An Exploration of the Relationship Between Addiction Treatment and Geographic Deprivation

An Roinn Sláinte
Department of Health

Contents

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This report was jointly authored by Alana Ryan, Martin Quigley, Meadhbh Keegan and Patrick Collins of Pobal, and Anne Marie Carew, Michael O'Sullivan and Suzi Lyons of the Health Research Board (HRB).

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Glossary of Terms

API	Application Programming Interface
BZD	Benzodiazepine
CSO	Central Statistics Office
EUDA	European Union Drugs Agency
GPs	General Practitioners
HR	Health Regions
HRB	Health Research Board
HSE	Health Service Executive
km	Kilometre
NDTRS	National Drug Treatment Reporting System
NHIS	National Health Information Systems
OAT	Opioid Agonist Treatment
TDI	Treatment Demand Indicator

Executive Summary

The study has demonstrated the strong relationship between area-based disadvantage and addiction treatment episodes: living in a deprived area is strongly associated with use of drug and alcohol treatment services.

The relationship becomes more pronounced as area-based deprivation increases, with the highest rate of treatment episodes seen in the most deprived areas. The rate of addiction treatments in the most disadvantaged areas is 13 times higher than in the most affluent areas.

For certain drug types the relationship is more pronounced. Heroin treatment is 41 times more prevalent in disadvantaged areas compared with the most affluent areas. The pattern of higher treatment rates in more disadvantaged communities holds across every deprivation band and across every drug type. The relationship between deprivation and treatment is weakest for alcohol, although rates are still 7.5 times higher in the most deprived areas compared with the most affluent ones.

The relationship between deprivation and addiction treatment was most apparent in urban settlements, particularly cities, and much less pronounced in rural ones.

13
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7.5
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The relationship between deprivation and treatment is weakest for alcohol, although rates are still **7.5 times higher** in the most deprived areas compared with the most affluent ones.

41
TIMES MORE PREVALENT

Heroin treatment is **41 times more prevalent** in disadvantaged areas compared with the most affluent areas.

Summary of data

- There were 20,970 treatment episodes recorded in the NDTRS in 2024. Of those, 19,339 included an associated Small Area, which allowed for geospatial analysis and deprivation classification. The data comprised of 14,449 episodes (69%) from outpatient services; 4,474 (21%) from inpatient services; followed by low threshold services (1,815 episodes,9%) and GPs (232 episodes of Opioid Agonist Treatment (OAT) treatment only, 1%).
- Alcohol was the most common type of substance for which treatment was provided, accounting for 40.5% of all treatment episodes in 2024. Close to one quarter of treatment episodes relate to cocaine use (powder and crack), with heroin, cannabis and benzodiazepine (BZD) the other most common drug types for which treatment was provided.

Addiction treatment and the Pobal HP Deprivation Index

- Just 3.8% of the population live in areas classified as very (or extremely) disadvantaged, these areas accounted for 15% of treatment episodes for all drug types. While those living in areas classed as 'disadvantaged' represent 10% of the population but 20% of treatment episodes.
- The majority of the general population (71%) live in 'marginally above average' or 'marginally below average' areas while those areas account for only 56% of all treatments.
- This skew towards disadvantaged areas is strongest for heroin, crack cocaine, powder cocaine and benzodiazepines, and weakest for alcohol and cannabis.
- Differences in the strength of the relationship between deprivation and drug treatment were observed across HSE Health Regions (HRs): HSE Dublin and North-East has the highest treatment rates within the most disadvantaged areas, while HSE West & North-West is the lowest.

Treatment rate per 10,000 of the population

- Expressing treatment rate per 10,000 population allows direct comparison of rates across deprivation categories. This showed that the rate of addiction treatments in the most disadvantaged areas is 13 times higher than in the most affluent areas.
- The pattern of higher treatment rates in more disadvantaged communities holds across every band of deprivation or affluence and across every drug type. For heroin, the rate of treatment in the most disadvantaged areas is 41 times higher than the rate in the most affluent areas.
- The relationship between deprivation and treatment is weakest for alcohol, although rates are still 7.5 times higher in the most deprived areas compared with the most affluent ones.

Urban/rural divide

- Across all levels of urbanisation, the most common drug for which treatment was sought was alcohol. While a greater proportion of treatments in cities and urban areas relate to heroin, crack cocaine and benzodiazepines, alcohol remains the most prevalent.
- There is little variation in powder cocaine treatment across the urban/rural divide as it remains the second most commonly treated drug behind alcohol in all areas.
- For all drug types, treatment rates are highest in cities, followed then by independent urban towns, with lower rates in satellite urban towns as well as rural areas. Within any urban area, there is a clear linear relationship with deprivation, with very and extremely disadvantaged areas within cities having the highest treatment rates.

Gender and age and deprivation

- The majority of treatment episodes are male (66.3%), this gender difference holds across age bands and drug types with some exceptions in relation to crack cocaine where a more even gender split is apparent.
- The deprivation associated with place of residence was found to not affect the distribution of treatment episodes across females and males. The proportion of treatment episodes for females in the most deprived areas was comparable to the most affluent areas.

Distance travelled for addiction treatment

- Based on the place of residence of the treatment case, the median distance travelled to a service was 5.5 kilometres (km) in 2024. This was despite treatment for that particular drug being available at a median 1.68km from the home address. It is important to recognise that there may be valid reasons for treatment at a service which may be geographically further away.
- There is a clear gradated relationship between level of urbanness and distance travelled as the most urban areas have the shortest actual median travel distance (2.3km) and more remote areas have the longest actual median travel distance (27.2km).
- Treatment cases where the individual resided in HSE Dublin and the North East had the shortest median treatment distance of 2.7km. This region also had a smaller range in travel distances with the maximum travel distance being over 43.6km. By contrast, HSE West and North West had the largest spread in travel distances, with a median travel length of 17.5km, and 10% of treatments episodes associated with home addresses of over 105km away. Maximum travel distances are largely driven by the lower number of inpatient treatment services and the average longer travel associated with these.

Service type

- For low threshold and GP services the median distance travelled ranges from less than 2km, rising to 3.3km on average for those attending outpatient services. The median distance of travel to inpatient care was 54.4km.
- The difference between actual median distance travelled for treatment compared to the closest available service for heroin and crack cocaine treatment services was just less than 1km.
- At the national level, the median distance travelled for alcohol treatment (11.3km) greatly exceeded the distance to the closest service which was a median 1.5km distance from the home address.

Time between referral and treatment

- In 2024, almost one third (31.9%) of all treatment episodes began on the same day as the recorded referral. With 22.7% starting treatment within a week after referral. In total, over 80% of treatment episodes started within one month (30 days) of referral.
- Just over half of low threshold treatment episodes (52.8%) commence treatment within one day, and approximately one third of all those within outpatient settings (35.4%).
- Inpatient services see a very different pattern of duration between referral and treatment, with longer average times to treatment. However, the majority (61.9%) of episodes associated with inpatient services commenced treatment within one month, with a further 21.7% treated between one to two months and 16.4% treated after more than two months.
- Time between referral and treatment varied for different drugs. For example, within low threshold services, the median average (median) time from referral to treatment where either benzodiazepines or powder cocaine were the main problem drug, was within one week, but for the category 'other drugs', this was 11-12 days. Within outpatient services, the median average time between referral and treatment was lowest for crack cocaine (7.8 days) and greatest for alcohol (19.8 days).
- By contrast, for inpatient services there was a wider variation depending on the drug type. Average times were lowest for powder cocaine (40.0 days) and alcohol (27.5 days) but longest for crack cocaine (148.2 days).
- There were notable differences between the time to treatment for Health Regions depending on service type and drug type.
- Based on analysis of place of residence data, cases which resided in the three Health Regions which encompass the capital city, HSE Dublin and South East, HSE Dublin and North East and HSE Dublin and Midlands have comparatively shorter time to treatment for outpatient and low threshold services, but have notably longer referral to treatment times for inpatient care. HSE Dublin and North East experience the longest average latency between referral and admittance for residential treatment (75.6 days).

Introduction

It is widely recognised that health is heavily socially determined. Health outcomes are shaped by broader conditions such as housing quality,[1] air pollution levels,[2] and neighbourhood design,[3] which all exert significant influence, and when combined with inequalities in employment, income and education, account for much of the variance in health outcomes.[4] Racism, discrimination and structural inequalities can further compound and magnify these inequities, heightening risk of physical and mental ill-health.[5] The World Health Organisation notes 'At all levels of income, health and illness follow a social gradient: the lower the socioeconomic position, the worse the health'[6].

Within this evidence base, significant attention has been paid to the relationship between socio-economic deprivation and problem drug and alcohol use. In the UK, recent spatial analysis has demonstrated that socioeconomic deprivation was associated with higher rates of drug-related deaths, with the majority of deaths occurring in the most deprived areas.[7] In Ireland, previous research undertaken by the Health Research Board (HRB) and Pobal found that while just 14% of the national population come from the areas classified as disadvantaged on the Pobal HP Deprivation Index, 42% of opioid treatment episodes were reported from these areas.[8] Qualitative research with people who use drugs in Ireland has also pointed to the role of environmental risk factors in drug-related harm, highlighting that harms in the local community when combined with a loss of meaningful relationships contributed to the emergence of addiction challenges.[9]

This project seeks to build on the evidence gathered to date, using the latest available data from the HRB's National Drug Treatment Reporting System (NDTRS) to examine whether community deprivation continues to be closely associated with drug and alcohol treatment. It is intended as an update to previous work by Pobal and the HRB,[10] to inform and support the development of the successor strategy to *Reducing Harm, Supporting Recovery: A health-led response to drug and alcohol use in Ireland 2017-2025*.

This research has been produced by Pobal, on behalf of the Department of Health, in close collaboration with the Health Research Board.

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8 Collins, P., Carew, A., Craig, S., Galvin, B. and Lyons, S (2023) Analysis of the relationship between addiction treatment data and geographic deprivation in Ireland" A supplement to the Winter 2023 issue of *Drugnet Ireland*, HRB

9 O'Mahony, S. (2025). 'The area I'm from is very rough': Drug users' views on the role of social and economic factors in their experiences of drug-related harm. *Journal of Ethnicity in Substance Abuse*, 24(1), 57–85

10 Collins, P., Carew, A., Craig, S., Galvin, B. and Lyons, S (2023) Analysis of the relationship between addiction treatment data and geographic deprivation in Ireland" A supplement to the Winter 2023 issue of *Drugnet Ireland, HRB*

Research Objectives

- To examine whether the rate of addiction treatment episodes[11] (as a proxy for drug or alcohol use) are disproportionately higher in deprived areas, relative to affluent areas, as well as differences by age, gender and urban/rural locality.
- To examine the levels of addiction treatment episodes geographically under the new HSE Health Region (HR) geographies.
- To examine geographic proximity to addiction treatment, based on distance between treatment centre and place of residence.[12]
- To examine the average time between referral and commencement of treatment by deprivation band and across the different HSE Health Region geographies.

Data Sources and Methodology

A statistical analysis was undertaken using the 2022 Pobal HP Deprivation Index and 2024 addiction treatment data from the Health Research Boards's National Drug Treatment Reporting System (NDTRS).

National Drug Treatment Reporting System

The NDTRS is the national epidemiological surveillance database that records and reports on addiction treatment in Ireland (www.hrb.ie/data-collections-evidence/alcohol-and-drug-treatment/). Established in 1990, the NDTRS is maintained by the HRB's National Health Information Systems (NHIS) Unit on behalf of the Department of Health. The NDTRS follows a common and systematic European methodology for collecting and reporting core data on the numbers and profiles of those entering specialised drug treatment each year (treatment demand).[13]

Compliance with the NDTRS requires that data be provided for each new service user attending for their first treatment and for each previously treated service user returning to treatment for problem drug or alcohol use in a calendar year. As currently there is no unique health identifier for addiction treatment in Ireland the unit of analysis for this paper is an addiction treatment episode not an individual. Consequently, repeated episodes for the same person may be present. Findings throughout the report therefore reflect patterns in treatment demand activity rather than prevalence among unique individuals. This distinction is emphasised in all interpretations.

For the purpose of the NDTRS, treatment is broadly defined as 'any activity which aims to ameliorate the psychological, medical or social state of individuals who seek help for their substance misuse problems' for example detoxification, brief intervention, counselling, group therapy etc. Individuals who exclusively attend needle-exchange services only or for social supports only are not included in this analysis.

11 Addiction treatment episodes refers to initiation of treatment.

12 Place of residence is defined as residence in the 30 days prior to treatment, in line with EUDA Treatment demand indicator standard

13 European Union Drugs Agency (EUDA). (2012). Treatment demand indicator (TDI) standard protocol 3.0: Guidelines for reporting data on people entering drug treatment in European countries. EUDA. https://www.euda.europa.eu/publications/manuals/tdi-protocol-3.0_en

Treatment services are categorised into four groups for this analysis:

01.

Outpatient treatment centres are defined as treatment facilities where service users are treated during the day but do not stay overnight. They include public (HSE and voluntary sector) centres/clinics.

02.

Inpatient treatment centres are defined as centres where the service users stay overnight. They include therapeutic communities, units in a hospital and centres that offer residential facilities including detoxification (which may be publicly or privately funded).

03.

General practitioners providing data on OAT only are included in the NDTRS. Data is not collected on GPs providing other forms of addiction treatment, for example, treatment for powder cocaine or alcohol. GP data in the NDTRS should be interpreted in the context of the relatively lower coverage of this service type compared to all others.

04.

Low-threshold agencies are centres/programmes aiming to prevent and reduce health-related harm associated with problem drug or alcohol use, in particular the incidence of blood-borne viral infections and overdoses, and to encourage contact with health and social services.

In 2024, there were 844 addiction services known to the NDTRS, with an overall participation rate of 71% of services returning data. Action 5.1.47 of the current national drugs strategy[14] states that all publicly funded addiction services are required to return data to the system. Participation rates are very high (89% or higher) for outpatient, residential and low threshold services, but only 44% for eligible GPs, even though the NDTRS has a dedicated research nurse available to collect data on site. Some services may not have new entries to treatment in a calendar year, depending on the treatment type, for example GPs with a small number of clients who are stable on OAT. Data on treatment provided in prison was not included in this analysis.

GP data must be interpreted in the context of the NDTRS methodology, which records new treatment entries in each calendar year. Given the nature of OAT treatment, it is not expected that all GPs would have new treatment entries every year as many individuals receiving OAT in general practice remain engaged with the same GP on an ongoing basis. Thus, while incomplete GP data contributes to lower overall coverage, its impact is moderated by this fact.

14 Department of Health. (2017) Reducing harm, supporting recovery. A health-led response to drug and alcohol use in Ireland 2017 - 2025. Dublin: Department of Health. https://www.drugsandalcohol.ie/27603/https://www.drugsandalcohol.ie/27603/

Almost all treatment episodes in the NDTRS have an associated address in which the service user accessing treatment resided 30 days prior to treatment (in line with EUDA Treatment Demand Indicator standard), which is recorded by the treatment centre through an Application Programming Interface (API) with Health Atlas. This address is associated with a range of geocodes including Small Area (but excluding Eircode) which are available to the NDTRS for research purposes. Each treatment episode in the NDTRS is assigned a Small Area code based on the service user's recorded home address in the 30 days prior to treatment.

To support interpretation of the NDTRS dataset, an illustrative figure outlining the structure of the dataset, service type categorisation and Small Area assignment by service type has been included in *Appendix 1.* This provides a high-level overview of the fields captured and their relevance for geospatial analyses.

Gender options on the NDTRS were expanded in 2021 to include 'non-binary' and in 2022 to include 'in another way'. Due to very low numbers these cases are not included in the data provided for this publication.

The Pobal HP Deprivation Index

The Pobal HP Deprivation Index is Ireland's primary social gradient tool for assessing geographic disadvantage. The Index has been created using CSO's Small Area boundaries[15] and uses data from Census 2022, combining ten measures of an area's levels of disadvantage into a single measure of disadvantage or affluence. These include educational attainment, employment status, lone parent ratios, and the numbers living in individual households as per the model in Figure 1. The 18,919 Small Areas in Ireland are each assigned a deprivation/affluence score based on these ten variables. Scores range from below -30 (extremely deprived) to + 20 and above (very affluent).

