Statistical bulletin

Drug-related and drug misuse deaths in Northern Ireland, 2023

Frequency: Annual

Published: 05 March 2025

This report presents finalised statistics on Northern Ireland (NI) drug-related mortality in 2023. Figures are based on deaths registered in NI that are known to be drug-related or a direct consequence of drug misuse.

Drug death statistics and mortality statistics more generally, are published by the Northern Ireland Statistics and Research Agency (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; three-year rolling averages have been provided below to give a better indication of the longer-term trend.

Key points

- Since 2013, Northern Ireland has seen deaths due to drug-related causes rise from 115 to a peak of 218 in 2020. The 2023 total of 169 represents a 47.0 per cent increase on the number of drug deaths registered a decade ago.
- Considering a three-year average trend, the average number of drug-related deaths rose from 109.0 in 2013 to 207.3 in 2021, falling to 178.7 in 2023.
- The number of drug misuse deaths (a sub-set of drug-related deaths) has similarly increased over time from 79 in 2013 to 180 in 2021, falling to 146 in 2023.

- The age-standardised drug-related death rate (ASMR) in 2023 was 9.1 deaths per 100,000 population. For drug misuse deaths, the overall ASMR was 7.8 deaths per 100,000.
- The average age-standardised drug-related death rate for 2021 to 2023 was 9.7 deaths per 100,000, the lowest average rate since 2019. The comparable average rate for drug misuse deaths was 8.2 deaths per 100,000. Prior to this, the three-year average ASMR for both drug-related deaths and drug misuse deaths peaked in 2021 at 11.2 and 9.5 per 100,000 respectively.
- Similar to previous years, males accounted for approximately two-thirds (65.1 per cent) of drug-related deaths in 2023.
- The 25-34 age group had the highest crude drug-related mortality rate in 2023, at 21.6 per 100,000 population and the highest crude mortality rate of drug misuse deaths at 19.6 per 100,000 population.
- Similar to previous years, the drug group mentioned most often in drug-related deaths was opioids, appearing in 103 cases in 2023. However, Pregabalin was the specific drug mentioned most often, mentioned in 67 of the 169 deaths registered in 2023.
- The percentage of drug-related deaths also involving alcohol has been declining over the last decade, from 28.7 per cent in 2013 to 18.3 per cent in 2023.
- Almost three-quarters (74.6 per cent) of drug-related deaths in 2023 involved two or more drugs. In contrast in 2013, 53.0 per cent of drug-related deaths involved two or more drugs.
- Cocaine emerged as the predominant substance mentioned in deaths involving only *one* drug in 2023, contributing to 5.9 per cent of total drug-related deaths (169) and 35.7 per cent (10) of single-drug deaths (28).
- Belfast Local Government District (LGD) had the highest number of drug-related deaths (63).
- Drug-related and drug misuse deaths continue to be higher in areas of highest deprivation.

Contents

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 information 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. These 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 NI. These figures were first published in 2009 with a time series going back to 1997.

This is the third release using the slightly revised definition (revised for the 2020 release in February 2022) for drug misuse deaths 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 around one per cent of all deaths in NI, there has been a general upward trend in the number of such deaths. Given the preventable nature of these deaths there is considerable political, media and public interest in these figures. 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.

Due to an error in the classification of Pregabalin and Gabapentin in previous reports (not counted in drug misuse deaths) a correction has been made to the number of drug misuse deaths from 2020 to 2022 previously published.

Rebased Mid-Year Population Estimates for Northern Ireland
The death rates in this report for sex and age groupings are based on the updated population estimates for 2023. Population estimates by LGD for 2023 are not yet available. Rebased population data for the years 2013 onwards is not yet available by Health and Social Care Trust.

Section 1: Number of drug-related deaths

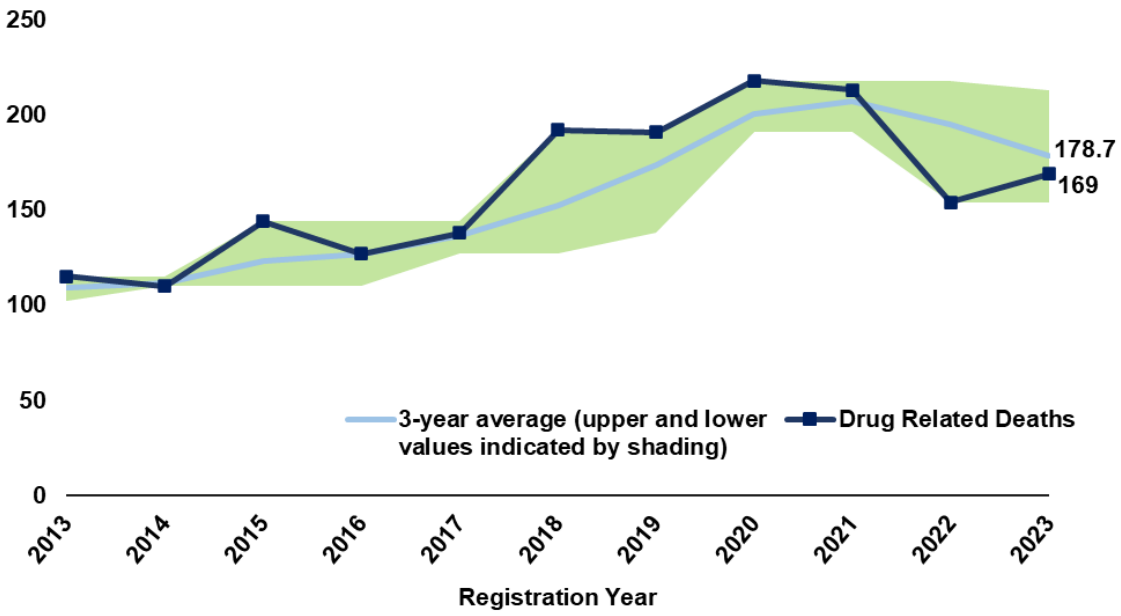
Since 2013, Northern Ireland has seen deaths due to drug-related causes rise from 115 to a peak of 218 in 2020. The 2023 total of 169 represents a 47.0 per cent increase on the number of drug deaths registered a decade ago.

