

Drug-related and drug-misuse deaths in Northern Ireland, 2021

Frequency: Annual

Published: 24 November 2022

REVISION NOTICE: Data in this report was revised on 14 December 2022 to reflect the outcome of the review of NI suicide statistics. The impact of the revision was minimal as there was no change to trends or headlines.

This report presents statistics on Northern Ireland (NI) drug-related mortality in 2021. Figures are based on deaths registered in NI that are known to be drug-related or a direct consequence of drug misuse.

Key points

- The number of drug-related deaths registered in Northern Ireland in 2021 (213) was the second highest on record, five less than the 2020 peak of 218 deaths. The same was true for drug-misuse deaths, decreasing from the series high of 182 in 2020 to a second highest total of 175 in 2021.
- Almost three-quarters (73.7%) of drug related deaths in 2021 were accounted for by men.
- Drug-related death rates were highest among the 25-34 age group (26.9 deaths per 100,000 people).
- Opioids are consistently the most commonly mentioned type of drugs on death certificates, mentioned in 59.2% of drug-related deaths. However, the number of drug-related deaths involving psychoactive substances increased notably from 51 in 2020 to 73 in 2021.
- The number of drug-related deaths where alcohol was also mentioned increased from 30 in 2020 to 46 in 2021.
- Over two-thirds (68.1%) of drug-related deaths in 2021 involved two or more drugs. In contrast in 2011, 52.9% of drug-related deaths involved two or more drugs.

- Belfast HSCT and Belfast LGD had the highest age-standardised rate of drug-related deaths per 100,000 population – 19.2 and 21.1 respectively. Drug-related and drug-misuse deaths continue to be higher in areas of highest deprivation.
- In the context of the UK in 2021, Scotland had the highest age-standardised rate of drug-misuse deaths at 25.0, Northern Ireland had the second highest rate at 9.4, and England and Wales had a rate of 5.3 deaths per 100,000 population.

Contents

Drug-related and drug-misuse deaths in Northern Ireland, 2021	1
Key points	1
What you need to know	4
Section 1: Sex and Age	5
Section 2: Drug-related deaths by Mentions of drug types	9
Section 3: Drug-related deaths by underlying cause of death	10
Section 4: Drug-related deaths and mention of alcohol	11
Section 4: Drug-related deaths by number of drugs mentioned	12
Section 5: Health and Social Care Trust (HSCT)	13
Section 6: Local Government District (LGD)	14
Section 7: Multiple Deprivation Measure (MDM)	15
Annex A	16
Definitions and further information	16
Links to relevant publications	19
List of Tables	19
Contact Details	20

What you need to know

The Northern Ireland Statistics and Research Agency (NISRA) produces data on births, deaths, marriages, civil partnerships and adoptions from civil registration events which are registered with the General Register Office (GRO). Drug-Related and Drug-Misuse deaths statistics are derived from cause of death recorded when a death is registered in Northern Ireland. Drug-misuse deaths are a sub-set of drug-related deaths, more information including the definitions can be found in Annex A. Statistics are published annually and include counts and death rates for all drug related deaths registered in Northern Ireland.

The annual **Drug-Related and Drug-Misuse Deaths, Northern Ireland** release presents statistics on the most recent, official death registration data available on drug-related mortality across Northern Ireland (NI). These figures were first published in 2009 with a time series going back to 1997.

This is the second release to include a slightly revised definition (revised for the 2020 release in February 2022) for drug-misuse deaths in order to fully align with the definition used by the Office for National Statistics (ONS). See the '*Definitions and further information section*' in this report, and the [Drug-related deaths Information paper](#) for more details of the change and impact.

While drug-related deaths account for less than 1 per cent of all deaths in NI, there has been a general upward trend in the number of such deaths. With this known effect on premature mortality, there is considerable political, media and public interest in these figures which are used by a range of public bodies. In addition, drug-related information is used by academia to investigate trends in drug-related deaths and the effectiveness of public interventions.

The Department of Health, NI (DoH) use drug-related death statistics to inform policy and monitor the strategy: [Preventing Harm, Empowering Recovery](#), the aim of which is to reduce the level of alcohol and drug-related harm in Northern Ireland.

NISRA's annual release presents figures on drug-related and drug-misuse deaths in NI on a 10-year rolling basis, broken down by cause of death, sex and geographic indicators relating to the usual residence of the deceased, and the substances involved.

Section 1: Sex and Age

There has been a general increase in the number of both drug-related deaths and drug-misuse deaths over the last 10 years. Drug-related deaths have increased from 102 deaths in 2011 to 218 in 2020 and 213 deaths in 2021. Likewise, the number of drug-misuse deaths have increased from 61 to 175 between 2011 and 2021.

Both totals in 2021 fell slightly from the series high in 2020, with the number of drug-related deaths decreasing from 218 in 2020 to 213 in 2021, and the number of drug-misuse deaths decreasing from 182 in 2020 to 175 in 2021. Longer term, the number of drug-related deaths has more than doubled from 102 in 2011 to 213 in 2021, and the number of drug-misuse deaths has almost tripled from 61 in 2011 to 175 in 2021. The proportion of drug-related deaths due to drug misuse was 82.2% in 2021, a slight decrease from 83.5% in 2020.

Sex

Figures 1 and 2 show the number of drug-related and drug-misuse deaths by year of registration and sex between 2011 and 2021. While the number of drug-related deaths fell in 2020, the number of such deaths which were males continued to increase from 153 in 2020 to 157 in 2021. Males have consistently accounted for more deaths than females, rising from almost two-thirds (63.7%) of all drug-related deaths in 2011 to almost three-quarters (73.7%) in 2021. Additionally, more drug-related deaths in males are accounted for by drug-misuse (85.4%), compared with females (73.2%).