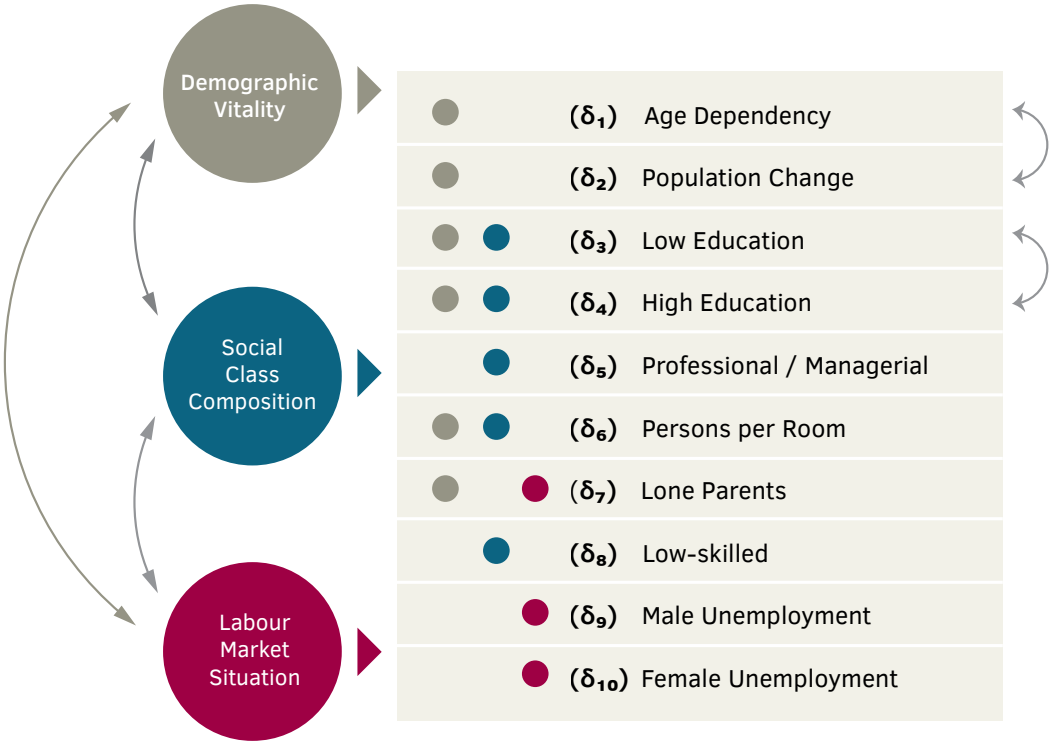


Figure 1: Model of the Pobal HP Deprivation Index

15 Small Areas are areas of population generally comprising between 80 and 120 dwellings.

Statistical Approach

The Small Area code collected in the NDTRS allows for comparison with area-based deprivation, using the Pobal HP Deprivation Index. In 2024, there were 20,970 treatment episodes recorded in the NDTRS. Of those, 19,339 included an associated Small Area, which allowed for geospatial analysis and deprivation classification.

Statistical analysis was conducted on the numeric Deprivation Index scores to determine and describe the degree of correlation between NDTRS treatment episodes and Pobal HP deprivation scores. For more familiar categorical analysis, the Pobal HP Deprivation Index is categorised into bands of extremely disadvantaged to very affluent and each band has a width of 10, e.g. disadvantaged is -20 to -10.

Findings

Addiction Treatments Provided by Services

The majority of the treatment episodes (69%, n=14,449) were reported by outpatient services. The next most common service type was inpatient services (21%, n=4,474) followed by low threshold services (9%, n=1,815) and GPs (1%, n=232).

When interpreting the data, it is important to remember that not all services provide treatment for every primary drug type.

Table 1 gives an overview of the number of services which treated each drug type; alcohol treatment is provided by the highest number of services.

Table 1: Number of treatment providers included in the study by primary drug type treated, NDTRS 2024

Director	No. services treating drug
Alcohol	280
Heroin	243
Powder Cocaine	238
Cannabis	229
Benzodiazepines	194
Crack Cocaine	157
Other opioids	133
Other substances	98
Methadone	77
Other hypnotics & sedatives	49
Hallucinogens incl. LSD	45
Other stimulants	32
Volatile inhalants	30
Amphetamines	21
MDMA	9
Total Number of Services	**408**

Alcohol was the most common type of substance for which treatment was provided, accounting for 40.5% of all treatment episodes in 2024 (Figure 2). One quarter of treatment episodes relate to cocaine use (powder and crack), with heroin, cannabis and benzodiazepine (BZD) the other most common drug types for which treatment was provided. The category of "Other drugs" comprises the following: Other opioids, Other substances, Methadone, Other hypnotics & sedatives, Hallucinogens incl. LSD, Other stimulants, Volatile inhalants, Amphetamines and MDMA.

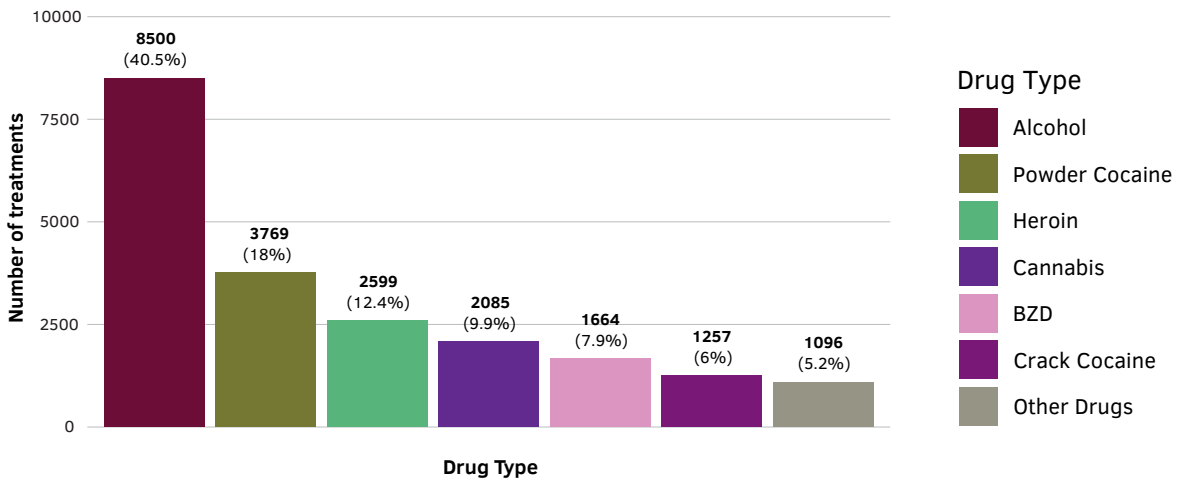


Figure 2: Number and percentage of NDTRS addiction treatment episodes per drug type, 2024[16]

16 'BZD' is used as an abbreviation for benzodiazepines in graphs and tables

Addiction Treatment by Deprivation Band

Number of Addiction Treatment Episodes by Deprivation Band

The 19,339 treatment episodes were assigned a deprivation score based on the Small Area in which the service user lived in the thirty days prior to treatment.

Table 2 shows the number of treatment episodes per deprivation band, for each primary drug type.

Table 2: Number of NDTRS addiction treatment episodes by primary drug types and deprivation band, 2024

Deprivation Category	All Drug Types	Alcohol	BZD	Cannabis	Powder Cocaine	Crack Cocaine	Heroin	Other drugs
Very Disadvantaged	2,902	763	280	298	662	260	483	156
Disadvantaged	3,875	1,433	334	396	770	254	492	196
Marginally below average	5,696	2,514	445	547	1017	256	657	260
Marginally above average	5,287	2,432	355	567	898	251	481	303
Affluent & Very Affluent	1,579	727	109	170	270	80	127	96
All	**19,339**	**7,869**	**1,523**	**1,978**	**3,617**	**1,101**	**2,240**	**1,011**

There were differences in the geographic spread of addiction treatment episodes (Table 3 and Figure 3), for example

- While the majority of the general population (70.9%) live in 'marginally above average' or 'marginally below average'; those areas accounted for 56% of all treatments.
- Just 3.8% of the population live in areas classified as very or extremely disadvantaged; however these areas accounted for 15% of treatment episodes for all drug types, 21.6% of all treatments for heroin and 23.6% of all treatment for crack cocaine.
- Combined, very disadvantaged and disadvantaged areas, represent 14.0% of the general population; however, these areas accounted for 35% of all addiction treatments and almost 44% of all treatments for heroin.

Table 3: Percentage of national population and NDTRS addiction treatment episodes by primary drug types and deprivation band, 2024

Deprivation Category	Population	All Drug Types	Alcohol	BZD	Cannabis	Powder Cocaine	Crack Cocaine	Heroin	Other drugs
Very & Extremely Disadvantaged	3.8%	15.0%	9.7%	18.4%	15.1%	18.3%	23.6%	21.6%	15.4%
Disadvantaged	10.2%	20.0%	18.2%	21.9%	20.0%	21.3%	23.1%	22.0%	19.4%
Marginally below average	29.4%	29.5%	31.9%	29.2%	27.7%	28.1%	23.3%	29.3%	25.7%
Marginally above average	41.5%	27.3%	30.9%	23.3%	28.7%	24.8%	22.8%	21.5%	30.0%
Affluent	14.1%	7.8%	8.9%	6.8%	8.3%	7.1%	7.0%	5.5%	9.3%
Very Affluent	1.0%	0.3%	0.4%	0.3%	0.3%	0.4%	0.3%	0.1%	0.2%

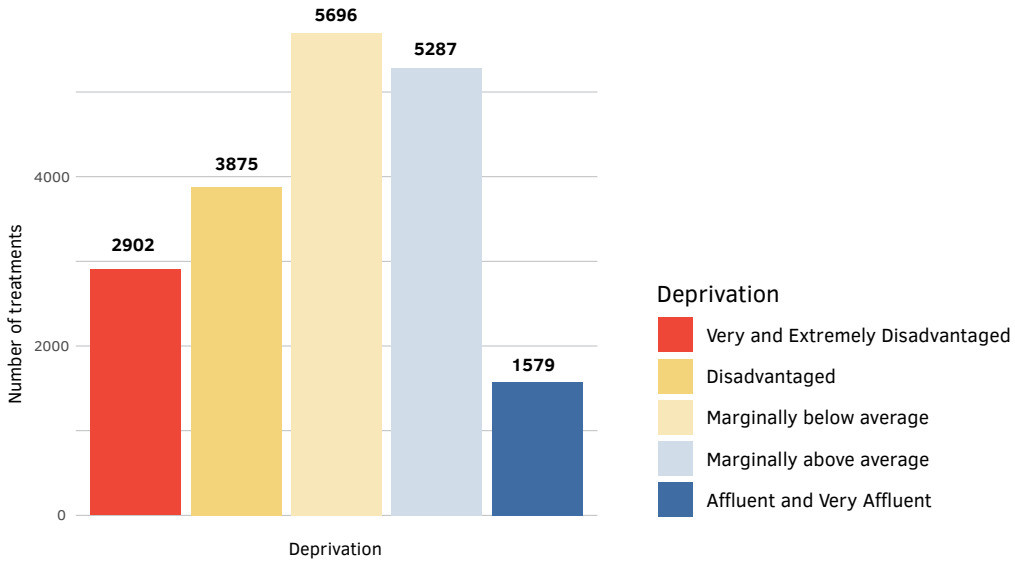


Figure 3: Distribution of NDTRS addiction treatment episodes by deprivation band, 2024

The more disadvantaged the area, the greater the magnitude of this relationship. This skew towards disadvantaged areas is strongest for heroin (Table 3 and Figure 4), crack cocaine, powder cocaine and benzodiazepines, and weakest for alcohol and cannabis.

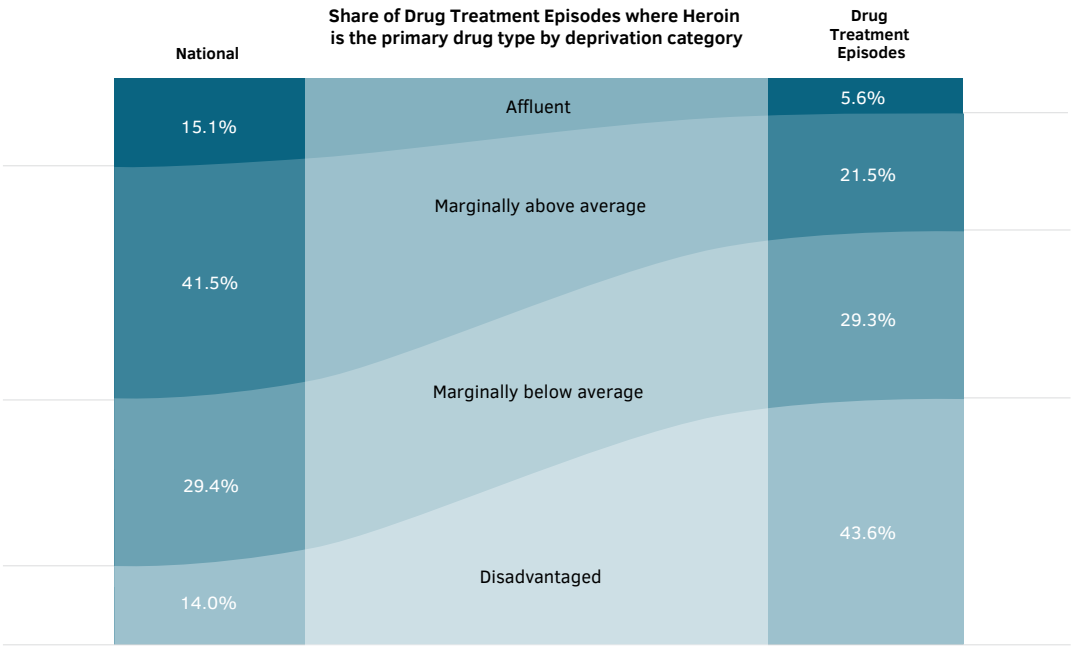


Figure 4: **Share of NDTRS treatment episodes where heroin is the primary drug type by deprivation category, 2024**

National Addiction Treatment Rates per Deprivation Band

To account for the distribution of deprivation categories and to allow comparison of the rates of addiction treatment episodes for each band, independent of the population size within each band, a rate of addiction treatment episodes per 10,000 of population was also analysed (Figure 5 and Table 4).

There is a consistent trend observable across the deprivation categories, with the treatment episode rate increasing with every band of increased deprivation. The rate of treatment episodes was 148.3 per 10,000 people living in the most disadvantaged communities, versus a rate of 11.5 per 10,000 people in the most affluent areas. This means the rate of addiction treatments in the most disadvantaged areas is 13 times higher than in the most affluent areas.

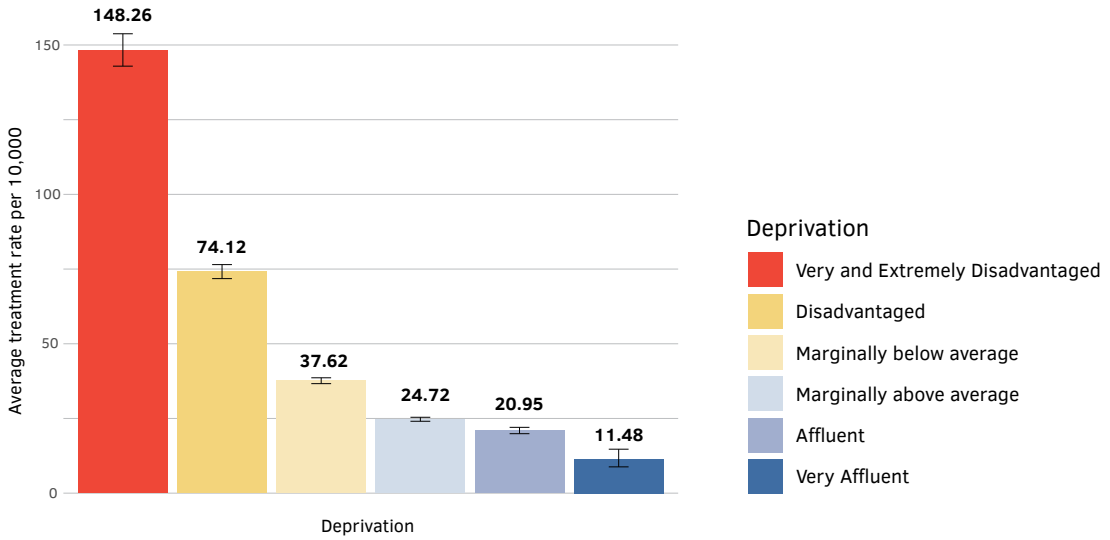


Figure 5: Rate of NDTRS addiction treatments per 10,000 people for all drug types by deprivation band with 95% Confidence Interval, 2024

However, a steeper gradient in treatment rates for certain drugs was observed as socio-economic deprivation increases. Heroin and crack cocaine treatment rates are 2.6 times higher when comparing 'very and extremely disadvantaged areas' to "disadvantaged areas". In contrast, alcohol treatment rates only increase by a factor of 1.4.

Table 4: Rate of NDTRS Addiction treatment episodes per 10,000 people, by primary drug type and deprivation band, 2024

Deprivation Category	All Drug Types	Alcohol	BZD	Cannabis	Powder Cocaine	Crack Cocaine	Heroin	Other drugs
Very & Extremely	148.3	39.0	14.3	15.2	33.8	13.3	24.7	8.0
Disadvantaged	74.1	27.4	6.4	7.6	14.7	4.9	9.4	3.7
Marginally below average	37.6	16.6	2.9	3.6	6.7	1.7	4.3	1.7
Marginally above average	24.7	11.4	1.7	2.7	4.2	1.2	2.2	1.4
Affluent	20.9	9.7	1.4	2.3	3.5	1.1	1.7	1.3
Very Affluent	11.5	5.2	0.9	1.1	2.8	0.6	0.6	0.4

For heroin, the rate of treatments in the most disadvantaged areas (24.7 per 10,000) is 41 times higher than the rate in the most affluent areas (0.6 per 10,000) (Figure 6). The pattern of higher treatment rates in more disadvantaged communities holds across every band and across every drug type. The relationship between deprivation and treatment is weakest for alcohol, although rates are still 7.5 times higher in the most deprived areas compared with the most affluent ones.

