

Alcohol-related harm

HSE Regional Health Areas



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Abbreviations

ALD Alcohol-related liver disease

AUDIT-C Alcohol Use Disorders Test-Concise

CSO Central Statistics Office

DSM-5 Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition

ED Emergency department

HIPE Hospital In-Patient Enquiry

HRB Health Research Board

International Statistical Classification of Diseases and Related Health Problems, 10th

Revision

MUP Minimum unit pricing

NDAS National Drug and Alcohol Survey

NDTRS National Drug Treatment Reporting System

NPIRS National Psychiatric Inpatient Reporting System

OECD Organisation for Economic Co-operation and Development

RHA Regional health area

WHO World Health Organization

Glossary

Alcohol use disorder (AUD) – defined according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria. It is a maladaptive pattern of alcohol use leading to clinically significant impairment or distress, as manifested by 2 or more of the following 11 criteria, occurring at any time in the last 12 months: role impairment; hazardous use; social problems; tolerance; withdrawal; longer or more use than intended; unsuccessful attempts to quit/cut down; much time spent using alcohol; reduced activities because of drinking; continued drinking despite psychological or physical problems; and alcohol cravings.

Heavy episodic drinking (HED) – sometimes referred to as 'binge drinking' and defined as consuming six or more standard drinks on a single occasion. This is approximately equivalent to three pints of beer or cider, six pub measures of spirits, or just under one bottle of wine.

HSE weekly low-risk alcohol guidelines - The recommended weekly low-risk alcohol guidelines are less than 11 standard drinks for women and 17 standard drinks for men, spread out over the week with 2—3 alcohol-free days per week. No more than 6 standard drinks on any one occasion.

Standard drink – 10g of pure alcohol (equivalent to approximately half a pint of beer, one pub measure (35 ml) of spirits, or one small (100 ml) glass of wine).

1 Introduction

Alcohol use places a serious burden on the health system in Ireland. Its use is the leading risk factor for both death and disability-adjusted life years for those aged 25–49 years and accounts for over 5% of all deaths every year, representing at least three people dying every day in Ireland [1,2]. Alcohol is a causal factor in more than 200 disease and injury conditions, affecting not only the individual, but also their family, friends, community, and society at large [2]. Although there has been a decline in per capita alcohol use in Ireland in the last number of years, we are increasingly seeing the legacy of the exceptionally high alcohol use in the late 1990's and early 2000's. This is evident in the number of alcohol-related hospitalisations we see on a yearly basis, and which are outlined in this short report.

In 2023, we saw an increase in alcohol-related hospital discharges at over 20,000 recorded on the Hospital Inpatient Enquiry (HIPE) Scheme, compared to 18,877 in 2021 and 17,512 in 2022 [3,4]. This may be a result of an increase in hospital attendance in the aftermath of an extended period of avoiding hospitals due to the COVID-19 pandemic or it may be due to a change in drinking patterns during the pandemic, but regardless of why, it emphasises the extent of pressure placed on Irish hospitals. We know too that the length of stay for alcohol-related hospitalisations are on average twice as long as non-alcohol-related hospitalisations, indicating the complexity of treating these patients [3].

The majority of the components of the Public Health (Alcohol) Act 2018 have been commenced to date in an effort to reduce the harms from alcohol use in Ireland. The Act places Ireland at the forefront of countries observing the World Health Organization's (WHO's) recommendations regarding best practices for reducing population-level alcohol use and related harms. The concurrent implementation of the Act during the COVID-19 pandemic has made monitoring the impact of the legislation complicated.

This factsheet examines the available alcohol data at Health Service Executive (HSE) regional health area (RHA) level. RHA's are in line with recommendations made in the Sláintecare Report indicating that regional bodies be responsible for the planning and delivery of integrated health and social care services [5]. Although alcohol use is equally prevalent across Irish society, there may be some nuances in alcohol-related harm. As such, this factsheet provides an insight into the incidences of alcohol-related hospital discharges representing the pressure on acute services, to allow more effective service planning for RHAs.

2 Population of Ireland by Regional Health Area

Since the Census in 2016, the population of Ireland has grown by 7.6% [6]. Dublin and North East regional health area has the largest percentage of the population (23.1%) followed by Dublin and Midlands (20.9%) (Table 1).