The number of drug misuse deaths (a sub-set of drug-related deaths) has similarly increased over time from 79 in 2013 to 180 in 2021, falling to 146 in 2023.

It should 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 drug-related death figures. It is therefore important to look at the trend over a long period of time.

Figure 1 below, shows the number of drug-related deaths from 2013 to 2023 along with a three-year rolling average. Considering a three-year average trend, the average number of drug-related deaths rose from 109.0 in 2013 to 207.3 in 2021 and then fell to 178.7 in 2023.

Figure 1: Drug-related deaths by registration year, 2013-2023.



Section 2: Sex and age

Figures 2 and 3 show the number of drug-related and drug misuse deaths by sex and age group 2023. 110 (65.1 per cent) of the total drug-related deaths in 2023 were males and 59 (34.9 per cent) were females.

Figure 2: Drug-related deaths by age and sex, 2023.

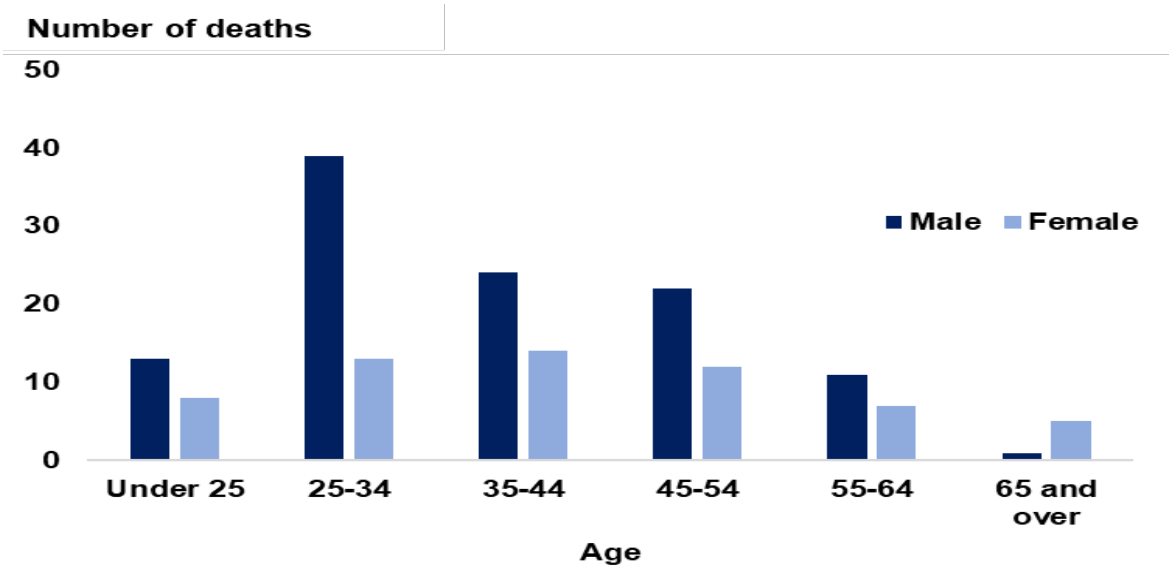
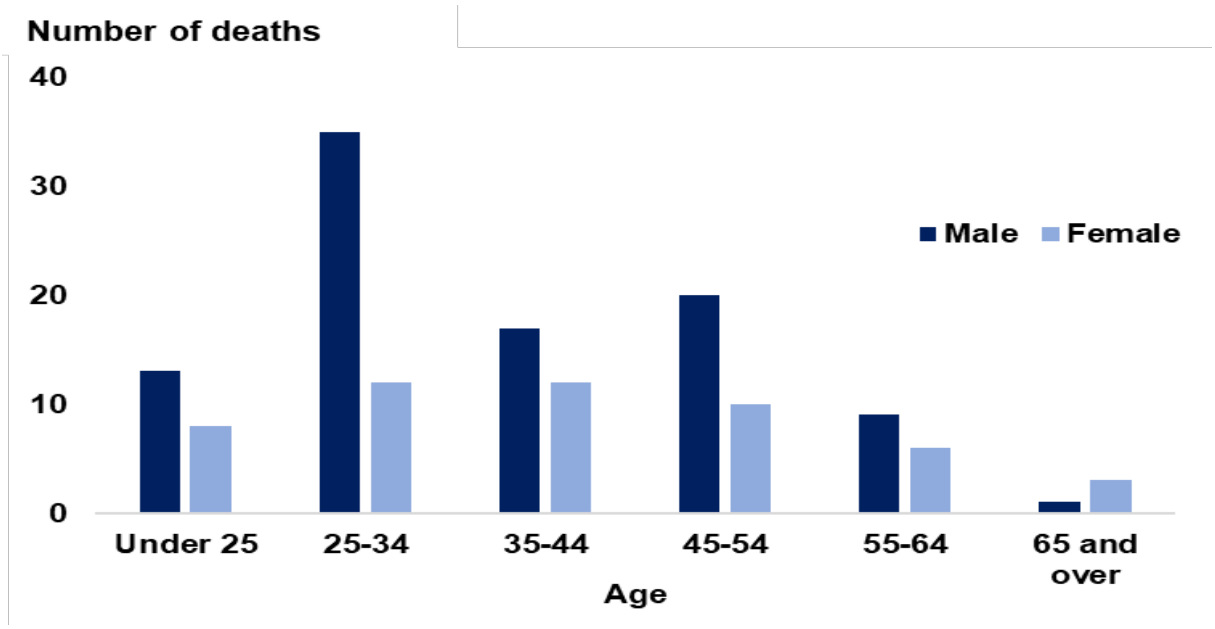


Figure 3: Drug misuse deaths by age and sex, 2023.

