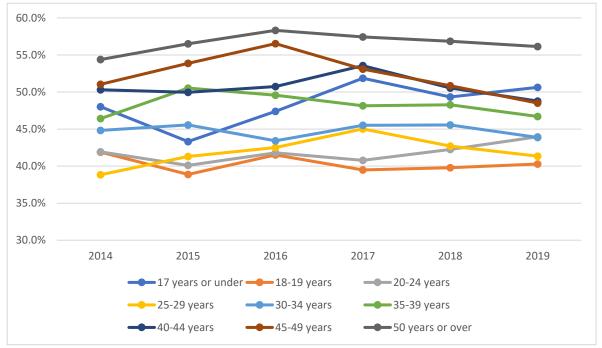


Figure 30: Breakdown of percentage successful exits by age category, NDTRS 2014-2019 (unpublished data)

Figure 30 shows the age breakdown of successful exits from 2014-2019 for those cases with complete exit data. Cases of older age cohorts tend to have higher rates of successful exit from treatment than younger age groups, with the highest rates evident in the oldest cohort aged 50 years or over. The average percentage successful exit from 2014-2019 for those aged 50 and over was 56.6% compared to 40.3% for those aged 18-19 years. The cohort aged 17 years or under have a more changeable trend, reaching a peak of 51.9% in 2017.

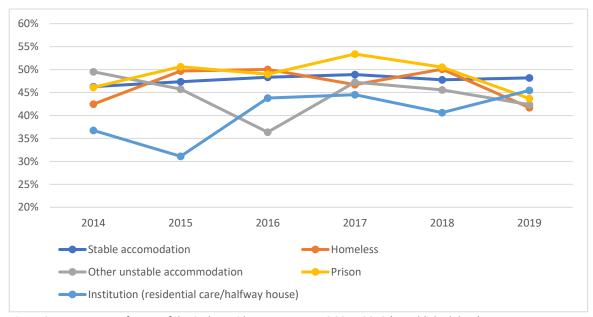


Figure 31: Percentage of successful exits by residence type, NDTRS 2014-2019 (unpublished data)

Looking at successful exits by residence type in Figure 31, there are five main categories of residence within the NDTRS dataset. Cases for those residing in an institution such as a halfway house or residential care have the lowest rates of successful exit from treatment with an average of 40.4% from 2014-2019. Cases for those residing in an institution or in 'other unstable accommodation' have the most volatile rates over the period. Cases for those in stable accommodation, those who are homeless and those in prison have more stable rates, with those residing in stable accommodation having the most stable rates of successful exit from 2014-2019.

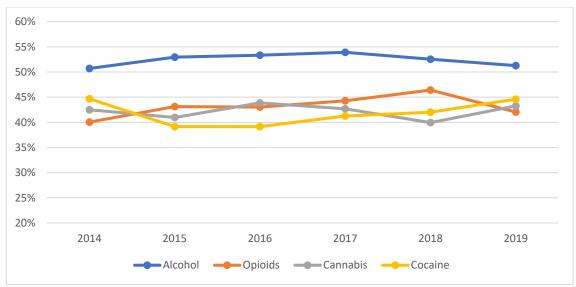


Figure 32: Percentage of successful exits by main problem drug, NDTRS 2014-2019 (unpublished data)

Figure 32 shows the percentage of successful exits for those with complete exit data where the main problem was alcohol and three other drugs categories: Opioids, Cannabis, and Cocaine. Those using alcohol have the highest rates of successful exit with an average of 52.5% over the period. Among those who have exited treatment, the rates of successful exit for those using opioids, cannabis and cocaine have been relatively stable between 2014-2019.

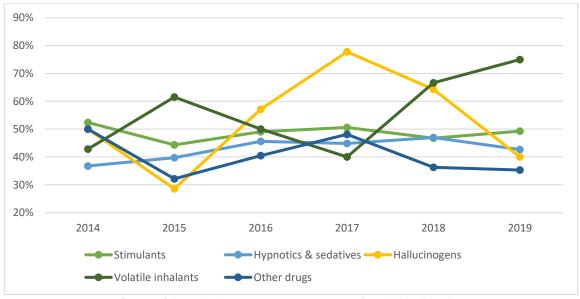


Figure 33: Percentage of successful exits by drug type, NDTRS 2014-2019 (unpublished data)

The remaining drug categories are presented in Figure 33. There is more volatility among cases using these drug types in relation to successful exit from treatment, which is related to small numbers in some of the categories. Successful exits for cases where stimulants and hypnotics or sedatives are used are the most stable.

### 4.3.3.1 Lag to treatment for those exiting 'successfully'

Another way to examine access is in relation to the time lag between starting to use substances and entering treatment. This is referred to as lag to treatment. The graph below shows the median time in years it takes a case to access treatment after first use, for those who successfully exited treatment. This is calculated as the number of years between the age the case in question first used their primary drug and the age when they entered treatment.

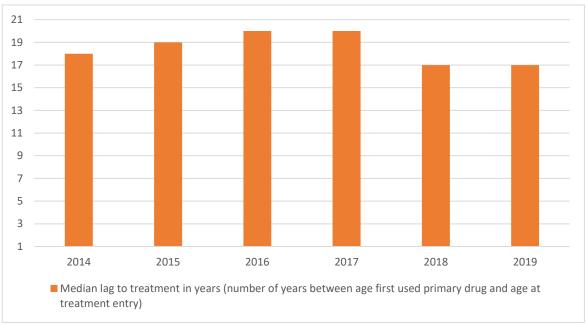


Figure 34: Median time lag to treatment after first use of drugs, NDTRS 2014-2019 (unpublished data)

Note: Data relates only to those who have successfully exited treatment. Year relates to year of treatment entry, irrespective of when exited.

The median age at which people first used their primary drug was stable over the period at 16 years of age. In terms of lag to treatment, the median number of years between first use and entry to treatment was at 18 years in 2014. There is an increase in the years to first treatment from 2014 to 2017 rising from 18 to 20 years, however this was followed by a decrease to a series low of 17 years in both 2018 and 2019. It is also important to note that lag to treatment varies considerably by the type of main problem drug used 10.

-

<sup>&</sup>lt;sup>10</sup> See published papers for more detail on lag to treatment for different problem substance types. For alcohol misuse see: https://www.hrb.ie/fileadmin/2.\_Plugin\_related\_files/Publications/2020\_publication-related\_files/2020\_HIE/NDTRS/Alcohol\_bulletin/Alcohol\_treatment\_in\_Ireland\_2013\_to\_2019.pdf and for opioid misuse see: https://www.sciencedirect.com/science/article/abs/pii/S0376871618306896)

### 4.3.4 Opioid Substitution Treatment

According to RHSR, since 2009, the HSE has provided wider access to Opioid Substitution Treatment (OST) through the establishment of new treatment centres, the participation of more GPs in the prescribing of OST and the involvement of more pharmacies in the dispensing of methadone. However, there are still barriers to OST for many individuals, with a lack of local services and waiting times in many areas. Improving the availability of OSTs remains a priority in RHSR and is an important action under Goal 2.

According to the HSE KPI Metadata report 2019 (34), in Ireland, OST refers to the provision of both methadone and buprenorphine / buprenorphine-naloxone only products. OST is provided in HSE drug treatment clinics and by GPs who have completed appropriate training programmes. OST is considered a key component in the treatment of opioid dependence and plays an important role in rehabilitation and recovery.

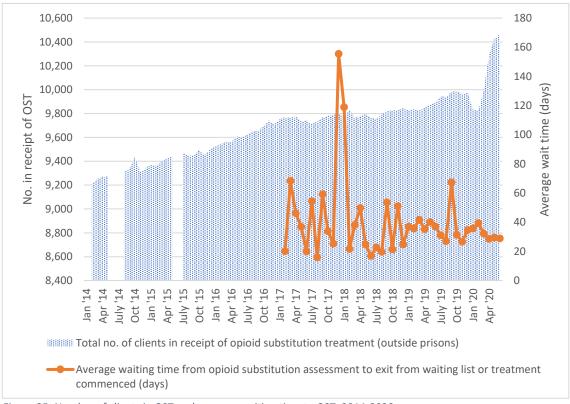


Figure 35: Number of clients in OST and average waiting time to OST, 2014-2020

Sources: 2017-2020 data received from the HSE, 2014-2016 data extracted from HSE management data reports.