Figure 1: Drug-related deaths by registration year and sex

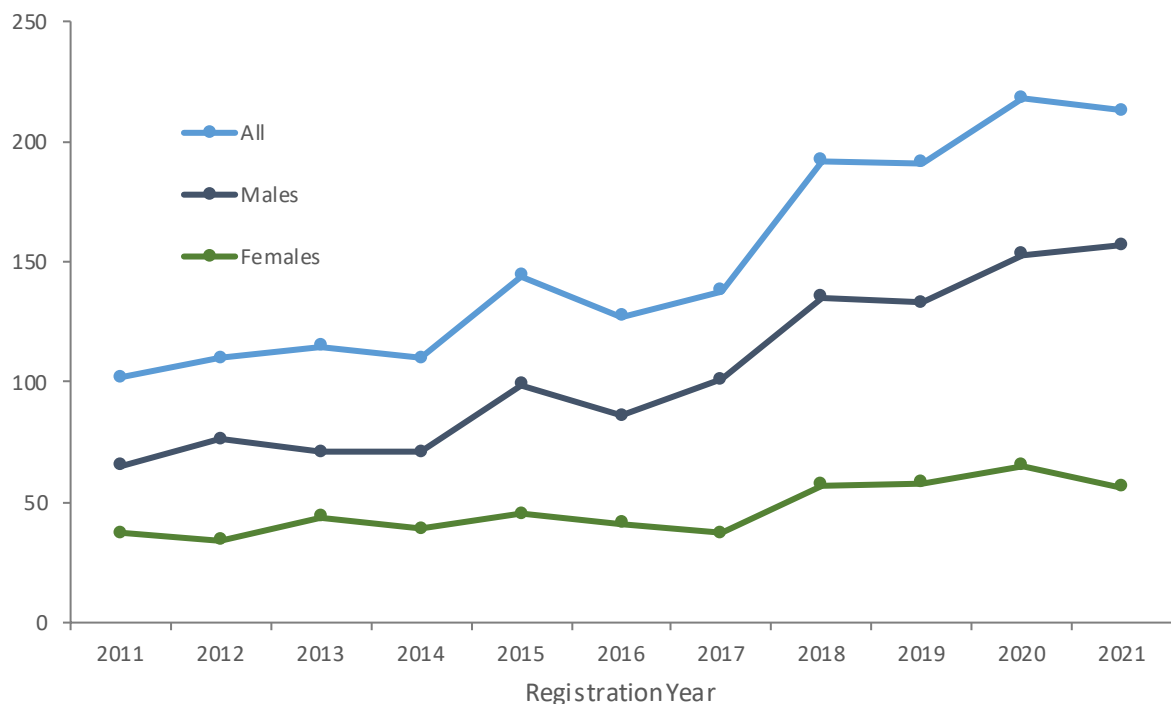
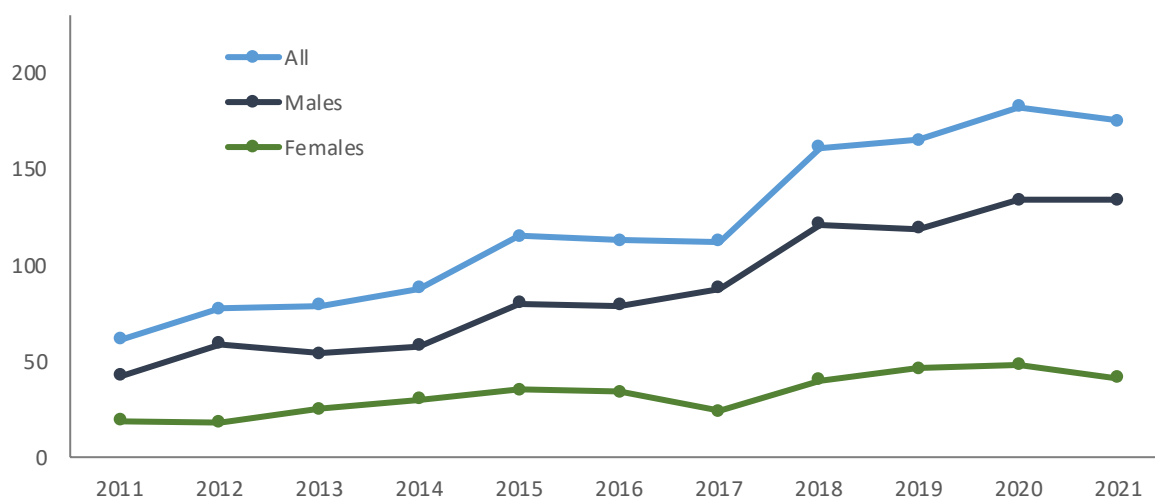


Figure 2: Drug-misuse deaths by registration year and sex



Age

Looking at the number of deaths by age, the 25-34 and 35-44 age groups together consistently account for the majority of drug-related and drug-misuse deaths annually (between 50% and 64%). Figures 3 and 4 illustrate the distribution of drug-related deaths and drug-misuse deaths (respectively) across age groups in Northern Ireland for 2021.

In 2021, the 25-34 and 35-44 age groups together accounted for 55.4% of all drug-related deaths, which is 0.7 percentage points lower than the average across 2011-2021 (56.1%). The 25-34 age group also had the highest rate of drug-related deaths in 2021, at 26.9 per 100,000 population (see tables 2a and 2b in the accompanying [spreadsheet](#)). Similarly, 54.3% of drug-misuse deaths involved 25-44 year olds, and the highest crude death rate was among 25-34 year olds at 23.2 per 100,000 population.