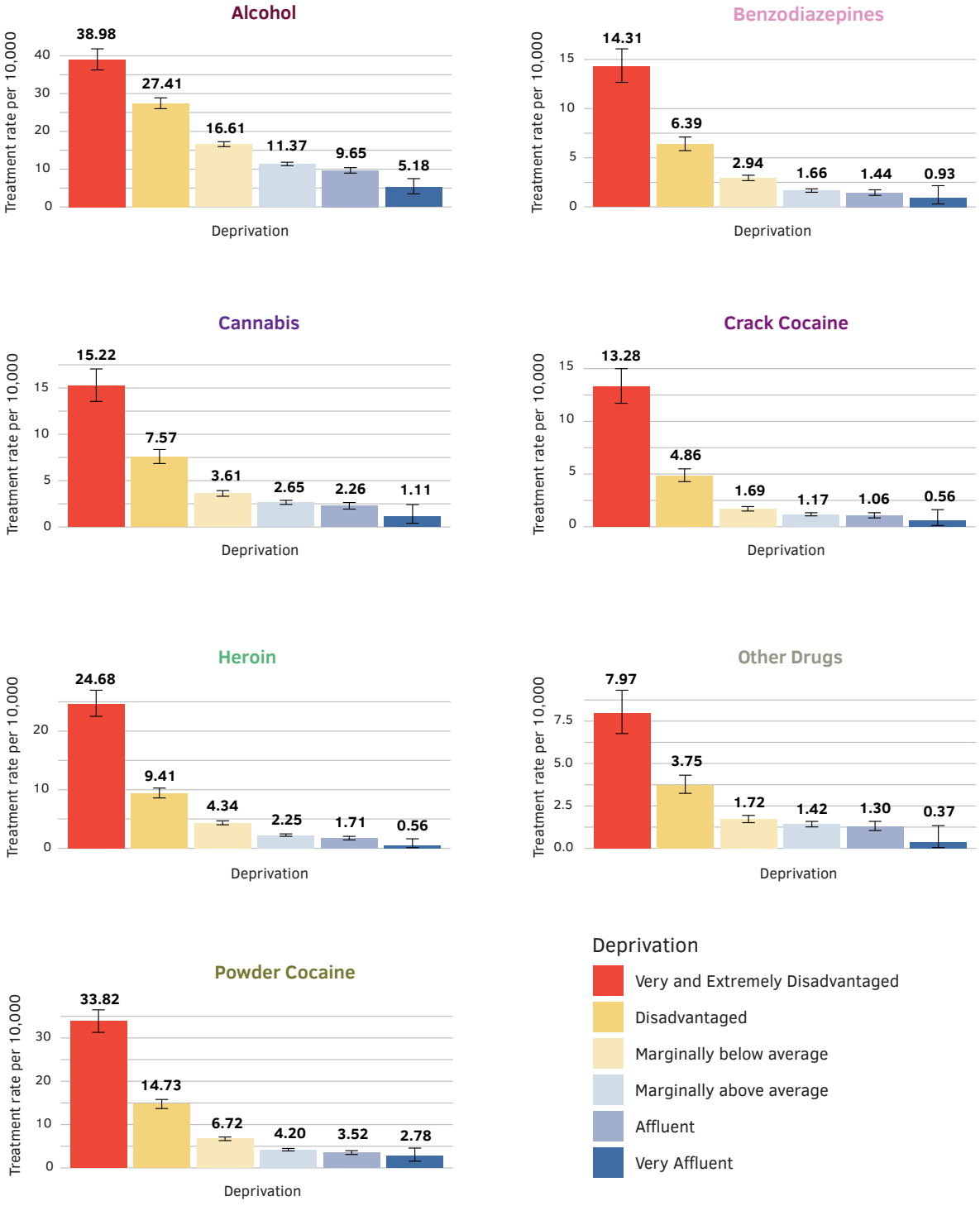


Figure 6: **Average deprivation by NDTRS addiction treatment by drug type with 95% Confidence Interval 2024**

Addiction Treatment Rates Per Deprivation Band Across HSE Regions

An analysis of this data was also performed on the basis of the six HSE regions, with the treatment rate by deprivation band calculated for each region. As can be seen in Figure 6b, HSE Dublin and North-East has the highest treatment rates within the most disadvantaged areas, while HSE West & North-West is the lowest. This allows for an assessment of the degree to which deprivation is correlated to treatment rates across regions, with the relationship strongest in the three regions that include Dublin, and weaker in more rural regions.

The national analysis of the data showed that the rate of addiction treatments in the most disadvantaged areas is 13 times higher than in the most affluent areas.

- In HSE Dublin and Midlands addiction treatments in the most disadvantaged areas is 15.6 times higher than in the most affluent areas
- In HSE Dublin and North East addiction treatments in the most disadvantaged areas is 13.4 times higher than in the most affluent areas
- In HSE Dublin and South East addiction treatments in the most disadvantaged areas is 15.3 times higher than in the most affluent areas
- In HSE Midwest addiction treatments in the most disadvantaged areas is 7.3 times higher than in the most affluent areas.[17]
- In HSE South West addiction treatments in the most disadvantaged areas is 6.1 times higher than in the most affluent areas
- In HSE West and North West addiction treatments in the most disadvantaged areas is 6.1 times higher than in the most affluent areas

The potential reasons for this geographic difference likely relates to both the differing prevalence rates for certain drugs across the country (this research does not include direct prevalence data) as well as differing levels of access to treatment for certain drug types across the country.

17 There were no treatment cases from very affluent areas of this region, so the calculation for this regions was based on the difference between the rate of treatment episodes among people living in very disadvantaged areas, and affluent (rather than very affluent) areas.

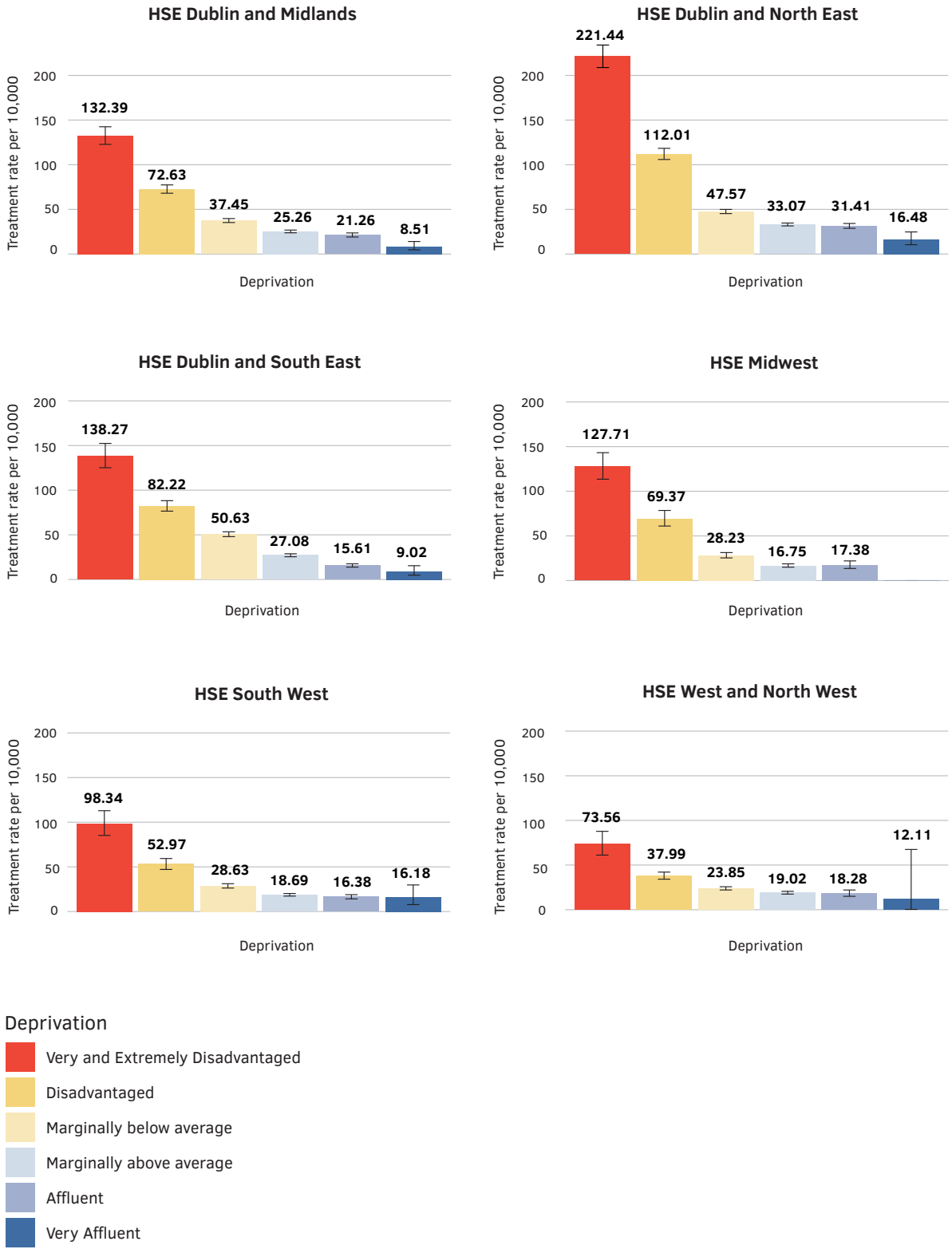


Figure 6b: Drug treatment by deprivation band in each of the HSE Health Regions (HRs) with 95% Confidence Interval

A more detailed picture of drug treatment rates by deprivation category, for each individual primary drug type, is presented in *Appendix 3.*

Addiction Treatment Across Urban and Rural Communities

Figures 7 to 9 show the treatment rates by the CSO six-way settlement classification (Urban/Rural) for each drug.

For all drug types, treatment rates are highest in cities, followed then by independent urban towns, with lower rates in satellite urban towns as well as rural areas. This pattern holds for several of the drug types (heroin, benzodiazepines, cannabis), however, treatment rates for powder cocaine are also comparatively high in highly rural areas, albeit still lower than urban settlements. Crack cocaine treatment is heavily associated with cities, while treatment rates for alcohol are highest in independent rural towns.

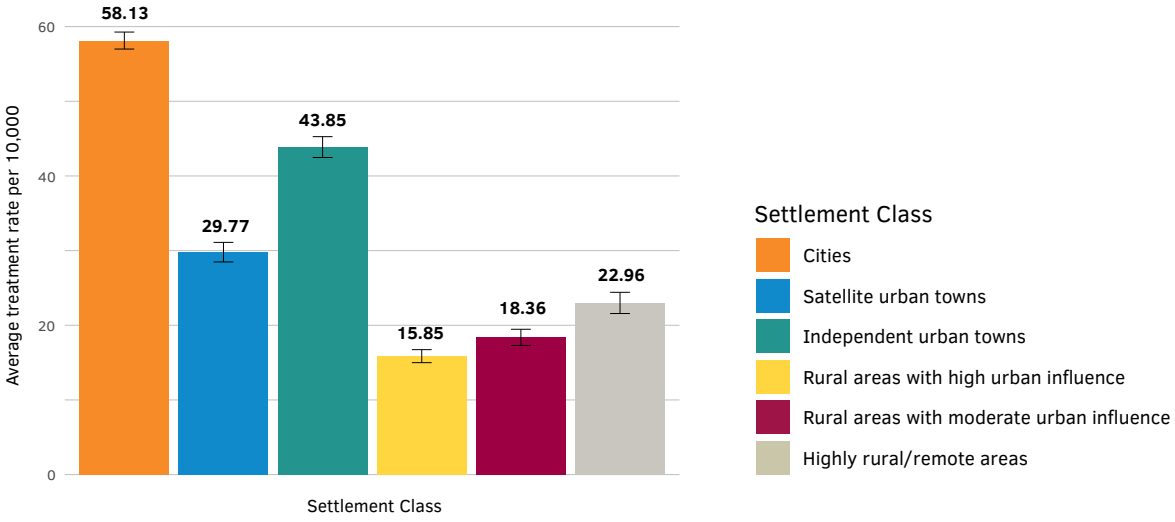


Figure 7: **Average NDTRS addiction treatment rates by settlement class for all drug types with 95% Confidence Interval**

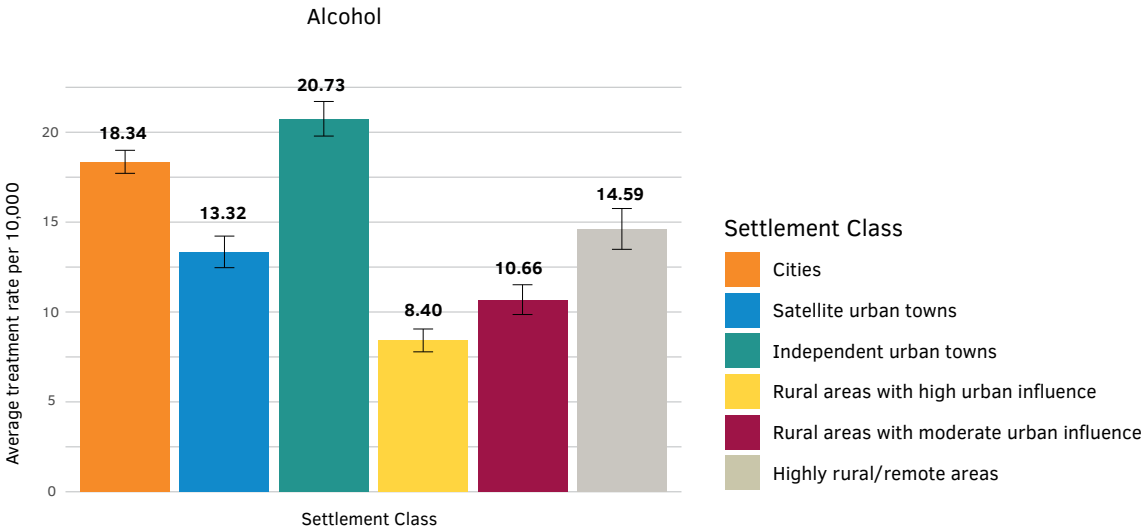


Figure 8: **Average NDTRS addiction treatment rates by settlement class for Alcohol with 95% Confidence Interval**