Note 1: There is missing data in 2014-2016 where data was not available from management data reports. There are also likely slight discrepancies between the figures reported in management data reports versus final figures maintained by the HSE, however the trend should remain consistent.

Note 2: Waiting time in December 2017 impacted by a number of 'long waiter' service users with complex needs who may be in receipt of other interventions e.g. assessment by a counsellor/ interaction with outreach services etc prior to opioid substitution treatment commencement or exit from waiting list (Correspondence with HSE).

The above graph depicts a count of the number of clients (outside prisons) receiving OST in all HSE settings at the end of the calendar month as recorded on the Central Treatment List.

The average waiting time from OST assessment to treatment/exit from wait list is also presented from 2017. The number in receipt of OST has been gradually increasing since 2014. After an initial decline in 2020, there is a sharp increase evident, reflecting the priority to improve access to OST in response to COVID-19 (16). Since the launch of RHSR in July 2017, monthly figures increased from 9,716 to 9,974 by the end of 2019. In June 2020 there were 10,465 in receipt of OST. The average wait time to treatment has been quite volatile over the period available, ranging from a low of 16 days to a peak of 155.5 days.

#### 4.3.5 Harm Reduction Initiatives

Continuing to expand Harm Reduction Initiatives focused on people who inject drugs is an important element of RHSR. One of the ways the document notes this will be achieved is through the expansion of needle exchange programmes.

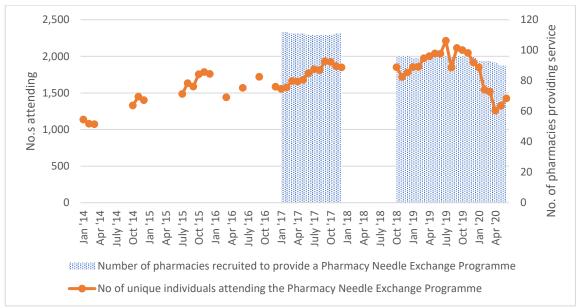


Figure 36: Number of pharmacies and individuals in Needle Exchange programme, 2014-2020

Sources: 2017-2020 data received from the HSE, 2014-2016 data extracted from HSE management data reports Note: There is missing data in 2014-2016 where data was not available from management data reports. There are also likely slight discrepancies between the figures reported in management data reports versus final figures maintained by the HSE, however the trend should remain consistent. There is also missing data on the Pharmacy Needle exchange programme in 2018.

The above graph depicts a count of the number of unique individuals attending pharmacies as part of the Needle Exchange Programme each month from HSE data management reports. The Pharmacy Needle Exchange Programme is an anonymous and confidential service available in Community Healthcare Organisations (CHOs) 1,2,3,4,5 and 8. A unique identifier is used for each client attending. According to the HSE KPI Metadata report 2019 (34), the Pharmacy Needle Exchange Programme is available to people who use substances to ensure that people who inject drugs have access to sterile equipment and can dispose of used equipment in a safe manner. The graph also displays a count of the number of pharmacies who provide a Needle Exchange Programme at agreed service levels with the HSE. It is

important to note that this does not represent all needle exchange services in Ireland and does not take into account needle exchange services provided by Merchants Quay Ireland, Ana Liffey Drug Project or static and outreach sites in Dublin.

Between 2014-2019, there was an upward trend in the number of unique individuals attending the pharmacy needle exchange programme. The number attending reached a peak at 2,213 in July 2019. However, a sharp decline in this number is evident in the first quarter of 2020, likely reflecting the impacts of the first wave of Covid-19. Numbers began to rise again in May 2020. The average number of individuals attending from 2014-2019 per month is 1,726, while for the full period presented it is 1,697. The average since the launch of RHSR in July 2017 is 1,832.

The total number of pharmacies providing a Needle Exchange Programme at agreed service levels with the HSE has been declining slowly since 2017. In the beginning of 2017, there were 112 pharmacies providing this service, by December 2019 this had dropped to 96 and has continued to decline into 2020. In June 2020, there were 90 pharmacies providing the service, though the impacts of the Covid-19 pandemic are also likely at play here.

There is also a large focus on targeting a reduction in drug-related deaths and non-fatal overdoses in RHSR, with several of the indicators related to harm reduction based on data from the National Drug Related Deaths Index (NDRDI). Due to reporting delays for this database the most recent dataset available is from 2017. As this data cannot provide insight on patterns during the lifetime of RHSR, it has not been included in this report.

# 4.4 Analysis of findings under Goal 3

### Goal 3: Address the harms of drug markets and reduce access to drugs for harmful use

Goal 3 of RHSR is focused on improving the control, management, and regulation of the supply of drugs and minimising the harms associated with the drugs market. The actions under this goal include; keeping legislation up to date to deal with emerging trends; reducing rates of driving under the influence of drugs; reducing drug offending and promoting rehabilitation; considering the approaches taken in other jurisdictions to the possession of small quantities of drugs for personal use and making a recommendation for Ireland; and, monitoring and strengthening the response to drug markets. Participation in the Early Warning and Emerging Trends Sub-Committee, the volume of drugs seized that are considered to be intended for the Irish market, the number of prosecutions for importation, manufacture and distribution of illicit drugs; and the number of supply detection cases are some of the indicators included under Goal 3.

### 4.4.1 Offences associated with drug use

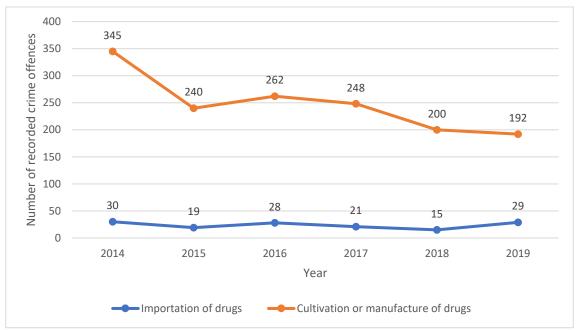


Figure 37: Number of recorded crime offences for importation and cultivation or manufacture of drugs, 2014-2019

Source: CSO

Note: This data is classified as under reservation, indicating that the quality of these statistics does not meet CSO standards.

Looking at the period 2014 to 2019 there is a downward trend in the number of recorded offences for cultivation or manufacture of drugs. From the period since the introduction of RHSR (2017) to present, there has been a 23% fall in the number of recorded offences from 248 to 192.

The trend for importation of drug offences has remained relatively stable over the period 2014 to present. At a peak in 2014 at 30, the nadir was just 15 in 2018. In 2017, the year when RHSR was launched, there were 21 recorded offences for the importation of drugs. This figure dipped in 2018 and rose again to 29 in 2019. The RHSR policy notes that there had been an increased prevalence of cannabis cultivation facilities which led to a shift in the market, with domestically produced high potency herbal products becoming more available and displacing imported resin. This can be seen in the relative shifts in the number of recorded offences over the period.

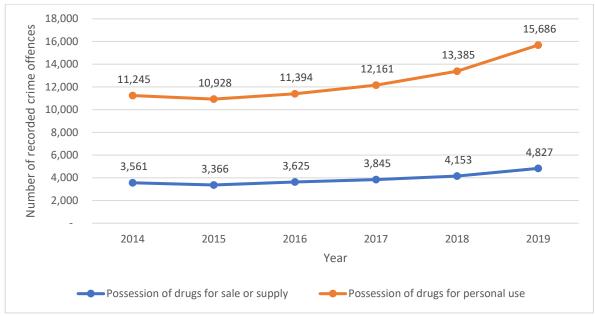


Figure 38: Number of recorded crime offences for possession of drugs for sale or supply and possession for personal use.

Source: CSO

Note: This data is classified as under reservation, indicating that the quality of these statistics does not meet CSO standards.

One of the actions included under Goal 3 of RHSR relates to reducing drug offending behaviour and promoting rehabilitation. However, there has been an increase in the number of recorded offences for possession of drugs over the period.