Table 1 Population of each HSE health region, 2022

	Population Census 2022 (n)	Population Census 2022 (%)
HSE Dublin and North East (A)	1,187,082	23.1
HSE Dublin and Midlands (B)	1,077,639	20.9
HSE Dublin and South East (C)	971,093	18.9
HSE South West (D)	740,614	14.4
HSE Midwest (E)	413,059	8.0
HSE North and North West (F)	759,652	14.8

Source: CSO Census of population, 2023 (taken from HSE National Comparative Report, 2024) [7]

3 Total population per capita alcohol use

Per capita alcohol use is the volume of pure alcohol consumed per person aged 15 years and over each year and is calculated in Ireland using alcohol sales data from Revenue and population estimates from the Central Statistics Office (CSO) [6,8]. In 2023, per capita alcohol use for the population aged 15 years and over was 9.9 litres. Figure 1 illustrates the average alcohol use per person aged 15 years and over from 2013 to 2023 in Ireland based on the assumption that every individual aged 15 and over drinks alcohol. As approximately 30% of the population are non-drinkers, the actual per capita alcohol use is much higher [9]. Since 2013, there has been a decrease of 5.7% in per capita alcohol use. In 2020 and 2021, the impact of the COVID-19 pandemic and the associated closure of pubs, clubs and restaurants meant that per capita alcohol use decreased but since their reopening, alcohol use has increased again, however not to pre-pandemic levels. Per capita alcohol use by regional health area is not available using Revenue data.

11.5 11.2 Litres of pure alcohol per capita aged 15+ 11.0 11.0 11.0 10.8 10.8 10.7 10.5 10.5 10.2 10.1 9.9 10.0 9.5 9.5 9.0 8.5 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

Figure 1 Litres of pure alcohol per capita in Ireland aged 15+ years, 2013—2023

Source: Revenue Alcohol sales, 2024 [10]

4 Drinking patterns

The National Drug and Alcohol Survey (NDAS), last carried out in 2019—2020, collected information on alcohol, tobacco and drug use among a representative sample (N=5,762) of the general

population, aged 15 years and older, in Ireland [11]. The NDAS examined alcohol use at a RHA level [11,12].

4.1 Current drinkers

The NDAS reported that three-quarters of the population reported drinking alcohol in the last year (74.2%). This pattern was consistent when examining alcohol use by regional health areas. Slightly lower than the national average was HSE Midwest (Area E) (68.1%) and higher alcohol use was reported in HSE Dublin and Midlands (Area B) (77.3%) (Figure 2).

4.2 Hazardous drinkers/AUDIT-C

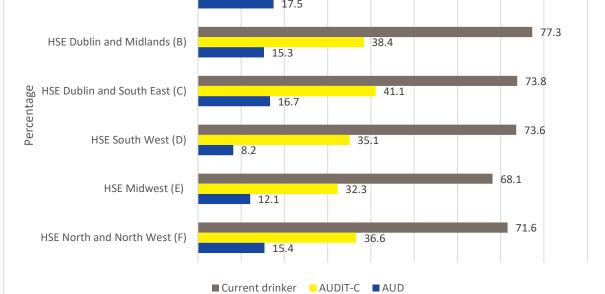
Over one-third of the population met the classification for hazardous drinking (37.9%) as measured using the World Health Organization's (WHO) Alcohol Use Disorders Test-Concise (AUDIT-C) screening tool (score of 5 or more) [13]. When examined by regional health area, the pattern of hazardous alcohol use reflects that of the national average with slightly higher levels of hazardous drinking reported in HSE Dublin and South East (Area C) (Figure 2).

4.3 Alcohol use disorder

Alcohol use disorder (AUD) was measured using the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [14]. The overall prevalence of AUD in the population of Ireland was 14.8% but varied by regional health area; from 8.2% in HSE South West (Area D) to 17.5% in HSE Dublin and North East (Area A) (Figure 2).

0 10 20 70 80 90 30 40 50 60 76.1 HSE Dublin and North East (A) 39.4 77.3 HSE Dublin and Midlands (B) 38.4

Figure 2 Prevalence of current drinking, hazardous drinking, and alcohol use disorder in general population by RHA, 2019—2020



Source: National Drug and Alcohol Survey [11]

5 Alcohol-related hospitalisations

Alcohol-related hospitalisations in Ireland was provided by the Hospital In-Patient Enquiry (HIPE) scheme managed by the Healthcare Pricing Office (HPO) in the Health Service Executive (HSE). HIPE is a computerised health information system designed to collect clinical and administrative data on discharges (including deaths) from acute Irish hospitals. Each HIPE discharge record represents one episode of care; patients may be admitted to hospital(s) more than once with the same or different diagnoses, as these records do not carry a unique personal identifier, it is not possible to determine accurately how many times an individual patient was admitted for the same condition. Some discharges may be included in more than one alcohol category, therefore, the total counts presented here may exceed the total number of discharges. The data presented here are an underestimate of the true prevalence of alcohol-related hospitalisations as emergency department (ED) and outpatient data are not collected. In addition, those who attend private hospitals for treatment for alcohol-related conditions are not captured by the HIPE system, although private beds used in public hospitals are. The records therefore facilitate analysis of hospital activity rather than epidemiological analysis of disease. It is also important to note that the regional health area information is based on the patient's home address. The patient may have travelled to another area for treatment.