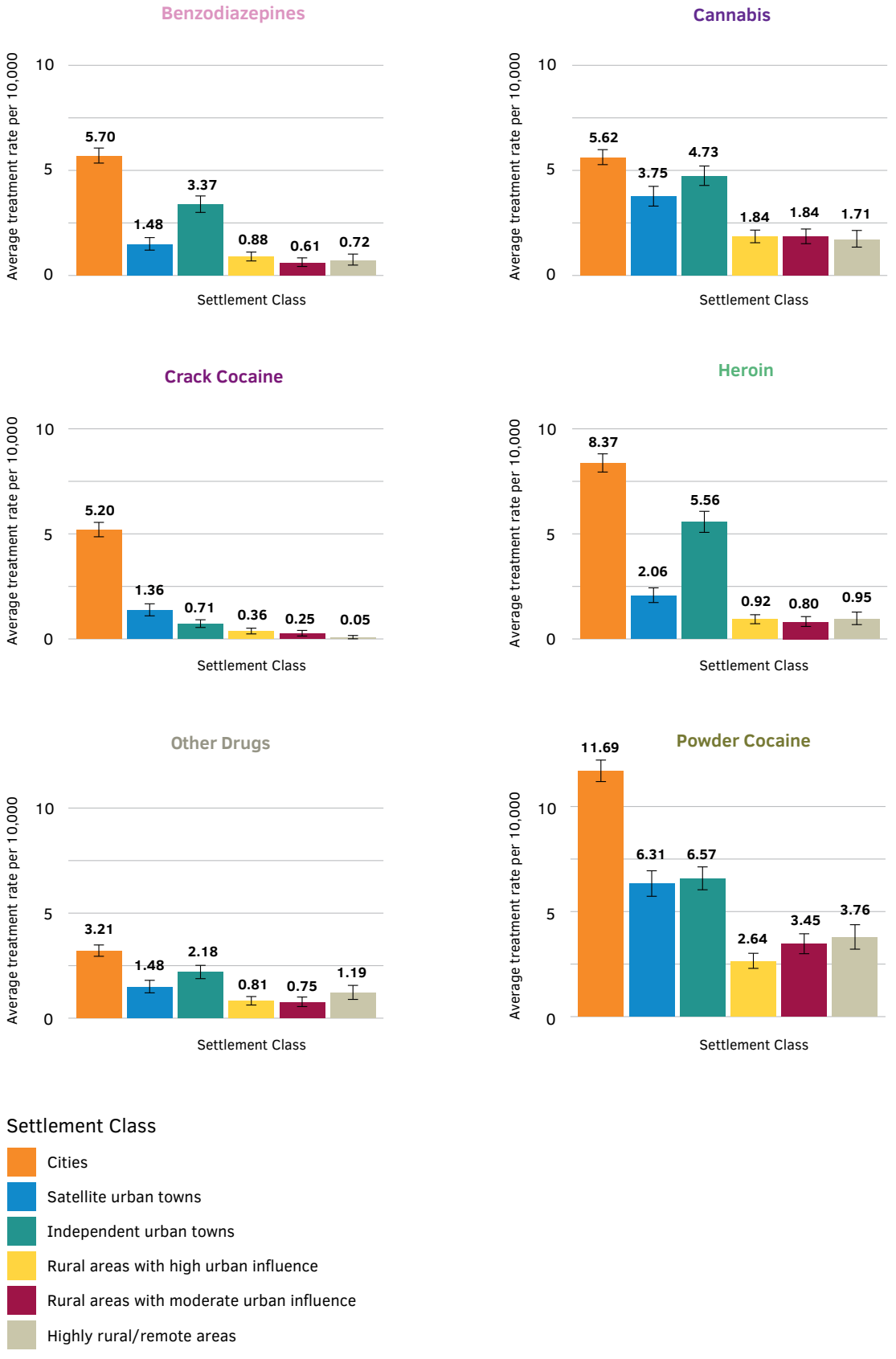
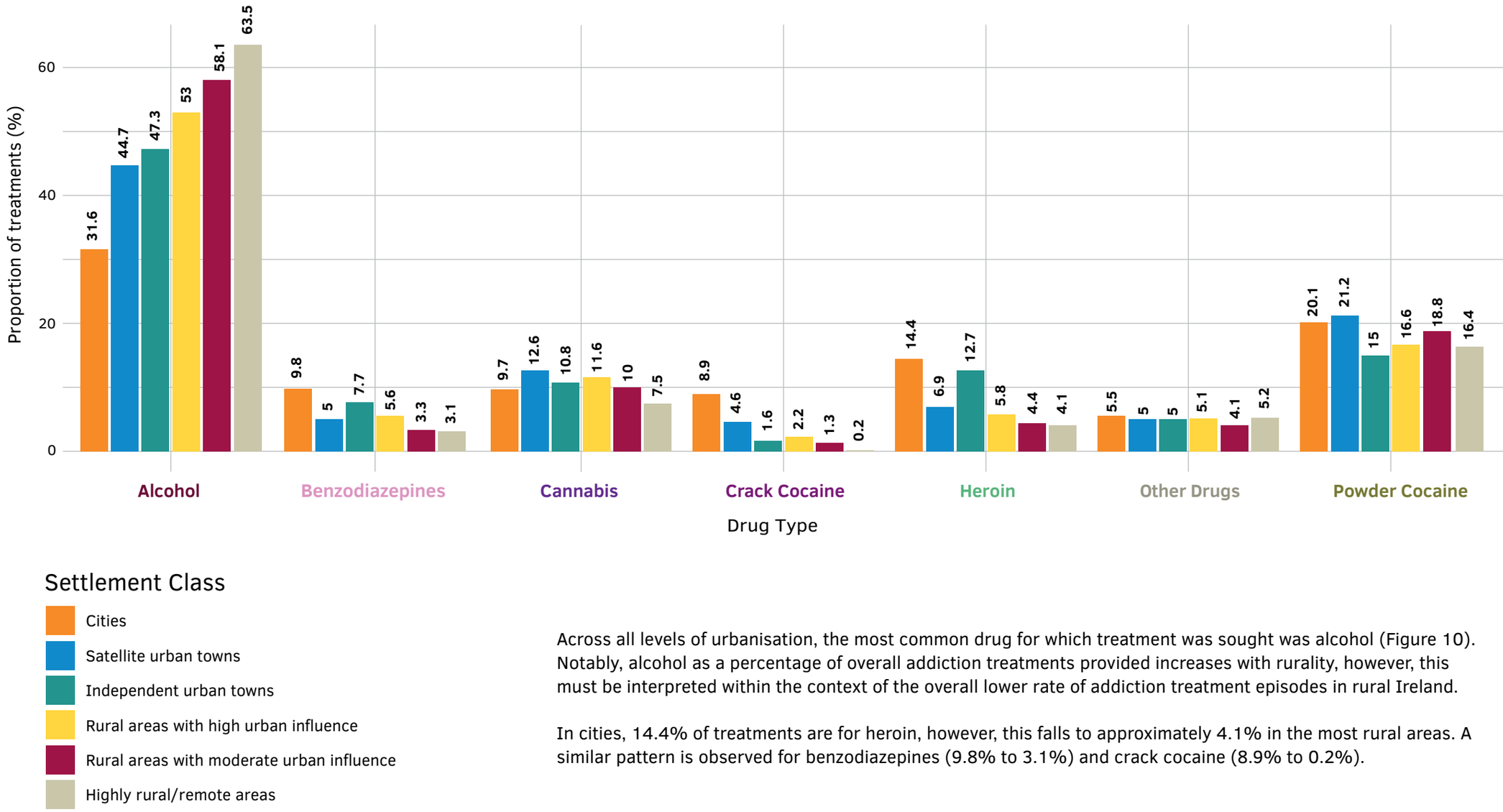


Figure 9: NDTRS addiction treatment rates by settlement class for BZD, Crack Cocaine, Powder Cocaine, Heroin, Cannabis and 'other drugs' with 95% Confidence Interval



Across all levels of urbanisation, the most common drug for which treatment was sought was alcohol (Figure 10). Notably, alcohol as a percentage of overall addiction treatments provided increases with rurality, however, this must be interpreted within the context of the overall lower rate of addiction treatment episodes in rural Ireland.

In cities, 14.4% of treatments are for heroin, however, this falls to approximately 4.1% in the most rural areas. A similar pattern is observed for benzodiazepines (9.8% to 3.1%) and crack cocaine (8.9% to 0.2%).

Figure 10: Proportion of treatments by drug type within each settlement class

Addiction Treatment by Urban/Rural Classification and by Deprivation Band

Examination of differences in addiction treatment by level of urbanisation and deprivation shows addiction treatment is most common in urban areas, and particularly cities (Figure 11). For these urban areas, there is a clear linear relationship with deprivation, with very and extremely disadvantaged areas within cities having the highest treatment rates per 10,000 population, and affluent areas of the city having the lowest treatment rates.

This relationship between addiction treatment and deprivation also holds for satellite urban towns and independent urban towns[18] (although with an uptake of treatment in the most affluent areas of the latter). In other settlement types, such as rural regions, the trend between deprivation and addiction treatments is much less pronounced across all deprivation categories.

18 The CSO defines satellite urban towns as 'Towns/Urban areas with populations between 1,500 and 49,999, where 20 percent or more of the usually resident employed population's workplace address is in 'Cities'. By contrast, an independent urban town has the same population size, but less than 20 per cent of the usually resident employed population's workplace address is in Cities.

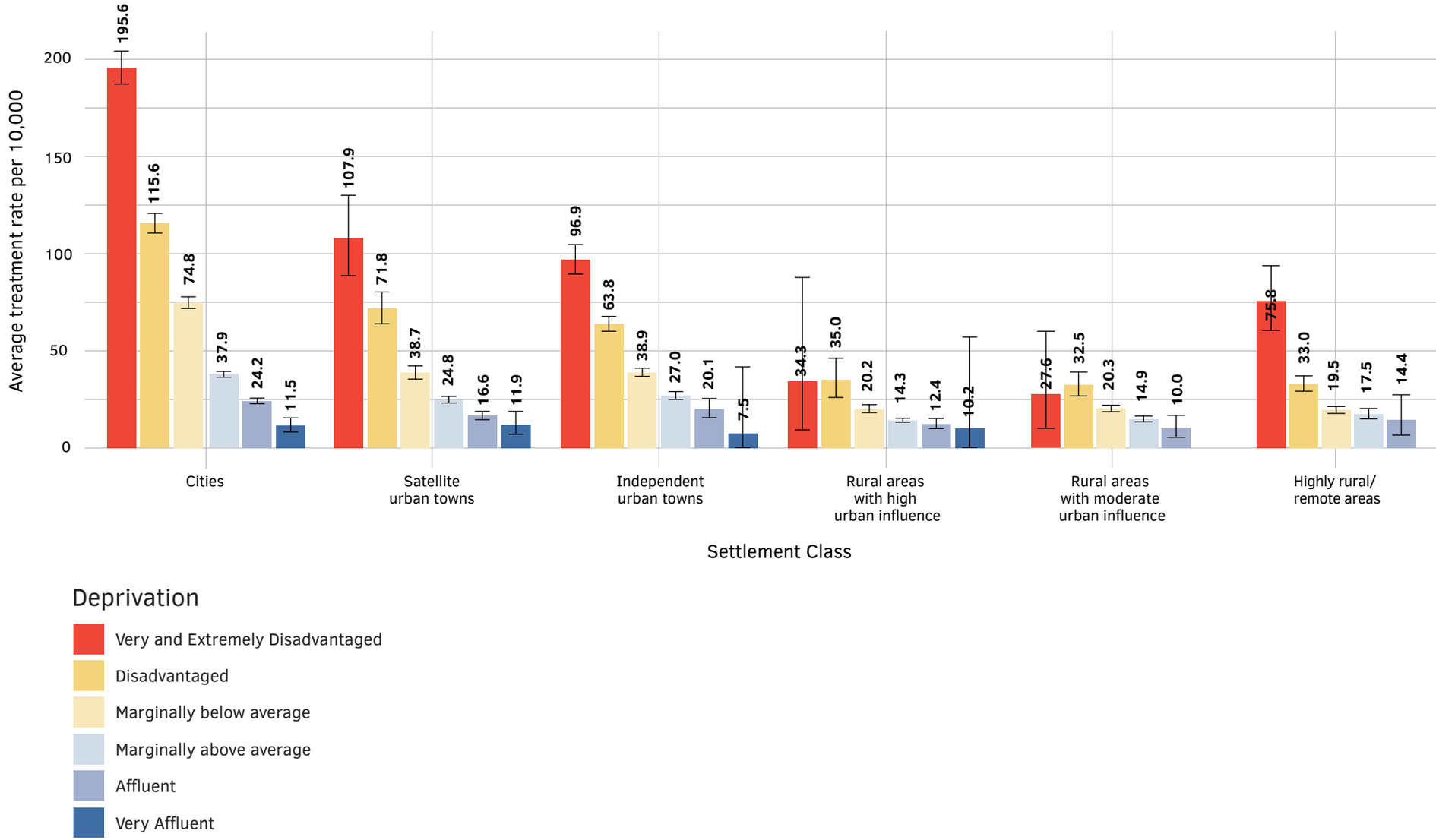
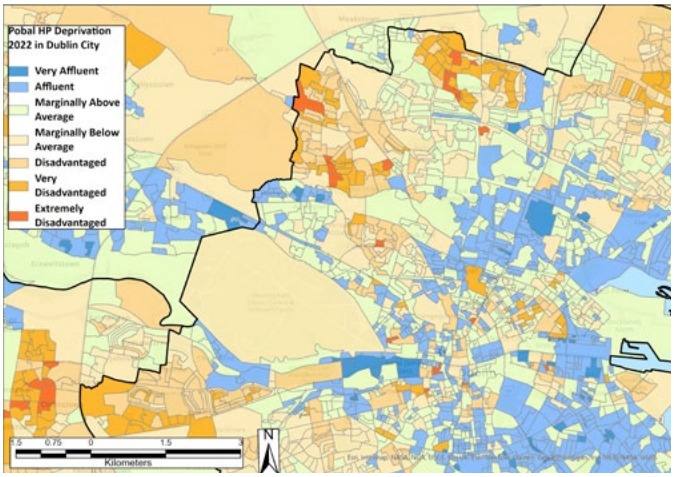
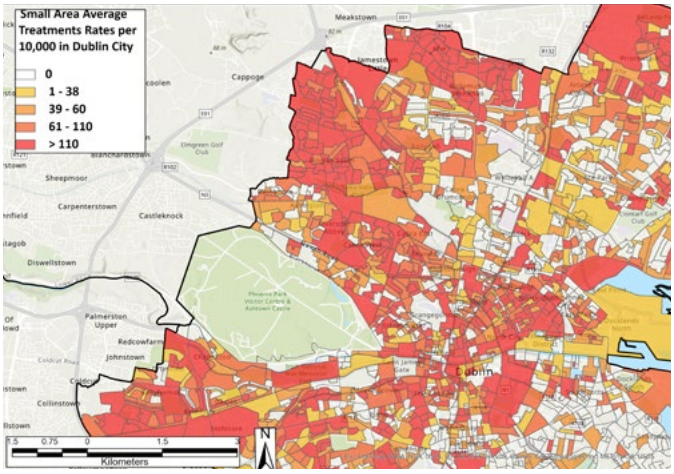


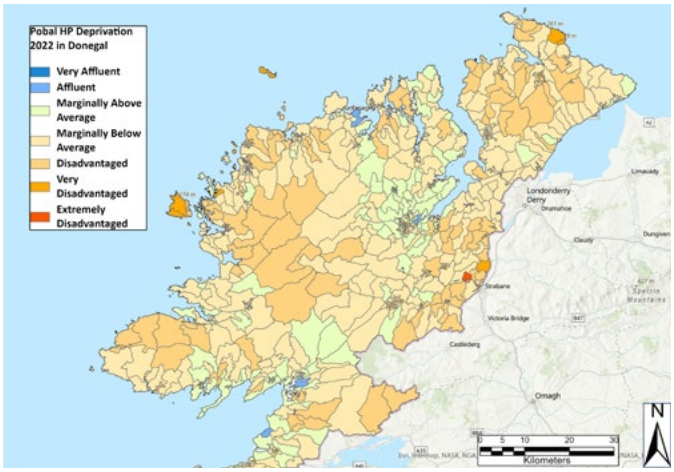
Figure 11: Average NDTRS addiction treatment rate by deprivation for each settlement class with 95% Confidence Interval, 2024



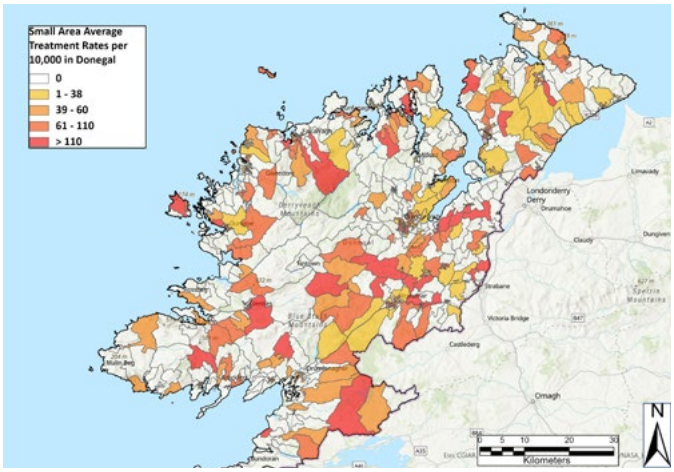
Map 1: Small Areas with Pobal HP Deprivation Index in Dublin City



Map 2: Small Areas with addiction treatment rates in Dublin City (right hand side)



Map 3: Small Areas with Pobal HP Deprivation Index in Donegal



Map 4: Small Areas with addiction treatment rates in Donegal (right hand side)

Addiction Treatment by Demographic Characteristics

Addiction Treatment by Gender

The majority of the episodes are male (66.3%), reflecting the underlying trend in the NDTRS data but also international treatment data[19] (Figure 12). The one exception to this pattern is treatment for crack cocaine, which is almost evenly split between genders.

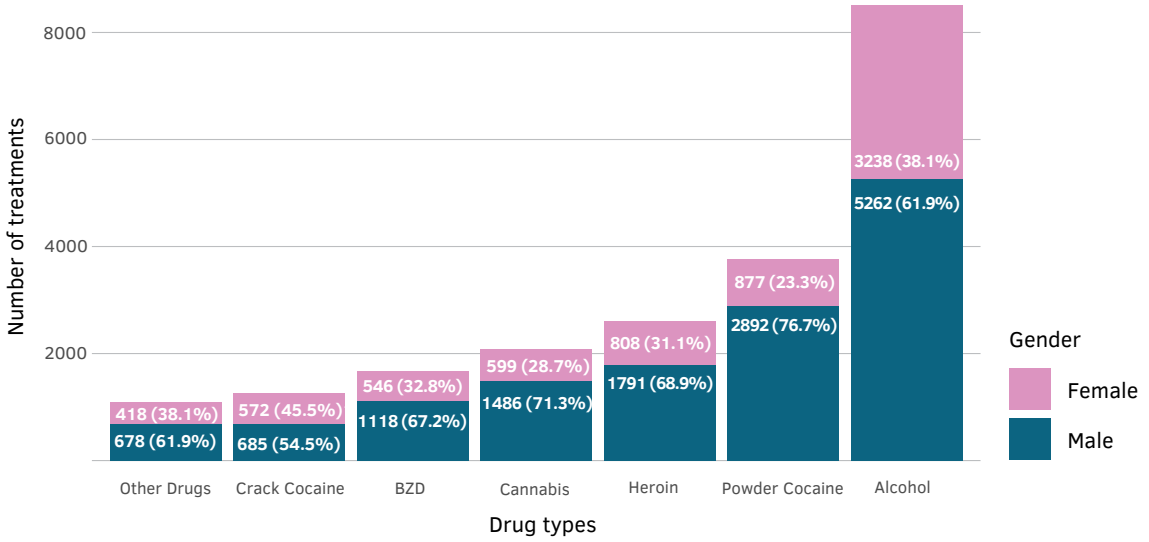


Figure 12: Number of NDTRS addiction treatments by drug type and sex, 2024

19 https://www.euda.europa.eu/topics/gender-and-drugs_en and https://www.euda.europa.eu/publications/european-drug-report/2025_en

Addiction Treatment by Gender and Age

The majority of treatment episodes are in the age bands 30 to 44 years (Figure 13). There are more males than females across all age groups, although this narrows amongst those aged 60 and over.

