



# Drug-Related and Drug-Misuse Deaths

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## Introduction

The purpose of this information paper is to inform users about the quality of Drug Related and Drug Misuse Statistics in Northern Ireland. This document provides a range of information that describes the quality of the data and details any points that should be noted when using the outputs.

This revised paper includes details of a small amendment to the definition of drug misuse deaths to bring NI data fully in line with data for England and Wales.

## Background to Drug Related and Drug Misuse Data

The Northern Ireland Statistics and Research Agency (NISRA) produce 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 figures are derived from cause of death recorded when a death is registered in Northern Ireland. Statistics are published annually and include counts and death rates for all drug related deaths registered in Northern Ireland.

Statistics which are produced from vital events registered in Northern Ireland are deemed to be of high quality and should have complete population coverage as it is a legal requirement to register all such events that occur in Northern Ireland.

## Relevance

*The degree to which the statistical product meets user needs in both coverage and content.*

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.

While drug-related deaths account for around 1% of all deaths in NI, there has been a general upward trend in the number of such deaths, rising from 39 in 1997 to almost 5 times as many in 2019 (191). With this known effect on premature mortality, there is considerable political, media and public interest in these figures and they are used by a range of public bodies, including the Department of Health (DoH), Public Health Agency (PHA), Police Service of Northern Ireland (PSNI), UK Focal Point on Drugs and European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). In addition drug-related deaths data is also used by academia to investigate trends and the effectiveness of policy led interventions.

The Department of Health, NI (DoH) use drug-related death statistics to inform policy and monitor the strategy: [New Strategic Direction for Alcohol and Drugs - Phase 2](#), 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 and are broken down by cause of death, sex and geographic indicators relating to the usual residence of the deceased, and the substances involved.

## How the Output is Created

### Source Data

Drug-related death statistics are derived from annual deaths registration data and represent all drug-related deaths registered in Northern Ireland in the specific calendar year. The deaths file is a static file available at the time the dataset is closed (31 December). The annual dataset then goes through a thorough validation process whereby accuracy of the information is checked (such as dates and address information) and missing information (e.g. postcode) is completed as much as possible. This process can take a number of months to complete due to the size of the dataset, after which the final dataset is closed and used to produce final annual totals for the Registrar General Annual Report. Official revisions to registration records can still be made through the General Register Office after the dataset has been finalised but these will not be reflected in the annual dataset or in published statistics. However, such revisions are limited and are highly unlikely to alter the thrust of the published statistics.

The annual drug-related deaths dataset includes:

1. All drug-related deaths registered by the 31 December of the reference year.
2. All drug-related deaths where the deceased's usual residence is outside Northern Ireland where the death occurred in Northern Ireland (non-resident) and was registered by the 31 December of the reference year.
3. Drug-related deaths to both resident and non-residents occurring in the year(s) prior to the reference year which were registered within the reference year.

What the dataset doesn't include:

1. Drug-related deaths to resident and non-residents occurring in the reference year, which are registered in subsequent years.
2. Drug-related deaths of individuals usually resident in Northern Ireland who died abroad.

### Definition

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

**Drug-Related Death** - this is 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 include class A, B and C drugs.

The definition for drug misuse deaths in Northern Ireland was revised minimally for the 2020 outputs published in March 2022 to be fully in line with the definition used for England and Wales. The change involved moving from:

*“deaths where the underlying cause is drug poisoning, drug abuse or drug dependence **and** where any of the substances controlled under the Misuse of Drugs Act (1971) are involved”*

to

*“deaths where the underlying cause is drug poisoning, drug abuse or drug dependence or where any of the substances controlled under the Misuse of Drugs Act (1971) are involved.”*

This allows the direct comparison of NI drug-misuse deaths data with England and Wales.

**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

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>

### **Impact of the change in drug-misuse deaths definition**

When preparing the 2010 to 2020 time series data for release in March 2022 both definitions were run to quantify the impact of the change. The results are shown in table 3 whereby in 5 years in the series the total number of deaths did not change. In 4 years in the series 1 additional death was identified, and in 2 years of the series 2 additional deaths were identified. The impact was, therefore, concluded to be minimal.

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

<b>Year</b>	<b>Total number of deaths based on the previous definition of drug misuse deaths</b>	<b>Total number of deaths based on the current definition of drug misuse deaths</b>	<b>Difference between the previous and current definitions</b>
2010	63	64	1
2011	59	60	1
2012	75	77	2
2013	79	79	0
2014	88	88	0
2015	114	115	1
2016	112	112	0
2017	110	111	1
2018	161	161	0
2019	165	165	0
2020	180	182	2

## Accuracy

The proximity between an estimate and the unknown true value.

Registration of deaths in Northern Ireland is a legal requirement under the Registration of Births and Deaths (Ireland) Act, 1863. All information provided at registration, which is normally provided by one or more family members, is collected by a District Registrar employed by the District Council. The number of cases where a death is not registered is believed to be relatively small and is not considered to adversely affect published results. Death registration data is therefore considered to be both comprehensive and highly accurate.

NISRA code all causes of death mentioned on the death certificate using the *International Statistical Classification of Diseases and Related Health Problems, 10<sup>th</sup> Revision*<sup>1</sup>. ICD coding rules are then applied to select the underlying cause of death. Deaths in NI are generally certified by a GP and are automatically coded using coding software, but some, including all drug deaths, are referred to the Coroner. Due to the extra information supplied within the Coroner's forms, cause of death coding is carried out manually. Manual coding is a potential source of error, however this risk is minimised as the coding is carried out by highly trained, experienced staff who apply ICD coding rules.

