

Alcohol-Specific Deaths in Northern Ireland, 2012 to 2022

Frequency: Annual

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This report presents statistics on Northern Ireland (NI) alcohol-specific mortality in 2022. Figures are based on deaths registered in NI that are known to have an alcohol-specific cause.

Alcohol-specific death statistics are published by NISRA as the number of deaths **registered** within a calendar year, rather than the number of deaths that **occurred** in that period. This method ensures annual data do not continuously change; however, it introduces a limitation to the statistics as registration-based figures build in delays in procedural systems and processes which can drive annual fluctuations in the series; and do not enable occurrence-based analyses which may be important in informing operational and policy responses. Annual changes in the numbers of registered deaths should therefore be interpreted with caution and a three-year rolling average has been provided in Figure 1 with this in mind.

Key points

- The total number of alcohol-specific deaths registered in 2022 was 356. This was six more than the previous year (350) and, accounted for 2.1% of all deaths registered in 2022.
- Since 2012, NI has seen deaths due to alcohol specific causes rise by 45.9% from 244 to the latest reported figure of 356.
- The alcohol-specific age-standardised mortality rate per 100,000 people was the highest on record, up from 14.6 in 2012 to 19.5 in 2022.
- Almost two-thirds (65.2%) of the 356 deaths were male. Similarly, the age standardised mortality rate per 100,000 population of alcohol-specific deaths for males was almost twice that of the rate for females (26.1 and 13.2 respectively).
- Alcohol-specific deaths continue to be more prevalent among the 45-54 and 55-64 age groups, which together accounted for 55.1% of all alcohol-specific deaths registered in 2022.

- Since 2012, alcoholic liver diseases have accounted for, on average, two thirds of alcohol-specific deaths, increasing from 62.3% in 2012 to 72.5% in 2022.
- The Belfast Trust had the highest number of alcohol-specific deaths in 2022 (102), followed by Western Trust (72). The South-Eastern Trust had the lowest number (45) of alcohol deaths in 2022.
- The Belfast Local Government District (LGD) had the highest age-standardised rate of alcohol-specific deaths of all the LGDs in Northern Ireland at 30.1 per 100,000 population in 2022.
- Between 2018 and 2022, the percentage of alcohol-specific deaths from Northern Ireland's most deprived areas (36.6%) was over three times that of the least deprived areas (10%).
- Across the UK the most recent year with comparable data is 2021, wherein Scotland and Northern Ireland had the highest alcohol-specific death rates, recording 22.3 and 19.1 deaths per 100,000 respectively. In contrast, England and Wales had lower rates of alcohol-specific deaths, with 13.9 and 15.0 deaths per 100,000 respectively. It should be noted, however, that cross country comparisons will be affected by differences in data collection and collation processes in the separate jurisdictions.

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What you need to know

Alcohol death figures were first published in Northern Ireland in 2001.

The methodology for selecting alcohol-specific deaths was revised following a consultation led by the Office for National Statistics (ONS) in 2017. The consultation document, [Alcohol Mortality Definition Review](#), is available from the ONS website.

The current definition includes conditions known to be exclusively caused by alcohol (that is, wholly attributable causes) and excludes conditions which may only be partially attributed to alcohol use. Details of these differences are shown in Table 1.

Table 1: Conditions included in the new definition of alcohol-specific deaths and the previous NS definition of alcohol-related deaths^{1,2}

Condition	ICD-10 Code	Alcohol-specific	Alcohol-related
Wholly attributable conditions			
Alcohol-induced pseudo-Cushing's syndrome ²	E24.4	X	
Mental and behavioural disorders due to use of alcohol	F10	X	X
Degeneration of nervous system due to alcohol	G31.2	X	X
Alcoholic polyneuropathy	G62.1	X	X
Alcoholic myopathy ²	G72.1	X	
Alcoholic cardiomyopathy	I42.6	X	X
Alcoholic gastritis	K29.2	X	X
Alcoholic liver disease	K70	X	X
Alcohol-induced acute pancreatitis ²	K85.2	X	
Alcohol induced chronic pancreatitis	K86.0	X	X
Fetal alcohol syndrome (dysmorphic) ²	Q86.0	X	
Excess alcohol blood levels ²	R78.0	X	
Accidental poisoning by and exposure to alcohol	X45	X	X
Intentional self-poisoning by and exposure to alcohol	X65	X	X
Poisoning by and exposure to alcohol, undetermined intent	Y15	X	X
Partially attributable conditions			
Chronic hepatitis, not elsewhere classified	K73		X
Fibrosis and cirrhosis of liver	K74.0-K74.2, K74.6-K74.9		X

Notes:

1. The conditions included in each definition are defined using codes from the International Classification of Diseases (10th Revision; ICD-10)
2. Wholly attributable conditions that have been added to the new definition of alcohol-specific deaths

The current definition has been applied to previous years to allow presentation of the current series on a consistent basis. However, historical statistics using the former methodology are also available on the [NISRA website](#).