Figure 3: Crude rate of drug-related deaths (per 100,000 population) by age, 2021

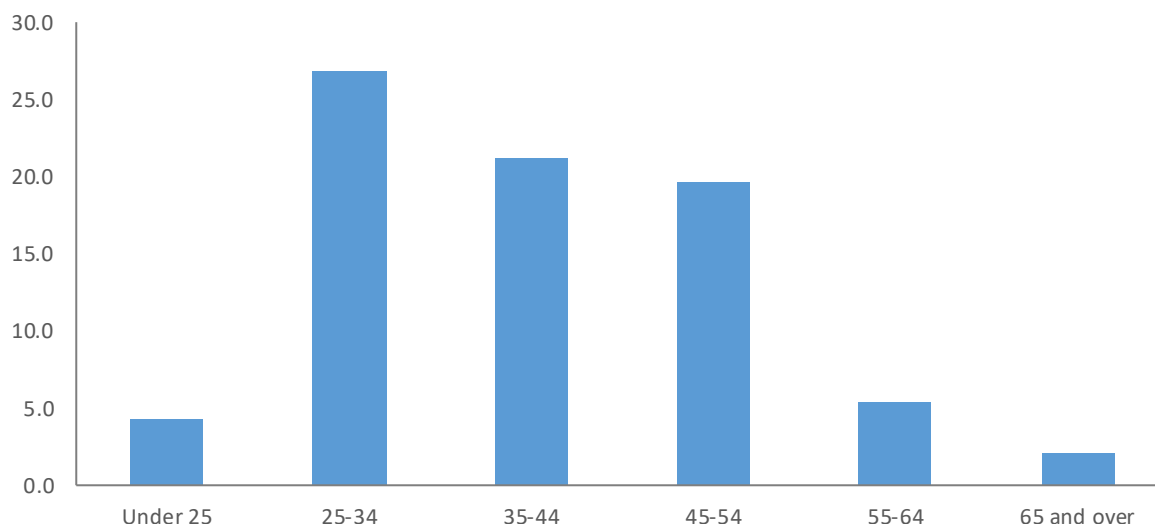
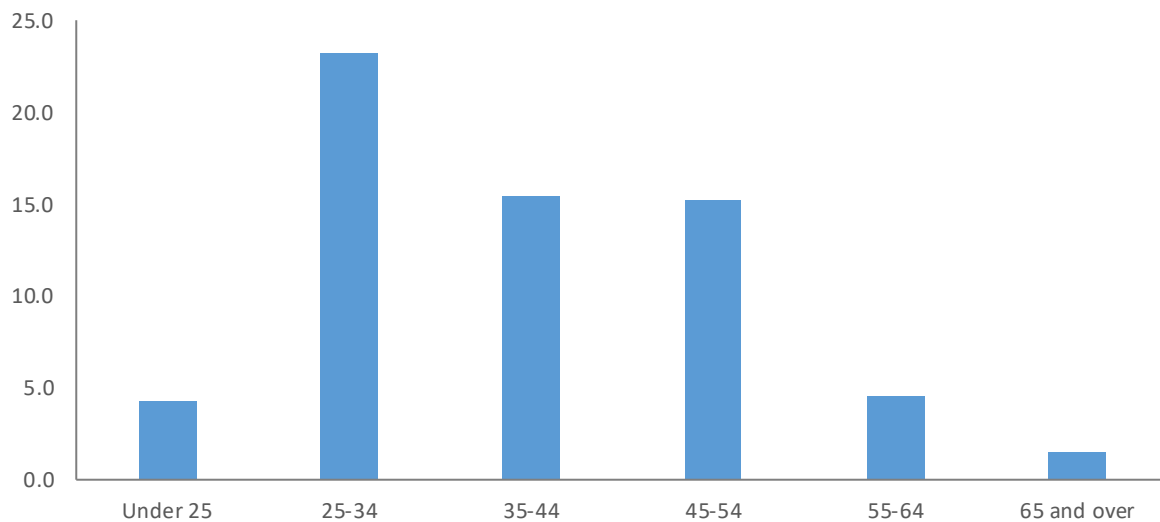


Figure 4: Crude rate of drug-misuse deaths (per 100,000 population) by age, 2021



Adjusting for Age

Trends in drug-related deaths by sex can be compared by removing the potential impact of the age profile of each sex through standardising for age (see definition for age standardised mortality rate in Annex A).

Figures 5 and 6 shows the age-standardised mortality rates (ASMRs) by sex for drug-related deaths and drug-misuse deaths from 2011 to 2021. The age-standardised mortality rate of drug-related deaths for males in 2021 was 17.1, higher than the rate for females at 6.0 deaths per 100,000 population.

Similar to drug-related deaths, the trend of drug-misuse deaths shows that ASMRs for males have consistently been much higher than the rate for females. In 2021, the death rate due to drug-misuse for males was over 3 times the rate for females (14.5 and 4.4 respectively).

In the context of the UK in 2021, Scotland had the highest age-standardised rate of drug-misuse deaths at 25.0, Northern Ireland had the second highest rate at 9.4, and England and Wales had a rate of 5.3 deaths per 100,000 population.