The number of recorded offences for possession of drugs for sale or supply reached a period high of 4,827 in 2019. Much of the increase in the period occurred in recent years with a 33% increase from 2016 to 2019.

There has similarly been an increase in the number of recorded offences for possession of drugs for personal use with a 38% increase from 2016-2019. However, with the launch of the new Health Diversion approach to personal possession offences, it is expected that this will reduce in the coming years.

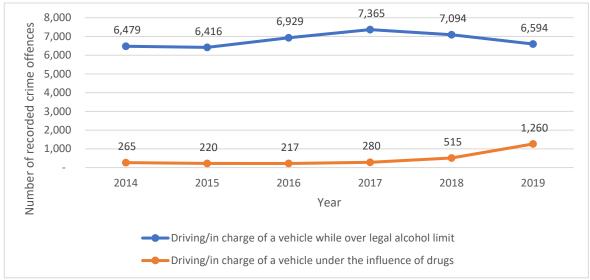


Figure 39: Number of offences for driving over the legal alcohol limit and driving under the influence of drugs, 2014-2019.

Source: CSO

Note: This data is classified as under reservation, indicating that the quality of these statistics does not meet CSO standards.

According to RHSR, the Road Traffic Act 2016 gives An Garda Síochána new powers to test drivers for drugs at the roadside and in Garda stations. Current testing has been expanded to provide both Mandatory Alcohol Testing (MAT) checkpoints and Mandatory Intoxication Testing (MIT) checkpoints, testing drivers for both alcohol and drugs. These new measures were introduced in April 2017. The Road Safety Authority also launched a campaign at this time to increase awareness of the new measures and updated leaflets on drugs and driving and taking medicines while driving. Reducing rates of driving under the influence of drugs is one of the actions in RHSR.

Rates of driving over the legal alcohol limit have risen slightly over the period since 2014. Having reached a peak at 7,365 in 2017, the number of offences reduced again to 6,594 in 2019. New garda initiatives may be encouraging this downward trend.

The number of offences for driving while under the influence of drugs were relatively stable between 2014-2017 but have risen sharply since then to a peak of 1,260 in 2019. However, it may be that new testing methods are detecting more incidences of driving under the influence of drugs, rather than an increase in this behaviour.

## 4.4.2 Drug Seizures

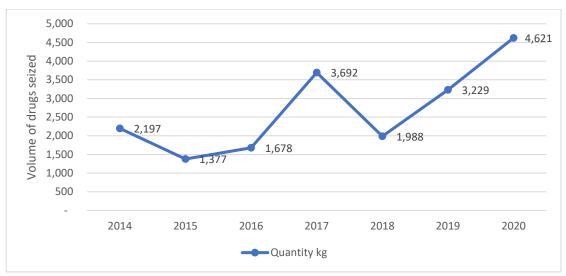


Figure 40: Quantity (kg) of drugs seized, 2014-2020

Source: Revenue annual reports.

Figure 40 shows the trend for the quantity of drugs seized that are considered to be intended for the Irish market from 2014-2019. The trend is quite volatile over the period. From 2016 to 2019 there was an increase of 91% in the quantity of drugs seized.

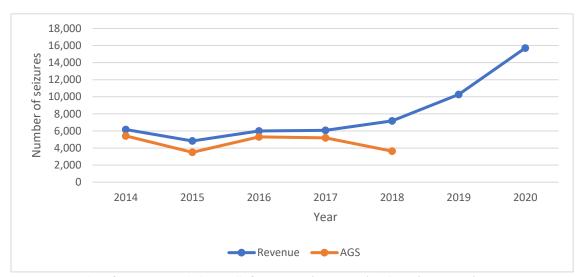


Figure 41: Number of seizures recorded annually for Revenue (2014-2020) and AGS (2014-2018)

Sources: Revenue annual reports and HRB Report on Drug Markets and Crime (6)

Figure 41 shows the number of seizures reported by both Revenue and AGS for the years 2014-2018, with data available up to 2020 for Revenue. From 2014-2017 the number of seizures from both sources follow a similar trajectory. Seizures reported by Revenue have seen a considerate increase from 2017-2020.

# 4.4.3 Participation of relevant Sectors and Experts in the Early Warning and Emerging Trends Sub-Committee

Year	Number of EWET Subcommittee meetings
2016	4
2019	3
2020	3
2021 (total at time of writing)	1

Table 7: Year and number of Subcommittee meetings

As illustrated in the table above, four meetings of the Early Warning and Emerging Trends (EWET) Subcommittee took place in 2016, three took place in 2019 and 2020 and one meeting has taken place so far in 2021.

# Goal 4: Support participation of individuals, families and communities

Goal 4 of RHSR focuses on strengthening the resilience of communities impacted by substance misuse and enabling the participation of both service users and their families. Some of the actions included under this goal are; supporting and promoting community participation in all local, regional and national structures; measuring the impact of drug-related crime and wider public nuisance issues on communities; enhancing the relationship between an Garda Síochána and local communities in relation to the impact of the drugs trade; and promoting the participation of service users and their families, including those in recovery, in local, regional and national decision-making structures and networks in order to facilitate their involvement in the design, planning and development of services and policies. Indicators related to this goal include: the uptake of treatment in communities most affected by substance misuse; changes in problem substance use in communities affected by deprivation; and the number of deaths associated with drug use in marginalised communities.

Due to limitations in available data, the only indicator from Goal 4 analysed in this paper relates to the uptake of treatment in communities most affected by substance misuse. <sup>11</sup> For the purposes of this FPA those communities most affected by substance misuse were initially identified to be those people in the Irish Traveller, Roma, LGBTQI, and homeless communities and those currently injecting drugs. Measuring uptake within the NDTRS or any dataset is challenging. For a person to be recorded in a dataset they need to be in contact with some relevant drug service, be in need of drug treatment and for records to be kept on if they take up this treatment or not. In the following figures, uptake is examined in terms of non-uptake, measured as those who were assessed by a drug service but did not actually take up treatment. This measure obviously misses out on those members of the above communities who are in need of treatment but do not actually come into contact with or access services. NDTRS data for treatment entrants is presented in this section.

Unfortunately, within the NDTRS this definition excludes those who are currently injecting as people who are assessed for treatment, but who do not go on to access treatment do not have any data recorded in relation to their substance misuse, such as if they are currently injecting drugs. There are low numbers of individuals represented in the following graphs. Additionally, there were very small numbers of Roma accessing drug treatment services and as such their data is not presented here.

\_

<sup>&</sup>lt;sup>11</sup> The HRB are currently examining the uptake of treatment for communities defined on the basis of geographies and deprivation, as such the analysis presented here does not address this indicator from that perspective.



Figure 42: Percentage of cases of members of the Irish Traveller Community assessed but not taking up treatment, total and by sex, NDTRS 2014-2019 (unpublished data)

Figure 42 shows data for cases who are members of the Irish Traveller Community who were assessed for treatment but did not go on to take up treatment. The percentage is calculated as the number of cases assessed but did not continue to treatment as a proportion of the total number of cases which were assessed. There is a clear upward trend in the percentage of cases which do not go on to access treatment, rising from 6% to 10% between 2014-2019. This equates to an increase from 36 to 66 individuals in absolute terms. There is no clear difference for males and females over the period though female non-uptake is lower initially and finishes higher.

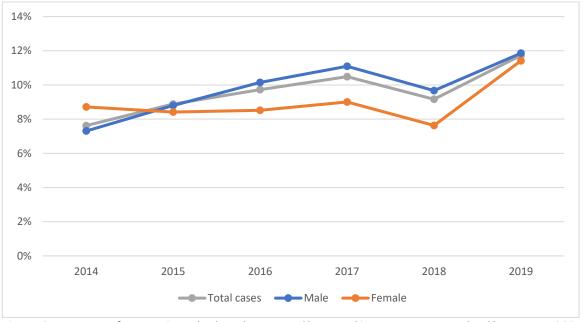


Figure 43: Percentage of cases registered as homeless assessed but not taking up treatment, total and by sex, NDTRS 2014-2019 (unpublished data)

Figure 43 presents data for cases registered as homeless who were assessed for treatment but did not go on to take up treatment. Similarly, to members of the Irish Traveller Community, there is an upward trend in cases of people who are homeless not taking up treatment over the period. There is a rise in the total cases from 8% to just under 12%. Females had worse non-uptake levels between 2016-2018 but finished up at the same levels as males in 2019.

