Office for National Statistics

Statistical bulletin

Deaths related to drug poisoning in England and Wales: 2023 registrations

Deaths related to drug poisoning in England and Wales from 1993 to 2023, by cause of death, sex, age and substances involved in the death.

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Release date:
23 October 2024

Next release:
To be announced

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1 . Main points

- In England and Wales, 5,448 deaths related to drug poisoning were registered in 2023, the equivalent of 93.0 deaths per million people, and higher than the rate recorded in 2022 (84.4 deaths per million, 4,907 deaths); the age-standardised mortality rate for deaths related to drug poisoning has risen every year since 2012.

- Among males, there were 127.6 drug-poisoning deaths registered per million in 2023 (3,645 deaths), compared with 59.8 deaths per million among females (1,803 deaths).

- Of drug-poisoning deaths registered in 2023, 3,618 were identified as drug misuse, accounting for 61.8 deaths per million people; rates of drug misuse deaths continue to be elevated among those born in the 1970s, often referred to as "Generation X", with the highest rate in those aged 40 to 49 years.

- Just under half of all drug-poisoning deaths registered in 2023 were confirmed to involve an opiate (46.8%; 2,551 deaths), while 1,118 deaths involved cocaine, which is 30.5% more than 2022 and represents the 12th consecutive annual rise.

- The North East continues to have the highest rates of deaths relating to drug poisoning and drug misuse (174.3 deaths per million people and 108.5 per million, respectively); London had the lowest rate for drug poisoning and drug misuse (58.1 deaths per million people and 41.0 per million, respectively).

- In Wales, there were 377 deaths related to drug poisoning registered in 2023, the equivalent of 129.2 deaths per million people, this is higher than the rate recorded in 2022 (109.6 deaths per million, 318 deaths).

2 . Drug poisonings in England and Wales

There were 5,448 deaths related to drug poisoning registered in England and Wales in 2023; this is the highest number since records began in 1993 and 11.0% higher than in 2022 (4,907 registered deaths). The rate of drug-poisoning deaths registered in 2023 (93.0 deaths per million people) is higher than the rate in 2022 (84.4 deaths per million).

Statistics on drug-related deaths are based on the date of death registration. Because of registration delays, 64.0% of deaths registered in 2023 occurred in previous years.

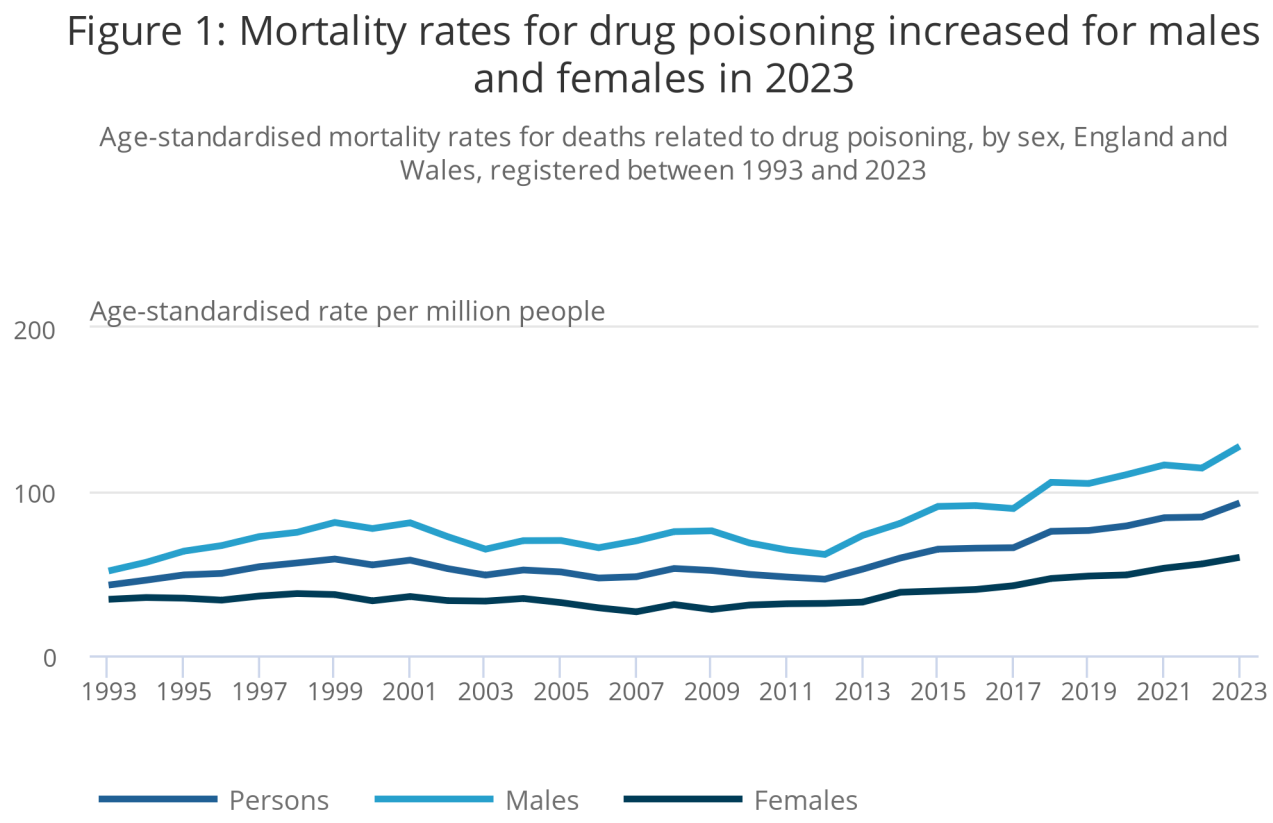
The rate of drug-poisoning deaths in 2023 (93.0 deaths per million) was double the rate in 2012 (46.5 deaths per million). The rate has increased every year since 2012, after remaining relatively stable over the preceding two decades.

