

# Drug-related deaths in Scotland in 2021 – Additional Analyses



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This document contains some analyses that are additional to those that appear in the “Drug-related Deaths in Scotland in 2021” publication. They include some more detail on the numbers of deaths for which certain drugs were reported, death rates for problem drug users, and further analyses of the figures for NHS Board areas.

These additional analyses refer to some of the publication's Sections, and to its Annexes, Tables and Figures. All that material can be found in the documents and workbooks which are available on the NRS website's pages for this edition of:

- [the Publication](#)
- [the Annexes](#)
- [most of the Tables and all the Figures](#)
- [the Additional Data](#) (Tables SUB1, SUB2, HBX and CX)

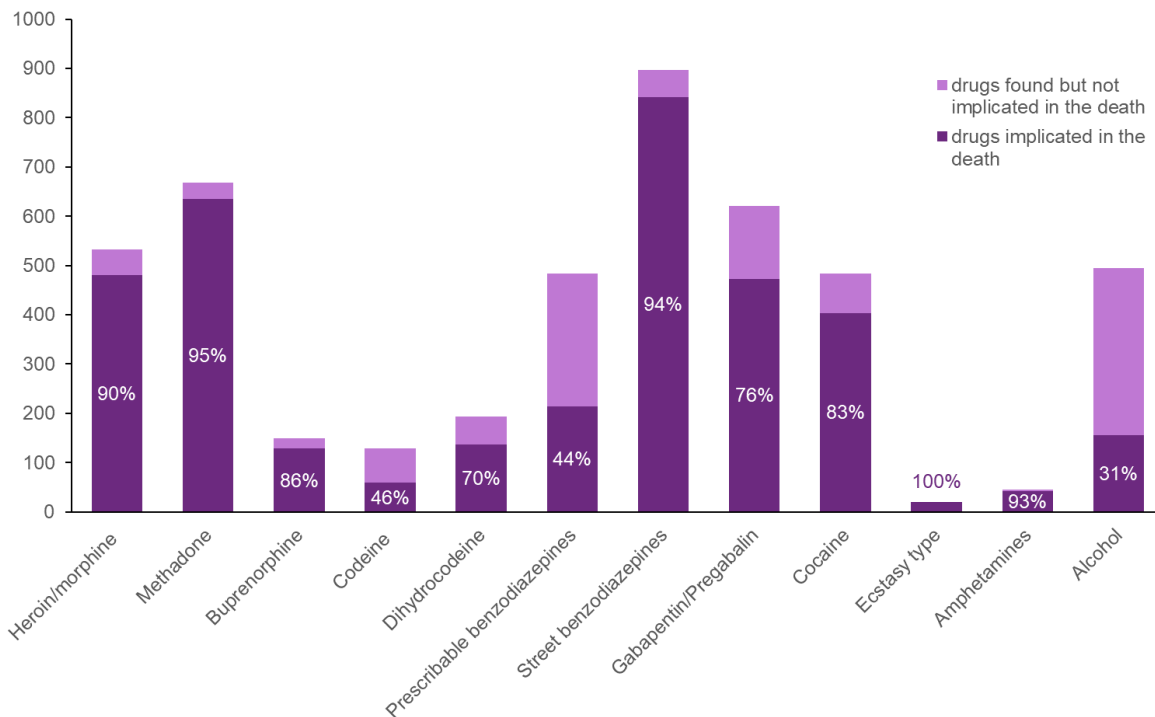
More detailed statistical information about the nature and circumstances of people whose deaths were drug-related is available in the reports from the [NHS's National Drug Related Deaths Database](#), which are described briefly in Annex B.

## Drugs found and drugs implicated

The figures on individual drugs in the main report are based on 'drugs which were implicated in, or which potentially contributed to, the cause of death'. NRS also produce data on which drugs were found in the body but not considered to have directly contributed to the death. The upper part of table 6 shows drugs which were implicated in drug misuse deaths. The lower part of table 6 shows drugs which were found in the body whether or not they were implicated in the cause of death.

- Some drugs were implicated in almost all deaths in which they were found: Methadone (95%) Street Benzodiazepines (94%) and Heroin/ Morphine (90%).
- Some drugs were implicated in less than half of the deaths in which they were found: Codeine (46%) and Prescribable Benzodiazepines (44%).
- Alcohol was implicated in 31% of the deaths it was found in.

**Figure AA1: Drug misuse deaths by drugs implicated and drugs found**



## Deaths for which only one drug was implicated

Most drug misuse deaths are of people who took more than one drug. Out of the 1,330 drug misuse deaths in 2021, there were 96 (7%) where only one drug was present in the body. In 221 (17%) only one drug was implicated in the death although others might have also been found in the body.