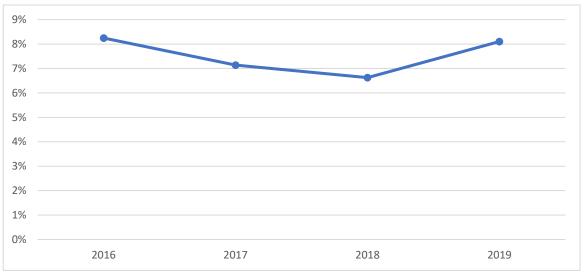


Figure 44: Cases where person identified as homosexual or bisexual assessed but not taking up treatment, NDTRS 2016-2019 (unpublished data)

Note: The data field requesting sexual orientation was only added in 2016. Since 2016 the numbers of cases reporting their sexual orientation is very low.

Figure 44 shows data for those cases identifying as homosexual or bisexual over the period 2016-2019. The series is relatively stable over the period at around 8%, indicating that uptake of treatment for homosexual and bisexual individuals has not changed over the period. However, the HRB has noted that this may be an underestimation due to reluctance of some services to ask service users about their sexual orientation, as well as the non-participation of some LGBTQI specific services.

### Goal 5: Develop sound and comprehensive evidence-informed policies and actions

Goal 5 of RHSR focuses on supporting high quality monitoring, evaluation and research to ensure evidence-informed policies and practice in the area of substance misuse. Actions under Goal 5 are; strengthening Ireland's drug monitoring system; supporting evidence-informed practice and service provision; strengthening the NDTRS; developing a prioritised programme of drug and alcohol-related research on an annual basis and; improving knowledge of rehabilitation outcomes. Indicators under this goal include completing a General Population Drug Prevalence survey and Opiate Prevalence study and increasing the number of publicly funded drug and alcohol services completing NDTRS forms.

Data related to the latter indicator are reported in this section, however it was not possible to extricate services that are purely publicly funded from the overall sample. There are a very small number of services that are partially privately funded included in the presented data.

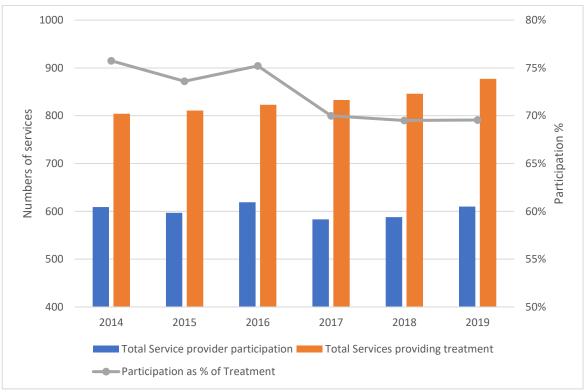


Figure 45: Service coverage of the NDTRS, NDTRS 2014-2019 (unpublished data)

It can be seen from Figure 45 that there has been a slight expansion in the number of services providing treatment over the period 2014-2019. However, the numbers of services participating in the NDTRS has been steady at approximately 600 for the last 6 years. The reason why participation in the NDTRS has not increased at the same rate as services providing treatment can partly be explained by an in-depth review of GPs participating in the NDTRS. As many GPs retain the same clients for many years with limited new entries per year,

a higher threshold was applied to be considered as participating in the NDTRS. However, the review realigned the participation of this group to other types in the NDTRS which results in a more accurate, but significantly reduced calculation of GP coverage. The following graph demonstrates the effect of this revised approach on participation rates by setting.

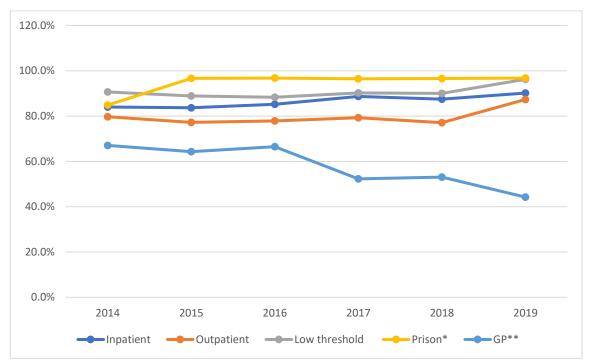


Figure 46: Percentage provider coverage by treatment setting, NDTRS 2014-2019 (unpublished data)

Notes:\*Prison data is limited to certain services \*\* GP reporting revised

Figure 46 shows there is a fall in GP coverage from 2016 onwards. In general, the four other categories – Inpatient, Outpatient, Low Threshold, Prison – were higher in 2019 than any of the previous years, with Outpatient climbing above 80% for the first time since 2014. However, it is important to note that data for prisons reflect participation in the NDTRS only by the addiction counselling services contracted by the Irish Prison Service and in-reach services provided by the community/voluntary sector. The addiction treatment services provided by the medical units in prisons (including methadone substitution, detoxifications etc) are not routinely captured in the NDTRS because these consultant-led in-reach addiction services and addiction specialist GP services, do not actively participate in the reporting system.

# 4.7 Discussion of findings under each goal

This section presents a discussion of the main findings under each of the five goals of RHSR. It is important to reiterate that it was not possible to secure data for all indicators under each goal and furthermore the indicators do not cover all the strategic actions included in RHSR. It was therefore not possible to make a conclusion on progress under each of the goals however key findings are discussed. It is again important to note that RHSR is the latest in a series of national drugs strategies with ongoing impacts likely reflected in performance indicators. Furthermore, performance indicators will be impacted by a wide range of complex societal issues and changes in indicators are not necessarily causally linked to the RHSR strategy.

### Goal 1: Promote and protect health and wellbeing

The majority of available indicators under Goal 1 relate to substance use among children and young adults. Most of these indicators are moving in the right direction in terms of progress or holding steady. Heavy episodic drinking or binge drinking is the exception, with rates increasing significantly from 2015-2019 among 15-16-year-olds. Results of the latest wave of the Drug Prevalence survey were not available at the time of writing and will be an important measure of progress under the goal of prevention when they become available and will help to determine if binge drinking is indeed becoming more prevalent.

# Goal 2: Minimise the harms caused by the use and misuse of substances and promote rehabilitation and recovery

The percentage of cases with problematic substance use accessing treatment in NDTRS addiction services within a month of assessment (for those aged 18 and over) and within a week of assessment (for those aged under 18) have remained above 90% since December 2018. According to NDTRS data, some groups experiencing below average timely access rates for substance misuse include: those residing in institutions (residential care/ halfway house) and those located in CHO 3 (Clare, Limerick, and North Tipperary). Access within a month of assessment for cases of alcohol misusers across all services reporting to the NDTRS has been stable, remaining above 96% since 2014. According to NDTRS data, some groups experiencing below average timely access rates for alcohol misuse include: those residing in unstable accommodation and those located in CHO 6 (south east Dublin, and east Wicklow) and CHO 7 (Kildare/West Wicklow, Dublin West, Dublin South City, and Dublin South West). Although participation in the NDTRS could be improved in the regions listed above, this does not explain the below average timely access rates. Access rates could be impacted by a number of factors, related to capacity and demand in the region.

However, these indicators measure timely access for a subset of those presenting for treatment after some form of assessment, the numbers waiting for this assessment are not measured here. Furthermore, there is still a gap in knowledge in relation to those with problematic substance use who are not in contact with drug treatment services.

Understanding the unmet need for services is important in interpreting much of the results under Goal 2 and as such the conclusions that can be drawn are constrained by this. Previous research on opiate prevalence for example, estimated that there were 18,988 people who used opiates in Ireland in 2014 (39). An update of this research is ongoing and will be helpful in understanding unmet need.