In England, 5,053 deaths related to drug poisoning were registered in 2023, equivalent to a rate of 90.8 deaths per million people. This is higher than the rate recorded in 2022 (82.9 deaths per million, 4,572 deaths).

In Wales, 377 deaths related to drug poisoning were registered in 2023, the equivalent of 129.2 deaths per million people. This is higher than the rate recorded in 2022 (109.6 deaths per million, 318 deaths).

Figure 1: Mortality rates for drug poisoning increased for males and females in 2023

Age-standardised mortality rates for deaths related to drug poisoning, by sex, England and Wales, registered between 1993 and 2023



Source: Deaths related to drug poisoning in England and Wales from the Office for National Statistics

Notes:

1. Age-standardised mortality rates per million people, standardised to the 2013 European Standard Population.

2. Cause of death was defined using the International Classification of Diseases, Ninth Revision (ICD-9) for the years 1993 to 2000, and Tenth Revision (ICD-10) from 2001 onwards. More details can be found in our Deaths related to drug poisoning in England and Wales Quality and Methodology Information (QMI).

3. Figures are for deaths registered, rather than deaths occurring, in each calendar year.

4. Figures for England and Wales include deaths of non-residents.

Males accounted for more than two-thirds of registered drug poisonings in 2023 (3,645 male deaths compared with 1,803 female deaths), which is consistent with previous years.

3 . Drug misuse in England and Wales

Rates of drug misuse deaths have continued to increase

Deaths classified as drug misuse must meet one or both of the following conditions:

- the underlying cause is drug abuse or drug dependence
- any of the substances involved are controlled under the Misuse of Drugs Act 1971
- Information on the specific drugs involved in a death is not always available, therefore figures on drug misuse are underestimates.