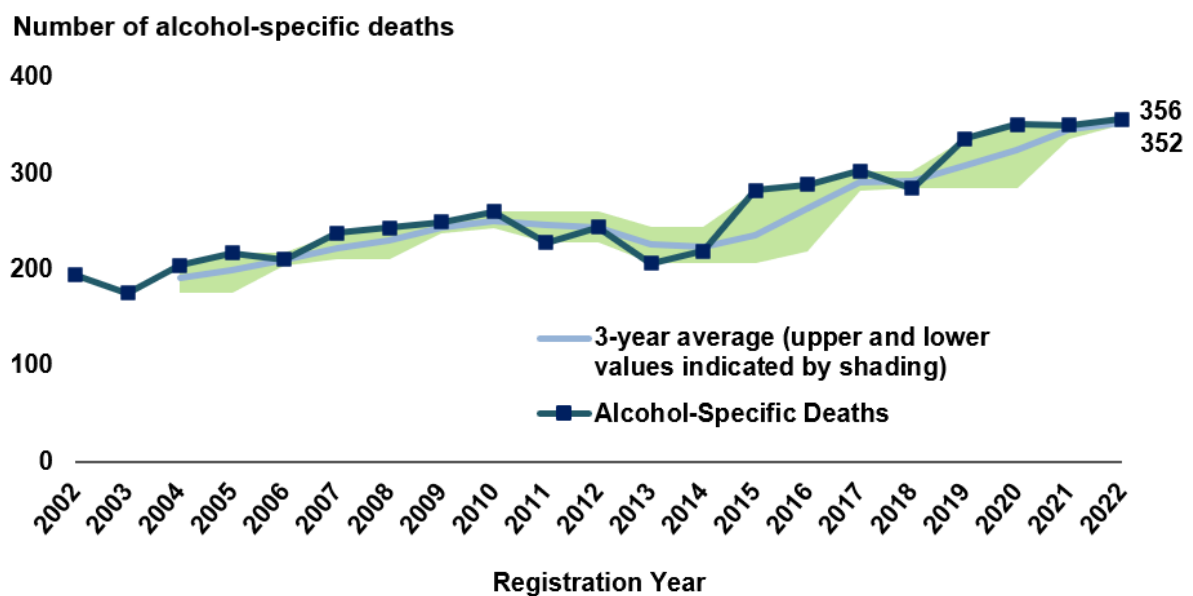
On 29 June 2023 NISRA published the [rebased population and migration estimates Northern Ireland \(2011-2021\)](#). This statistical report provided updated population estimates from mid-2011 to mid-2021, based on the results of Census 2021. The death rates in this report are based on the updated population estimates.

Section 1: Number of Alcohol-Specific Deaths

There has been a general increase in the number of alcohol-specific registered deaths in NI over the past 20 years, from 194 in 2002 to 356 in 2022. The 2022 total of 356 alcohol-specific deaths is the highest on record and is 45.9% higher than the number registered a decade ago (244). It should however be remembered that registration-based statistics will always be subject to fluctuations in the time which lapses between the date of death and the date the Coroner is able to close the investigation (and thereafter be incorporated in the registration based statistics).

Every death reported to the Coroner is carefully considered and is influenced by several factors specific to each case. These include whether the Coroner orders a post mortem, whether an inquest is required, the complexity of each case, and the number of cases reported to and being investigated by the Coroner at any point in time. Such fluctuations are notably evident within the annual alcohol-specific death figures for 2022. It is therefore important to look at the trend over a longer period of time. Figure 1 below, shows the number of alcohol-specific deaths from 2002 to 2022 along with a three-year rolling average from 2004. Looking at the three-year rolling average, the number of alcohol-specific deaths registered between 2020 to 2022 has increased by 6.6 (1.9 percent) from the 345.7 registered in 2019 to 2021. Prior to this, the three-year average has generally increased since 2002.

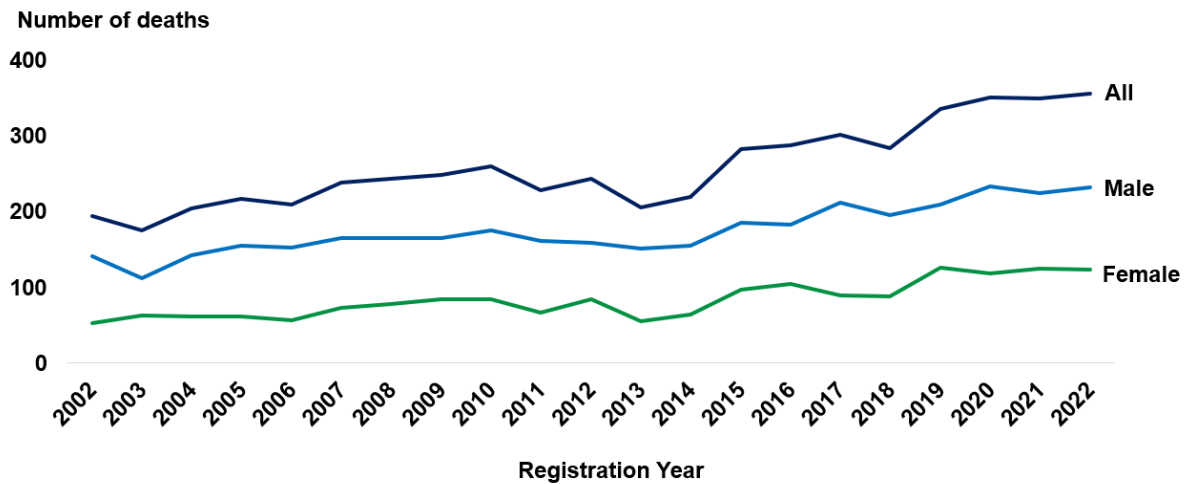
Figure 1: Alcohol-specific deaths by registration year