'Successful exits' averages at 47% from 2014-2019. Among those cases with complete exit data, there was a slight decrease in those defined as a 'successful exit' since 2017, though this is not the case for all substance types and is likely impacted by the high number of cases entering treatment in 2018/2019 who have not yet completed treatment. For certain interventions cases may remain in treatment for longer periods and are not necessarily finished treatment by the end of the calendar year. NDTRS data also shows that median lag to treatment for those cases recording a successful exit has improved in recent years, dropping from 20 to 17 years in 2018 and remaining at 17 years in 2019, suggesting that individuals are presenting for treatment slightly earlier than before. This lag to treatment time may vary significantly by treatment type. This 17-year delay however does represent a significant delay to treatment and an area for further improvement.

Access to OST has been steadily rising in recent years, with numbers in receipt of OST rising from ~9,300 in 2014 to close to 10,000 by the end of 2019. Numbers in receipt of OST rose further in response to Covid-19, reaching 10,465 by June 2020. Although these increases are positive, there are again limitations in what can be assessed in relation to the performance of these services without knowing the level of unmet need. There was also an upward trend in the number of unique individuals attending the pharmacy needle exchange programme since 2014, reaching a peak at 2,213 in July 2019. However, a sharp decline in this number is evident in the first quarter of 2020, likely reflecting the impacts of the first wave of Covid-19. The number of pharmacies providing this service has also been slowly declining since 2017.

Finally, data from the HSE on timely access to treatment and written care plans could not be presented due to data quality issues and data from the NDRDI was not available from after 2017 at the time of writing, this data would also be relevant for assessing progress under Goal 2.

# Goal 3: Address the harms of drug markets and reduce access to drugs for harmful use

In relation to drug markets and access to drugs, there is a downward trend in the number of recorded offences for cultivation or manufacture of drugs from 345 in 2014 to 192 in 2019. The trend for offences for importation of drugs has remained relatively stable over the period 2014 to 2019. However, possession offences (possession for sale and supply and possession for personal use) have been increasing since 2015.

There has been an increase in the quantity (kg) of drugs seized in recent years and the number of seizures reported by Revenue has increased since 2017.

Reducing rates of driving while under the influence of substances is also included under Goal 3 and rates of driving while over the legal alcohol limit have reduced since 2017. The number of offences for driving while under the influence of drugs has risen in this time, though changes in the way drugs are detected may be impacting this trend.

The limitations of CSO crime statistics detailed above should be borne in mind when interpreting these findings.

Finally, four meetings of the Early Warning and Emerging Trends Subcommittee took place in 2016, three took place in 2019 and 2020 and one meeting has taken place so far in 2021.

# Goal 4: Support participation of individuals, families and communities

Even those who come into contact with services may not necessarily go on to take up treatment due to numerous individual circumstances and barriers. Measuring the uptake of treatment in communities most affected by substance misuse was one of the indicators included in RHSR. For the purposes of the paper and based on available data, communities most affected by substance use were defined as members of the Irish Traveller, LGBTQI, and homeless communities. There is an upward trend in the percentage of cases from the Irish Traveller Community which do not go on to access treatment, rising from 6% to 10% between 2014-2019. There is also an upward trend in cases of people who are homeless not taking up treatment over the period. Uptake of treatment for cases of individuals who are homosexual and bisexual has remained stable over the period. It is not clear what might be influencing this negative trend for members of the Irish Traveller Community and homeless communities. Data from the NDRDI was not available at the time of writing and would also be relevant for assessing progress under Goal 4, in relation to the number of deaths associated with drug use in marginalised communities.

### Goal 5: Develop sound and comprehensive evidence-informed policies and actions

Data to be analysed under Goal 5 was limited to NDTRS data on the number of services providing treatment and completing forms. There has been a slight expansion in the number of services providing treatment over the period 2014-2019. However, the numbers of services participating in the NDTRS has been steady at approximately 600 for the last 6 years. Improved participation of all services, in particular the medical units in the IPS, mental health addiction services and GP OST would be beneficial for the NDTRS. Finally, results of the latest wave of the Drug Prevalence survey were not available at the time of writing and will be an important measure of progress under this goal in relation to conducting and publishing prevalence studies on substance use.

# *In summary*

The performance of RHSR has been examined in terms of available data on the performance indicators outlined in the RHSR document and findings have been discussed under the five goals of the strategy. However, limitations in the availability of data has constrained the conclusions that can be drawn on the progress made under each goal, and in turn the overall

performance of RHSR. It is clear that some indicators are moving in the right direction (for example rates of alcohol use among 10-17 year olds are reducing), some are moving in the wrong direction (for example increases in non-uptake of treatment among members of the Irish Traveller and homeless communities) and for some it is difficult to determine (for example, increases in numbers in receipt of certain services could be a positive if demand is being met but could also indicate increased prevalence of harmful drug use, similarly increased number of offences for certain crimes related to drugs could indicate successes in supply reduction or an increase in this type of crime).

# 5. Overall Discussion of Findings

### 5.1 Discussion

This section will discuss the results of Section 3 on Expenditure, and Section 4 on Performance together.

RHSR constituted a shift in the policy orientation of drug and alcohol policy towards a health-led approach to drug and alcohol misuse and a move away from a criminal justice approach. An assessment of the extent to which changes in expenditure and performance indicators reflected this shift in focus would take into account a number of factors.

Ideally, expenditure could be broken down by the proportion which was directed towards a health led response to drug and alcohol misuse (e.g. expenditure on prevention) and that which relates to a criminal led response (e.g. expenditure on incarceration).

Further, it would be necessary to break down expenditure by that which was principally demand driven expenditure (e.g. expenditure on OST) and that which resulted from decisions at policy level, through resource allocation within government agencies or through changes at the front line i.e. Gardaí directing a drug user to health services rather than undertaking an arrest.

The current expenditure data does not quite allow for this breakdown. While it can reasonably be inferred that expenditure by An Garda Siochána and the Department of Justice is likely to encompass expenditure which responds to drug use from a criminal perspective, the data quality does not allow for trend analysis over the relevant period.

A health-led response to drug misuse might be observed in expenditure increases in HSE Addiction Services, HSE Drug and Alcohol Task Force Projects, the Department of Children & Youth Affairs, the Department of Social Protection (former FÁS area), Irish Prison Service, and the Department of Education & Skills.

The labelled expenditure data available in Table 2 indicates that HSE addiction services has had the largest increase in expenditure in absolute terms over the period 2014 to 2019. The period 2017-2019, the period covered by the RHSR policy, showed an increase in expenditure in absolute terms of €5.5m. Additionally, expenditure on Department of Social Protection had the biggest percentage increase over the period. While this does somewhat tie in with a pattern of expenditure changes which emphasise a health led response, it is not clear if these are a result of decisions at policy or operational level. Labelled expenditure on other health focused areas such as Drug and Alcohol Task Force Projects, and Department of Health remained stable, while expenditure on Department of Education & Skills has reduced somewhat from 2018-2019. Other areas of health policy such as Sláintecare, Healthy Ireland and Mental Health, not included in this paper, would also contain expenditure which was directed towards a health led response and as such an overall assessment of the extent to which public expenditure changes have reflected this shift in focus cannot be made here. Further to this, a shift in public policy focus on drug misuse to a health focus may not necessarily give rise to expenditure changes at the aggregate level and as such, an assessment

of the extent to which this has been achieved in public policy or public service delivery also cannot be made.

The RHSR included performance indicators under 5 goals. Again, expenditure cannot be neatly broken down by that part which principally served each goal. Under Goal 1 which is focused on promotion of well-being and prevention of drug misuse in later life, there were improvements in available indicators except for binge drinking among 15-16 years. Amongst the expenditure data, Department of Health (which is largely spent on prevention measures), Department of Education & Skills and Department of Children & Youth Affairs are mostly likely to target this goal, however, expenditure in these areas has remained stable and in the case of the Department of Education and Skills has reduced somewhat. Amongst all the goals included in RHSR, this one is most likely to be driven by wider socioeconomic influence beyond government programmes and as such an attempt to link aggregate expenditure with this goal is particularly fraught.