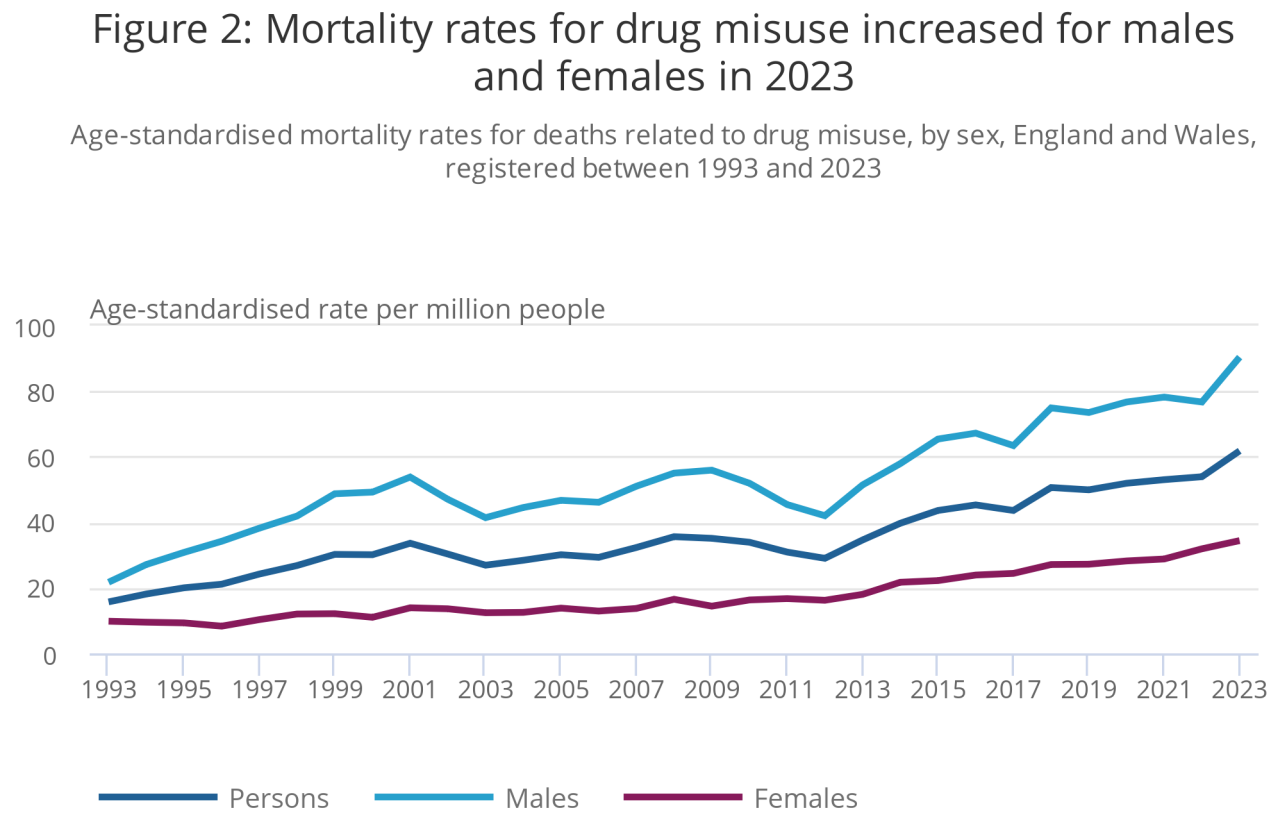
The proportion of drug-related deaths about which the Office for National Statistics (ONS) holds no information on the specific substances involved has been increasing over time. As such, caution is advised in the interpretation of these statistics. For more information on the issue of missing data please see our blog post on the comparability of UK drug-related death statistics.

Of the 5,448 registered drug-poisoning deaths in 2023, 3,618 were identified as drug misuse. This represents 66.4% of drug poisonings. If we exclude deaths where no information was available on the drug or drugs involved (1,245 deaths), then 86.1% of drug-poisoning deaths related to drug misuse.

The rate of deaths relating to drug misuse in 2023 was 61.8 deaths per million people. The male rate of drug misuse deaths was 90.4 deaths per million in 2023 (2,586 registered deaths) and the female rate was 34.4 deaths per million (1,032 deaths).

Figure 2: Mortality rates for drug misuse increased for males and females in 2023

Age-standardised mortality rates for deaths related to drug misuse, by sex, England and Wales, registered between 1993 and 2023



Source: Drug poisoning in England and Wales from the Office for National Statistics

Notes:

1. Age-standardised mortality rates per million people, standardised to the 2013 European Standard Population.

2. Cause of death was defined using the International Classification of Diseases, Ninth Revision (ICD-9) for the years 1993 to 2000, and Tenth Revision (ICD-10) from 2001 onwards. More details can be found in our Deaths related to drug poisoning in England and Wales Quality and Methodology Information (QMI).