Section 2: Sex and Age

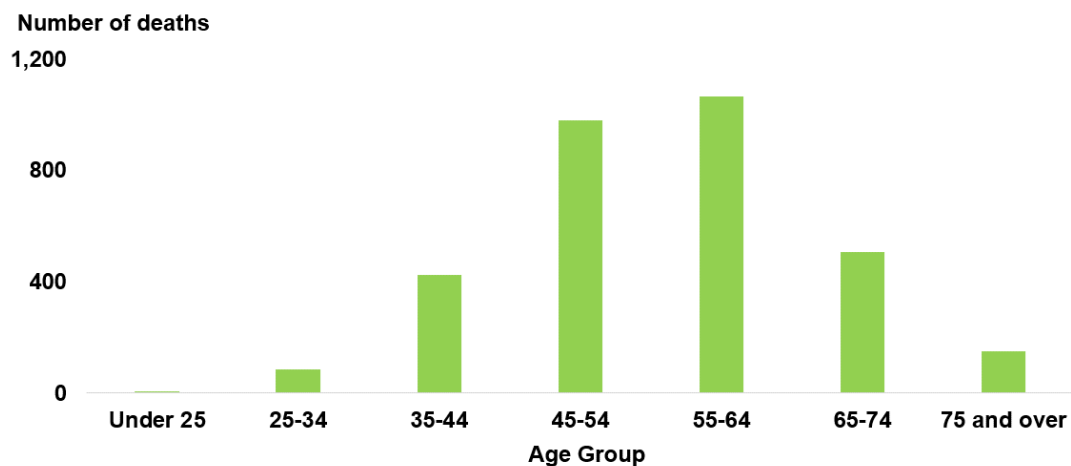
Figure 2a shows the number of alcohol-specific deaths by sex and year of registration between 2002 and 2022. Almost two-thirds (65.2%) of the 356 deaths were male, with the remaining 34.8% female. Males have consistently accounted for more such deaths each year, than females, accounting for 66.5% of alcohol-specific deaths registered between 2012 and 2022.

Figure 2: Number of alcohol-specific deaths by registration year and sex



Looking at the number of deaths by age, the 45-54 and 55-64 age groups consistently account for most alcohol-specific deaths. Figure 3 illustrates the number of alcohol-specific deaths by age-group in NI for the combined years of 2012 to 2022. In 2022 these two age groups accounted for 55.1% of all alcohol-specific deaths, which is less than the average across the combined years of 2012 to 2022 (63.5%).

Figure 3: Alcohol-specific deaths by age, 2012 to 2022



What is age-specific mortality Rate?

This is a measure of the number of deaths to a specified age group scaled to the size of the population of the same age group. In this bulletin, age-specific mortality rates are presented per 100,000 population.

The age-specific mortality rate per 100,000 population was higher for the 55-64 and 65-74 age groups (46.1 and 44.6, respectively) compared to those falling in the 25-34 age group (3.7). (see Table 2 in the accompanying [spreadsheet](#)).

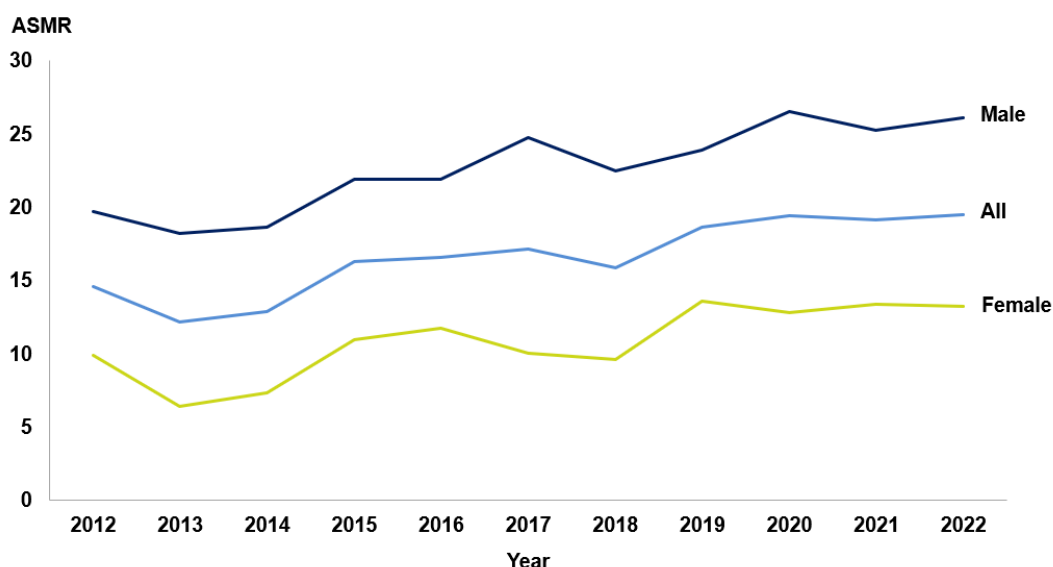
Trends in alcohol-specific deaths by sex can be compared by removing potential impact of the age profile of each sex through standardising for age.