Figure 5: Age-Standardised Mortality Rate (ASMR) of drug-related deaths by sex, 2011-2021

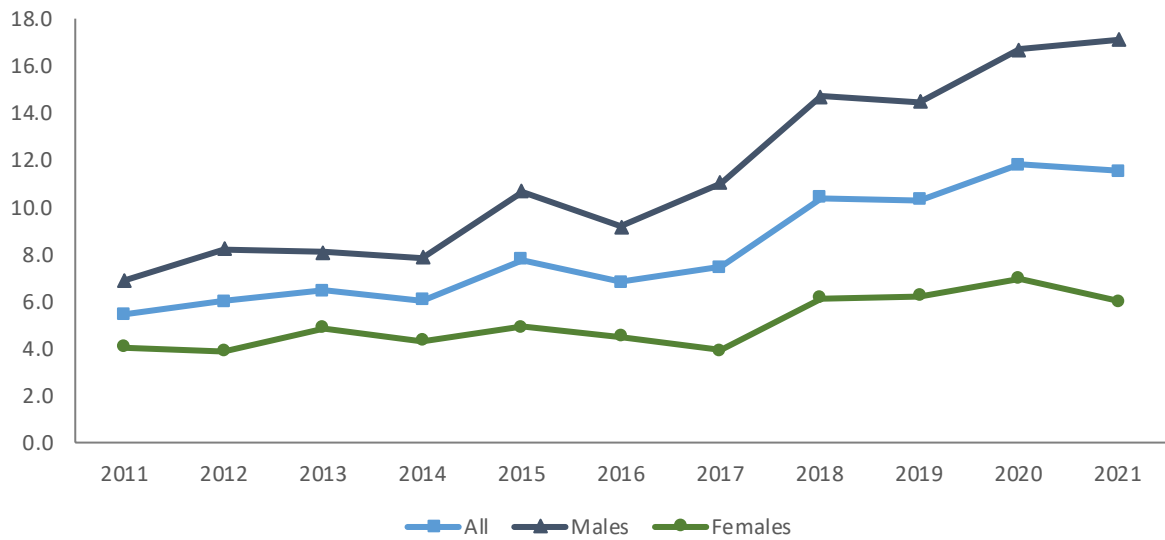
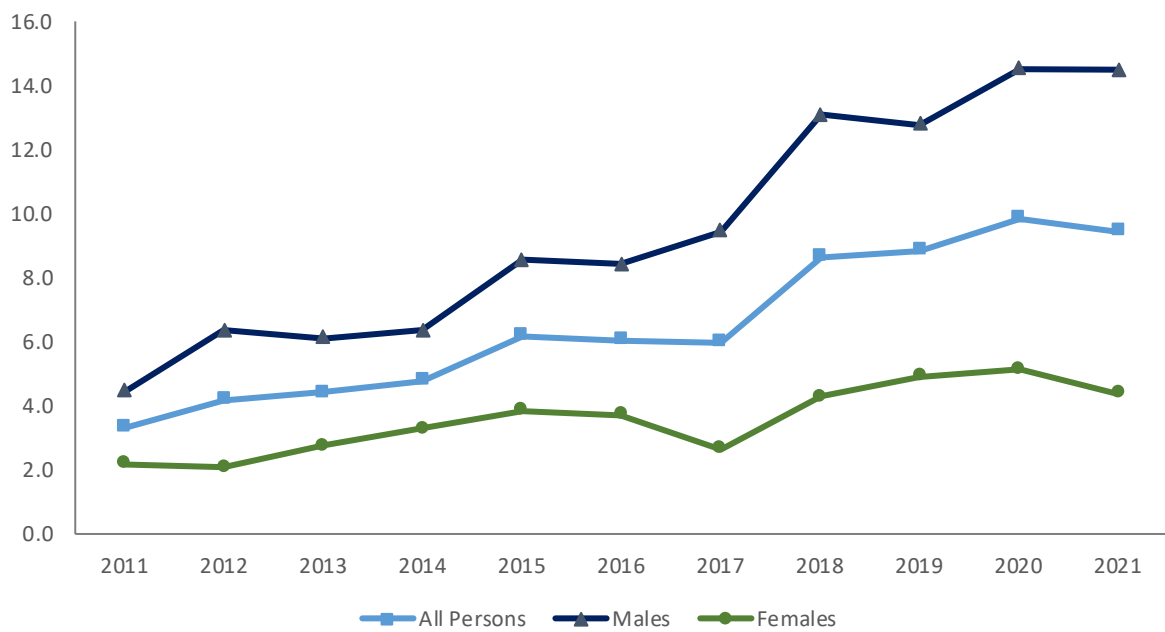


Figure 6: Age-Standardised Mortality Rate (ASMR) of drug-misuse deaths by sex, 2011-2021



Section 2: Drug-related deaths by Mentions of drug types

Opioids were mentioned most often on the death certificates of drug-related deaths, appearing in 126 cases of the 213 drug-related deaths registered in 2021 (59.2%). This was a slight decrease from 2020 (135). Despite a decrease from 55 in 2020 to 39 in 2021, Heroin/Morphine remained to be the opioid recurrently mentioned.

The next most commonly mentioned type of drug was benzodiazepines, appearing on 111 death certificates in 2021 compared to 100 in 2020, making this a series high.