3. Figures are for deaths registered, rather than deaths occurring, in each calendar year.

4. Figures for England and Wales include deaths of non-residents.

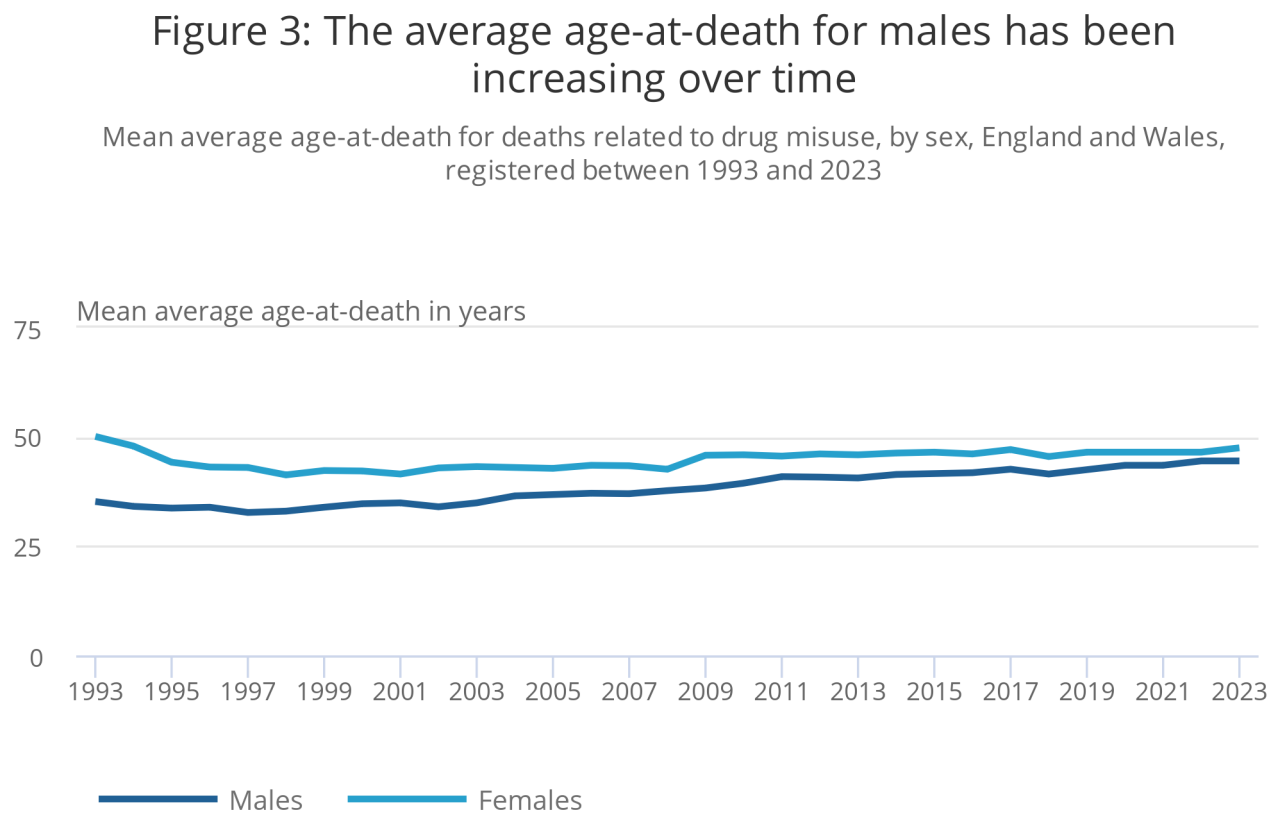
People born in the 1970s continue to have the highest rates of drug misuse deaths

In 2023, the highest rate of drug misuse deaths was found in those aged 40 to 49 years (147.3 deaths per million people). They are part of the age cohort often referred to as "Generation X", born between the late 1960s and early 1980s, who have consistently had the highest rates of drug misuse deaths for the past 25 years, as explained in our 2019 article.

The average age at death for drug misuse deaths in 2023 was 44.5 years for males and 47.5 for females. The average for males has been steadily increasing since the late 1990s and is now at a historic high, while the average for females has been relatively consistent between 1993 and 2023 (Figure 3).