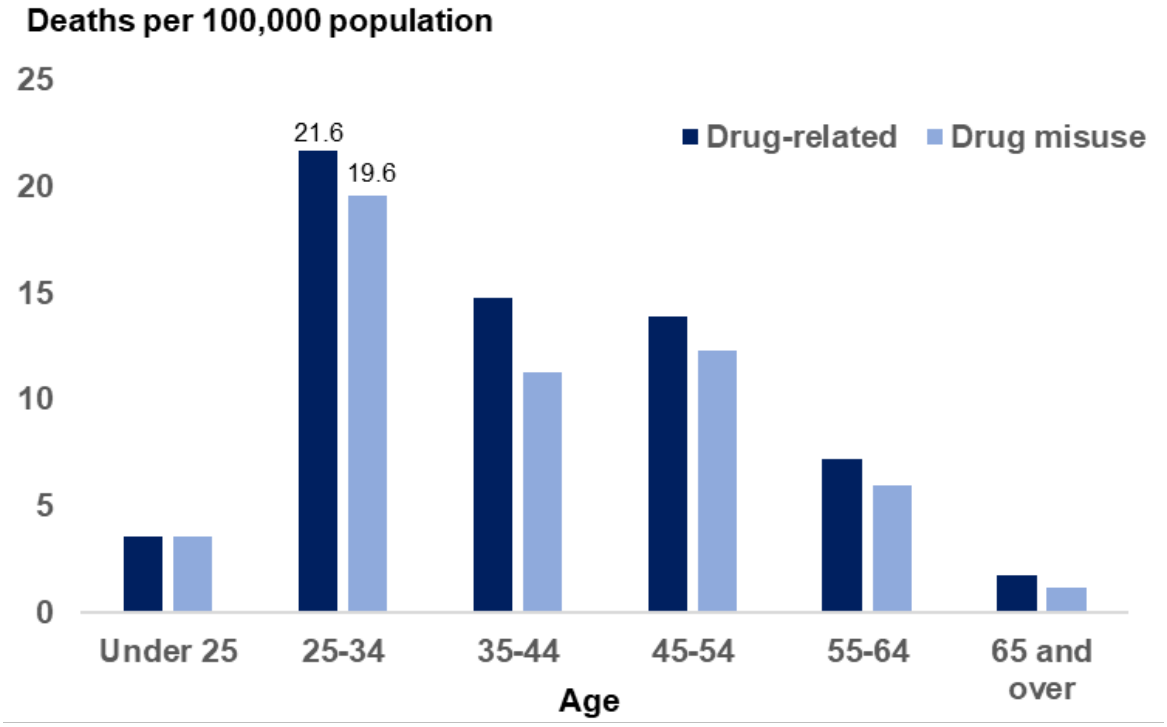


Looking at the number of deaths by age, the 25-34 and 35-44 age groups together consistently account for most annual drug-related (between 50 per cent and 64 per cent) and drug misuse deaths (between 52 per cent and 67 per cent).

In 2023, the 25-34 and 35-44 age groups together accounted for 53.3 per cent of all drug-related deaths and is in line with the average across the previous 10 years, 2013 to 2023 (56.2 per cent).

The 25-34 age group had the highest crude mortality rate of drug-related deaths in 2023, at 21.6 per 100,000 population. Similarly, 52.1 per cent of drug misuse deaths involved 25-44 year olds, while the highest crude drug misuse death rate was among 25-34 year olds at 19.6 per 100,000 population.

Figure 4: Crude mortality rate of drug-related and drug misuse deaths (per 100,000 population) by age, 2023.



Section 3: Age-standardised drug-related death rates

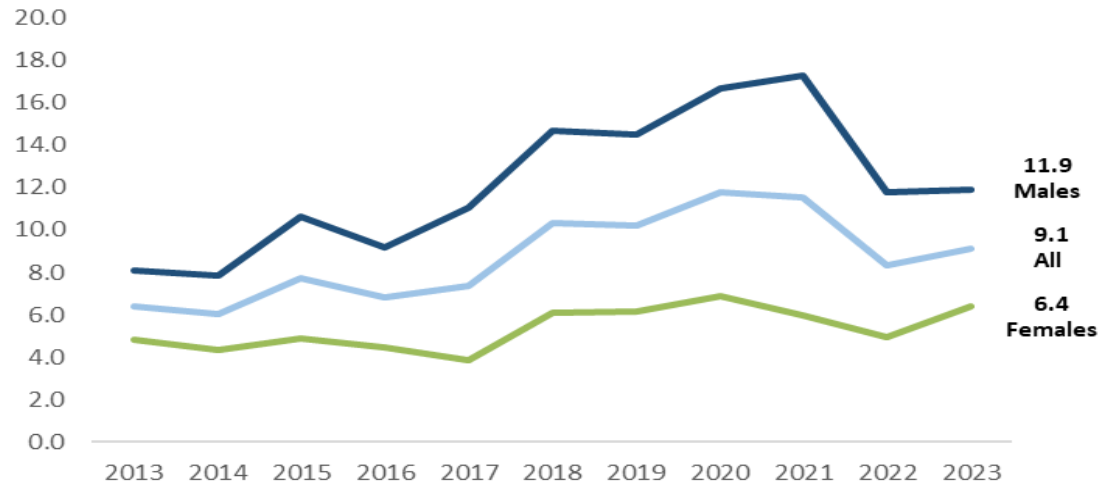
Trends in drug-related deaths by sex can be compared by standardising for age.

What are 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.

The age-standardised drug-related death rate in Northern Ireland shown in Figure 5 was 9.1 deaths per 100,000 in 2023. The corresponding figure for males was 11.9 deaths per 100,000 and 6.4 deaths per 100,000 for females.

For drug misuse deaths, the overall ASMR was 7.8 deaths per 100,000 in 2023. The ASMR due to drug misuse for males was 10.2 deaths per 100,000 compared to 5.5 deaths per 100,000 for females.