What are Age-Standardised Mortality Rates (ASMRs)?

Mortality rates generally increase with age. A population with a greater proportion of older people is expected to have more deaths per population. Age-standardised mortality rates adjust for differences in the age structure of populations and therefore allow valid comparisons to be made between geographical areas, the sexes and over time. In this bulletin, age-standardised mortality rates are presented per 100,000 people and standardised to the 2013 European Standard Population.

Figure 4 shows the age-standardised mortality rates (ASMRs) by sex for alcohol-specific deaths from 2012 to 2022. The age-standardised mortality rate for males in 2022 was 26.1, almost double the rate for females, which was 13.2 deaths per 100,000 population. Between 2012 and 2022 the age-standardised alcohol-specific ASMR increased for males by 32.5%, from 19.7 per 100,000 to 26.1 per 100,000. The rate for females also increased by 33.3% from 9.9 per 100,000 to 13.2 per 100,000.

Figure 4: Age-Standardised Mortality Rate (ASMR) of alcohol-specific deaths by sex, 2012 to 2022

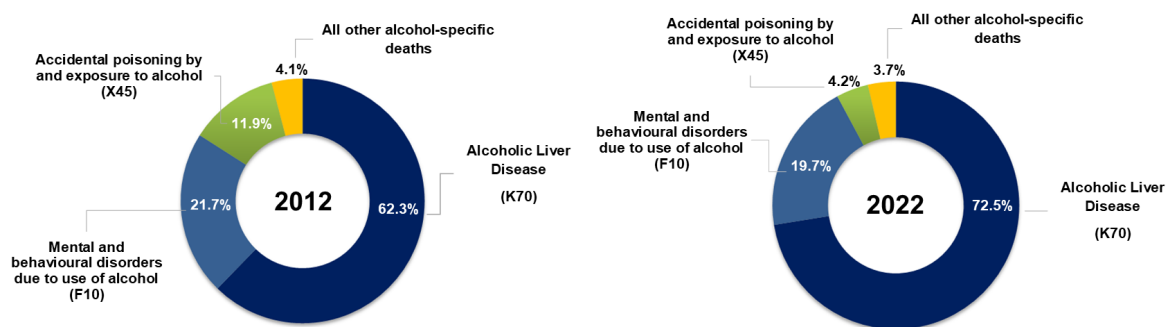


Section 3: Cause of death (ICD-10 code)

The majority (72.5%) of the 356 alcohol-specific deaths registered in 2022 had an underlying cause of alcoholic fatty liver disease (K70). Since 2012 alcoholic fatty liver diseases accounted for an average of two thirds of alcohol-specific deaths, increasing from 62.3% in 2012 (Figure 5).

Mental and behavioural disorders due to use of alcohol has consistently been the second most common cause of death among alcohol-specific deaths in NI. In 2022, 19.7% of alcohol deaths were due to this cause.

Figure 5 Proportion of alcohol-specific deaths by underlying cause of death, 2012 & 2022

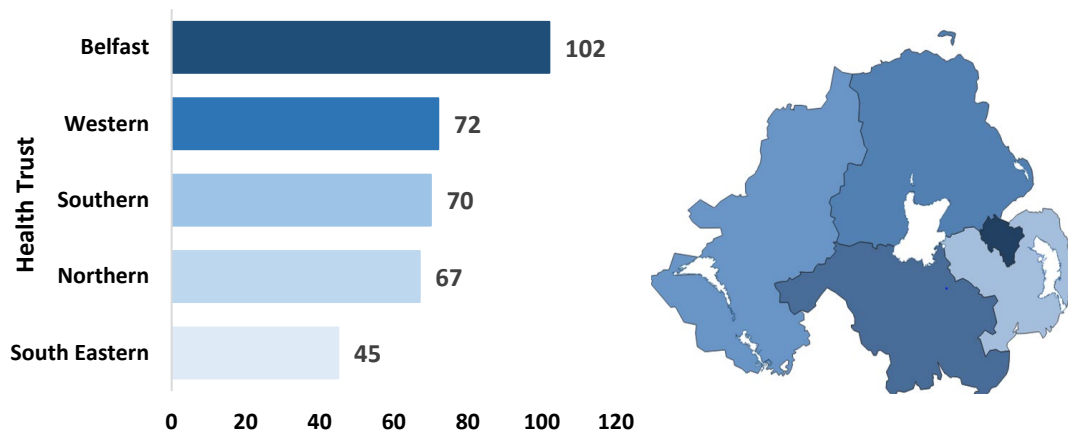


Compared with 2012, alcohol-specific deaths in more recent years were less likely to be caused by accidental poisoning by, and exposure to alcohol (X45), falling from 11.9% of alcohol deaths in 2012 to 4.2% in 2022.

Section 4: Health and Social Care Trust (HSCT)

Mid-Year population estimates for 2022 by HSCT are currently unavailable; it has therefore not been possible to produce ASMRs for HSCT. Figure 6 shows that, of the five Health and Social Care Trusts, Belfast had the highest number of alcohol-specific deaths in 2022 (102). This was followed by the Western Trust (72), Southern Trust (70), and Northern Trust (67). The South-Eastern Trust had the lowest number of alcohol deaths in 2022 at 45.