Figure 3: The average age-at-death for males has been increasing over time

Mean average age-at-death for deaths related to drug misuse, by sex, England and Wales, registered between 1993 and 2023



Source: Drug poisoning in England and Wales from the Office for National Statistics

Notes:

1. Cause of death was defined using the International Classification of Diseases, Ninth Revision (ICD-9) for the years 1993 to 2000, and Tenth Revision (ICD-10) from 2001 onwards. More details can be found in our Deaths related to drug poisoning in England and Wales Quality and Methodology Information (QMI).

2. Figures for England and Wales include deaths of non-residents.

3. Figures are for deaths registered, rather than deaths occurring, in each calendar year.

4 . Drug-poisoning deaths by English region and in Wales

The North East has had the highest rate of drug-poisoning deaths of any English region for 11 consecutive years

In England, the rate of drug-poisoning deaths rose to 90.8 deaths per million from 82.9 deaths per million in 2022.

In 2023, the highest rate of drug-poisoning deaths was observed in the North East (174.3 deaths per million; 441 registered deaths), which is three times higher than the lowest rate in London (58.1 deaths per million; 500 deaths). The North East has had the highest rate of drug-poisoning deaths for the past 11 years.

In Wales, the rate of drug-poisoning deaths rose to 129.2 deaths per million from 109.6 deaths per million in 2022.

Figure 4: Rates of drug poisoning deaths have a marked north-south divide

Age-standardised mortality rate for deaths related to drug poisoning, by sex, for countries and regions of England and Wales, registered between 1993 and 2023

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5 . Drug poisonings from selected substances

Figures in this section are estimates that are based on analysis of text that appears on the death certificate. This text is usually written by the coroner.

The Office for National Statistics (ONS) does not have access to post-mortem reports or toxicology results, so the accuracy of figures depends on the information provided by the coroner on the death certificate. Because of incomplete information, figures for drug misuse and for specific substances are underestimates.

Of the drug-poisoning deaths registered in England and Wales in 2023, 22.9% (1,245) had no drug type recorded on the coroner's death certificate (for example, records only mention "drug overdose" or "multiple drug toxicity"). The proportion of deaths where no information on the specific substances involved was recorded has been increasing over time, so caution is advised in the interpretation of these statistics.

Potent synthetic opioids

The Office for Health Improvement and Disparities (OHID) has recently published data on the numbers of deaths associated with potent synthetic opioids (nitazenes or fentanyls). This data is sourced from laboratory testing and relates to deaths occurring between 1 June 2023 and 31 May 2024 in England. Because of registration delays, most deaths in the OHID report will not yet have been registered to appear in ONS mortality data. ONS data on deaths involving nitazenes and fentanyl analogues can be found in our Deaths related to drug poisoning by selected substances dataset.