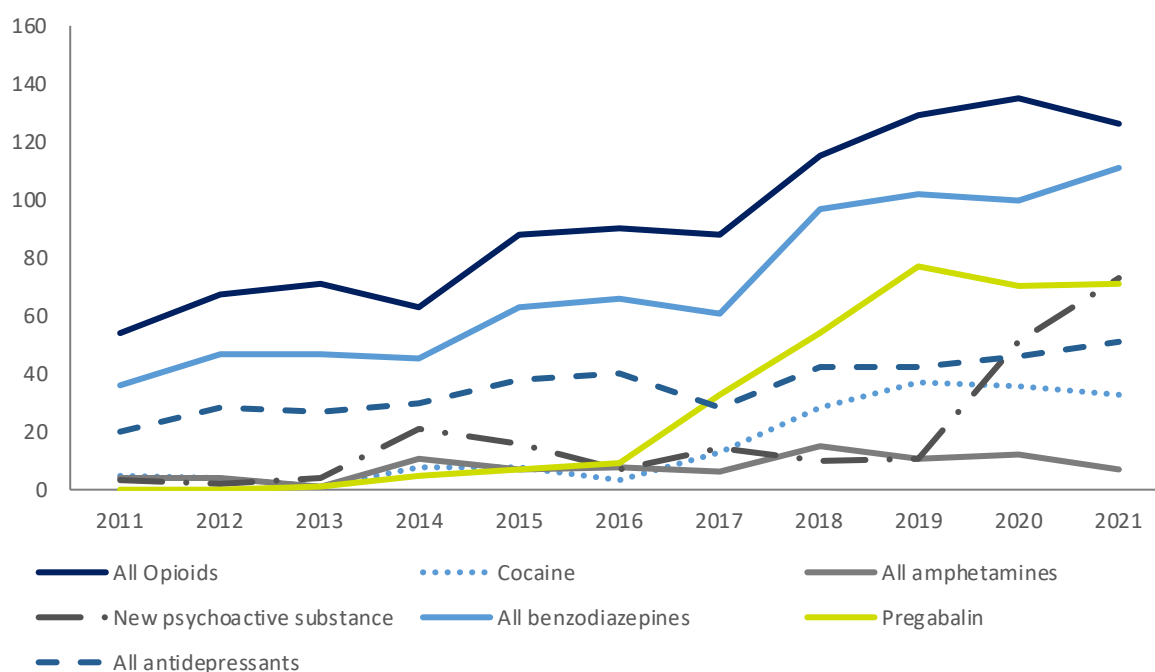
Drug-related deaths involving pregabalin have risen consistently since its first appearance in these statistics in 2013. The annual number of deaths involving this controlled substance rose from 9 in 2016, to a peak of 77 in 2019, but reduced slightly to 71 in 2021.

The last two years has seen a sharp increase in the number of drug-related deaths where a psychoactive substance¹ was mentioned on the death certificate, from 11 in 2019 to 73 in 2021, with previous years ranging from only 2 cases (2012) to 21 cases (2014). Further analysis showed that this increase was primarily driven by mentions of flubromazolam, flualzaprolam and etizloam on death certificates.

The number of deaths where cocaine was mentioned on the death certificate decreased slightly from 36 in 2020 to 33 in 2021. However, the number of deaths where any antidepressant was mentioned has reached a series high in 2021 with 51 cases.

This analysis may be impacted, in part, by a number of death certificates in 2021 citing 'multi-drug toxicity' without the detail of specific drugs.

Figure 7: Number of drug-related deaths where selected substances were mentioned on the death certificate by registration year, 2011-2021



¹ Psychoactive substances include all substances that have been controlled under the Psychoactive Substance Act 2016, including drugs that have subsequently been classed under the Misuse of Drugs Act. Please note, psychoactive drugs in this report also appear in the relevant class of drug, i.e. a drug may be classed as New Psychoactive Substance (NPS) and an opioid, amphetamine, benzodiazepine or anti-depressant.

Section 3: Drug-related deaths by underlying cause of death

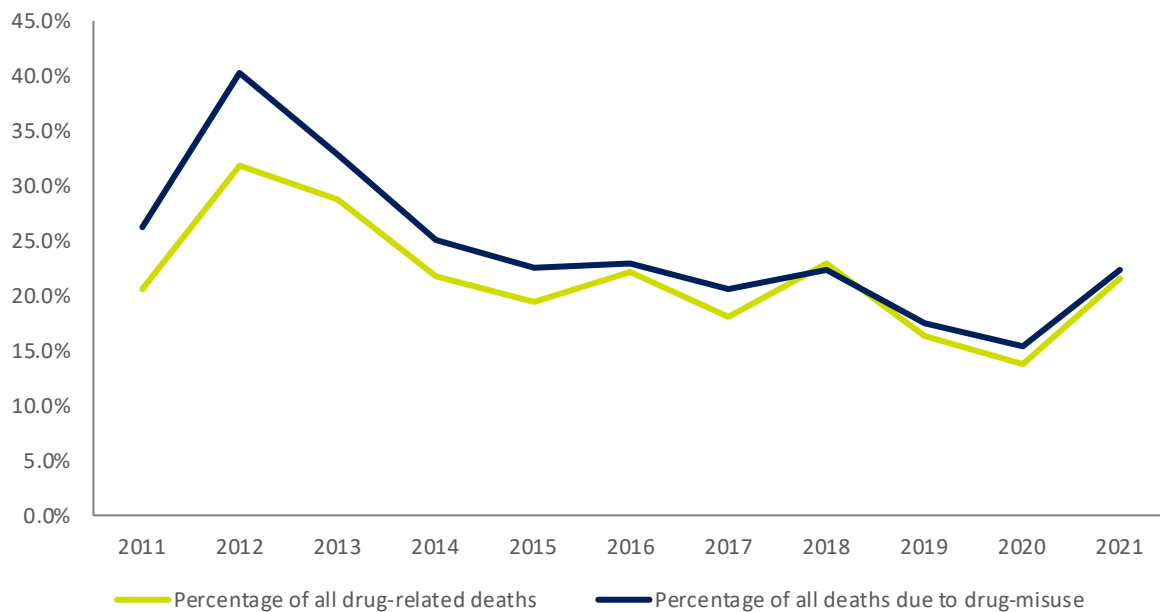
The majority of drug-related deaths are consistently accounted for by accidental poisonings, as decided by the Coroners' Service for NI (CSNI). This cause accounted for 79.8% of drug-related deaths in 2021. The second most common cause of death is intentional self-poisoning which accounted for 15.0% of the 213 drug-related deaths registered in 2021.

Similar can be said for drug-misuse deaths where in 2021 86.9% of the 175 drug-misuse deaths were accounted for by accidental poisoning and a further 9.1% were accounted for by intentional self-poisoning.

Section 4: Drug-related deaths and mention of alcohol

The number of drug-related deaths where alcohol was also mentioned on the death certificate rose to a series high of 46 cases in 2021, compared with 30 cases in 2020 and 21 cases in 2011. The proportion of deaths also increased, from 13.8% in 2020 to 21.6% in 2021, still notably less than the 2012 peak of 31.8%.