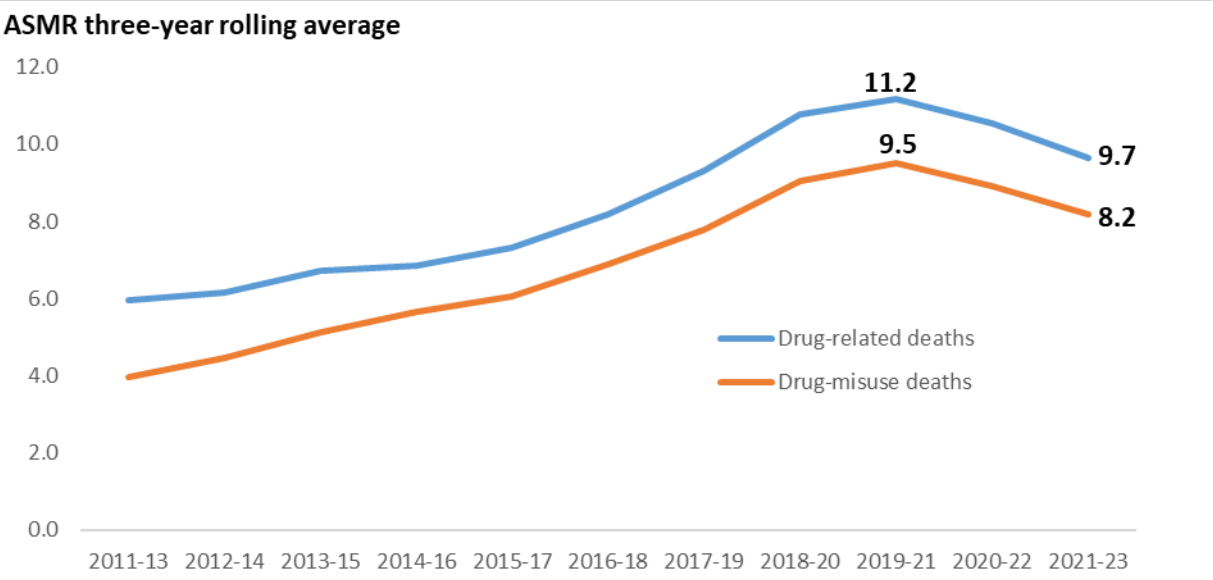
Figure 5: Age-Standardised Mortality Rate (ASMR) of drug-related deaths by sex, 2013-2023.



As outlined on page one, it is important to consider that annual fluctuations in registration-based figures build in procedural delays and therefore three-year rolling average ASMRs have been presented in Figure 6 below to give a better indication of change over time.

These show that the average age-standardised drug-related death rate for 2021-2023 was 9.7 deaths per 100,000, the lowest average rate since 2019. The comparable average rate for drug misuse deaths was 8.2 deaths per 100,000. Prior to this, the three-year average age standardised mortality rate for both drug-related deaths and drug misuse peaked in 2021 at 11.2 and 9.5 per 100,000 respectively.

Figure 6: Age-Standardised Mortality Rate (ASMR) of drug-related and drug misuse deaths by sex, 2012-2014 to 2021-2023 (three-year rolling average).



Section 4: Drug-related deaths by mentions of drug types

Annual fluctuations in relatively small numbers of drug-related deaths are not necessarily an indication of a 'true' change and it is important to look at trends over a longer period. Figure 7 examines these trends using a three-year rolling average number of deaths by selected drugs and drug groups.

Opioids was the drug group mentioned most often on the death certificates of drug-related deaths, appearing in 107 cases on average between 2021 and 2023 (103 cases in 2023). Heroin/Morphine was the opioid recurrently mentioned most often.

The next most mentioned group of drugs was benzodiazepines, appearing on 93.7 death certificates on average between 2021 and 2023 (95 in 2023).

Drug-related deaths involving pregabalin have risen since its first appearance in these statistics in 2013. The annual number of deaths involving this controlled substance rose from one in 2013, to an average of 66 between 2021 and 2023. Pregabalin was mentioned in 67 of the 169 deaths registered in 2023.

Recent years have seen a sharp increase in the number of drug-related deaths where a psychoactive substance[1] was mentioned on the death certificate, from 12 between 2017 and 2019 to an average of 37 between 2021 and 2023. Further analysis shows that this increase was primarily driven by mentions of flubromazolam, flualprazolam, and etizolam on death certificates.