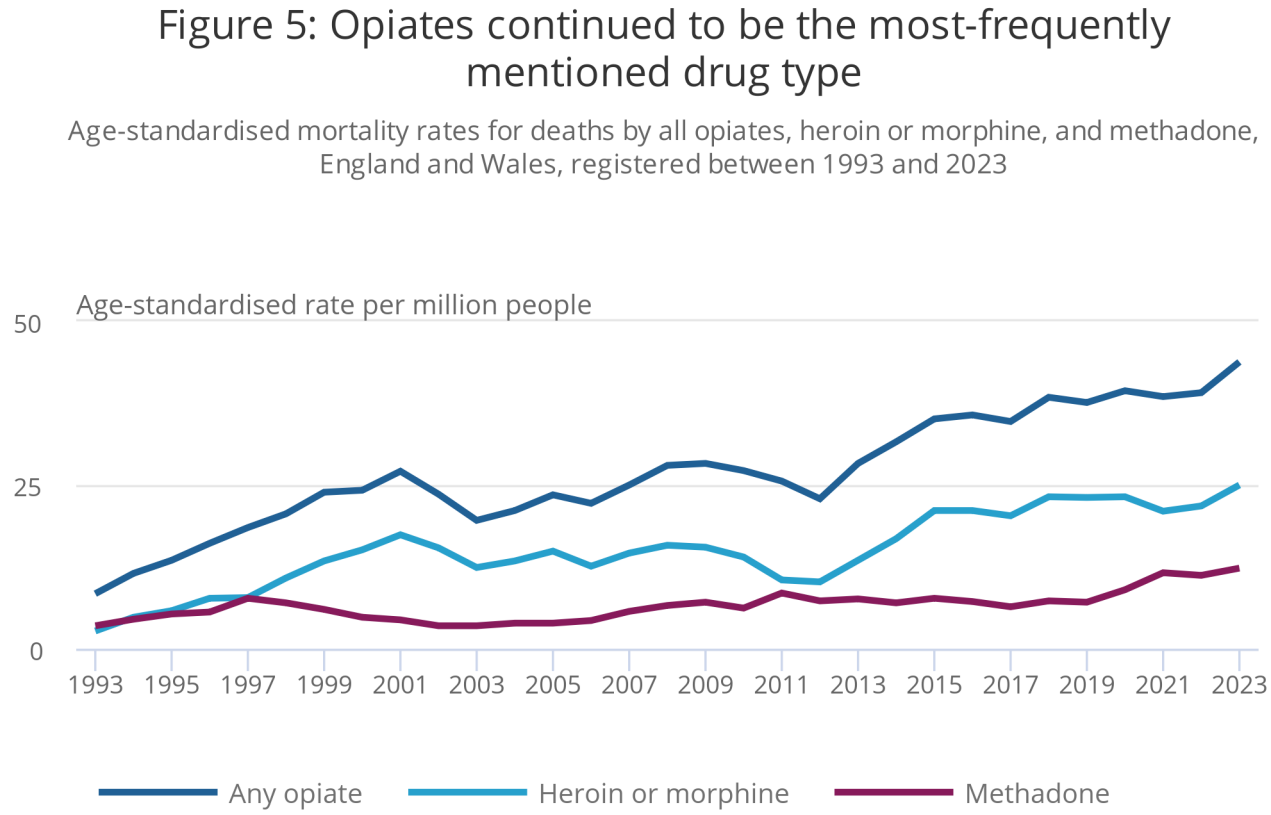
Over half of all drug-poisoning deaths involve more than one drug, and it is not possible in those cases to tell which substance was primarily responsible for the death.

Almost half of all drug-poisoning deaths continue to involve an opiate

For deaths registered in 2023, a total of 2,551 drug-poisoning deaths involved opiates; this was 12.8% higher than in 2022 (2,261 deaths). Opiates were involved in just under half (46.8%) of drug-poisoning deaths registered in 2023, increasing to 60.7% when we exclude deaths that had no drug type recorded on the death certificate. Heroin and morphine (often indistinguishable in toxicology testing) continued to be the most frequently mentioned opiates, with 1,453 drug-poisoning deaths mentioning either one of these substances in 2023 (25.0 deaths per million people).

Figure 5: Opiates continued to be the most-frequently mentioned drug type

Age-standardised mortality rates for deaths by all opiates, heroin or morphine, and methadone, England and Wales, registered between 1993 and 2023



Source: Deaths related to drug poisoning in England and Wales from the Office for National Statistics

Notes:

1. Age-standardised mortality rates per million people, standardised to the 2013 European Standard Population.
2. Cause of death was defined using the International Classification of Diseases, Ninth Revision (ICD-9) for the years 1993 to 2000, and Tenth Revision (ICD-10) from 2001 onwards. More details can be found in our Deaths related to drug poisoning in England and Wales Quality and Methodology Information (QMI).
3. Figures are for deaths registered, rather than deaths occurring ,in each calendar year.
4. Figures for England and Wales include deaths of non-residents.

Cocaine deaths rose by 30.5% in one year

There were 1,118 deaths involving cocaine registered in 2023, which was 30.5% higher than the previous year (857 deaths) and nearly ten times higher than in 2011 (112 deaths). In 2023, males accounted for 79.2% of the deaths involving cocaine (886 males compared with 232 females). Cocaine has consistently been the second most-used drug, after cannabis, in England and Wales over the past decade, as shown in our Drug misuse in England and Wales: year ending March 2023 article.

Figure 6: Drug poisonings involving cocaine continued to increase in 2023

Age-standardised mortality rates for selected substances, by sex, England and Wales, deaths registered between 1993 to 2023

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6 . Death registration delays

Death registration delays in 2023 remain high in England and Wales

Most deaths related to drug poisoning in England and Wales are certified by coroners. The length of time it takes to hold an inquest results in a delay between the date a death occurred and the date of registration. This means that more than half of the deaths reported in this bulletin occurred in previous years.