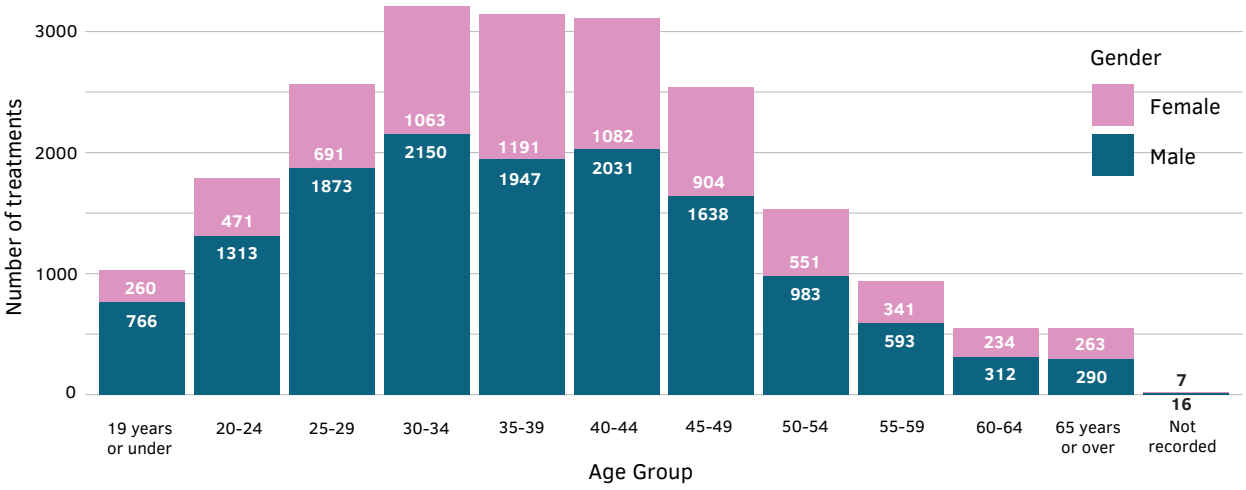


Figure 13: Age distribution of NDTRS addiction treatment by gender, 2024

The distribution of gender holds across most age bands and drug types with some exceptions (Figure 14).

Where alcohol is the main problem, in the 19 years or under category there is little difference in the number of treatment episodes between males and females (but should be interpreted with caution given the small numbers), however, in the 20 and older categories the gender difference emerges.

The majority of treatment episodes in the 19 years or under category is for cannabis (n=628), with males more likely to be receiving treatment for this than females.[20] The distribution of gender continues across all age categories. Again, crack cocaine is the only drug where treatment is more evenly distributed across genders from under 19s through to age 49 years.

20 Low numbers have been excluded to prevent statistical disclosure on Figure 14 and are denoted by a grey bar

Figure 14: Age distribution of NDTRS addiction treatment by gender for each drug type, 2024

Addiction Treatment by Gender and Deprivation

When gender was analysed across different community profiles it showed that the deprivation score of the Small Area does not affect the distribution of treatment episodes across females and males (Figure 15). This means that at the aggregate level, there are similar percentages of treatment episodes for females in the most deprived areas compared to the most affluent areas.

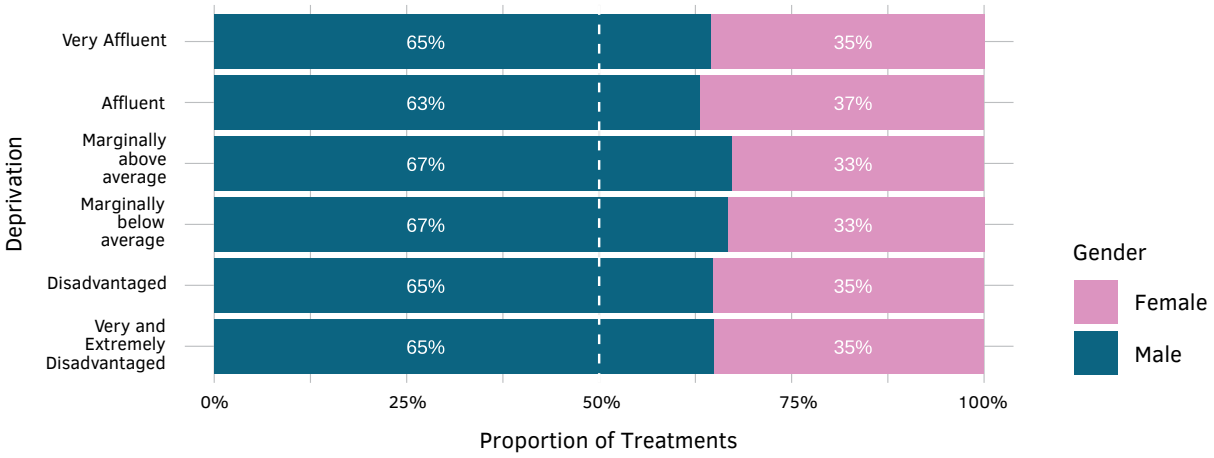


Figure 15: Gender split of NDTRS addiction treatments by deprivation, 2024

The distribution by gender also holds when analysed by drug type (Figure 16). Again, the exception to this is crack cocaine, for which increased deprivation is associated with a corresponding increase in the number of females receiving treatment.

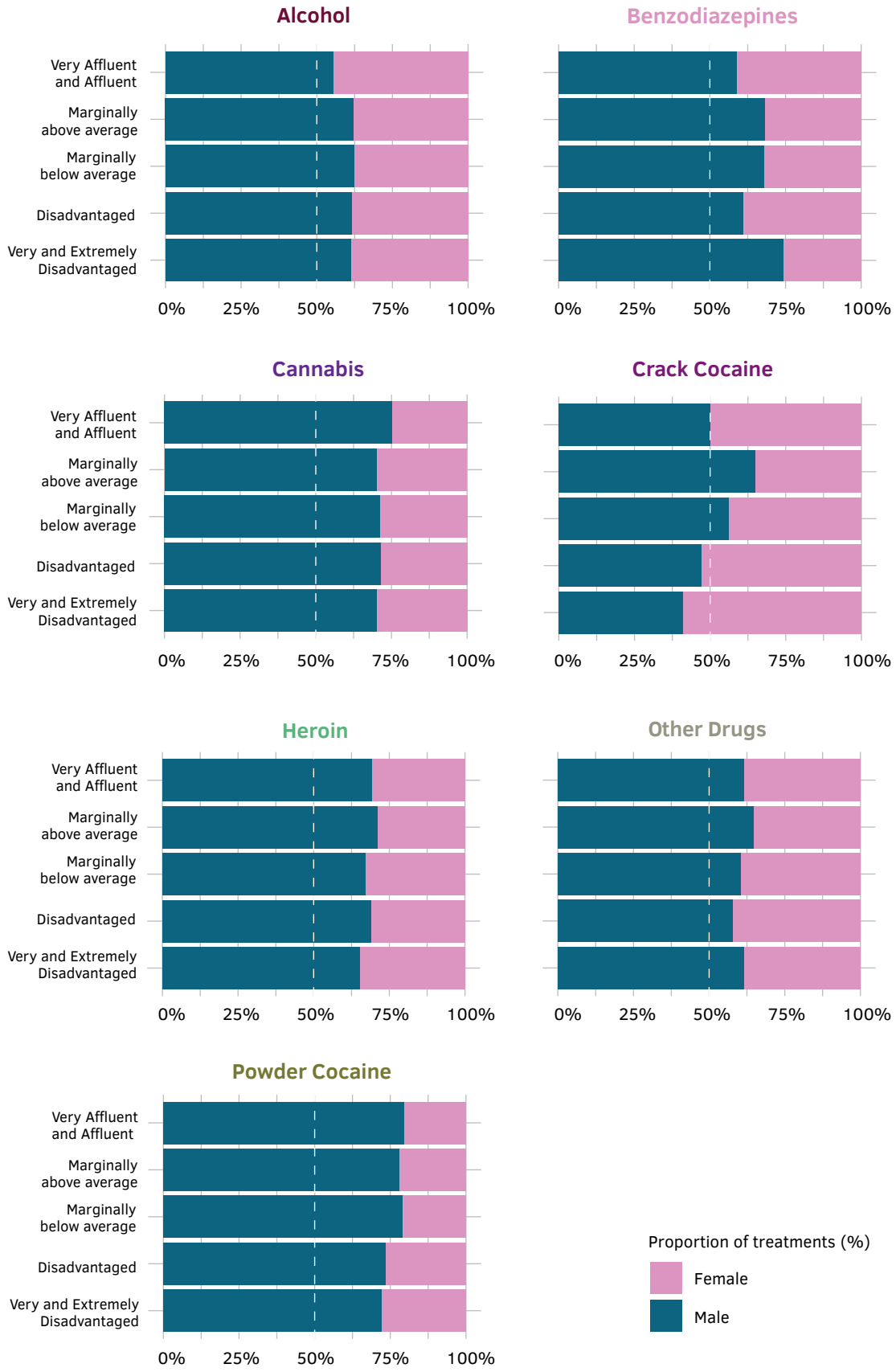


Figure 16: **NDTRS addiction treatment by gender and deprivation category for each drug, 2024**

Distance Travelled for Addiction Treatment

Geographic proximity (distance) between the treatment service provider and the service user for each treatment episode was also analysed. The purpose of this analysis was to explore how far an individual travelled to avail of addiction treatment, calculated by straight line (Euclidean) distance. The home address data associated with each treatment case [21] was therefore the primary unit of analysis and this was then mapped to the service location in which treatment was provided.

The analysis demonstrated that on average, the median distance travelled to a treatment service was 5.5 kilometres (km) in 2024 (Table 5).[22] The mean was 22.6 km, suggesting a skew due to a small number of cases who travelled a very lengthy distance. To provide a comparator, the analysis then looked at whether there was any closer service which provided treatment for that particular drug type and service type (for example, was there a closer service offering outpatient treatment options for those seeking heroin treatment) (Table 5).

Table 5: Mean and median distance travelled versus distance to closest similar service, NDTRS addiction treatment data, 2024

	Actual distance travelled [km]	Closest similar service [km]
Mean	22.6	6.97
Median	5.50	1.68

It is important to recognise that there may be valid reasons for treatment at a service which may be geographically further away, for example, certain specialist clinical services such as inpatient treatment providers.[23] Likewise, closer treatment options may not be suitable for a range of reasons such as a person's circumstances, clinical suitability, treatment preferences, accessibility, service availability, or even stigma associated with being seen accessing local addiction services.[24]

Distance Travelled: Urban Rural Analysis, Local Authorities and HSE Regions

There is a clear gradated relationship between the level of urbanness and distance travelled (Table 6). The most urban areas have the shortest actual median travel distance and more remote areas have the longest actual median travel distance. In rural Ireland, median actual travel length ranges from 19.1km to 27.2km depending on the exact degree of rurality.

21 Throughout this paper, the phrase 'home address' is used as a proxy terminology. The data used is the centroid of the Small Area in which the home address is located meaning a small margin of error should be assumed. This margin of error is larger in rural areas where Small Areas are physically larger (due to lower population density).

22 The median is used rather than the mean given the latter is more prone to being skewed by short and long distance outliers.

23 Of the 408 services, only 54 provide inpatient treatment.

24 See Farhoudian A, Razaghi E, Hooshyari Z, Noroozi A, Pilevari A, Mokri A, Mohammadi MR, Malekinejad M. (2022) Barriers and Facilitators to Substance Use Disorder Treatment: An Overview of Systematic Reviews. *Substance Abuse: Research and Treatment.* 2022;16. doi:10.1177/11782218221118462

Table 6: **Median actual distance and closest similar service by CSO six-way classification, NDTRS addiction treatment data, 2024**

Settlement Classification	Median Actual [km]	Median closest [km]
6. Highly rural/remote areas	27.2	18.6
5. Rural areas with moderate urban influence	25.1	14.7
4. Rural areas with high urban influence	19.1	10.4
3. Independent urban towns	18.2	2.1
2. Satellite urban towns	15.2	7.1
1. Cities	2.3	0.9

When the differences between actual and closest service for each settlement type are examined, it is notable that in independent urban towns, the median distance travelled is 18.2km, even though the data suggests there are closer providers offering similar services (i.e. median of 2.1km). As discussed in the section above, this must be interpreted in the context that there may be very valid reasons for individuals not accessing their closest service.

For HSE Health Regions (HRs), the distance travelled is presented by 10th, 50th (median) and 90th percentiles which enables examination of the distribution of travel distances per region (Table 7 and Figure 17).

The 50th percentile (or median) is the halfway point; half the values are below it and half are above. This is the typical travel distance within that region. By contrast, the 10th and 90th percentiles are the outliers, the extreme ends of distances travelled in the region.

HSE Dublin and North East had the shortest median treatment distance of 2.7km. This region also had a smaller range in travel distances, with the maximum travel distance being over 43.6km. By contrast, HSE West and North West had the largest spread in travel distances, with a median travel length of 17.5km. Furthermore, 10% of treatment episodes had home addresses of over 105 km from the treatment center.

It is also notable that in two of the HSE Dublin regions there is very little difference between the distance travelled to the actual service attended and a closer possible alternative (Figure 17).

Table 7: **Distance travelled for 10th, median and 90th percentile of NDTRS addiction treatments by HSE Health Regions (HRs), NDTRS 2024**

Health Region	10th Percentile [km]	50th Percentile (Median) [km]	90th Percentile [km]
HSE Midwest	0.8	17.9	77.1
HSE West and North West	1.4	17.5	105.1
HSE South West	1.2	12.1	79.7
HSE Dublin and South East	0.8	9.6	64.8
HSE Dublin and Midlands	0.7	3.9	56.1
HSE Dublin and North East	0.6	2.7	43.6

Additional analysis of distance travelled to treatment was also performed for Ireland's 31 Local Authorities, finding a high degree of variance between these areas. Further details of this analysis can be found in *Appendix 2*.

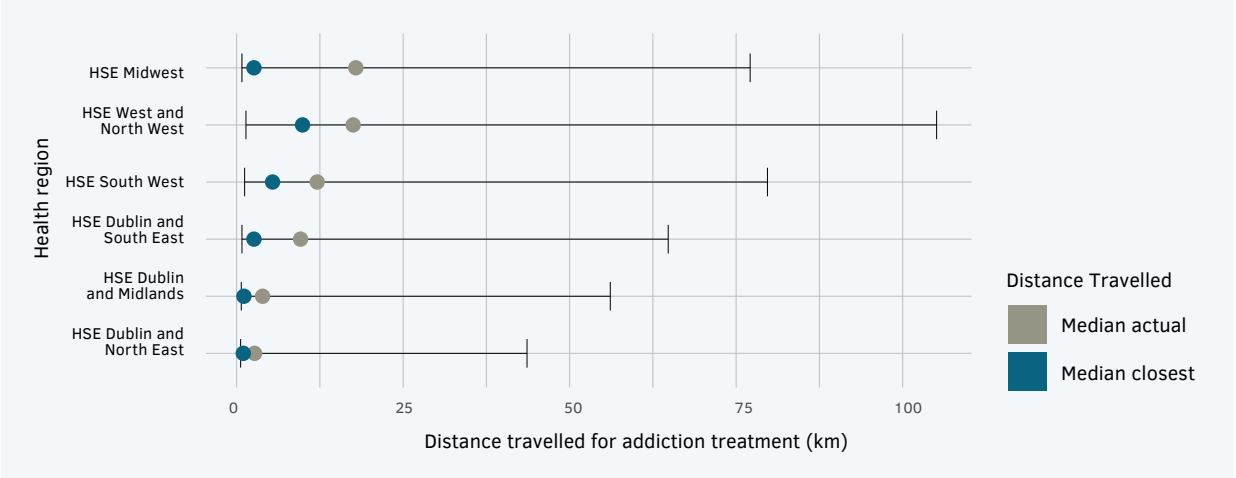


Figure 17: Distance travelled, NDTRS addiction treatment by HSE Health Regions (HRs) including 10th and 90th percentile bars, 2024

Median Distance by Service Type

An important factor in relation to distances travelled is service type (Figure 18 and Table 8).

For low threshold and GP services the median distance travelled ranges from less than 2km, rising to 3.3km on average for those attending outpatient services (Table 8). While there are some outliers to this, for example, 10% of treatment episodes associated with outpatient services have distances of 30km or more, overall the travel distances associated with outpatient, GP and low threshold services are not as far compared to inpatient treatment services.

In the context that only 13.2% of treatment services were deemed as inpatient services, it is unsurprising that the median average distance was longer than 54.4km. It is this lengthier travel to inpatient provision that skews the overall national average distance travelled (5.5km) (Table 5). When inpatient treatment episodes are excluded, this drops to 3km, with the 90th percentile falling from 64km to 30km.

This analysis identified that there were closer inpatient services which were more proximate to the service users' home addresses (median 8.8km). However, caution must be applied when interpreting these results as there may be a diversity of reasons such as clinical suitability, service capacity or other factors such as stigma making these services unsuitable for the service user. It is also important to note that the NDTRS does not distinguish between public and private provision for inpatient data, which may be a contributing factor, in the greater average median distance observed for these services.