Figure 8: Proportion of drug-related deaths and deaths due to drug-misuse where alcohol was also mentioned on the death certificate by registration year, 2011-2021



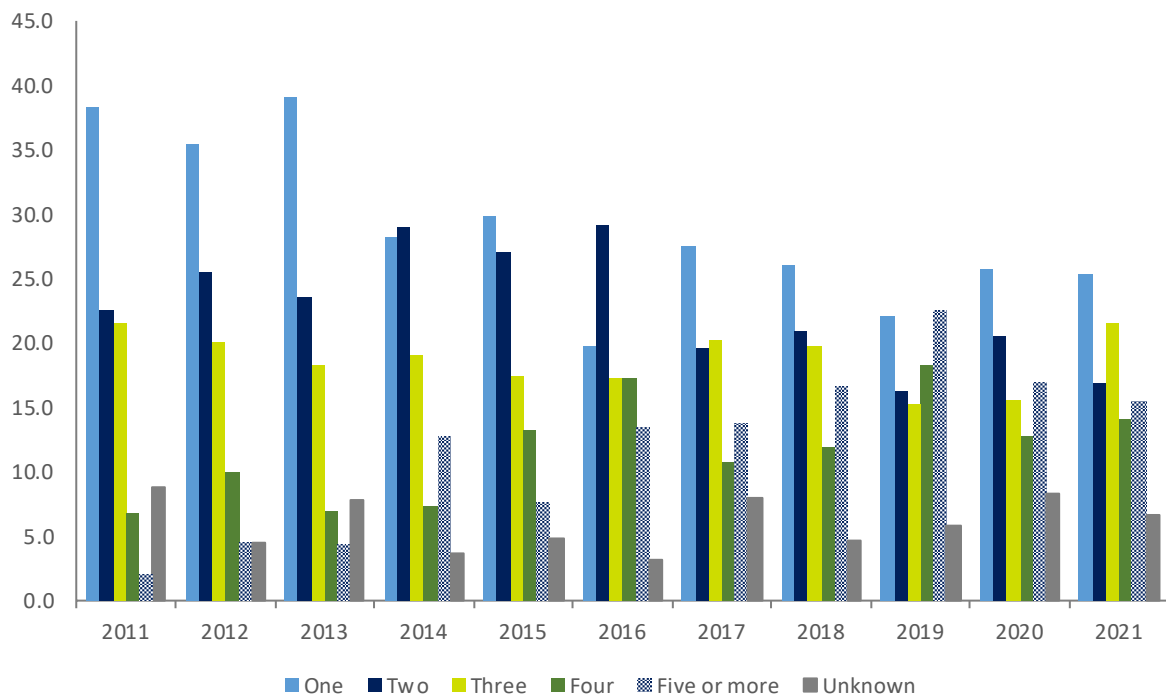
Note that the search for drug-related deaths that also mentioned alcohol was refined this year to exclude alcohol-related illnesses where consumption of alcohol was not mentioned on the death certificate. This search was applied to the series back to 2011 in order to present a consistent series.

Section 5: Drug-related deaths by number of drugs mentioned

Compared with 2011, drug-related deaths in more recent years were more likely to be caused by a number of drugs, rather than one specific drug. In 2021, over two thirds (68.1%) of drug-related deaths had two or more drugs listed on the death certificate, while in 2011 it was 52.9%.

A quarter (25.4%) of all drug-related deaths registered in 2021 had a single drug mentioned on the death certificate, compared with 25.7% in 2020 and 38.2% in 2011.

Figure 9: Proportion of drug-related deaths by the number of drugs mentioned on the death certificate by registration year, 2011-2021

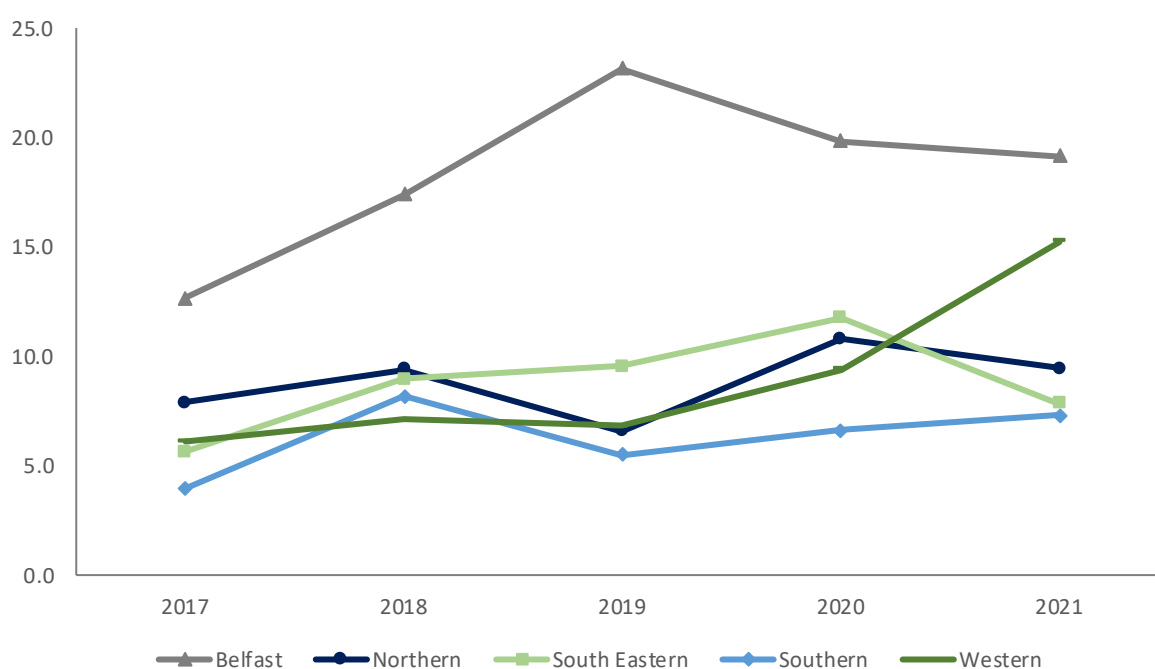


Section 6: Health and Social Care Trust (HSCT)