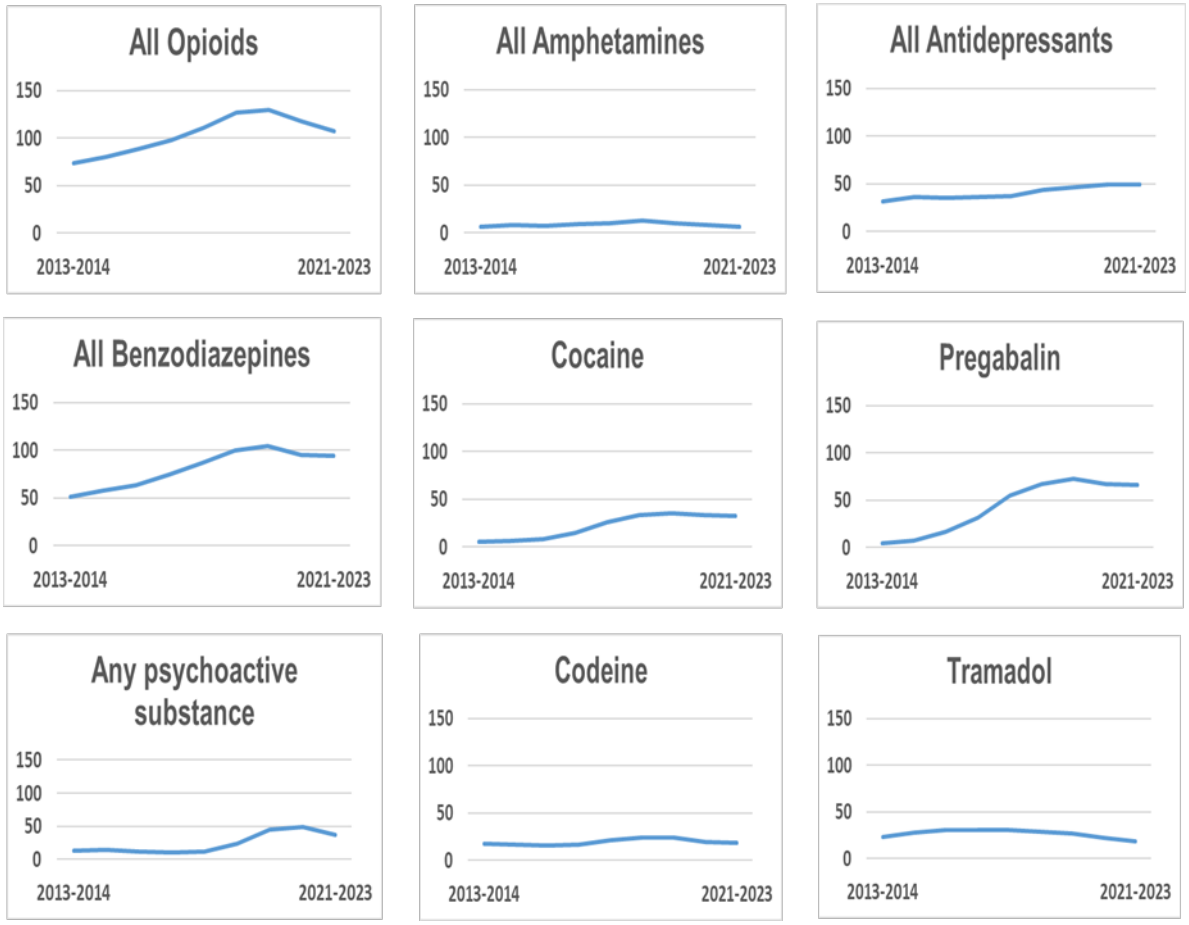
Deaths involving anti-depressants have been on a steady increase over the last decade. The average number of drug-related deaths involving anti-depressants increased from 32 between 2013 and 2015, to 50 between 2021 and 2023.

The number of deaths where cocaine was mentioned saw a sharp increase around 2017. The three year average number of deaths mentioning cocaine has more than doubled from 15 deaths between 2016 and 2018, to 33 deaths between 2021 and 2023.

Mentions of drugs such as codeine, tramadol and any amphetamines have remained relatively stable over the last decade.

[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.

Figure 7: Number of drug-related deaths in which selected substances were mentioned on the death certificate by registration year, 2013-2014 to 2021-2023 (three-year rolling average).



Section 5: Drug-related deaths by underlying cause of death

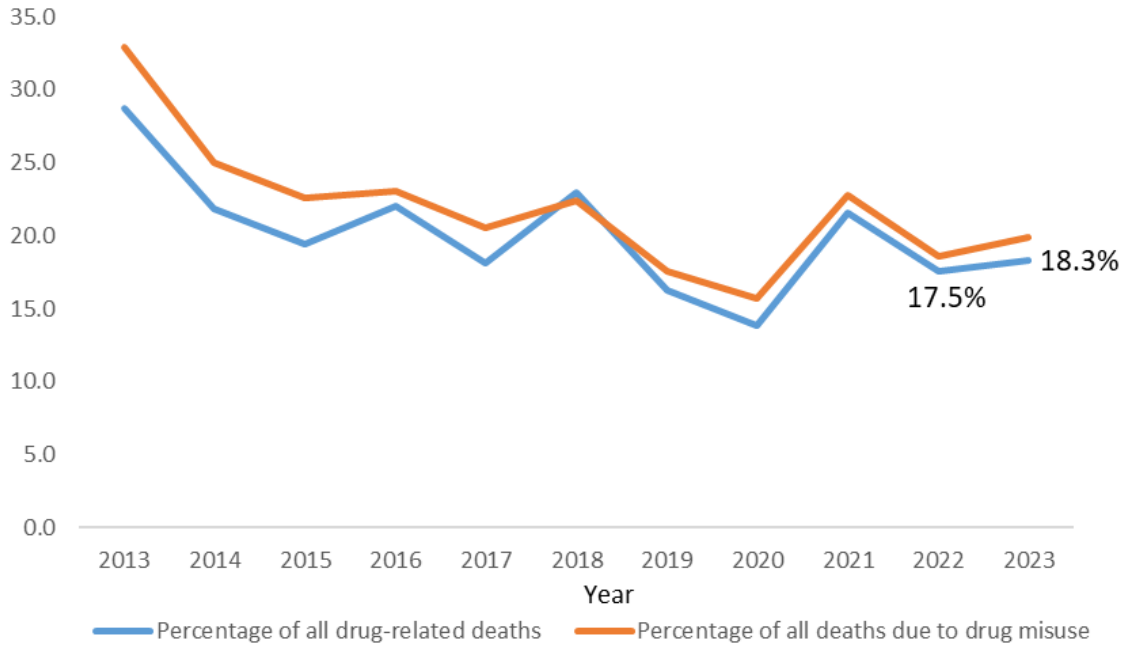
Most drug-related deaths are consistently accounted for by accidental poisonings, as decided by the Coroners' Service for NI (CSNI). This cause accounted for 87.6 per cent of drug-related deaths in 2023. The second most common cause of death is intentional self-poisoning which accounted for 10.1 per cent of the 169 drug-related deaths registered in 2023.

Similar can be said for drug misuse deaths where in 2023, 88.4 per cent of the 146 drug misuse deaths were accounted for by accidental poisoning and a further 8.9 per cent were accounted for by intentional self-poisoning.