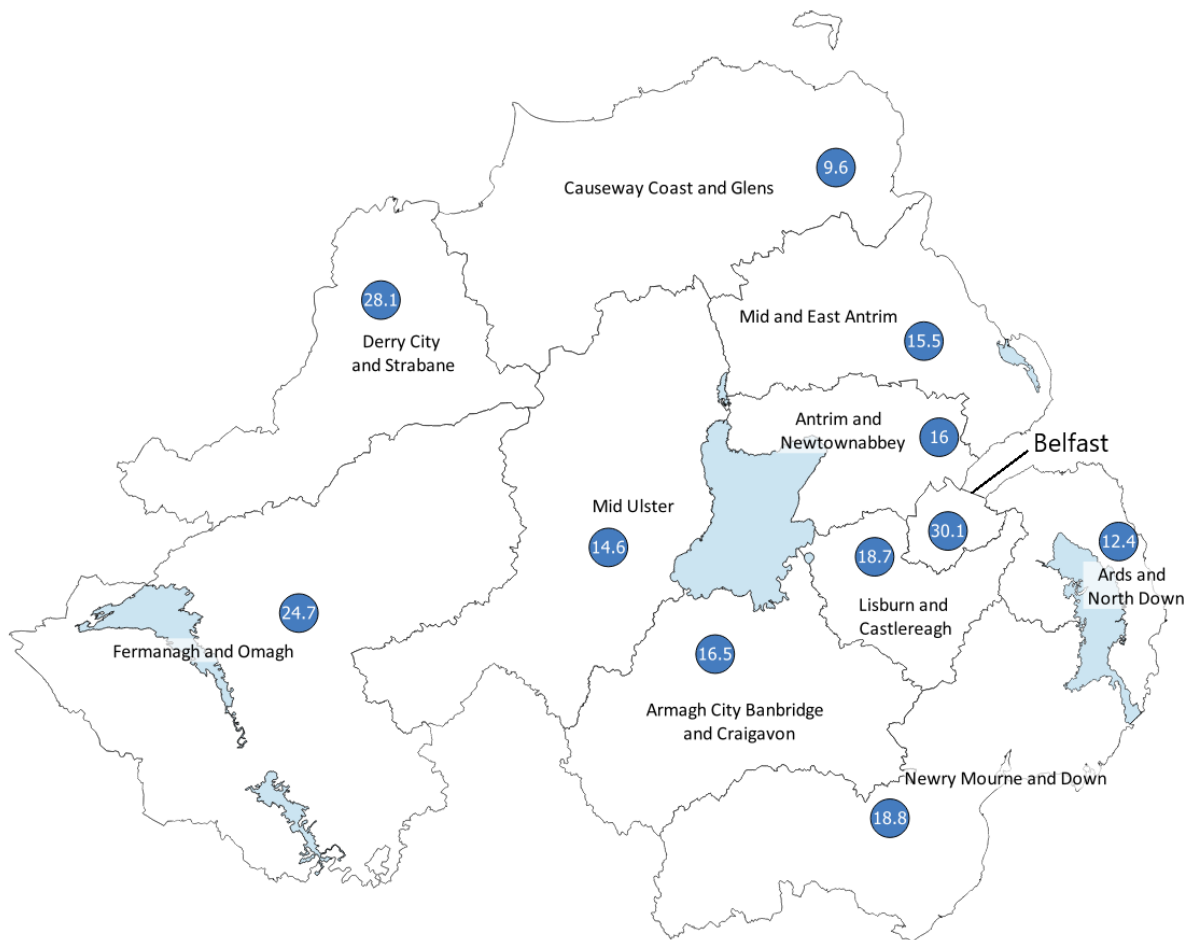
Figure 6: Number of alcohol-specific deaths in NI by Health Trust, 2022



Section 5: Local Government District (LGD)

Belfast LGD had the highest number of alcohol-specific deaths registered in Northern Ireland in 2022, at 92, accounting for over a quarter (25.8%) of all alcohol-specific deaths. Conversely, Causeway Coast and Glens had the lowest number at 14, or 3.9% of the total 356 alcohol-specific deaths (see Table 5 in accompanying [spreadsheet](#)).

Figure 7 – Map of NI showing alcohol-specific death rates by Local Government District, 2022