Performance Indicators under Goal 2, which focuses on treatment and rehabilitation, are most closely related to expenditure for HSE Addiction Services and HSE Drugs and Alcohol Task Force Projects. Improvements observed under Goal 2 include increased access to OST, and reduced lag to treatment for those with 'successful exits', while the percentage of cases accessing treatment within a month of assessment for substance misuse (or within a week of assessment for those aged under 18) have remained above 90% since December 2018. Similarly, for cases of alcohol misuse access within a month of assessment has remained above 96% since 2014. On the other hand, treatment exits defined as 'successful exits' have reduced somewhat since 2017, the number of individuals attending pharmacy needle exchange programmes reduced in the first half of 2020 and the number of pharmacies participating in the needle exchange programme have reduced since 2017. As was noted previously, expenditure on HSE Addiction Services increased significantly although it is challenging to identify how this is tied into improvements in specific performance indicators without more granular detail at programme level. The unlabelled expenditure estimates on drug-related hospitalisation of €22 million could also be categorised under this goal although it might reasonably be framed as expenditure on treatment of drug related harm which arises because of failures in efforts to treat and rehabilitate drug users.

Goal 3, which focuses on supply reduction, is mainly delivered through funding through AGS, Revenue Customs Service, and the Department of Justice. Improvements observed under this goal include increases in the number and quantity of drug seizures reported by Revenue. CSO crime statistics would suggest that the number of offences for cultivation or manufacture of drugs and driving/in charge of a vehicle while over legal alcohol limit are reducing while offences for possession of drugs for personal use, possession of drugs for sale or supply, and driving/in charge of a vehicle while under the influence of drugs are increasing, though this data has been deemed 'under reservation' by the CSO due to data quality issues. As was noted above, labelled expenditure estimates from AGS, Revenue Customs Service, and the Department of Justice are of insufficient quality to allow for analysis, and further to this point the fact that the CSO has placed data from AGS 'under reservation' limits our capacity to understand how these relate. Unlabelled expenditure of €44 million on incarceration due to

controlled drug offences and drug related crime is directed towards Goal 3 to the extent that prison reduces incentives to commit crimes and recidivism.

Goal 4, which focuses on supporting participation and Goal 5, which focuses on developing evidence informed policies and actions, do not clearly link to the expenditure analysis included here and so no commentary will be made.

In order to conduct a more conclusive assessment of expenditure and performance in the area of drug and alcohol misuse a number of data availability and quality issues would need to be addressed.

### Learnings for mid-term review of RHSR

Section 3.1 of this paper analysed data on labelled expenditure across government departments and agencies, however this was significantly constrained by the quality of the underlying data and reporting gaps. What this process highlights is the need to unpack the expenditure data in a more systematic way to fully understand its limitations. Challenges in estimating public expenditure on drug and alcohol programmes are not unique to Ireland, and for this reason the European Monitoring Centre for Drugs and Drug Addiction provide guidance for countries on how estimates of labelled expenditure can be improved to enable better cost effectiveness analysis of public expenditure. As per EMCDDA guidance, better evaluation of public expenditure could be achieved in the latter half of the RHSR policy by a review of the quality and consistency of the data collection alongside a stakeholder mapping exercise of relevant data holders to ensure comprehensiveness of the data.

An assessment of the status and availability of each of the 29 performance indicators was produced and provided to the Drugs Policy Unit to guide their refinement for the mid-term review, a summary of this assessment is included in Appendix 1. Some instances where the performance indicators were not clearly defined have been highlighted, instances where data was not available have been identified and limitations of the available data have been clearly outlined in the paper (e.g. CSO and HSE data issues). This paper has also highlighted the importance of understanding the demand and unmet need for treatment services in order to assess how well the strategy is achieving its objectives.

### 5.2 Continued Relevance

### 5.2.1 Impacts of Covid-19

The Covid-19 pandemic and its impacts will have important implications for the continued relevance of RHSR up to the end of the strategy in 2025. The pandemic, associated restrictions and public health measures have had and continue to have significant impacts on drug usage patterns, drug markets, drug and alcohol service provision and, demand for services. This has been explored elsewhere by IGEES (40) and findings are summarised below. Although the impacts of Covid-19 are not yet evident in most of the available data reported in this paper, the below findings provide some information on the impacts of the pandemic in the area.

These findings largely relate to the short-term impacts of the pandemic, the long-term impacts are yet to emerge and will be important to document for this and any future national drugs strategy.

### Drug Patterns and Drug Markets

The findings of the EMCDDA Mini Web survey (as reported elsewhere (40)) have indicated a number of changes to drug usage patterns as a result of Covid-19 restrictions. Overall, it appears the use of illicit drugs reduced during restrictions, with 60% of survey respondents having not used or reduced their use of illicit drugs since restrictions began. The use of drug types typically used in social settings have particularly reduced, with the largest reductions seen in cocaine/crack-cocaine and ecstasy/MDMA usage. Drug taking behaviour during the pandemic varies by drug type and pre-pandemic frequency of use, with the majority who used cannabis, heroin, and other opioids once a week or more often before the pandemic continuing to display frequent use during restrictions. A considerable number of respondents (38%) have increased their use of cannabis, with this increased demand contributing to supply issues in the market, which have been exacerbated by stockpiling behaviours. Despite international travel restrictions, there does not appear to have been a major disruption to drug trafficking, with the EU goods trade continuing throughout restrictions. Disruptions in the supply chain have been largely at the distribution level, due to social distancing, travel restrictions or other measures in place. The majority of both people who use drugs, and drug and alcohol services have reported difficulty accessing drugs. There have also been reports of price increases and reduction in the quality of drugs obtained. The use of drug drops, purchasing via the internet and impersonation of food delivery personnel have all been documented in order to combat these challenges.

Despite the overall reduction in use reported among the general population who use drugs, there does appear to be a cohort for which the pandemic has significantly worsened drug taking behaviour and overall health and wellbeing. Drug and alcohol services have reported increased levels of alcohol consumption, drug consumption, relapsing and new risk-taking behaviours among their clients, as well as very negative impacts on physical and mental health. The homeless community is considered the worst impacted population group who use drugs, in terms of the effects of the pandemic on health and wellbeing (40).

### Impacts on Service provision

According to a survey of drug and alcohol services (40), the majority have been highly or extremely impacted by the pandemic. Services have adapted to public health guidelines and social distancing measures, meaning for most services, a reduction in capacity. The largest reductions in service provision according to the survey, were in relation to the availability of services and face to face contact with clients. Many services are also reporting increased numbers attending (46%), and new clients presenting (63%). To manage the increased demand and the challenges of public health guidance, services have adopted new methods.

As discussed in section 2.3, a number of legislative, administrative and service delivery changes occurred since the pandemic in order to reduce the potential harms associated with the pandemic for people who use drugs, for example by increasing access to OST and prescription medications to stabilise drug use. According to surveyed services, the majority (83%) have reported developing new ways of delivering services. Methods employed include telephone and online consultations/sessions, videoconferencing, the use of personal protective equipment and physical distancing.

There have also been impacts in terms of staff, work planning, operating costs, and reporting to funders, all of which will impact on the capacity of services to respond to the increased demands associated with the pandemic. A total of 73% of services felt that new drug and alcohol services or initiatives will be needed in light of the continuing impact of Covid-19, particularly, alcohol services, dual mental health and substance misuse services, and outreach and after-hours services.

The short-term impacts of Covid-19 will need to be considered in the midterm review of RHSR, as well as any emerging longer-term impacts. The continued monitoring of the impacts of the pandemic on drug and alcohol usage and service provision will be important to ensure RHSR can respond to these challenges. This is particularly relevant in the context of the fifth goal of RHSR, and the objective to 'Support high quality monitoring, evaluation and research to ensure evidence-informed policies and practice.' As stated on page 70 of RHSR, 'Adapting swiftly to rapidly changing conditions using reliable information will be an essential attribute in the strategic response to substance misuse in the coming years.'

### 5.2.2 Resource allocation

While derivation of precise estimates of direct and indirect costs are challenging, the overall economic burden of drug and alcohol misuse is considerable. Previous estimates of the societal cost of problem alcohol use have produced estimates of €2.4 and €3.7 billion, with annual healthcare costs alone having been estimated at between €0.8 and €1.5 billion. Overall labelled expenditure across all Government departments exceeds €200 million annually. To this, this paper contributes an estimate of unlabelled expenditure and lost productivity due to problem drug use, finding annual direct and indirect costs are likely to be in excess of €148 million.