Section 6: Drug-related deaths and mention of alcohol

There were 31 drug-related deaths registered in 2023 where alcohol was also mentioned on the death certificate, equating to 18.3 per cent of drug-related deaths mentioning alcohol. This is an increase from the 2022 proportion of 17.5 per cent. The general trend for alcohol being mentioned on the death certificate of drug-related deaths has been declining over the last decade. In 2013 the proportion of drug-related deaths involving alcohol was 28.7 per cent, falling to 18.3 per cent in 2023.

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, 2013-2023.

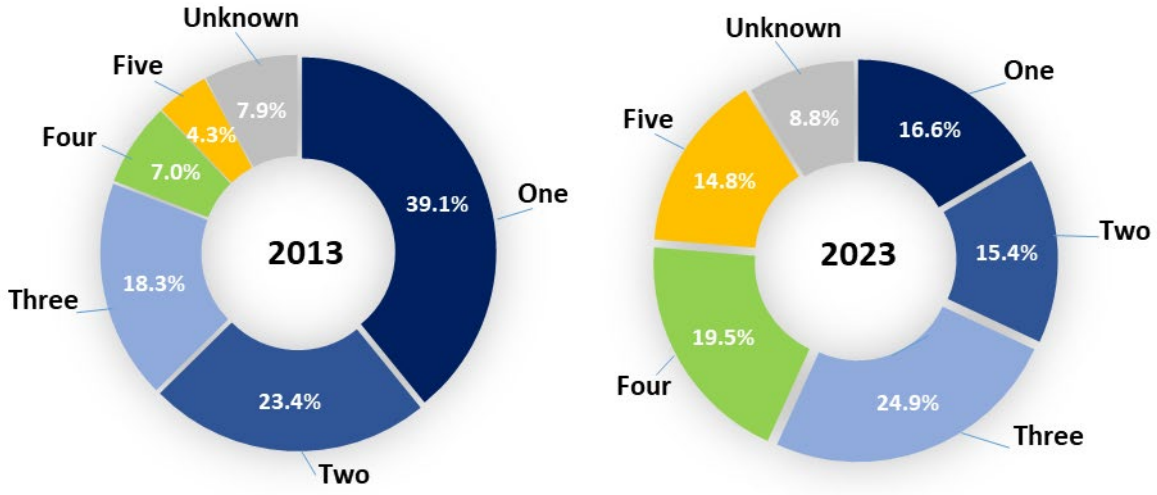


Section 7: Drug-related deaths by number of drugs mentioned

Compared with 2013, drug-related deaths in more recent years were more likely to be caused by a number of drugs, rather than one specific drug. In 2023, almost three-quarters (74.6 per cent) of drug-related deaths had two or more drugs listed on the death certificate, while in 2013 it was 53.0 per cent.

Under one fifth (16.6 per cent) of all drug-related deaths registered in 2023 had a single drug mentioned on the death certificate, compared with 39.1 per cent in 2013. Cocaine emerged as the predominant substance mentioned in deaths involving only one drug in 2023, constituting 5.9 per cent of total drug-related deaths (169) and 35.7 per cent (10) of single-drug deaths (28).

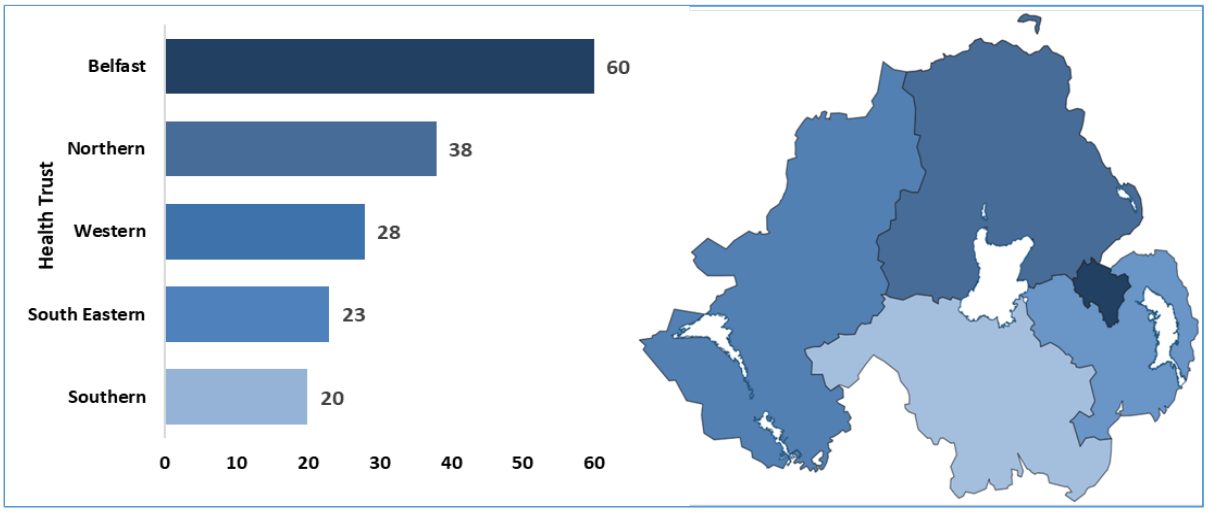
Figure 9: Proportion of drug-related deaths by the number of drugs mentioned on the death certificate by registration year, 2013 and 2023.



Section 8: Health and Social Care Trust (HSCT)

Belfast HSCT had the highest number (60) of drug-related deaths in Northern Ireland in 2023 (Figure 10). Table 8a in the accompanying spreadsheet shows the number of deaths for Northern Ireland between 2013 and 2023. Belfast HSCT has consistently had the highest number of drug-related deaths.