In 2023, the median registration delay for drug poisonings was 221 days (217 days for misuse) in England, up from 219 days in 2022. In Wales in 2023, the delay was 309 days (316 days for misuse), down from 328 in the previous year. Registration delays have been gradually increasing over time, and 2022 saw the longest delays in both England and Wales since the time series began in 1993.

7 . Deaths related to drug poisoning in England and Wales data

Deaths related to drug poisoning, England and Wales
Dataset | Released 23 October 2024
Annual number of deaths registered related to drug poisoning and median registration delays, in England and Wales. Data presented by cause of death, sex, age, substance(s) involved in the death, country and region, and areas of deprivation.

Deaths related to drug poisoning by selected substances, England and Wales
Dataset | Released 23 October 2024
Annual number of deaths registered related to drug poisoning in England and Wales by sex, region and whether selected substances were mentioned anywhere on the death certificate, with or without other drugs or alcohol, and involvement in suicides.

Deaths related to drug poisoning by local authority, England and Wales
Dataset | Released 23 October 2024
Annual number of deaths registered related to drug poisoning, by local authority, England and Wales.

Deaths related to drug poisoning by date of occurrence, England and Wales
Dataset | Released 23 October 2024
Annual number of deaths occurring related to drug poisoning in England and Wales. Data presented by cause of death, sex, age, substance(s) involved in the death, and country and region.

View all data used in this statistical bulletin on the Related data page.

8 . Glossary

Drug poisoning

Deaths classified as a drug poisoning must have an applicable International Classification of Diseases (ICD) code assigned as the underlying cause of death; this is determined by international coding rules from the condition or conditions reported by the certifier, as recorded on the certificate. Further information on this definition can be found in Section 9: Data sources and quality.

Drug misuse

Death classified as drug misuse must be a drug poisoning and meet one or both of the following conditions:

- the underlying cause is drug abuse or drug dependence
- any of the substances controlled under the Misuse of Drugs Act 1971 are involved

Further information on this definition can be found in Section 9: Measuring the data.

Age-standardised mortality rate

Age-standardised mortality rate in this bulletin refers to a weighted average of the age-specific mortality rates per million people that is standardised to the 2013 European Standard Population. Age-standardised mortality rates allow for differences in the age structure of populations and therefore enable valid comparisons to be made between geographical areas, the sexes, and over time.

Age-specific mortality rate

Age-specific mortality rate is the total number of deaths per million people of a particular age group, used to allow comparisons between specified age groups.

9 . Data sources and quality

Statistics on mortality are derived from the information provided when deaths are certified and registered. Quality and methodology information (QMI) is available in:

- our Mortality statistics in England and Wales QMI
- our Deaths related to drug poisoning in England and Wales QMI
- our User guide to mortality statistics

Drug-poisoning deaths involve a broad spectrum of substances, including controlled and non-controlled drugs, prescription medicines (either prescribed to the individual or obtained by other means) and over-the-counter medications. As well as deaths from drug abuse and dependence, figures include accidents and suicides involving drug poisonings and complications of drug abuse such as deep vein thrombosis or septicaemia from intravenous drug use. They do not include other adverse effects of drugs, for example, anaphylactic shock or accidents caused by an individual being under the influence of drugs. More details of the drug poisoning definition, including the International Classification of Diseases (ICD) codes used, can be found in our Deaths related to drug poisoning in England and Wales QMI.

A death classified as drug misuse must be a drug poisoning and meet at least one of the following conditions. The first condition is that the underlying cause is drug abuse or drug dependence. This is defined by ICD-10 as mental and behavioural disorders resulting from the use of:

- opioids (F11)
- cannabinoids (F12)
- sedatives or hypnotics (F13)
- cocaine (F14)
- other stimulants, including caffeine (F15)
- hallucinogens (F16)
- multiple drug use and use of other psychoactive substances (F19)

The second condition is if any of the substances controlled under the Misuse of Drugs Act 1971 are involved; this includes Class A, B and C drugs.