Hospital discharges are coded using the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM). A full list of the alcohol-related diagnosis codes and descriptions can be found in Appendix 1.

5.1 All alcohol-related hospitalisations

There were 22,572¹ alcohol-related discharges from Irish hospitals in 2023. HSE Dublin and North East (Area A) had the greatest number of alcohol-related hospital discharges (n=6,181) but this is expected due to the larger population within that area. There were 4,739 alcohol-related hospital discharges in HSE Dublin and Midlands (Area B) followed by 3,638 in HSE Dublin and South East (Area C).

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¹ Note that there were in excess of this figure but due to cell suppression to avoid indirectly identifying individuals, the exact number of alcohol-related hospitalisations was not possible to extract from the HIPE data.



Figure 3 Overall number of alcohol-related hospital discharges reported to HIPE, by regional health area

Source: HIPE, 2024

When considering the rate of alcohol-related hospital discharges per 100,000 of the population of each regional health area, the highest rate remained as HSE Dublin and North East (Area A) at 520.7 per 100,000 of the population (Figure 4).

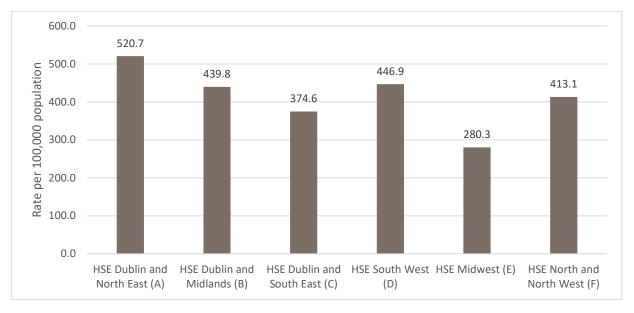


Figure 4 Rate of alcohol-related hospital discharges, by regional health area, reported to HIPE, 2023

Source: HIPE, 2024

The most frequently recorded alcohol-related discharge within each HSE health region are those due to 'mental and behavioural disorders due to use of alcohol', followed by alcohol-related liver disease (Table 2). Not all alcohol-related diagnoses are displayed in Table 2 due to small numbers and therefore the risk of potentially identifying an individual.

Table 2 Number of alcohol-related hospital discharges reported to HIPE², by regional health area, 2023

HSE Dublin and North East (A)	HSE Dublin and Midlands (B)	HSE Dublin and South East (C)	HSE South West (D)	HSE Midwest (E)	HSE North and North West (F)
4,604	3,622	2,414	2,428	1,063	2,422
31	29	20	17	~	~
25	7	8	11	~	~
25	19	27	~	~	14
1,033	694	796	542	206	495
113	72	70	64	30	57
49	48	23	33	9	18
81	48	76	45	19	46
16	8	15	~	~	7
62	29	49	35	18	31
~	7	10	~	0	9
55	38	35	56	8	6
87	118	95	79	11	33
	Dublin and North East (A) 4,604 31 25 25 1,033 113 49 81 16 62 ~ 55	Dublin and North East (A) HSE Dublin and Midlands (B) 4,604 3,622 31 29 25 7 25 19 1,033 694 113 72 49 48 81 48 16 8 62 29 ~ 7 55 38	Dublin and North East (A) HSE Dublin and Midlands (B) Dublin and South East (C) 4,604 3,622 2,414 31 29 20 25 7 8 25 19 27 1,033 694 796 113 72 70 49 48 23 81 48 76 16 8 15 62 29 49 ~ 7 10 55 38 35	Dublin and North East (A) HSE Dublin and Midlands (B) Dublin and South East (C) HSE South West East (D) 4,604 3,622 2,414 2,428 31 29 20 17 25 7 8 11 25 19 27 ~ 1,033 694 796 542 113 72 70 64 49 48 23 33 81 48 76 45 16 8 15 ~ 62 29 49 35 ~ 7 10 ~ 55 38 35 56	Dublin and North East (A) HSE Dublin and Midlands (B) Dublin and South East (C) HSE Midwest (E) 4,604 3,622 2,414 2,428 1,063 31 29 20 17 ~ 25 7 8 11 ~ 25 19 27 ~ ~ 1,033 694 796 542 206 113 72 70 64 30 49 48 23 33 9 81 48 76 45 19 16 8 15 ~ ~ 62 29 49 35 18 ~ 7 10 ~ 0 55 38 35 56 8

Source: HIPE, 2024

5.2 Hospital discharges for alcohol-related liver disease

Table 2 provides the number of hospital discharges for alcohol-related liver disease. Figure 5 presents the rate of alcohol-related liver disease (ALD) per 100,000 of the population for each HSE regional health area in 2023. HSE Dublin and North East (A) and HSE Dublin and South East (C) had the greatest number of ALD hospital discharges per 100,000 of the population.