NISRA do not have access to post-mortem reports or toxicology results, so the accuracy of figures on deaths related to drug poisoning depends on the information provided by the Coroner. Findings related to specific substances should be interpreted with care. In particular, figures on the number of deaths involving so-called 'legal highs' should be treated with caution because these types of psychoactive substances are constantly evolving and it may not always be possible to identify new substances during post-mortem investigations. Changes in controlled drugs are regularly reviewed in line with classification changes, for example Tramadol was classified as a controlled drugs list in 2013. Figures for prior to 2013 are therefore not directly comparable to 2013 data onwards.

Further details on quality of death registration data in Northern Ireland can be found in the [Quality Assessment for Northern Ireland Deaths Statistics](#).

The United Kingdom 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.

## Timeliness & Punctuality

Timeliness refers to the time gap between publication and the reference period.

Punctuality refers to the gap between planned and actual publication dates.

Headline figures for drug-related deaths are released within the Registrar General Annual Report usually within 9-10 months after the end of the reference year. More detailed breakdowns on drug-related deaths and drug-misuse follow. Where possible this happens within 2-3 months of the Registrar General Annual Report (11 - 13 months after the end of the reference year), however in recent years timelines have been impacted by the pandemic and substantially increased demand for other deaths data.

The results are based on analysis of all drug-related deaths registered within the relevant reference year. This is not necessarily the year these deaths will have occurred (e.g. a death that occurs near the end of December 2017 may not be registered until 2018 or later). Registration year figures allow for more timely release of figures, but have the disadvantage of it being harder to assess the relationship between drug-related deaths and other factors, for example, it is hard to examine the impact of changes to controlled drugs on such deaths as they do not show whether the death occurred before or after individual drugs were banned.

The Vital Statistics Unit Publication Schedule is available on the NISRA Website. This is published at the start of each financial year at the following link:

<https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/Vital%20Stats%20-2019-2020-Publication-Schedule-April%202019%20%28V2%29.xlsx>

The [UK Statistics Release Calendar](#) provides 28 days advance notice of releases. In the unlikely event of a change to the Publication Schedule, the public would be advised of the change via the NISRA website and any pre-announced dates would be updated on the Release Calendar. A full explanation of the reason(s) for the change would be provided as set out in the Code of Practice for Official Statistics.

## Accessibility and Clarity

Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.

The NISRA website is the primary vehicle for the release of Drug Related Death statistics in Northern Ireland. A combination of interactive maps, charts and data may be created and downloaded in Microsoft Excel, CSV & PDF formats.

Drug-related death data by Northern Ireland administrative geographies are available on the [Northern Ireland Neighbourhood Information System \(NINIS\)](#). A combination of interactive maps, charts and data may be created and downloaded in Microsoft Excel, CSV & PDF formats.

Ad-hoc analysis of drugs related death data for Northern Ireland is available free of charge to users upon request.

## Coherence and Comparability

Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain.

Changes made to the drug misuse deaths definition for the 2010-2020 series onwards has made the data fully comparable with data on deaths in England and Wales due to drug-misuse.

### ICD-10 update introduced in 2011

All deaths registered from the 1 January 2001 have been coded in accordance with the International Statistical Classification of Diseases, Injuries and Causes of Death, Tenth Revision (ICD-10), which has been in operation by international agreement from 1 January 1989. Classification of the underlying cause of death is done by reference to the death certificate and additional information from the certifying doctor.

In January 2011, the General Register Office (GRO) upgraded its software for coding the causes of death to take account of a number of updates that the World Health Organisation (WHO) had made to ICD-10. The main changes are amendments to the modification tables and selection rules, which are used to ascertain a causal sequence and consistently assign underlying cause of death from the conditions recorded on the death certificate.

To understand the impact of the introduction of ICD-10 v2010 on drug-related death statistics, the Office for National Statistics (ONS) carried out an analysis of the impact of this change. This showed that the number of deaths coded as mental and behavioural disorders due to drug use (ICD-10 codes F11–F16 and F18–F19) decreased by 84% in v2010, compared with v2001. This decrease is due to these deaths being allocated to accidental poisonings by drugs (ICD-10 code X40–X44), which consequently increased by 44%. The new version of ICD-10 caused very little change in the number of deaths being coded as intentional self-poisoning by drugs, or poisoning by drugs, undetermined intent. Further detail on this is available in [Deaths related to Drug Poisoning in England and Wales](#)

## Assessment of User Needs and Perceptions

The processes for finding out about users and uses, and their views on the statistical products.

All Vital Statistics publications specifically invite users to provide any feedback they might have in respect of the content, format and relevance of the release. No negative feedback on drug-related deaths has been received as part of this process.

Feedback is also received through regular engagement with policy colleagues in Department of Health and the Public Health Agency.

## Performance, Cost and Respondent Burden

The effectiveness, efficiency and economy of the statistical output.

While there is a legislative requirement to register a death within 5 days, there is no subsequent respondent burden unless of course they fail to fulfill their legal obligations in this respect. The production and quality assurance processes, which are considered to be both cost effective and efficient, have been streamlined wherever possible and are kept under review from a continuous improvement perspective.

## Confidentiality, Transparency and Security

The procedures and policy use to ensure sound confidentiality, security and transparent practices.

NISRA adhere to the [United Kingdom Statistics Authority \(UKSA\) Code of Practice for Official Statistics](#) and the [National Statistician's Guidance on Confidentiality of Official Statistics](#) in the collection and dissemination of death statistics.

Details of Demographic statistics approach to data access, physical security and disclosure control are available at the following link:

<https://www.nisra.gov.uk/publications/vital-statistics-documentation>

## Useful Links

Drug related death statistics in Great Britain and Ireland are available at the following links:

[Northern Ireland](#)

[England and Wales](#)

[Scotland](#)

[Republic of Ireland](#)

All media inquiries should be directed to DoF Communications Office:

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## Contacts

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