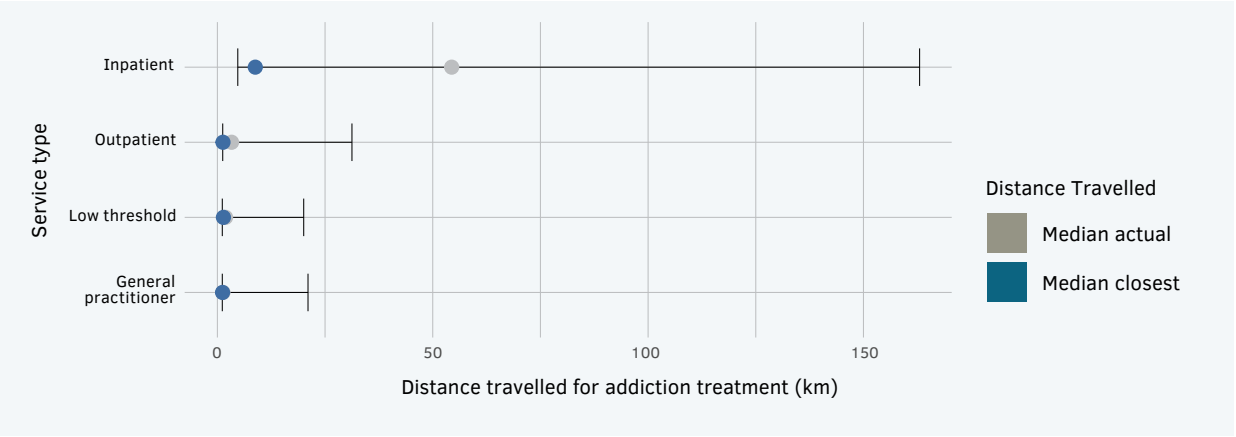


Figure 18: **Distance travelled by service type: median actual versus closest including 10th and 90th percentile bars**

Table 8: **Distance travelled by service type comparing median and outliers of actual distance travelled, as well as median distance to shortest comparison service**

Service type	10th Percentile [km]	Median actual	90th Percentile [km]	Median closest	Treatments
General	0.5	1.3	20.4	1.2	102
Inpatient	4.1	54.4	162.4	8.8	4064
Low threshold	0.5	1.9	19.4	1.4	1625
Outpatient	0.6	3.3	30.6	1.3	13487
Overall	**0.7**	**5.5**	**64.2**	**1.7**	**19278**

Median Distance by Drug Type

Variation in the distance travelled to treatment services by drug type was also analysed (Table 9). Nationally, the median distance travelled for alcohol treatment was 11.3km, which was the longest distance for any drug type. In contrast, the distance travelled for heroin and crack cocaine treatment services were very proximate to the home address of the service user, being just over 2km away.

Table 9: **Median of distances travelled to actual / closest service and difference for all drugs, sorted by actual distance, NDTRS 2024**

Drug Type	Actual Distance [km]	Closest service [km]
Alcohol	11.30	2.68
Volatile inhalants	7.98	5.48
Methadone	6.98	1.81
Hallucinogens incl. LSD	6.93	3.00
Other opioids	6.84	2.39
Powder cocaine	5.82	1.63
Other stimulants	5.28	2.61
Cannabis	4.44	1.62
Amphetamines	3.36	2.97
MDMA	3.34	1.93
Benzodiazepines	3.04	1.23
Other substances	3.00	1.70
Heroin	2.21	0.93
Crack cocaine	2.11	0.79
Other hypnotics & sedatives	1.61	0.83

Analysis by HSE Health Regions (HRs) and primary drug type presents a more a complex pattern, with a high degree of variation observed across regions and between specific drug types (Table 10).

Table 10: **Median distance (km) to treatment by Health Region and Primary Drug Type, NDTRS 2024**

Health Region	Alcohol	Heroin	Powder Cocaine	Cannabis	BZD	Crack cocaine
HSE Dublin and Midlands	8.6	2.0	4.7	3.6	3.1	2.5
HSE Dublin and North East	4.5	2.0	2.7	2.7	2.2	1.7
HSE Dublin and South East	12	3.4	10	5.7	6.5	17.3
HSE Midwest	24.7	2.4	18.8	12.4	8.8	1.1
HSE South West	17.1	2.7	9.9	9.5	5.9	4.6
HSE West and North West	17.7	4.4	22.8	13.4	15	3.1

Time from Referral to Treatment

Time from referral to treatment refers to the time between a recorded referral date and the start date of any treatment initiated by a service provider as recorded on the NDTRS. Assessment dates are also recorded on the NDTRS however the analysis here will focus on the time from initial referral to beginning treatment.

This section should be interpreted in the context of the many different services who provide data to the NDTRS and their own specific treatment pathways. For example, inpatient services included in the NDTRS provide a wide range of treatments, such as detoxification only, or residential programmes. Different services have different entry criteria, and in some instances depending on specific individual needs may operate prioritisation criteria which will influence the time between referral and treatment. In some cases, supports and interventions may be provided by one service provider who, having provided support, can refer a client to an inpatient service. Hence, the national average figures on time from referral to treatment should be interpreted in this context on a wide range of scenarios and treatment pathways.

Data is presented firstly by national level, followed by HSE Health Region. In each category, data is split by service type and drug type. It is important to note, for this analysis, the mean rather than the median was used. While neither measure is perfect, use of the mean meant that the analysis was more influenced by the wide variation among the spread of referral to treatment times. This is especially important when analysing by service type or for different drug types.

National Results: Referral to Treatment

In 2024, almost one third (31.9%) of all treatment episodes began on the same day as the recorded referral (Figure 19). A further 22.7% started treatment between 1 and 7 days after referral. Half (49.9%) of all episodes started treatment between 1 and 30 days of referral.

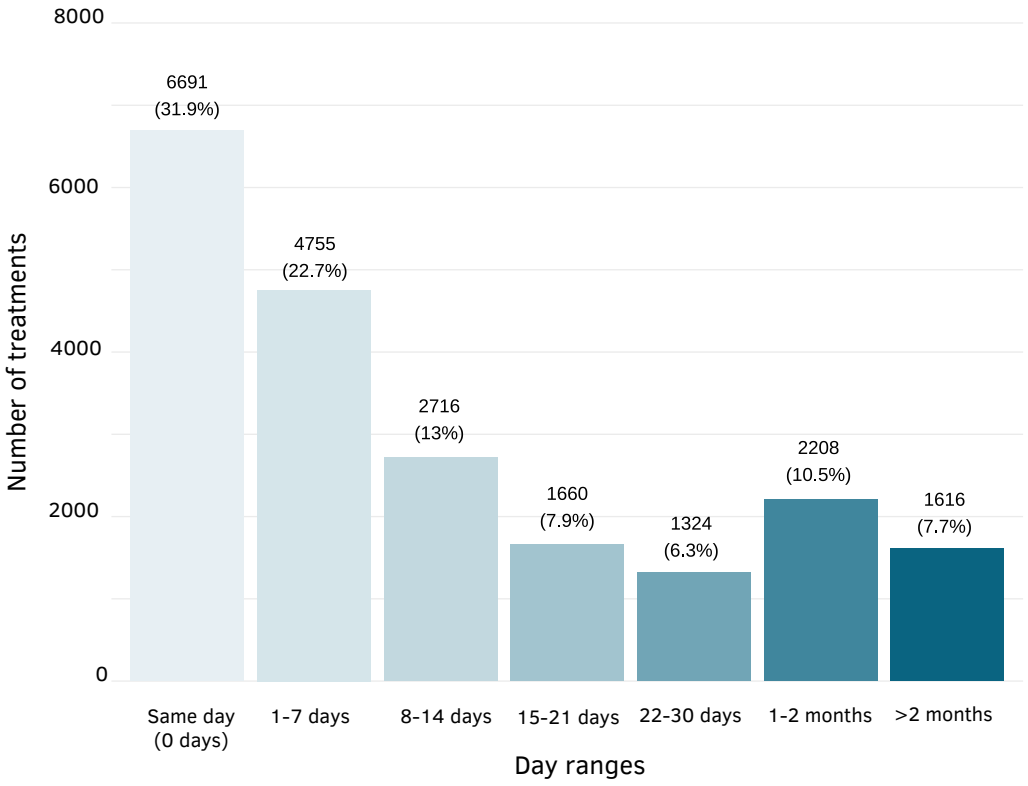


Figure 19: Referral to Treatment time for drug treatment, NDTRS 2024

Referral to Treatment Times by Service Type

As low-threshold and outpatient services types can include walk-in services, which are designed to provide immediate and responsive care with minimal delay, it is therefore to be expected that just over half of low threshold treatment episodes (52.8%) are seen within one day, and approximately one third of all those within outpatient settings (35.4%) (Figure 20).

GPs also have a high percentage of treatment episodes which are assessed and treated on the same day (47.4%), while a further 30.2% commence treatment within one week of first referral. Only GPs providing OAT were included in the analysis and therefore this likely reflects the transfer pathways for OAT treatment.

In contrast to other service types, inpatient services exhibited a distinct referral to treatment pattern, characterised by longer average waiting times. Nevertheless, the majority of inpatient treatment episodes (61.9%) commenced within one month of referral, with a further 21.7% beginning treatment between one and two months, and 16.4% commencing after more than two months.

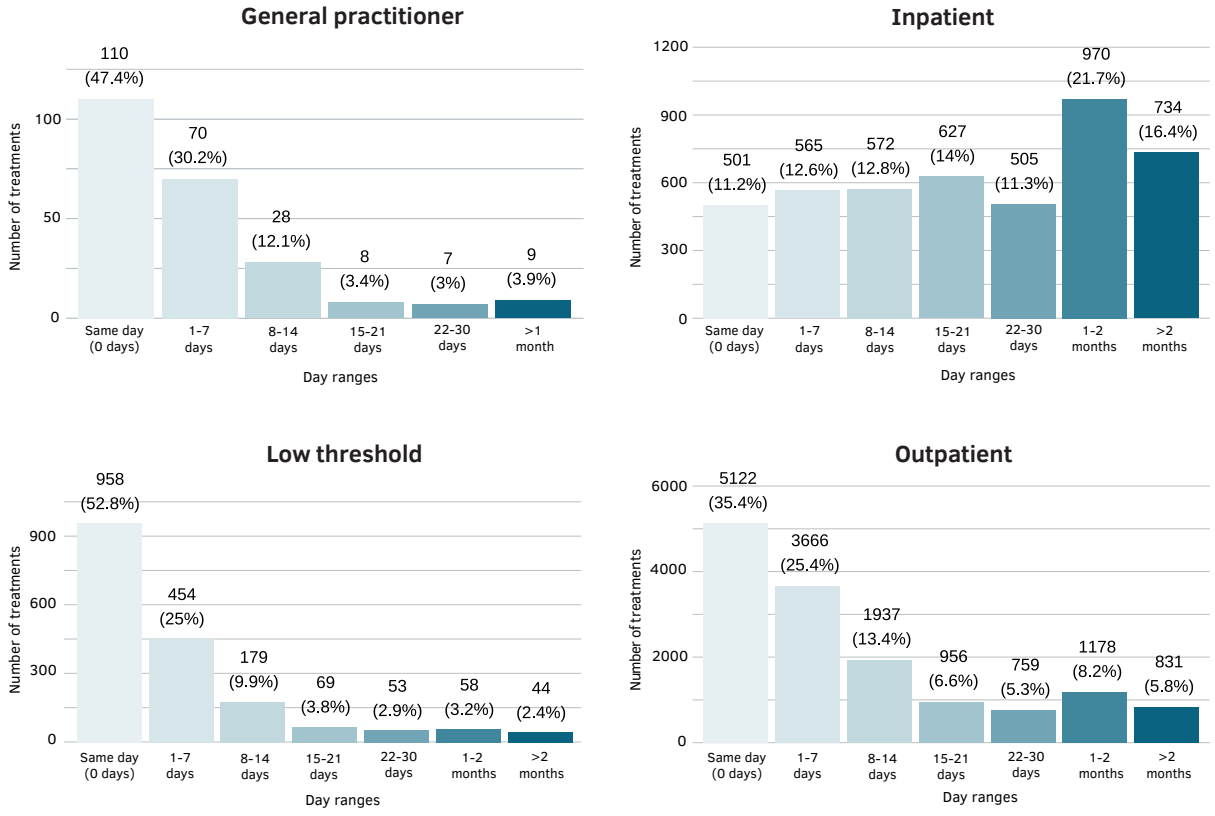


Figure 20: Referral to Treatment time by service type[25], NDTRS 2024

25 For visualisation purposes, the scales for counts on the left are not the same in all four charts. This helps inspect the data for low counts as in GPs and Low threshold.

Referral to Treatment by Service Type and Drug Type

Mean referral to treatment times varied by primary drug type within each service setting (Figure 21 and Table 11). Within low-threshold services, treatment episodes related to benzodiazepines and powder cocaine commenced on average within one week of referral, whereas episodes associated with 'other drugs' had longer average wait times of 11–12 days. In outpatient services, mean referral to treatment times were shortest for crack cocaine (7.8 days) and longest for alcohol (19.8 days).

By contrast, inpatient services exhibited substantial variation by drug type, with the shortest average times observed for alcohol (27.5 days) and powder cocaine (40.0 days), and the longest for crack cocaine (148.2 days).

For GPs providing OAT, heroin was treated on average within four days of referral, whereas opioids other than heroin had a substantially longer mean referral to treatment time of 22.9 days.

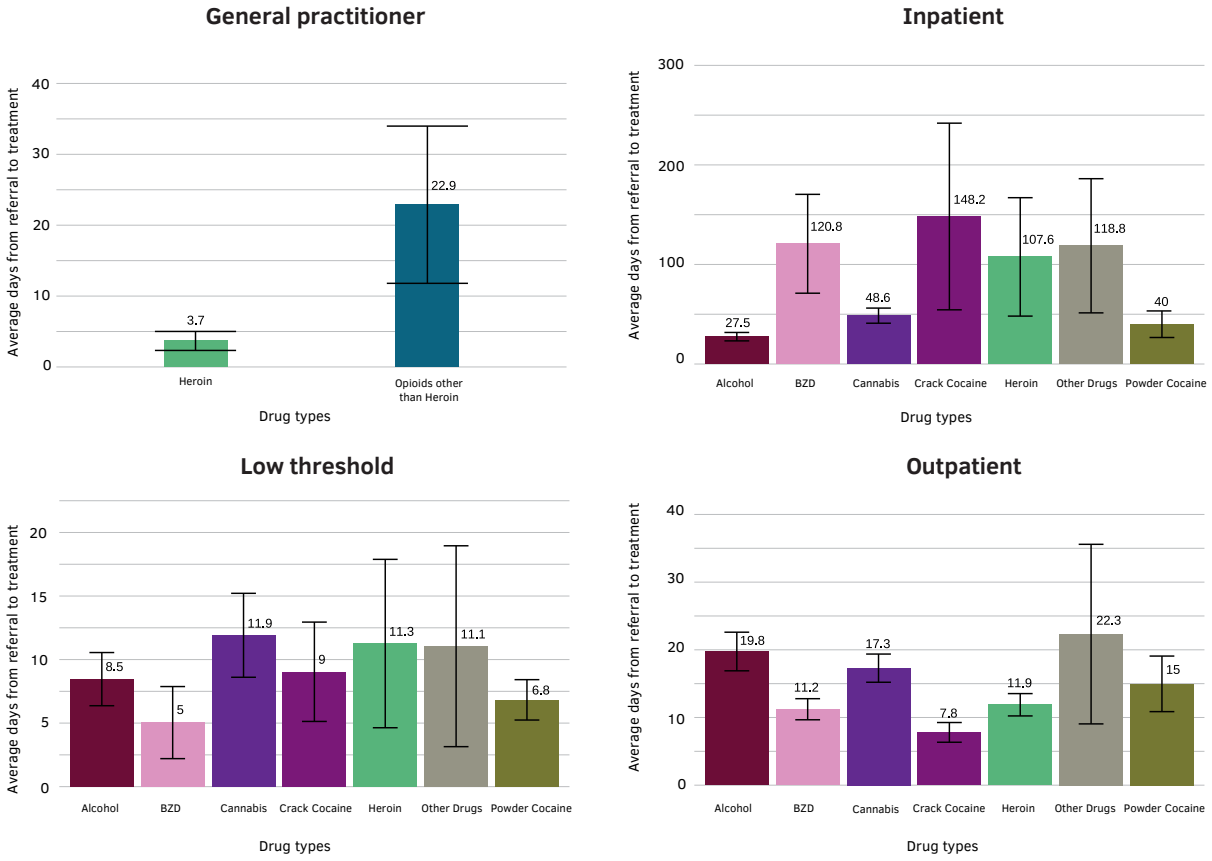


Figure 21: Mean days from referral to treatment by drug type and service type with 95% Confidence Interval[26]

26 For visualisation purposes, the scales on the left axis are not the same in all four charts. This helps inspect the data for low values as in GPs and Low threshold.

Table 11: **Mean days from referral to treatment by drug and service type, NDTRS, 2024**

Drug Type	General practitioner	Inpatient	Low threshold	Outpatient
Heroin	3.7	107.6	11.3	11.9
Other drugs	22.9*	118.8	11.1	22.3
Alcohol		27.5	8.5	19.8
BZD		120.8	5.0	11.2
Cannabis		48.6	11.9	17.3
Crack Cocaine		148.2	9.04	7.8
Powder Cocaine		40	6.83	14.97

* GPs – Other drugs are opioids other than heroin

Alcohol and powder cocaine were the most common types of drugs treated in inpatient services, with lower proportions for heroin and benzodiazepines (Figure 22).

Most drugs follow a similar distribution of times from referral to inpatient treatment, with a majority of treatment episodes commencing after one month with the exception of alcohol where the majority of cases were treated between 1 and 30 days.[27]

Benzodiazepines were associated with the longest referral-to-treatment times, with 47.4% of treatment episodes commencing more than two months after referral.