There is inherent uncertainty in attributing some of these costs to drug and alcohol misuse, and in understanding the magnitude and timing of any expected savings as a result of improved services, which are of central importance to any future cost-effectiveness analysis designed to guide policy-making about the efficient use of resources at the aggregate level.

### 5.3 Conclusions

Having an estimate of the total economic burden that problem drug and alcohol use places on society, both in terms of the labelled expenditure on initiatives to ameliorate this problem, as well as the costs of dealing with the consequences of it, is a first step in generating the economic evidence base with which to evaluate public policy on substance misuse.

This paper assessed changes in labelled expenditure before and after the introduction of RHSR and for the first time, developed an estimate of unlabelled expenditure on drug misuse. There remain significant challenges with evaluating drug expenditure in Ireland due to data availability and quality. EMCCDA guidance on drug expenditure evaluation, which synthesises the approaches and best practice employed in other countries, suggests Ireland is not alone in these challenges, however this paper does advance our understanding of these issues.

This paper also assessed the performance of the Reducing Harm Supporting Recovery strategy by undertaking trend analysis on the performance indicators listed in the 2017 document. A significant number of these indicators were not available. Some of these data gaps will improve over time. Certain indicators for the period in question were not reported at the time of writing but will be at a later date. In reviewing future health policies of this nature, consideration may need to be given to the balance required between evaluating policies soon after their introduction to allow for an assessment of their performance, with the reality that reporting of data on key performance indicators can sometime lag by 24-36 months. Other gaps were due to challenges fitting data to performance indicators, an absence of data or issues of data quality. Improvements in data availability and quality will support the ongoing monitoring of RHSR out to 2025 and any future evaluations in this area.

# References

- 1. Department of Health. Reducing Harm, Supporting Recovery. 2017; Available from: http://www.drugs.ie/downloadDocs/2017/ReducingHarmSupportingRecovery2017\_2 025.pdf
- Council of the European Union. EU ACTION PLAN ON DRUGS 2017-2020: Notice from European union institutions, bodies, offices and agencies. Off J Eur Union [Internet]. 2017;215(2). Available from: http://www.emcdda.europa.eu/system/files/attachments/5642/eu-action-plan%27on-drugs-2017-2020.pdf
- 3. IGEES. VFMR Initiative FPAs Irish Government Economic and Evaluation Service [Internet]. [cited 2020 Apr 20]. Available from: https://igees.gov.ie/publications/expenditure-reviewandevaluation/vfmr-initiative-fpas/
- 4. Department of Tourism Sport & Recreation. Building on Experience: National Drugs Strategy 2001-2008 [Internet]. Vol. 1. 2001. Available from: https://www.drugsandalcohol.ie/5187/1/799-750.pdf
- Department of Community Rural and Gaeltacht Affairs. National Drug Strategy(interim) 2009-2016 [Internet]. An Straitéis Náisiúnta Drugaí (Eatramhach) National Drugs Strategy (Interim). 2009. Available from: https://www.drugsandalcohol.ie/12388/1/DCRGA\_Strategy\_2009-2016.pdf
- 6. Bates G. The drugs situation in Ireland: an overview of trends from 2005 to 2015. [Internet]. 2017. Available from: http://www.drugs.ie/resourcesfiles/ResearchDocs/Ireland/2018/Thedrugssituationinl relandanoverviewoftrendssince2005.pdf
- 7. Dept of Health Ireland. Report on Public Consultation undertaken to inform the new National Drugs Strategy [Internet]. 2017. p. 227. Available from: https://health.gov.ie/wp-content/uploads/2017/07/Report-on-the-public-consultation-undertaken-to-inform-the-NDS.pdf
- 8. Bates G, Jones L, Maden M, Cochrane M, Pendlebury M, Sumnall H. HRB drug and alcohol evidence reviews: The effectiveness of interventions related to the use of illicit drugs: prevention, harm reduction, treatment and recovery. A "review of reviews" [Internet]. Health Research Board; 2017. Available from: https://www.drugsandalcohol.ie/27253/1/fHB2656\_Review of reviews\_web.pdf
- Griffiths P, Singleton N. Report of the Rapid Expert Review of the National Drugs Strategy 2009-2016. 2016;(August). Available from: https://www.drugsandalcohol.ie/27289/1/Rapid-Expert-Review-of-the-National-Drugs-Strategy-2009-2016.pdf
- 10. Healthy Ireland Department of Health. Healthy Ireland: A framework for improved health and wellbeing 2013 2025 [Internet]. 2013. p. 9–14. Available from: https://www.hse.ie/eng/about/who/healthwellbeing/healthy-

- ireland/hidocs/healthyirelandframework.pdf
- 11. National Substance Misuse Strategy Steering Group. Steering Group Report On a National Substance Misuse Strategy. 2012. p. 23.
- 12. Minister for Health. An Bille Sláinte Poiblí (Alcól), 2015 Public Health (Alcohol) Bill 2015 [Internet]. 2015. Available from: http://health.gov.ie/wp-content/uploads/2015/12/PHAB-2015-as-published.pdf
- 13. Department of Children and Youth Affairs. Better Outcomes Brighter Futures: The national policy framework for children & young people 2014-2020. 2014.
- 14. Health Research Board. Issue 63 | Autumn 2017. Drugnet Irel. 2017;(63).
- 15. Haase T, Pratschke J. A Performance Measurement Framework for Drug and Alcohol Task Forces Final Report. 2017.
- 16. Mongan D, Galvin B, Farragher L, Dunne M, Nelson M. Impact of COVID-19 on drug services in four countries. 2020;(June):1–3.
- 17. European Monitoring Centre for Drugs and Drug Addiction. Drug treatment expenditure: a methodological overview. Luxembourg: Publications Office of the European Union; 2017. p. 283.
- 18. Mongan, D. & Long J. Alcohol in Ireland: consumption, harm, cost and policy response [Internet]. HRB Overview Series 10. Dublin: Health Research Board; 2016. Available from: https://www.hrb.ie/fileadmin/publications\_files/Alcohol\_in\_Ireland\_consumption\_h arm\_cost\_and\_policy\_response.pdf
- 19. Hope A. Alcohol Literature Review [Internet]. Department of Health; 2014. Available from: https://www.drugsandalcohol.ie/25324/1/Alcohol-Literature-Review-2014.docx
- 20. Byrne S. Costs to Society of Problem Alcohol Use in Ireland. A Report for the Health Service Executive [Internet]. Dublin: Health Service Executive; 2010. p. 42. Available from: https://www.hse.ie/eng/services/publications/topics/alcohol/costs to society of problem alcohol use in ireland.pdf
- 21. National Drug Intelligence Center. The Economic Impact of Illicit Drug Use on American Society [Internet]. U.S. Department of Justice National Drug Intelligence Center; 2011. p. 1–123. Available from: https://www.justice.gov/archive/ndic/pubs44/44731/44731p.pdf
- 22. IGEES. Costings of an alternative approach to personal drug possession [Internet].