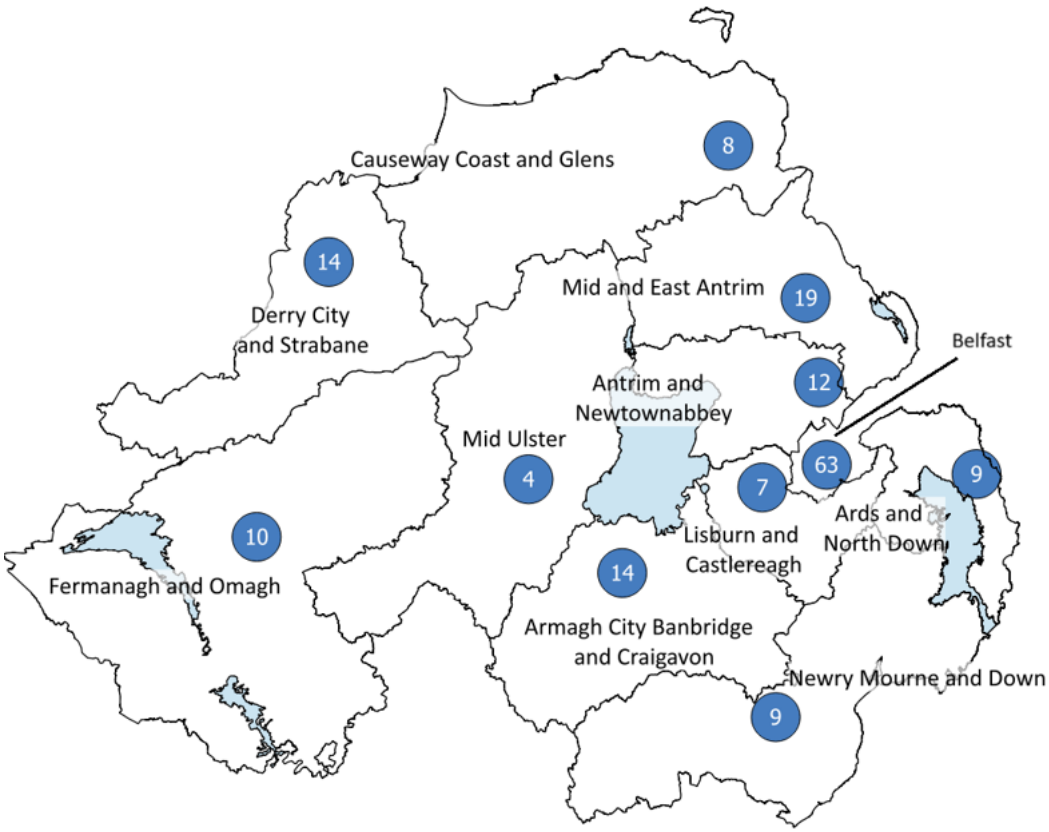
Figure 10 Number of drug-related deaths in NI by health trust, 2023.



Section 9: Local Government District (LGD)

Since the introduction of the 11 councils, Belfast LGD has consistently had the highest number of drug-related deaths. In 2023 the Belfast LGD again had the highest number of drug-related deaths registered at 63 (37.3 per cent), compared to four drug-related deaths registered in Mid Ulster (2.4 per cent).

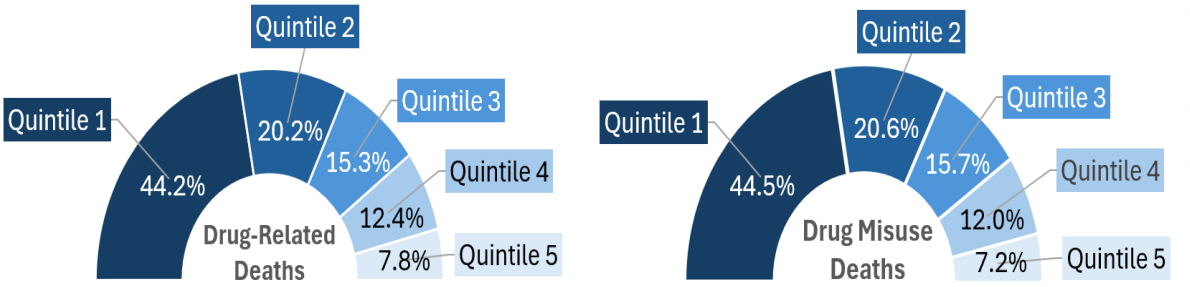
Figure 11: Map of NI showing the number drug-related deaths by Local Government District, 2023.



Section 10: Multiple Deprivation Measure (MDM)

The most deprived 20 per cent of areas (quintile) in Northern Ireland experienced the highest number of drug-related deaths for the combined years 2019-2023. This quintile accounted for 44.2 per cent of drug-related deaths and 44.5 per cent 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 7.8 per cent of drug-related deaths, and 7.2 per cent of drug misuse deaths in the last 5 years.

Figure 12: Percentage of drug-related and drug misuse deaths by NI Multiple Deprivation Measure (2017), 2019-2023.