Accredited official statistics

These accredited official statistics were independently reviewed by the Office for Statistics Regulation in February 2013. They comply with the standards of trustworthiness, quality and value in the Code of Practice for Statistics and should be labelled "accredited official statistics".

Populations

Mortality rates are calculated using the number of deaths and our mid-year population estimates.

Comparing with other statistics

Scotland and Northern Ireland each produce their own statistics for deaths related to drug poisoning. These statistics are compiled by the National Records of Scotland (NRS) and the Northern Ireland Statistics and Research Agency (NISRA).

Our drug poisoning statistics can be used for comparisons between UK countries, as our measure offers complete population coverage. Figures for drug misuse and individual substances are not comparable because of differences in data collection methods and in the death registration system. For more information, please see our blog post on the Comparability of UK drug-related death statistics.

User-requested data

Special extracts and tabulations of drug-related deaths data (and other causes of mortality) are available to order for a charge (subject to legal frameworks, disclosure control, and resources and agreement of costs, where appropriate). You can enquire by sending an email to health.data@ons.gov.uk. You can also view our Charging rates.

Strengths

- Deaths related to drug poisonings are compiled using information supplied when deaths are registered, which gives complete population coverage.
- Age-standardised rates allow for differences in the age structure of populations and therefore allow valid comparisons to be made between geographical areas, the sexes and over time.
- Quality assurance procedures have been undertaken throughout all stages of the analysis to minimise the risk of error; in particular, researchers quality assure the automated coding of the coroner's text for each individual record.

Limitations

- Statistics are based on the year of death registration; because of death registration delays, around half of these deaths will have occurred in previous years.
- The Office for National Statistics (ONS) does not have access to post-mortem reports or toxicology results, so the accuracy of figures depends on the information provided by the coroner on the death certificate; because of incomplete information, figures for drug misuse and for specific substances are underestimates.
- More than half of all drug-poisoning deaths involve more than one drug, and it is not possible in those cases to tell which substance was primarily responsible for the death.
- There is no internationally agreed definition of what constitutes a drug-related death; figures cannot be compared with those produced by other organisations.
- The number of deaths involving new psychoactive substances (NPSs) should be treated with caution because these types of drugs are constantly evolving, and it may not always be possible to identify new substances during post-mortem investigations.
- Local-authority-level rates are aggregated to rolling three-year periods in line with our disclosure control principles and to ensure the robustness of estimates; further information on some of the strengths and limitations of local authority data can be found in our Deaths related to drug poisoning in England and Wales QMI.

More quality and methodology information

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in our Deaths related to drug poisoning in England and Wales QMI.

10 . Related links

Drug-related deaths in Scotland
Web page | Released 20 August 2024
Scotland's most recent official statistics on drug-related deaths in 2023 and earlier years, broken down by age, sex, substances implicated in the death, underlying cause of death, and NHS Board and Council areas.

Drug-related and drug-misuse deaths in Northern Ireland
Web page | Released 31 January 2024
Northern Ireland's most recent official statistics on drug-related deaths in 2022 and earlier years, broken down by cause of death, selected drugs reported, age and sex.

United Kingdom drug situation: Focal Point annual report
Web page | Released 31 March 2021
Annual report and data tables from the UK Focal Point on Drugs on the national prevalence, impact, prevention and treatment of drug use.

Drug-related deaths and suicide in prison custody in England and Wales: 2008 to 2019
Article | Released 26 January 2023
The risk of suicide and drug-related deaths among prisoners, based on confidential matching of data from HM Prison and Probation Service and Office for National Statistics (ONS) mortality records.

Deaths related to volatile substances, helium and nitrogen in England and Wales: 2001 to 2020 registrations
Article | Released 28 February 2022
Deaths related to volatile substances, helium and nitrogen in England and Wales from 2001 to 2020, by cause of death, sex, age, region and substances involved in the death.

Preventing drug and alcohol deaths: partnership review process
Article | Released 26 September 2024
Guidance for local partnerships on how to review adult drug and alcohol related deaths and near-fatal overdoses to prevent future deaths.

11 . Cite this statistical bulletin

Office for National Statistics (ONS), released 23 October 2024, ONS website, statistical bulletin, Deaths related to drug poisoning in England and Wales: 2023 registrations