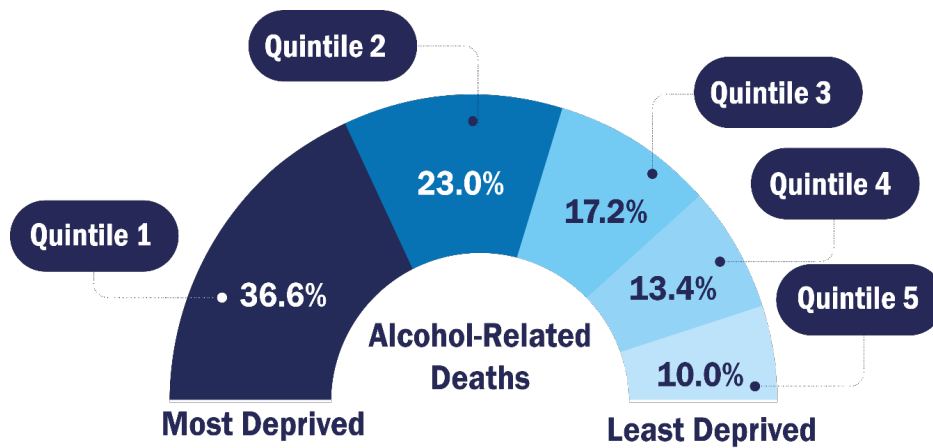


Since 2012 Belfast has consistently had the highest number of alcohol-specific deaths. In terms of mortality rates per 100,000 population (adjusted for age), over the last ten years (except 2021) Belfast LGD has also consistently had the highest rate of alcohol-specific deaths. In 2022, the highest alcohol-specific death rate was again Belfast LGD at 30.1 alcohol-specific deaths per 100,000, followed by Derry City & Strabane at 28.1. The lowest rate in 2022 was recorded for Causeway Coast and Glens at 9.6 alcohol-specific deaths per 100,000.

Section 6: Multiple Deprivation Measure (MDM)

The top 20% most deprived areas (quintile) in Northern Ireland experienced the highest number of alcohol-specific deaths at 613 (36.6%) in the last 5 years (2018 to 2022), compared with 167 (10.0%) in areas in the least deprived quintile.

Figure 8 – Percentage of alcohol-specific deaths by NI Multiple Deprivation Measure Quartile (2017), 2018 to 2022

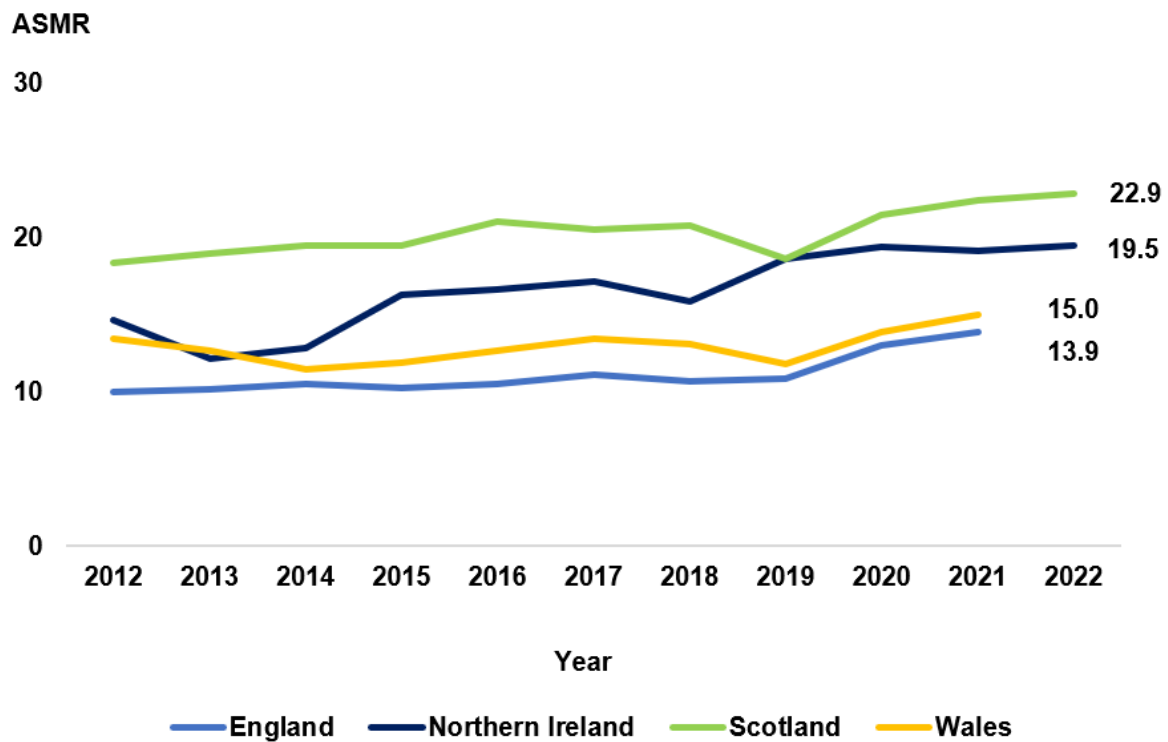


Section 7: Age-standardised Mortality Rates by UK Country

The latest year for which comparable data exists across the UK is 2021 where Scotland, followed by Northern Ireland had the highest alcohol-specific death rates in 2021 with 22.3 and 19.1 deaths per 100,000, respectively. England and Wales continued to have lower rates of alcohol-specific deaths, with 13.9 and 15.0 deaths per 100,000, respectively.

In 2022, Scotland continued to have the highest alcohol-specific death rate (22.9 deaths per 100,000), with Northern Ireland again following at 19.5 deaths per 100,000.

Figure 9: Age-Standardised alcohol-specific mortality rates by country



Section 8: Occurrence Year Analysis

A death which is accidental, unexpected, or suspicious, such as an alcohol-specific death, must be referred to the coroner and can only be registered after the coroner has completed their investigation. Registration of an alcohol-specific death can therefore take months or even years.