Belfast HSCT had the highest number (71) and rate (19.2 per 100,000 population) of drug-related deaths in Northern Ireland in 2021. Table 8a in the accompanying spreadsheet shows the number of deaths and age-standardised rate per 100,000 population for Northern Ireland between 2017 and 2021. Belfast HSCT has consistently had the highest number of drug-related deaths.

Figure 10 shows that the Western HSCT experienced a notable increase in age-standardised death rate for drug-related deaths between 2020 and 2021, from 9.4 to 15.2 deaths per 100,000 population respectively, making it the HSCT with the second highest rate of drug-related deaths in 2021.

Figure 10: Age-Standardised Mortality Rate (ASMR) of drug-related deaths per 100,000 population by Health and Social Care Trust, 2011-2021

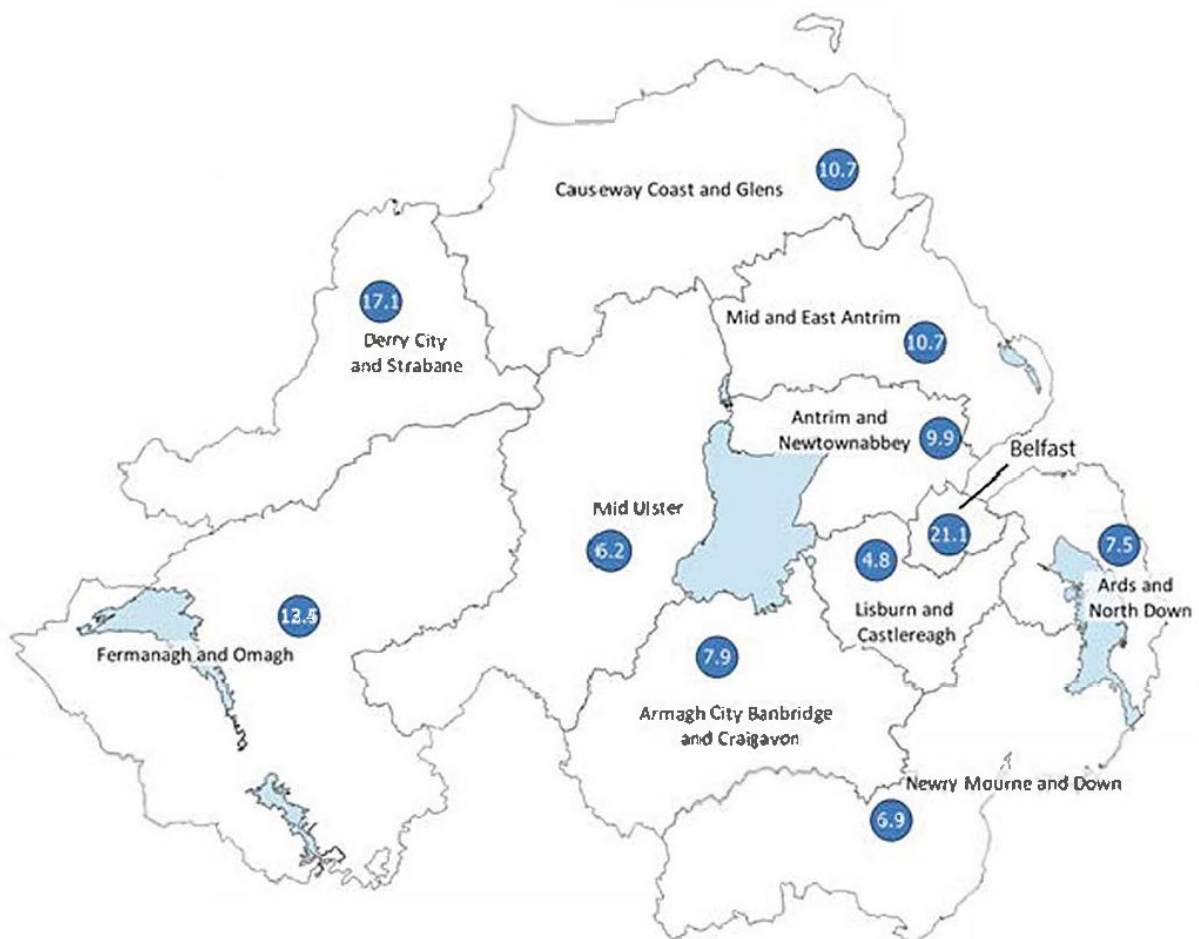


Section 7: Local Government District (LGD)

Belfast LGD had the highest number of drug-related deaths registered in Northern Ireland in 2021, accounting for over a third (35.2%) of the 213 drug-related deaths. Conversely, Lisburn & Castlereagh had 7 (3.3%) drug-related deaths (see table 9a in accompanying [spreadsheet](#)).

Since 2017, Belfast LGD has consistently had the highest number of drug-related deaths. In terms of age-standardised mortality rates per 100,000 population, Belfast LGD also had the highest rate (21.1 in 2021, see Figure 11), while Derry City and Strabane LGD had the second highest age-standardised rate in 2021 at 17.1 per 100,000 population. This reflects a large increase from 12.4 in 2020.