[~]cells are suppressed due to containing data <5 or the ensure the cells with 5 or less discharges are not disclosed

² Due to cell suppression to avoid indirectly identifying an individual, data have been supressed and are only displayed where there are a greater number of discharges. Therefore, totals do not match the overall number provided previously in this document.

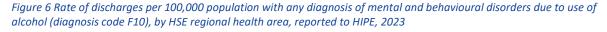
Rate per 100,000 population 100.0 0.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 HSE Dublin and North East (A) 87.0 HSE Dublin and Midlands (B) 64.4 HSE Dublin and South East (C) 82.0 HSE South West (D) 73.2 HSE Midwest (E) 27.8 HSE North and North West (F) 65.2

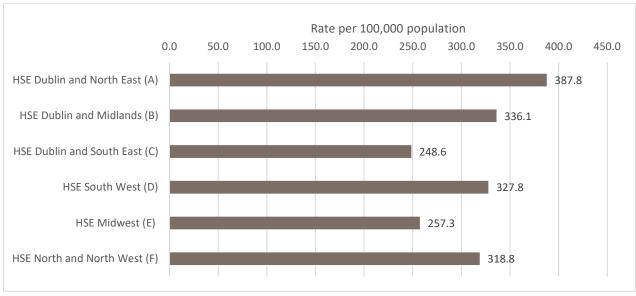
Figure 5 Rate of discharges per 100,000 population with any diagnosis of alcohol-related liver disease (ICD-10 diagnosis code K70), by HSE regional health area, reported to HIPE, 2023

Source: HIPE, 2024

5.3 Hospital discharges for mental and behavioural disorders due to use of alcohol

Mental and behavioural disorders due to the use of alcohol refers to alcohol-related disorders including 'alcohol abuse', 'alcohol dependence' (See Appendix 1), and is the most commonly recorded alcohol-related diagnosis on HIPE. In 2023, HSE Dublin and North East (Area A) had the highest number of such diagnoses recorded (4,604), followed by HSE Dublin and Midlands (B) (3,622) (Table 2). When considering the rate of hospital discharges per 100,000 of the population, both Area A and B remined the highest prevalence of discharges for mental and behavioural disorders due to use of alcohol.





Source: HIPE, 2024

6 Alcohol treatment

6.1 National Drug Treatment Reporting System

Treatment for alcohol use is recorded on the National Drug Treatment Reporting System (NDTRS). The NDTRS is an epidemiological database on treated problem drug and alcohol use in Ireland. For the purpose of the NDTRS, 'treatment' is broadly defined as any activity that aims to ameliorate the psychological, medical, or social state of individuals who seek help for their alcohol and other drug use problems. Compliance with the NDTRS requires that one form be completed for each new client coming for their first treatment and for each previously treated client returning to treatment for problem drug use (including problem alcohol use). Data are collected on annual episodes of treatment rather than on the individuals being treated. This means that the same person could be counted more than once in the reporting year if they had more than one treatment episode in that year.

Treatment for problem use of substances in Ireland is provided by statutory and non-statutory services, including general hospitals, psychiatric hospitals, community-based services, and residential centres. Most treatment of problem alcohol use takes place in outpatient facilities. To assist those seeking help for their alcohol and/or other drug use and to enable visualisation of the location of service providers providing addiction treatment, the NDTRS has created an interactive map containing information on publicly funded addiction treatment services which fall under the remit of the NDTRS [15]. This interactive tool highlights the geographical areas where potentially further services are required.

In 2023, 92.0% of services required to report to the NDTRS provided data. However, as GPs do not currently report alcohol treatment data to the NDTRS, the data presented here is an underestimation of the extent of treated alcohol use in Ireland. It is also known that the number of cases presenting for treatment for alcohol use are substantially less than those with alcohol dependence. A 2021 study estimated that just 2–3% of those with alcohol dependence in Ireland are entering treatment each year [16]. The numbers accessing treatment in Ireland is lower than that in Scotland despite their similar population size and patterns of drinking. For example, for the reporting year 2021/2022, 9,563 people accessed treatment for alcohol use in Scotland compared to the 8,163 cases in Ireland in 2023 [17,18].