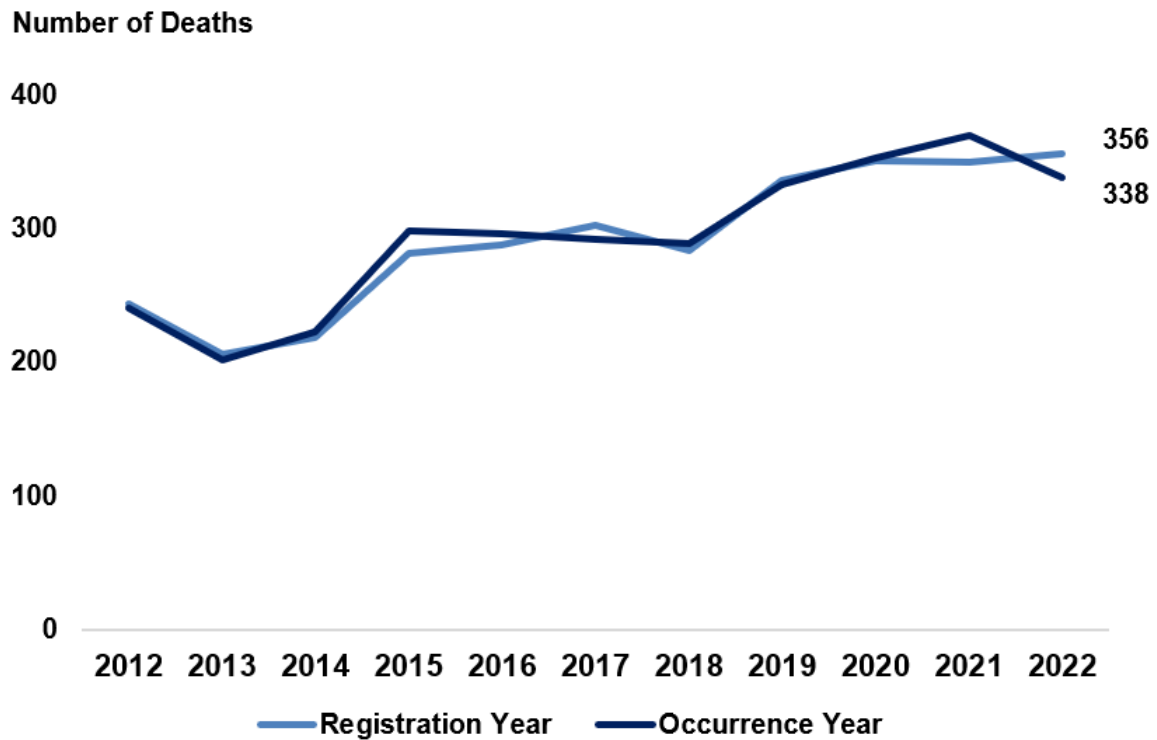
NISRA is only notified that a death has occurred once it is registered with the General Register Office (GRO) and a significant number of alcohol deaths registered in any year will have occurred in earlier years. For example, of the 356 such deaths registered in 2022, 289 occurred in 2022, 65 in 2021 with the remaining 2 occurring in 2020.

Alcohol-specific death statistics and mortality statistics more generally are published by NISRA as the number of deaths **registered** within a calendar year, as opposed to the number of deaths that **occurred** in that period. This method ensures timely and unchanging data over time; however, it also introduces some limitations to the statistics as they can be impacted by delays in procedural systems and do not enable occurrence-based analyses which may be important in informing operational and policy responses.

While annual data based on the date of occurrence are accurate if enough time has lapsed, for more recent years they will be incomplete as more registrations will follow. Most alcohol-specific deaths (97 per cent) are registered within one year of the death occurring.

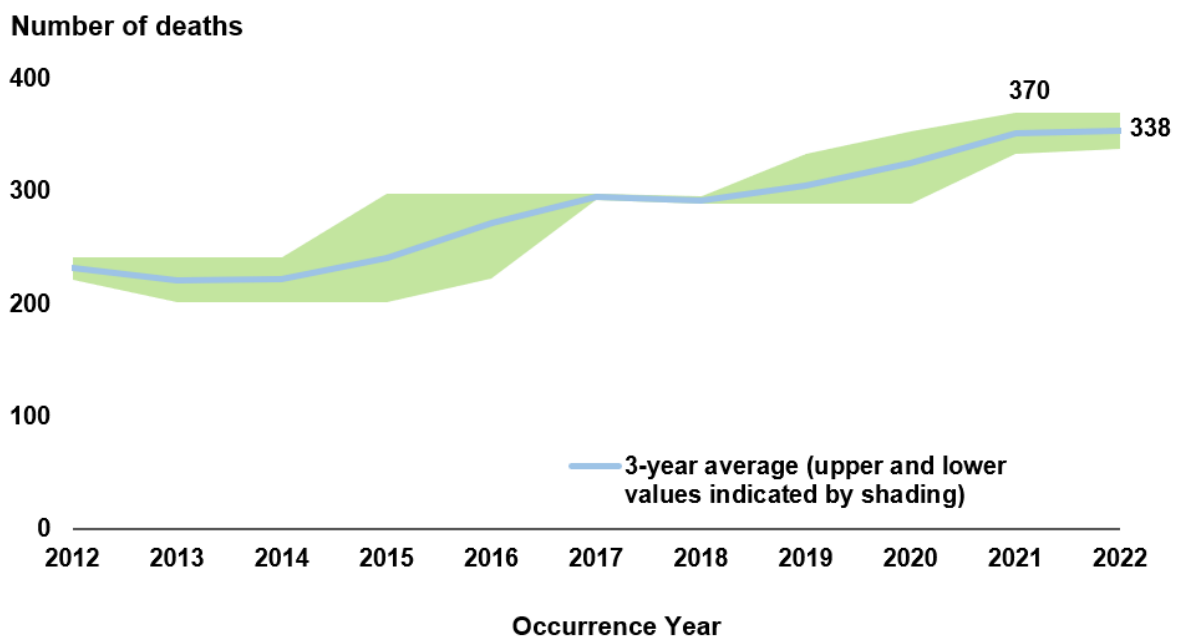
Figure 10 presents a comparison of the number of alcohol deaths registered in Northern Ireland over time along with the number occurring. Annual fluctuations are expected between these two series, given the median time from death to registration is constantly changing.