Figure 11: Map of NI showing age-standardised drug related death rates by Local Government District, 2021



Section 8: Multiple Deprivation Measure (MDM)

The most deprived 20% of areas (quintile) in Northern Ireland experienced the highest number of drug deaths for the combined years 2017-2021. This quintile accounted for 44.3% of drug-related deaths and 44.8% of drug-misuse deaths in the last 5 years. This is in comparison with areas in the least deprived quintile in Northern Ireland, which accounted for 8.8% of drug-related deaths, and 7.9% of drug-misuse deaths in the last 5 years.

Annex A

Definitions and further information

Drug Deaths

There are two standard definitions associated with drug-related mortality:

Drug-related deaths

A death is drug-related when the underlying cause of death recorded on the death certificate is drug poisoning, drug abuse or drug dependence. These deaths can be identified solely through the [International Classification of Diseases \(ICD\)](#). The current National Statistics definition and the ICD ninth (ICD-09) and ICD tenth (ICD-10) revision codes used to define drug-related deaths are given in Table 1.

Table 1: ICD9 and ICD10 codes relating to Drug-Related Deaths

ICD-10 Underlying Cause Code	ICD-09 Underlying Cause Code	Description
F11–F16, F18–F19	292, 304, 305.2–305.9	Mental and behavioural disorders due to drug use (excluding alcohol and tobacco)
X40–X44	E850–E858	Accidental poisoning by drugs, medicaments and biological substances
X60–X64	E950.0–E950.5	Intentional self-poisoning by drugs, medicaments and biological substances
X85	E962.0	Assault by drugs, medicaments and biological substances
Y10–Y14	E980.0–E980.5	Poisoning by drugs, medicaments and biological substances, undetermined intent

The second definition is a subset of the definition above and relates to deaths due to;

Drug-Misuse – Deaths classified as drug misuse must be a drug poisoning and meet either one (or both) of the following conditions:

- the underlying cause is drug abuse or drug dependence, defined by ICD-10 as mental and behavioural disorders due to use of: opioids (F11), cannabinoids (F12), sedatives or hypnotics (F13), cocaine (F14), other stimulants, including caffeine (F15), hallucinogens (F16) and multiple drug use and use of other psychoactive substances (F19); or
- any of the substances controlled under the Misuse of Drugs Act 1971 are involved, this includes class A, B and C drugs.

Table 2: ICD10 codes relating to Drug-Misuse

ICD-10 Underlying Cause Code	Controlled drug mentioned on death record	Description
F11-F16*		Opioids, Cannabinoids, Sedatives or Hypnotics, Cocaine, Other stimulants, including caffeine, Hallucinogens
F19*		Multiple drug use and use of other Psychoactive Substances
X40–X44	✓	Accidental poisoning by drugs, medicaments and biological substances
X60–X64	✓	Intentional self-poisoning by drugs, medicaments and biological substances
Y10–Y14	✓	Poisoning by drugs, medicaments and biological substances, undetermined intent
X85	✓	Assault by drugs, medicaments and biological substances
F18	✓	Mental and behavioural disorders due to use of volatile substances

* excluding alcohol, tobacco and volatile substances

This release is based on an update to the definition of drug-misuse deaths to make Northern Ireland data comparable with England and Wales data. Please see the [Drug-related deaths information paper](#), which contains more details on the change.

It is important to note:

1. This definition does **not** include every death which involved drugs, for example, transport accidents where the driver was under the influence of drugs are excluded.
2. Only deaths related to poisonings by drugs, medicaments and biological substances are included. Poisonings by other types of chemicals are excluded.

A list of controlled drugs mentioned on death certificates in Northern Ireland is available on the NISRA website at: <https://www.nisra.gov.uk/statistics/cause-death/drug-related-deaths>

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.

Crude Mortality Rate: The crude rate is calculated by dividing the number of deaths by the population and multiplying by 100,000. This is the number of deaths per 100,000 population. This rate has not been adjusted to account for any differences in the age structures of the populations being compared.

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 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

[Drug deaths registered in the England and Wales](#)

[Drug 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.

Table 1: Number and rate of drug-related deaths and deaths due to drug-misuse by sex and registration year, 2011-2021

Table 2a: Number of drug-related deaths by gender, age and registration year, 2011-2021

Table 2b: Crude rate of drug-related deaths and deaths due to drug misuse by age and registration year, 2011-2021

Table 3a: Number of drug-related deaths by gender, age and registration year, 2011-2021

Table 3b: Proportion of drug-related deaths in each age group by gender and registration year, 2011-2021

Table 4a: Number of drug-related deaths where selected substances were mentioned on the death certificate by registration year, 2011-2021

Table 4b: Percentage of drug-related deaths where selected substances were mentioned on the death certificate by registration year, 2011-2021

Table 5a: Number of drug-related deaths by underlying cause of death and registration year, 2011-2021

Table 5b: Number of deaths due to drug-misuse by underlying cause of death and registration year, 2011-2021

Table 6: Number of drug-related deaths and deaths due to drug-misuse where alcohol was also mentioned on the death certificate by registration year, 2011-2021

Table 7: Number of drug-related deaths by number of drugs mentioned on the death certificate and registration year, 2011-2021

Table 8a: Number and rate of drug-related deaths by Health and Social Care Trust and registration year, 2011-2021

Table 8b: Number and rate of drug-misuse deaths by Health and Social Care Trust and registration year, 2011-2021

Table 9a: Number and rate of drug-related deaths by Local Government District and registration year, 2011-2021

Table 9b: Number and rate of drug-misuse deaths by Local Government District and registration year, 2011-2021

Table 10a: Number of drug-related deaths by deprivation quintile NIMDM171, 2017-2021

Table 10b: Number of deaths due to drug-misuse by deprivation quintile NIMDM172, 2017-2021

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- are produced according to sound methods
- are managed impartially and objectively in the public interest

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