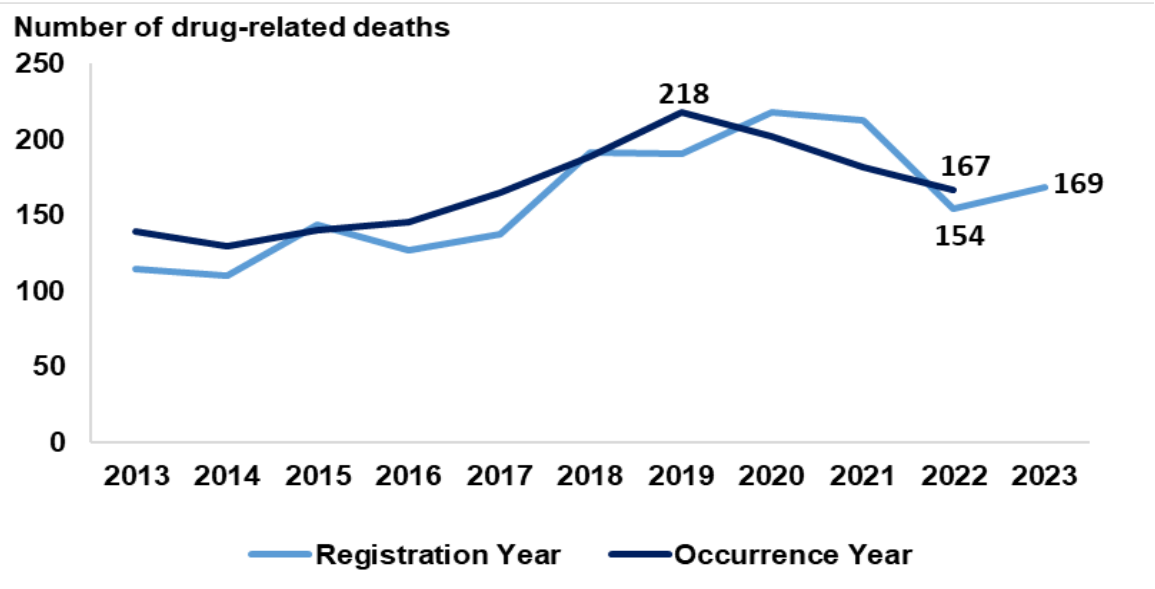
Section 11: Occurrence year analysis

A death which is accidental, unexpected or suspicious, such as a drug-related death, must be referred to the coroner and can only be registered after the coroner has completed their investigation. Registration of a drug-related death can therefore take months or even years. NISRA is only notified that a death has occurred once it is registered with the GRO and a significant number of drug-related deaths registered in any year will have occurred in earlier years. For example, of the 169 such deaths registered in 2023, 51 occurred in 2023, 98 in 2022, 9 in 2021, with the remaining 11 occurring in 2020 or earlier.

Drug-related 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 drug-related deaths (94 per cent) are registered within three years of the death occurring. Users are therefore cautioned against drawing inferences based on annual changes.

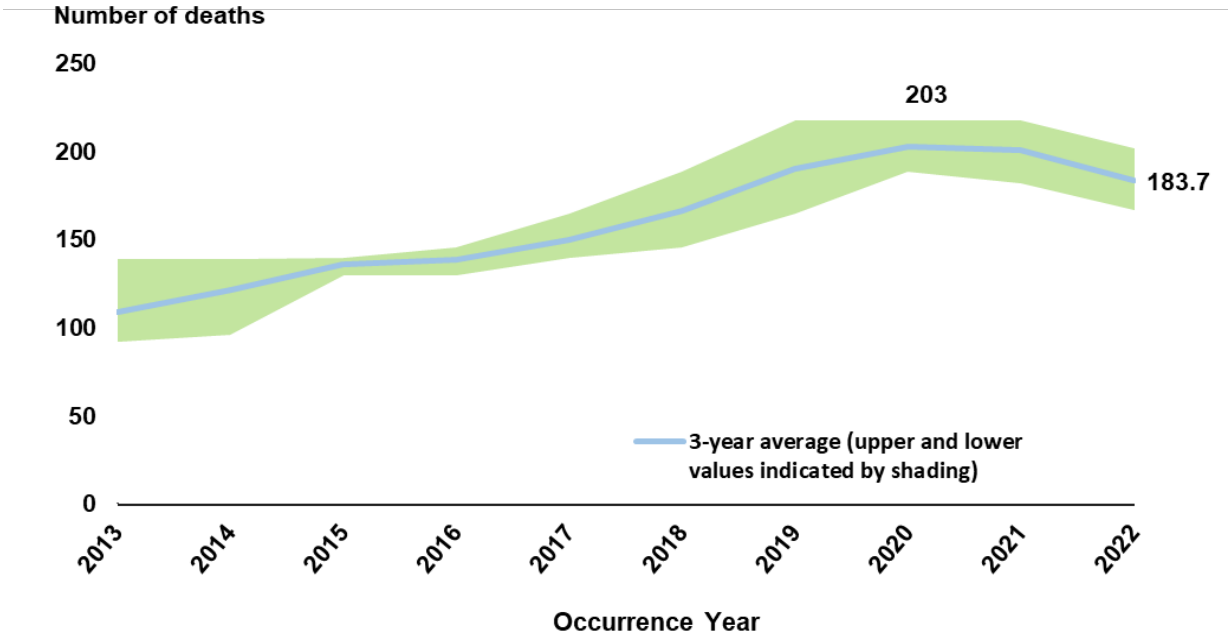
Figure 13 presents a comparison of the number of drug-related deaths registered in Northern Ireland over time along with the number occurring. Annual fluctuations are expected between these two series, given the median time from death to registration is constantly changing. However, the graph shows that the number of drug-related deaths peaked at 218 in 2019 with figures thereafter likely to be subject to further change as more cases are registered.

Figure 13: Number of drug-related deaths by registration and occurrence year, 2013-2023.



Information is presented in Figure 14 on occurrence trends based on a 'three-year rolling average' approach.

Figure 14: Number of drug-related deaths (three-year rolling average) in NI by Occurrence Year, 2013-2022.



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/publications/controlled-drugs-mentioned-death-certificates-ni

Underlying cause: underlying cause of death is the disease or injury that initiated the chain 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 seven 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 one (most deprived) to 890 (least deprived). The ranks of the seven 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 into five even groups, or quintiles, according to their MDM ranks, with quintile one representing the most deprived areas in Northern Ireland.

Crude Mortality Rate: The crude mortality 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.

Accredited Official Statistics publication

This is an Accredited Official Statistics publication. Accredited Official 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.

This accredited official statistics, were independently reviewed by the Office for Statistics Regulation in April 2012. They comply with the standards of trustworthiness, quality and value in the Code of Practice for Statistics and should be labelled 'accredited official statistics.'

Our statistical practice is regulated by the Office for Statistics Regulation (OSR). OSR sets the standards of trustworthiness, quality and value in the Code of Practice for Statistics that all producers of official statistics should adhere to.

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Next publication: **Winter 2025/26**