Figure 10 Number of alcohol-specific deaths in NI by registration & occurrence year, 2012 to 2022



Users are therefore cautioned against drawing inferences based on 1-year changes. Information is presented in Figure 11 on occurrence trends based on a '3-year rolling average' approach.

Figure 11 Number of alcohol-specific deaths (three-year rolling average) in NI by occurrence year, 2012 to 2022



Definitions and further information

National Statistics definition of Alcohol-specific deaths [Note 1]

The definition of alcohol-specific deaths includes any death that has an underlying cause listed below.

ICD-10 code	Description of condition
E24.4	Alcohol-induced pseudo-Cushing's syndrome
F10	Mental and behavioural disorders due to use of alcohol
G31.2	Degeneration of nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
G72.1	Alcoholic myopathy
I42.6	Alcoholic cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K85.2	Alcohol-induced acute pancreatitis
K86.0	Alcohol induced chronic pancreatitis
Q86.0	Fetal induced alcohol syndrome (dysmorphic)
R78.0	Excess alcohol blood levels
X45	Accidental poisoning by and exposure to alcohol
X65	Intentional self-poisoning by and exposure to alcohol
Y15	Poisoning by and exposure to alcohol, undetermined intent

[Note 1] The definition, agreed via a 2017 user consultation, includes conditions that are wholly attributable to alcohol, based on codes from the International Classification of Diseases (10th Revision; ICD-10).

Underlying cause: underlying cause of death is the disease or injury that initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury.

MDM: The Measure of Multiple Deprivation in Northern Ireland (MDMNI) for 2017. Northern Ireland is split into 890 spatial areas known as Super Output Areas (SOAs), with an average population of around 2,100 people. Distinct types, or domains, of deprivation are made up from one or more indicators. The 7 domains of deprivation are:

- Income Deprivation Domain
- Employment Deprivation Domain
- Health Deprivation & Disability Domain

- Education, Skills & Training Deprivation Domain
- Access to Services Domain
- Living Environment Domain
- Crime & Disorder Domain

The indicators in each domain were analysed to produce a domain specific deprivation ranking of the 890 SOAs in Northern Ireland, from 1 (most deprived) to 890 (least deprived). The ranks of the 7 domains were weighted and combined, to provide a ranking of multiple deprivation (MDM) for the 890 SOAs.

More information on the 2017 MDMNI is available from the [NISRA website](#).

Quintile: The 890 SOAs have been divided in 5 even groups, or quintiles, according to their MDM ranks, with quintile 1 representing the most deprived areas in Northern Ireland.

Age-Specific mortality rate: This crude rate is calculated by dividing the number of deaths of a specified age group by the population of the same age group and multiplying by 100,000 population.

Age-standardised mortality rates (ASMRs) Age-standardised mortality rates adjust for differences in the age structure of populations and therefore allow valid comparisons to be made between, for example, geographical areas, the sexes and over time. In this bulletin, age-standardised mortality rates are presented per 100,000 people and standardised to the 2013 European Standard Population.

[Links to relevant publications](#)

[Alcohol-specific deaths registered in the UK](#)

[Alcohol-specific deaths registered in Scotland](#)

[Deaths in Ireland \(including cause\)](#)

List of Tables

Data accompanying this bulletin are available from the NISRA website in Excel format. The [spreadsheet](#) includes the following tables.

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This is a National Statistics publication.

National Statistics are produced to high professional standards set out in the [Code of Practice for Official Statistics](#). They are produced free from any political interference.

The UK Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs
- are well explained and readily accessible
- are produced according to sound methods
- are managed impartially and objectively in the public interest

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

[NISRA Consultation](#)

NISRA recently consulted on proposed changes to a range of statistical outputs. The consultation, which ended on 15 October, sought views from users and help NISRA to address the financial constraints imposed by the budget settlement for 2023-24, whilst minimising the impact on users and stakeholders. The full the outcome of the consultation, including users' responses, actions planned and mitigations, can be found at: www.nisra.gov.uk/publications/outputsconsultation

[Contact Details](#)

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Next publication: **Winter 2024**

[Feedback](#)

We are constantly trying to improve our service and would like to hear your feedback on how we are doing. If you can spare the time we would love to hear your feedback on Vital Statistic Unit outputs and services through our [customer survey](#).