Data presented here are based on the most recently available information from the NDTRS, which covers alcohol treatment data for 2023.

Table 3 presents the number of cases attending treatment for alcohol as their main problem substance³ in 2023 by regional health area. The regional health area data presented for NDTRS data represents the area of residence of the cases receiving treatment. Note that those in receipt of treatment for alcohol use may travel from their own area to another to receive treatment.

HSE Dublin and North East (A) had the highest number of cases receiving treatment for alcohol as their main problem substance (2,193) and the highest rate per 100,000 population (184.74).

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³ Main problem substance means that alcohol was the first, or most problematic substance for which treatment was received when polydrug use.

Table 3 Number, percentage and rate per 100,000 of the population, of cases receiving treatment for alcohol as the main problem substance, 2023

	HSE Dublin and North East (A)	HSE Dublin and Midlands (B)	HSE Dublin and South East (C)	HSE South West (D)	HSE Midwest (E)	HSE North and North West (F)
Number of cases*	2,193	1,302	1,747	920	570	1,286
% of cases	26.9	16.0	21.4	11.3	7.0	15.8
Rate per 100,000 population	184.74	120.82	179.90	124.22	137.99	169.29

Source: National Drug Treatment Reporting System [19]

7 Conclusion

It is evident from this short report that alcohol-related hospitalisations place significant pressure on already stretched acute hospital services. Alcohol-related hospitalisations are highest in the Dublin regions, most likely due to the major hospitals that serve these areas. The high and increasing number of alcohol-related hospitalisations must be considered when planning services and the funding of same. Likewise, seeking treatment for problem alcohol use should be encouraged and availability increased to meet the apparent need considering the hazardous and harmful drinking patterns that are common in Irish society.

The population of Ireland has transformed hugely in the last decade or so, both the volume and the demographic profile, and we now have an ageing population. As such, the importance of population needs planning has never been more relevant. The data in this report can contribute to the work that HSE Public Health are leading on [20].

It will be important to continue to monitor trends in regional health area alcohol-related data as the remaining components of the Public Health (Alcohol) Act, 2018 are commenced.

 $^{^{*}}$ Note that for 145 cases, the regional health area was 'other' or unknown so are not presented here

8 Appendix 1

Table 4 Alcohol-related discharges ICD-10-AM diagnosis codes

ICD-10-AM code	Description
E24.4	Alcohol-induced pseudo-Cushing's syndrome
F10	Mental and behavioural disorders due to use of alcohol
F10.0	Acute intoxication
F10.1	Harmful use
F10.2	Dependence syndrome
F10.3	Withdrawal state
F10.4	Withdrawal state with delirium
F10.5	Psychotic disorder
F10.6	Amnesic syndrome
F10.7	Residual and late onset psychotic disorder
F10.8	Other mental and behavioural disorders
F10.9	Unspecified mental and behavioural disorder
G31.2	Degeneration of nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
G72.1	Alcoholic myopathy
142.6	Alcoholic cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K70.0	Alcoholic fatty liver
K70.1	Alcoholic hepatitis
K70.2	Alcoholic fibrosis and sclerosis of liver
К70.3	Alcoholic cirrhosis of liver
К70.4	Alcoholic hepatic failure
К70.9	Alcoholic liver disease, unspecified
K85.2	Alcohol-induced acute pancreatitis
K86.0	Alcohol-induced chronic pancreatitis
O35.4	Maternal care for (suspected) damage to fetus from alcohol
P04.3	Fetus and newborn affected by maternal use of alcohol
Q86.0	Fetal alcohol syndrome (dysmorphic)
R78.0	Finding of alcohol in blood
T51	Toxic effect of alcohol
T51.0	Ethanol
T51.1	Methanol
T51.2	2-Propanol
T51.3	Fusel oil
T51.8	Other alcohols
T51.9	Alcohol unspecified
X45	Accidental poisoning by and exposure to alcohol
X45	Accidental alcohol poisoning
X65	Intentional self-poisoning by and exposure to alcohol

ICD-10-AM code	Description	
X65	Intentional alcohol poisoning	
Y15	Poisoning by and exposure to alcohol, undetermined intent	
Y15	15 Alcohol poisoning – undetermined intent	
Y90.0 – Y90.9	Evidence of alcohol involvement determined by blood alcohol level	
Y91.0 - Y91.9	Evidence of alcohol involvement determined by level of intoxication	
Z50.2	Alcohol rehabilitation	
Z71.4	Counselling and surveillance for alcohol use disorder	
Z72.1	Alcohol use	
Z86.41	Personal history of alcohol use disorder	

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