27 Referral to inpatient services typically comes after engagement with different service types. As the unit of analysis is the treatment episode, rather than the individual, it is not possible to determine how many services were engaged with, or over what period, prior to the current treatment episode referral. This should be considered when interpreting the data.

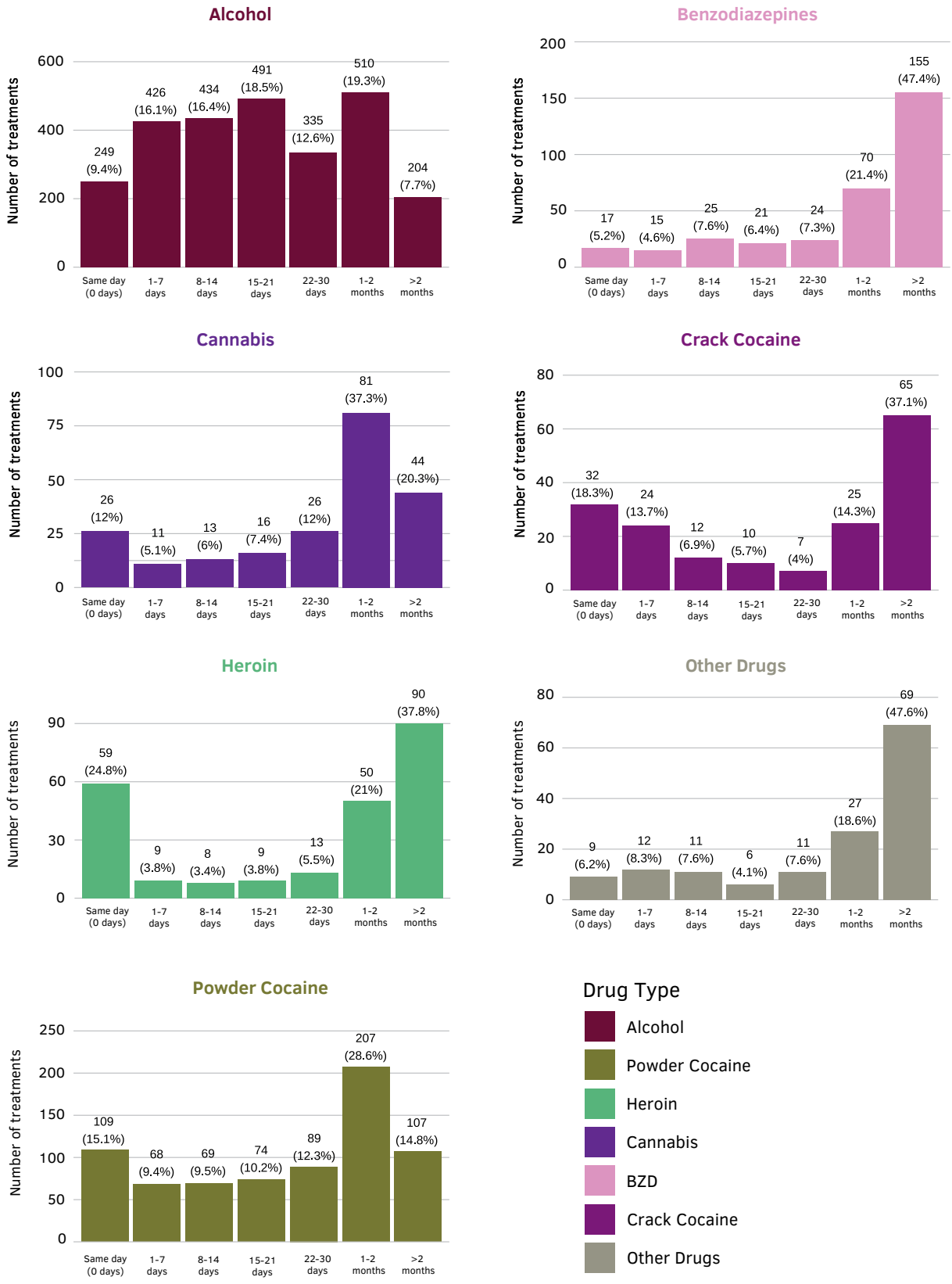


Figure 22: Referral to Treatment time for inpatient services by drug type[28], NDTRS 2024

28 For visualisation purposes, the scales for counts on the left axis are not the same in all these charts.

Referral to Treatment by HSE Health Region

There were notable differences between the time to treatment for HSE Health Regions (HRs) depending on service type and drug type (Figure 23). For example:

- HSE Dublin and South East, HSE Dublin and North East and HSE Dublin and Midlands had comparatively shorter times for outpatient and low threshold services, but notably longer referral to treatment times for inpatient care.
- HSE Dublin and North East had the longest average time between referral and treatment for inpatient services (75.6 days).
- HSE West and North West HR had the longest time between referral and treatment for outpatient services (37.5 days).
- Referral to treatment times for outpatient services differed substantially between regions, with rates in HSE West and North West more than three times longer than those observed in HSE Dublin and South East (37.5 days compared with 11.3 days).
- Referral to treatment times for low threshold services in HSE Midwest were substantially longer than the national average, at 32.5 days compared with 8.3 days nationally.

Referral to treatment times for GP provided OAT services were longer in the West and North West, with a mean duration of 18.9 days compared to a national average of 6.7 days. However, this must be interpreted in the context of lower coverage rates for GPs in the NDTRS relative to all other services.

Comparison of referral to treatment times by primary drug type across HSE HRs, relative to national averages, identified several notable differences (Figure 24). For example, the mean referral to treatment time for powder cocaine in HSE West and North West was 46 days which is more than two and a half times the national average of 19 days.

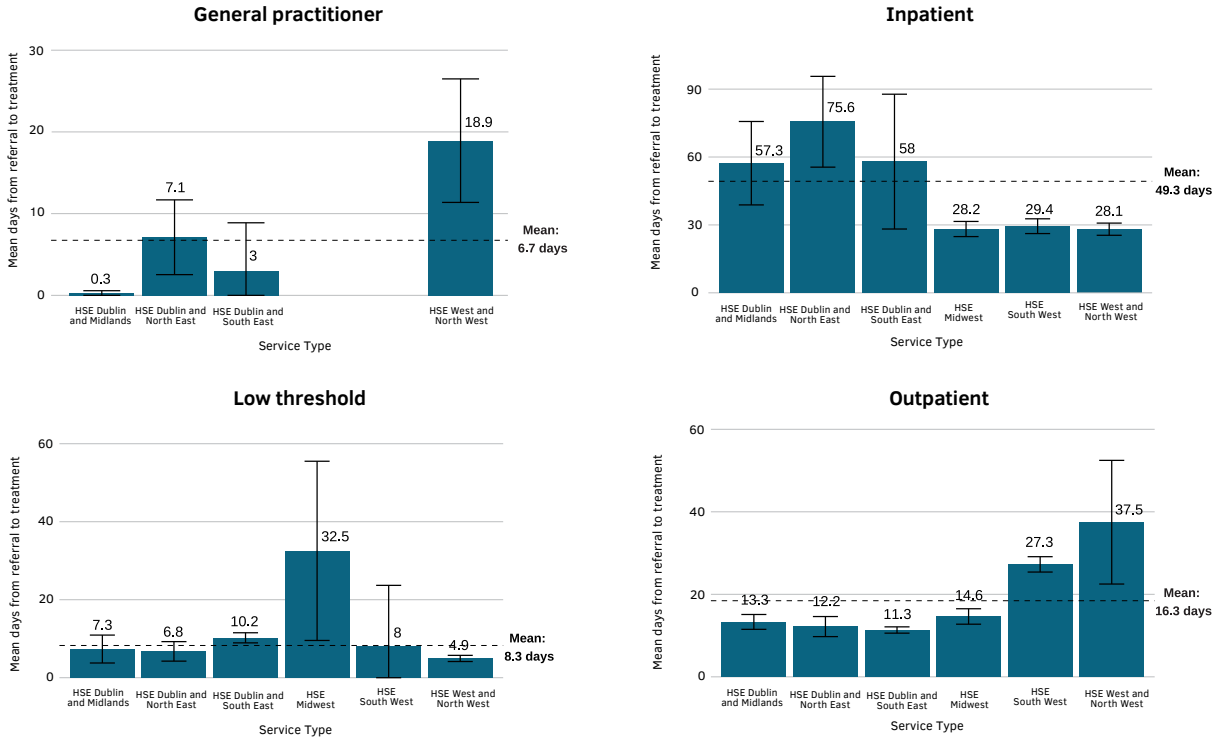


Figure 23: Referral to treatment times for HSE Health Region by each service type and compared to the overall average referral to treatment time for that service type with 95% Confidence Interval, NDTRS 2024.[29]

29 There were no GP treatments reported from the regions HSE Midwest and HSE South West

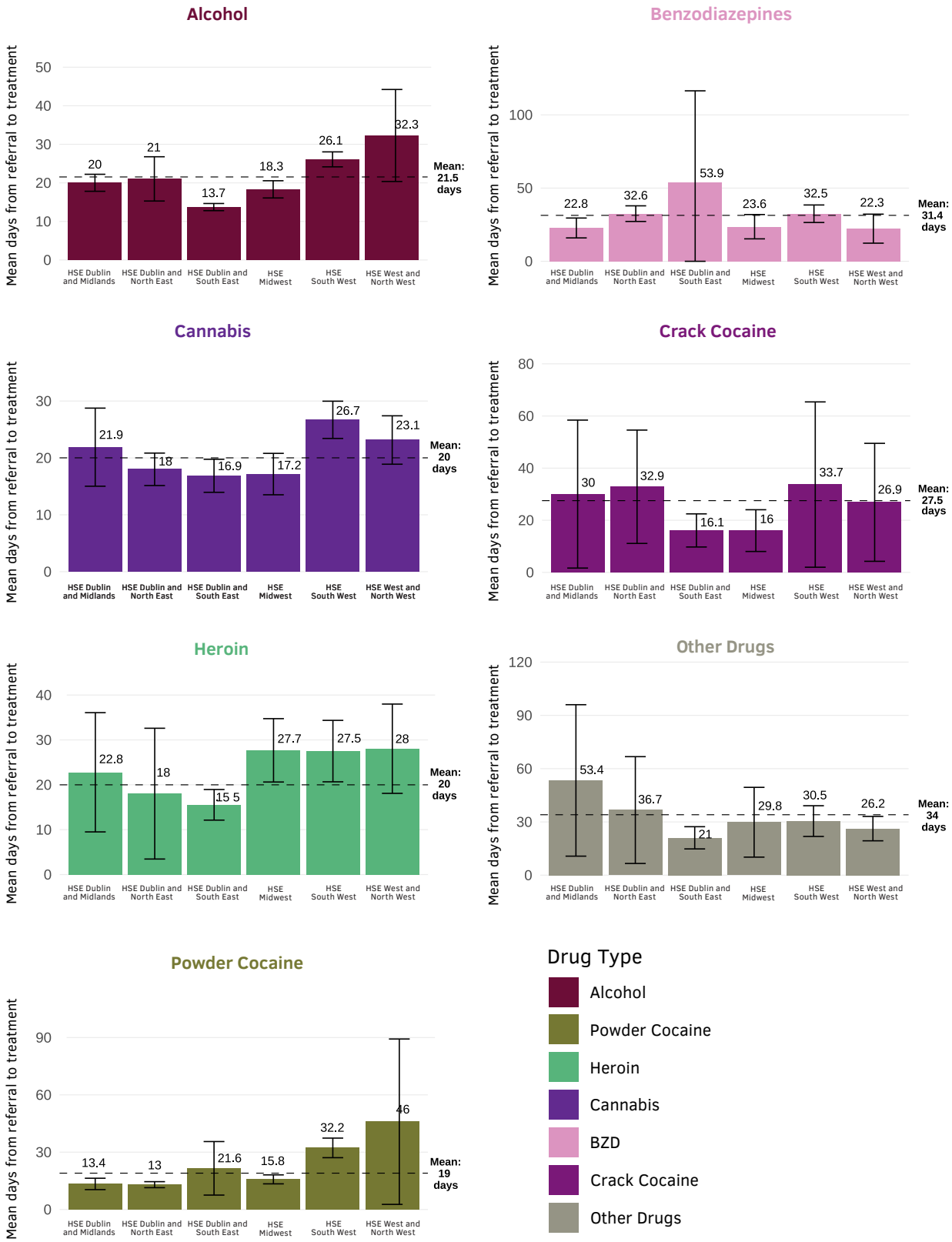


Figure 24: Referral to treatment times for HSE Health Region by each drug type in each as compared to the overall average referral to treatment time for the drug type with 95% Confidence Interval

Discussion and Conclusion

This study shows there continues to be a very strong relationship between addiction treatment and geographic disadvantage which becomes more pronounced as the level of deprivation increases, particularly for certain drugs such as heroin or crack cocaine.

This finding reinforces the existing evidence on the social determinants of health and speaks to the significant value of prevention, early intervention and targeted supports for communities experiencing disadvantage given their higher rate of drug treatment episodes.

These findings show that the rate of addiction treatments in the most disadvantaged areas is 13 times higher than in the most affluent areas. Notably, the relationship is more pronounced for certain drug types. For example, for heroin, the rate of treatments in the most disadvantaged areas (24.7 per 10,000) is 41 times higher than the rate in the most affluent areas (0.6 per 10,000). The relationship between deprivation and treatment is weakest for alcohol, although treatment rates are still 7.5 times higher in the most deprived areas compared with the most affluent ones.

The relationship between deprivation and addiction treatment was most apparent in urban areas, particularly cities, and much less pronounced in rural areas.

The majority of cases were males (a ratio of approximately 2:1) and this pattern holds irrespective of the level of deprivation. Crack cocaine was the only drug type where there was a similar proportion of males and females.

Research has highlighted that women can face particular barriers to accessing services, for example the lack of appropriate gender-sensitive therapeutic options, stigma and shame, or an absence of transportation or availability of childcare.[30] As such, treatment data may not fully reflect the underlying patterns of addiction prevalence across genders.

30 Motyka, M. A., Al-Imam, A., Haligowska, A., & Michalak, M. (2022). Helping Women Suffering from Drug Addiction: Needs, Barriers, and Challenges. *International Journal of Environmental Research and Public Health*, 19(21), 14039. https://doi.org/10.3390/ijerph192114039 ; We Are With You. (2021) A system designed for women? Understanding the barriers women face in accessing drug treatment and support services. London: We Are With You.

To try to better understand service provision, uniquely this study examined the distance travelled from home address to the service where treatment was provided.[31] This analysis demonstrated that on average, the median distance travelled to a service is 5.5 kilometres, with evidence of a strong urban-rural divide. In rural Ireland, the median actual travel length ranged from 19.1km to 27.2km among the three rural settlement classes, while among the three urban classes it ranged from just 2.3km to 18.2km.

Service type affected the distance travelled results, with inpatient provision accounting for much of the variation. Median distance travelled for inpatient treatment was 54.4km which is perhaps to be expected given the relatively fewer residential treatment services (13.2% of all services).

The analysis also indicates that, in some cases, an alternative service closer to the service user's residence may have been available. Variability in distance travelled was lower in more urban areas, particularly cities, and greater variation was observed by service type, most notably for inpatient services. It is important to recognise that there may be very valid reasons for treatment at a service which may be geographically further away, for example, clinical suitability or stigma (see footnote 24 above).

In 2024, a total of 32% of treatment episodes were seen on the same day, primarily in outpatient services and low threshold services. Of note, a further 49.9% of treatment episodes commenced treatment within one month of referral.

Mean time between referral to treatment for inpatient services was considerably longer than other service types however the majority (61.9%) of episodes entered inpatient treatment within one month. The type of drug also affected the average time from referral to treatment for inpatient care, with alcohol and powder cocaine associated with a shorter timeframe, and heroin and crack cocaine longer.

Interpreting the results

The results are based on episodic treatment demand data which is not at an individual level as currently there is no unique health identifier available within addiction services. Therefore, this analysis cannot track an individual's journey through treatment from their first contact with services to their progression pathway, which may be complex and extended, and involve a number of services, engagements and assessments, over a period of time. To better understand an individual's treatment journey, the barriers and enablers of recovery, would require a different type of study and methodology, such as a longitudinal cohort study.

It is important to note that the findings presented in this report are based on treatment episodes rather than unique individuals and the dataset, while comprehensive, is not fully complete across all service types. Variability in reporting, most notably among GPs means that some treatment activity is not captured. Although these limitations should be borne in mind when interpreting the results, they do not discount the overall patterns identified, which remain consistent with established evidence on the relationship between deprivation, service utilisation, and addiction related harm. Further investigation into patterns of non-reporting among providers could strengthen understanding of gaps in the national treatment dataset. Research exploring the characteristics of individuals not captured in the NDTRS would also help identify unmet treatment need.

31 Throughout this paper, the phrase 'home address' is used as a proxy terminology. The data used is the centroid of the small area in which the home address in located meaning a small margin of error should be assumed - with this margin of error larger in rural areas where Small Areas are physically larger (due to lower population density).

Variations in reporting coverage may introduce systematic bias in regional or deprivation level comparisons. In particular, lower participation among GPs could lead to an underestimation of treatment activity in areas where GPs are located. While the overall patterns observed align with established evidence, results should be interpreted with the understanding that differential reporting coverage may influence spatial distributions. As outlined in the methodology section, outpatient, inpatient and low-threshold services have high coverage rates, meaning results relating to these service types are considerably robust.