  Department of Justice and Equality; 2018. p. 1–28. Available from:

  http://www.justice.ie/en/JELR/ANNEXE\_III\_\_Costings\_of\_an\_alternative\_approach\_to\_personal\_drug\_possession.pdf/Files/ANN

  EXE III Costings of an alternative approach to personal drug possession.pdf
- 23. The Parole Board. The Parole Board Annual Report | 2018. 2018;(01). Available from: http://www.justice.ie/en/JELR/Parole\_Board\_Annual\_Report\_2018.pdf/Files/Parole\_Board\_Annual\_Report\_2018.pdf

- 24. Wood DM, De La Rue L, Hosin AA, Jurgens G, Liakoni E, Heyerdahl F, et al. Poor Identification of Emergency Department Acute Recreational Drug Toxicity Presentations Using Routine Hospital Coding Systems: the Experience in Denmark, Switzerland and the UK. J Med Toxicol [Internet]. 2019;15(2):112–20. Available from: https://link.springer.com/content/pdf/10.1007/s13181-018-0687-z.pdf
- 25. Popova S, Rehm J, Patra J, Baliunas D, Taylor B. Illegal drug-attributable morbidity in Canada 2002. Drug Alcohol Rev [Internet]. 2007 Jan 1;26(3):251–63. Available from: https://www.tandfonline.com/doi/abs/10.1080/09595230701247673
- 26. Health Service Executive. National Hepatitis C Strategy 2011-2014. 2012; Available from:
  http://www.hse.ie/eng/services/news/newsarchive/2012archive/sept12/HepCStrate gy.html
- 27. Health Research Board. National Drug-Related Deaths Index 2008 to 2017 data. 2019;(138):1–8. Available from: https://www.hrb.ie/fileadmin/2.\_Plugin\_related\_files/Publications/2019\_Publication\_files/2019\_HIE/NDRDI/2008-2017/National\_Drug-Related\_Deaths\_Index\_2008\_to 2017\_data.pdf
- 28. Krol M, Brouwer W, Rutten F. Productivity costs in economic evaluations: past, present, future. Pharmacoeconomics. 2013 Jul;31(7):537–49.
- 29. Collins D, Lapsley H. Counting the cost: estimates of the social costs of drug abuse in Australia in 1998-9. Monogr Ser No 49 [Internet]. 2002;(49). Available from: http://drogfokuszpont.hu/wp-content/uploads/kokk\_social\_cost\_australia\_99.pdf
- 30. Caulkins JP, Kleiman M. How much crime is drug-related? History, Limitations, and Potential Improvements of Estimation Methods. Rockville, MD Natl Crim Justice Ref Serv [Internet]. 2014;44. Available from: https://www.ojp.gov/pdffiles1/nij/grants/246404.pdf
- 31. Gifford B. Prison Crime and the Economics of Incarceration. Stanford Law Rev [Internet]. 2019;71(1):71–135. Available from: https://review.law.stanford.edu/wp-content/uploads/sites/3/2019/01/Gifford-71-Stan.-L.-Rev.-71-2019.pdf
- 32. Drummond M. Cost-of-illness studies: a major headache? Vol. 2, PharmacoEconomics. New Zealand; 1992. p. 1–4.
- 33. Health Research Board. National Drug Treatment Reporting System 2012-2018 Drug Data. 2019. p. 8.
- 34. Health Service Executive. Social Inclusion Key Performance Indicator Metadata 2019. 2019.
- 35. Health Research Board. Irish National Focal Point to the European Monitoring Centre for Drugs and Drug Addiction. Focal Point Ireland: national report for 2019 harms and harm reduction. 2020;1–59. Available from: https://www.drugsandalcohol.ie/25259/
- 36. The ESPAD Group. ESPAD Report 2019: Results from the European School Survey Project on Alcohol and Other Drugs. 2019.

- 37. Kolto A, Gavin A, Molcho M, Kelly C, Walker L, Nic Gabhainn S. The Irish Health Behaviour in School-aged Children (HBSC) Study 2018. 2020. p. 1–80.
- 38. Keane E, Gavin A, Perry C, Molcho M, Kelly C, Gabhainn SN. Trends in Health Behaviours, Health Outcomes and Contextual Factors between 1998-2014: findings from the Irish Health Behaviour in School-aged Children Study [Internet]. 2017. Available from: www.nuigalway.ie/hbsc/
- 39. Rael A, Santos D, Hay G, Jaddoa A, Oyston J, Webster J, et al. Estimating the Prevalence of Problematic Opiate Use in Ireland Using Indirect Statistical Methods [Internet]. National Advisory Committee on Drugs and Alcohol; 2016. Available from: https://www.drugsandalcohol.ie/27233/1/nacda\_estimating\_ireland\_opiate\_use final.pdf
- 40. IGEES. Impact of COVID-19 on Drug and Alcohol Services and People who use Drugs in Ireland: A report of survey findings. 2021;0–57.

# Appendix 1

Indicators related to Goal 1	Named Source	Sourcing for paper	Presented in paper
Reduction in the use of illegal drugs in the last year	Drug Prevalence Survey (DPS)	Not available at time of writing*	
Reduction in the alcohol consumption rate	DPS	Not available at time of writing*	
Increase in knowledge with respect to the harms of alcohol, cannabis and other drugs	DPS, other sources	Not available at time of writing*	
Delaying the age of first use of illicit drugs	ESPAD survey	√ (in relation to cannabis use only)	✓
Delaying the age of first drink	DPS, ESPAD survey	Not publicly available, likely available on request from ESPAD	
Reduction in binge drinking among young people	ESPAD, DPS and HBSC Surveys	✓ Sourced from HBSC and ESPAD	✓
Stabilisation in recent and reduction in current prevalence of illicit drugs in 15-24 year old population	DPS	Not available at time of writing*	
Prevalence of children living with parental substance misuse	Growing up in Ireland Survey, NACDA research on children	GUI data is sensitive data, officer of Statistics status required. NACDA	
	living with parental substance misuse	research from 2011.	
Identify the number of children who come to the attention of child protection services as a result of parental substance misuse	Children in Care dataset, HSE	HSE do not collect this data. Data not available from Tusla.	
Indicators related to Goal 2	Named Source	Sourcing for paper	Presented in paper
% of problem drug users accessing treatment within 1 month of assessment	HSE Figures	✓ Sourced from HSE and NDTRS	✓ Presented for NDTRS data only due to HSE data quality issues
% of problem drug users aged under 18 accessing treatment within 1 week of assessment	HSE Figures	✓ Sourced from HSE and NDTRS	✓ Presented for NDTRS data only due to HSE data quality issues
Mental Health Clinical Programme on Dual Diagnosis and Joint Protocols between Mental Health services and Drug and Alcohol services in place	HSE figures	Data not available from HSE	
% of successful exits from treatment in a given year	NDTRS	✓ Successful exits defined in consultation with NDTRS	✓
% of problem substance users who have an agreed care plan	HSE figures	<b>✓</b>	Data not presented due HSE data quality issue

Number of people who received NDRF training	HSE figures	Not available at time of writing	
Reduction in the number of drug-related poisonings by 2020, as compared with 2016, based on latest data available in the reference period	NDRDI	Not available at time of writing	
Reduction in the number of deaths where opiates are implicated	NDRDI	Not available at time of writing	
Indicators related to Goal 3	Named Source	Sourcing for paper	Presented in paper
Participation of relevant sectors and experts in the Early Warning and Emerging Trends Sub-Committee	Department of Health	✓	✓
Timely and coherent response to adverse incidents	HSE figures	HSE do not hold this data	
The volume of drugs seized that are considered to be intended for the Irish market	AGS/Revenue's Customs data	✓ Quantity (kg) and no. of seizures by Revenue. No. of seizures by AGS.	✓
Number of prosecutions for importation, manufacture and distribution of illicit drugs	Recorded Crime Offences	✓ Data sourced from CSO for Importation offences, cultivation/ manufacture offences, possession of drugs for sale or supply and possession for personal use.	✓ with note CSO Recorded Crime statistics are 'under reservation'.
The number of supply detection cases	Recorded Crime Offences	✓ as above	✓ as above
Indicators related to Goal 4	Named Source	Sourcing for paper	Presented in paper
Uptake of treatment in communities most affected by substance misuse	NDTRS	✓ Communities defined in consultation with NDTRS and policy unit and based on available data	<b>✓</b>
Changes in problem substance use in communities affected by deprivation	NDTRS	NDTRS refers to DPS as a more appropriate source	
The number of deaths associated with drug use in marginalised communities	NDRDI	Not available at time of writing	
Indicators related to Goal 5	Named Source	Sourcing for paper	Presented in paper
General population survey completed and results published	DPS	Not available at time of writing*	
Opiate prevalence study completed and results published	Department of Health	Not available at time of writing	
Increase in the number of publicly funded drug and alcohol services completing NDTRS forms	NDTRS	✓	✓
Annual Prioritised research programme agreed	n/a	n/a	

<sup>\*</sup>Results of the Drug Prevalence Survey have since been published by the HRB and are available at: <a href="https://www.drugsandalcohol.ie/34287/">https://www.drugsandalcohol.ie/34287/</a>