GP data must be interpreted in the context of the NDTRS methodology, which records new treatment entries in each calendar year. Given the nature of OAT treatment, it is not expected that all GPs would have new treatment entries every year as many individuals receiving OAT in general practice remain engaged with the same GP on an ongoing basis. Thus, while incomplete GP data contributes to lower overall coverage, its impact is moderated by this fact.

While mapping of reporting completeness and participation across service types is outside the scope of this study, future analyses could examine the spatial distribution of reporting to assess potential clustering of non-reporting providers and consider how this may influence interpretation of deprivation gradients.

Treatment data, by definition, only measures where a treatment has been both needed and available / accessible. The central risk here is the assumption that the absence of treatment episodes in a particular area means there is an absence of demand. Indeed, low treatment figures could be a result of demand side factors (low drug use prevalence) or supply side issues (the accessibility and availability of suitable treatment options). To more accurately understand treatment need would require a different type of study methodology. However, this analysis suggests that deprivation levels themselves may be a useful proxy for potential drug prevalence. Linking treatment demand data with other health indicators, such as drug related mortality or emergency department presentations, may enable assessment of whether certain areas are under or overrepresented in treatment relative to underlying harm indicators.

This analysis was based on the primary drug for which treatment was recorded in the NDTRS. Future research could explore whether certain combinations of drugs are more likely to be associated with deprivation, and whether there was any association between polydrug use and time between referral and treatment, for example. There may also be value in further examining patterns of treatment demand among people who experience extreme health inequities due to social exclusion, poverty, and multi-morbidity, specific demographic groups, including Irish Travellers, migrant communities and individuals with limited English proficiency, to identify communities experiencing disproportionate harm and inform targeted responses. Much of this information is already recorded on the NDTRS and could be examined in greater depth in future analysis.

The distance travelled analysis sought to examine how far people who reside in a given HSE region travel for addiction treatment, using the home address data as the primary unit of analysis. While mapping distance is helpful for giving an indication of how geographically proximate treatment was for service users, it is important to acknowledge that many factors impact access to services. These extend beyond the physical location of the service, with research highlighting the importance of staff-service user communication and trust-building, supportive family and peer relationships, flexibility in service delivery and multidisciplinary and coordinated care-delivery models.[32] As such, it is possible that there may be legitimate reasons for further distance travelled, for example because of clinical suitability or service design, and this should be considered when interpreting the results. It is also important to note that although the median average (median) was used for this analysis (given it is less affected by outliers when compared to the mean), it is not a perfect measure either. Future studies could explore reasons why some service users travel beyond the nearest available provider, potentially through qualitative research or incorporating transport access datasets (e.g., public transport frequency, routing constraints). Understanding these factors would enhance interpretation of geographic accessibility.

Finally, it is important to note that the mixed healthcare system in Ireland means there are some inpatient services which are privately operated and for which the findings with respect to deprivation, referral to treatment times and distance travelled, may not hold. For example, the shorter time between referral and inpatient treatment for alcohol and powder cocaine may be due in part to private healthcare, but this cannot be explored further at this time as recording source of funding does not fall under the NDTRS remit.

Conclusion

This analysis has provided further evidence of a strong social gradient in drug-related harm, as well as identified geographic differences in the uptake of addiction services nationwide. These insights can support and inform the successor strategy to *Reducing Harm, Supporting Recovery 2017-2025*, and may provide a useful input into considerations on evidence-based allocation of resources.

While the rate of drug treatment episodes is highest in the most disadvantaged communities, these communities only represent a minority of the population. Most drug treatment episodes (56.8%) related to individuals coming from areas marginally above or below average, suggesting that problem drug use is both ubiquitous across all communities, while also disproportionately concentrated in more disadvantaged areas. The nature of this relationship varies by drug type, with drugs such as heroin and crack cocaine being the most concentrated in deprived communities, and alcohol and powder cocaine being the least.

These findings provide evidence for aligning the funding of drug treatment services with a population-based health planning approach, considering deprivation as a measure alongside population and demographic factors to ensure appropriate allocation of resources. In line with the principles of progressive universalism, communities experiencing disadvantage would benefit from heightened supports which are proportionate to the scale and intensity of their need.

With respect to future service planning, the analysis also provides useful insights which might support work in this area. Both distance travelled and time between referral to treatment varied considerably based on the service type and the HSE Health Region, with travel lengths and times particularly notable in the North-West, West and Mid-West. As such, in addition to resource allocation models, the data presented in this report may be of value in informing local level service planning.

32 Farhoudian A, Razaghi E, Hooshyari Z, et al. (2022) Barriers and Facilitators to Substance Use Disorder Treatment: An Overview of Systematic Reviews. S*ubstance Abuse: Research and Treatment*. 16. doi:10.1177/11782218221118462

A continued lack of data reporting by certain services, along with incomplete GP data, poses challenges for accurate planning, equitable funding decisions, and system-wide accountability. Persistent data gaps may mean that the people and communities supported by, and using, services are less likely to be represented in treatment data and it may increase the likelihood of exclusion from national and regional level decision making. For services, data gaps reduce the visibility of service activity, limit the influence of nonreporting providers, and increase the likelihood of exclusion from future strategic decision making. Therefore, service funders should reinforce accountability and mitigate the risks associated with (1) nonreporting and (2) existing submissions not optimally reflecting actual service activity in terms of accuracy and completeness. Remediating the provision of GP data should also be prioritised to address persistent data gaps and strengthen the national evidence base. In parallel, the NDTRS should undertake a data verification and evaluation project on a recurring cycle to ensure data accuracy and completeness. Regular repetition of this process will strengthen system-wide data quality, enhance national coverage, and improve the reliability of evidence used for planning and decision making.

The strong deprivation gradient observed suggests potential value in prioritising resource allocation toward communities experiencing highest treatment demand. Evidence from this analysis may support targeted expansion of services in highly deprived urban areas and enhanced accessibility initiatives in rural regions where travel distances are greatest.

Appendices

Appendix 1

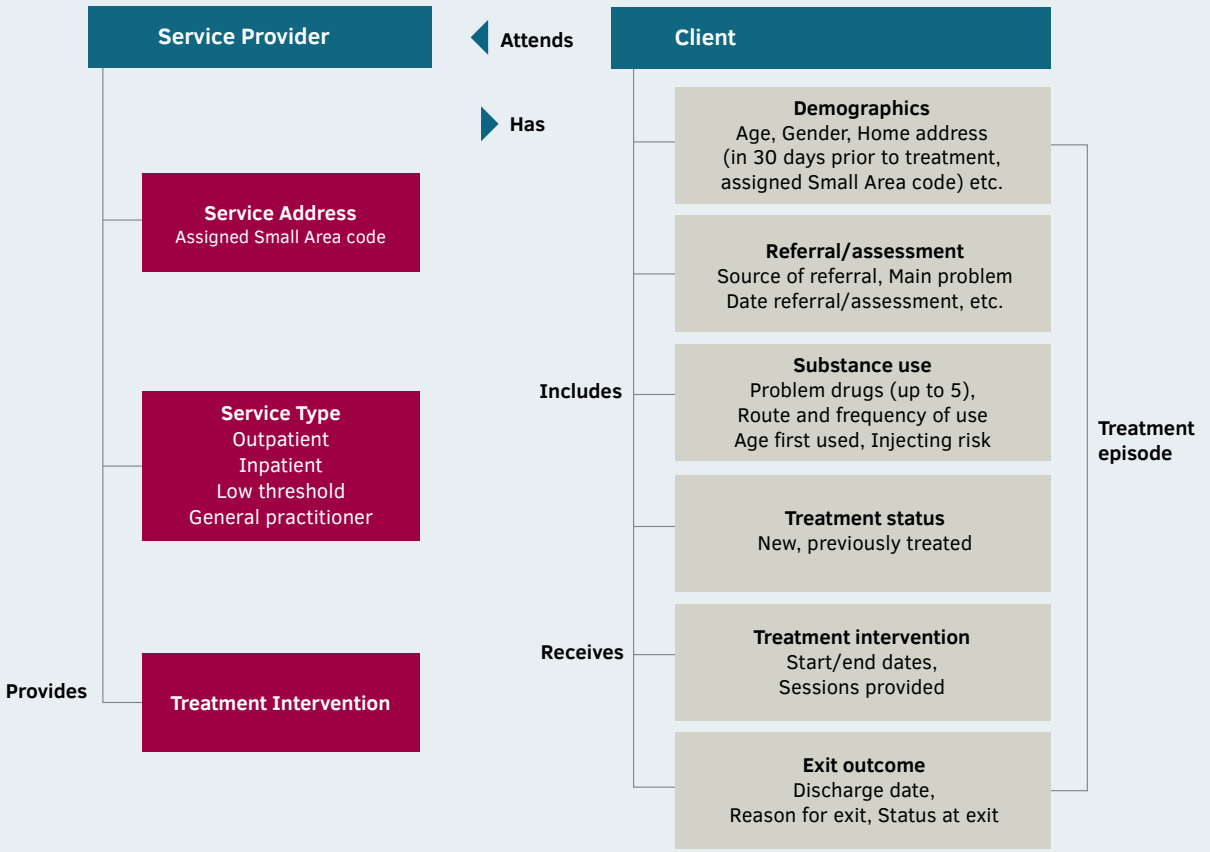


Figure 25: Illustrative overview of the NDTRS dataset structure, showing treatment-episode, service-type categories, and Small Area assignments relevant for geospatial analysis.

Appendix 2

An analysis of distance travelled to treatment was also performed for Ireland's 31 Local Authorities, finding a high degree of variance between these areas (26 and Table 12). For example, while Longford, Roscommon and Offaly have the highest median distances to treatment, Meath, Galway and Cork also had relatively high median distances from home to treatment. Dublin City had the lowest median distance, with Waterford City and County having the second shortest distance. It is also notable that in Local Authorities such as Longford, Roscommon and Offaly, there is a wide gap between the distance travelled to the actual service attended versus the closest, indicating that service-users in these areas are travelling significantly further than perhaps is necessary. By comparison, there is very little divergence in urban areas such as the cities of Dublin and Waterford.

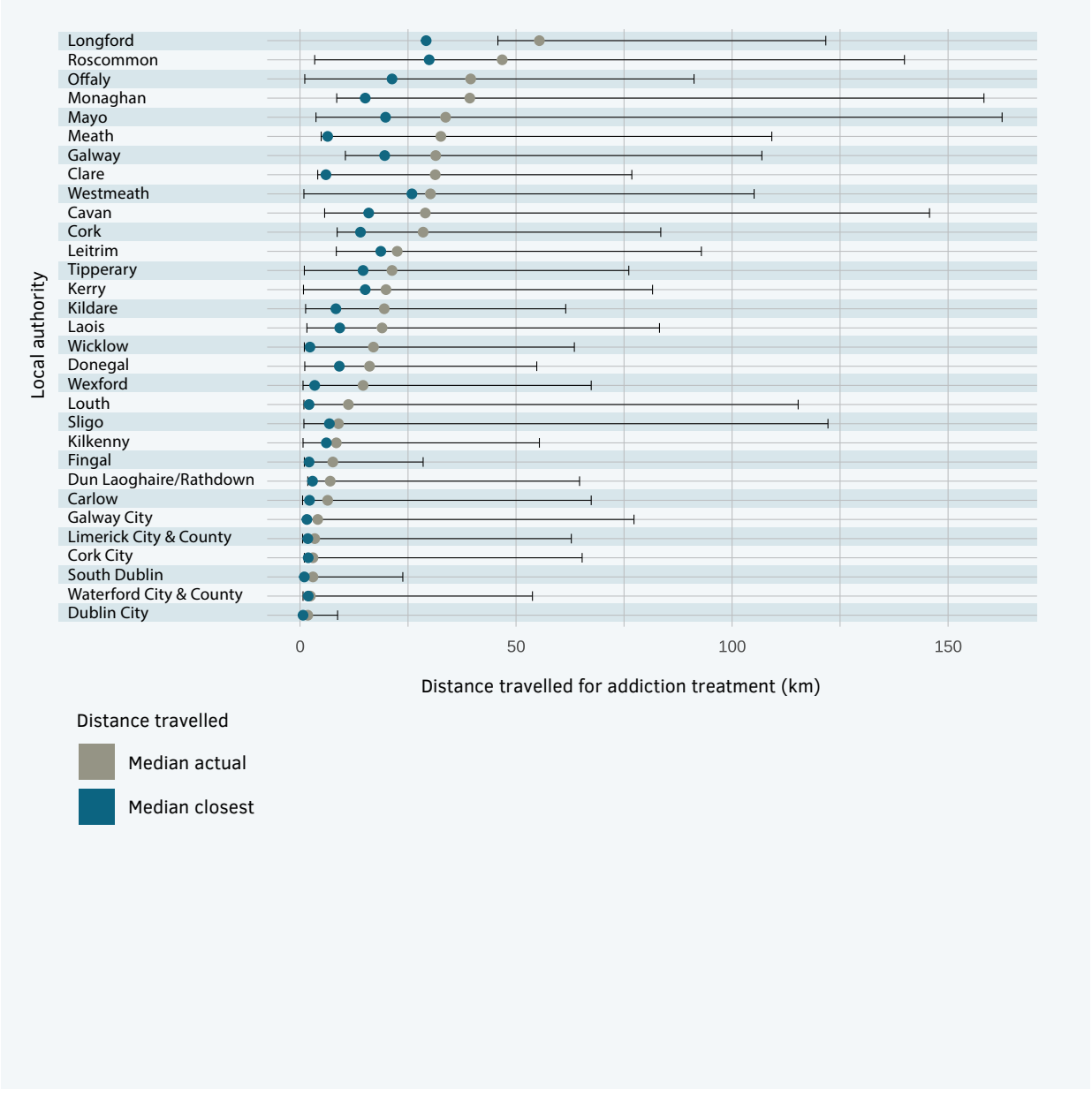


Figure 26: 25 Median Distance travelled for all NDTRS addiction treatments by Local Authority, 2024

Table 12: Median distance (km) to treatment by Local Authority and Primary Drug Type, NDTRS addiction treatment data, 2024

Local Authority	Alcohol	Heroin	Powder Cocaine	Cannabis	BZD	Crack cocaine
Carlow	14.7	1.7	11.7	2.0	2.0	39.7
Cavan	29.8	28.7	19.1	31.4	35.1	
Clare	32.4	57.5	19.7	25.0	32.5	17.5
Cork	28.7	32.2	22.2	26.4	38.0	16.9
Cork city	3.1	2.5	3.3	3.1	2.9	2.0
Donegal	16.1	216.9	19.3	12.5	14.3	5.2
Dublin city	2.2	1.5	2.0	1.7	1.8	1.5
Dun Laoghaire	6.7	5.6	7.3	6.6	6.8	11.1
Fingal	8.3	4.5	7.1	10.0	7.5	7.5
Galway	36.0	48.2	24.3	31.2	31.1	
Galway city	4.6	2.2	5.6	2.7	5.1	3.1
Kerry	22.6	1.7	31.5	14.3	9.3	32.1
Kildare	24.6	11.0	17.6	16.3	21.0	23.0
Kilkenny	12.4	1.7	12.6	2.2	14.1	2.1
Laois	21.1	13.8	19.3	8.1	20.9	66.9
Leitrim	22.5	93.1	21.4	15.7	19.7	
Limerick city	7.1	1.5	10.7	3.3	2.6	1.0
Longford	72.4	53.6	56.4	55.6	54.6	55.7
Louth	11.4	2.6	7.7	2.3	34	34.1
Mayo	34.6	1.5	32.7	29.6	191	
Meath	46.8	15.6	16.9	29.9	34	15.1
Monaghan	54.2	39.4	92.3	22.0	27.9	
Offaly	44.7	34.1	6.8	25.0	62.7	87.2
Roscommon	50.2	16.8	46.8	32.0	52.8	
Sligo	8.9	1.3	28.1	2.6	2.7	1.4
South Dublin	4.5	2.2	3.0	3.0	3.0	2.2
Tipperary	25.3	21.2	20.8	16.6	20.9	22.6
Waterford city	2.8	1.9	2.6	2.1	2.4	1.9
Westmeath	64.4	1.3	35.1	35.3	81.4	40.5
Wexford	16.7	29.3	12.1	10.0	18.9	17.3
Wicklow	17.8	2.3	17.9	14.0	15.0	22.2

Appendix 3

An analysis of the strength of the relationship between drug treatment and deprivation for each type of drug within each HSE Health Region was also conducted.

As Figure 27 shows, across all HSE regions, the relationship between deprivation and treatment is weakest for alcohol and strongest for heroin. In certain regions, there are very low numbers of drug treatments recorded for certain drugs, suggesting a potential difference in the prevalence of drugs nationwide (for example, Crack Cocaine or Benzodiazepines treatment is very low across all bands of deprivation in HSE West and North West, or indeed differences in access to treatment for certain drug types.

HSE Dublin and Midlands | HSE Dublin and North East | HSE Dublin and South East | HSE Midwest | HSE South West | HSE West and North West

Alcohol | Benzodiazepines | Cannabis | Crack Cocaine | Heroin | Other Drugs | Powder Cocaine

Average treatment rate per 10,000

Deprivation Level

Deprivation
- Very and Extremely Disadvantaged
- Disadvantaged
- Marginally below average
- Marginally above average
- Affluent
- Very Affluent

Figure 27: Relationship between drug treatment and deprivation by drug type in each HSE Health Region


HRB
Health
Research
Board
pobal
government supporting communities
An Roinn Sláinte
Department of Health