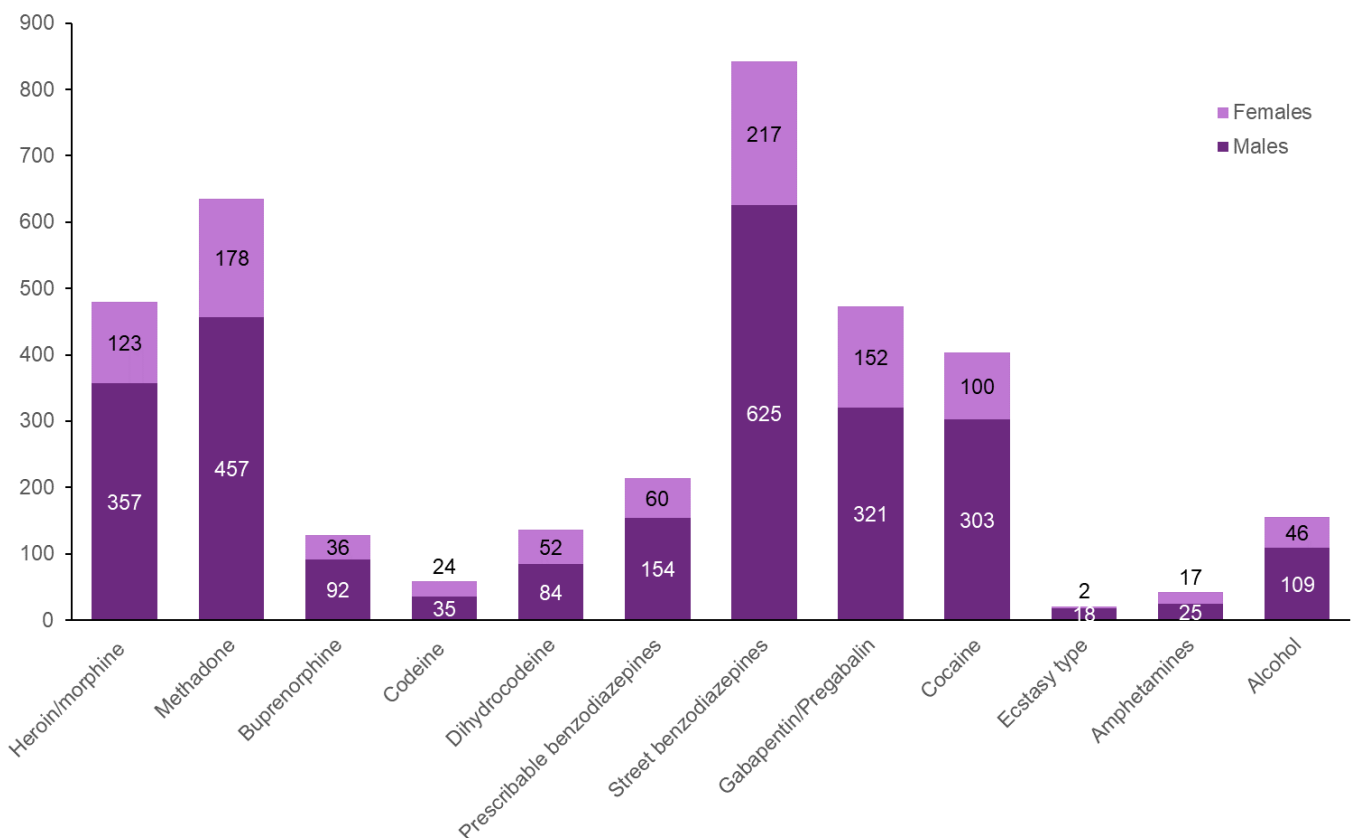
Table 7 shows details of all drug misuse deaths that involved only one drug.

## Ages and sexes of people who died from taking certain drugs

Table 6 provides information about the ages and sexes of people who died having taken various drugs.

In 2021, 70% of all drug misuse deaths were of males. This holds fairly consistently across the major types of drug found.

**Figure AA2: Drug misuse deaths by drugs and sex**



In 2021, drug misuse deaths occurred most commonly in people aged between 35 and 54 followed closely by the 45-54 age group for almost all types of drug. The most notable exception to this was ecstasy type drugs where the greatest proportion of deaths were in those under 35. It's important to note that there were very deaths where ecstasy type drugs were implicated so we can't draw further conclusions about the age distribution of these deaths. For drug misuse deaths where alcohol was also implicated in the death, the greatest proportion of deaths were in those aged 45 and over. This data is presented in table 6 and for broad category age groups in the figure below.

**Figure AA3: Drug misuse deaths by drugs and age**

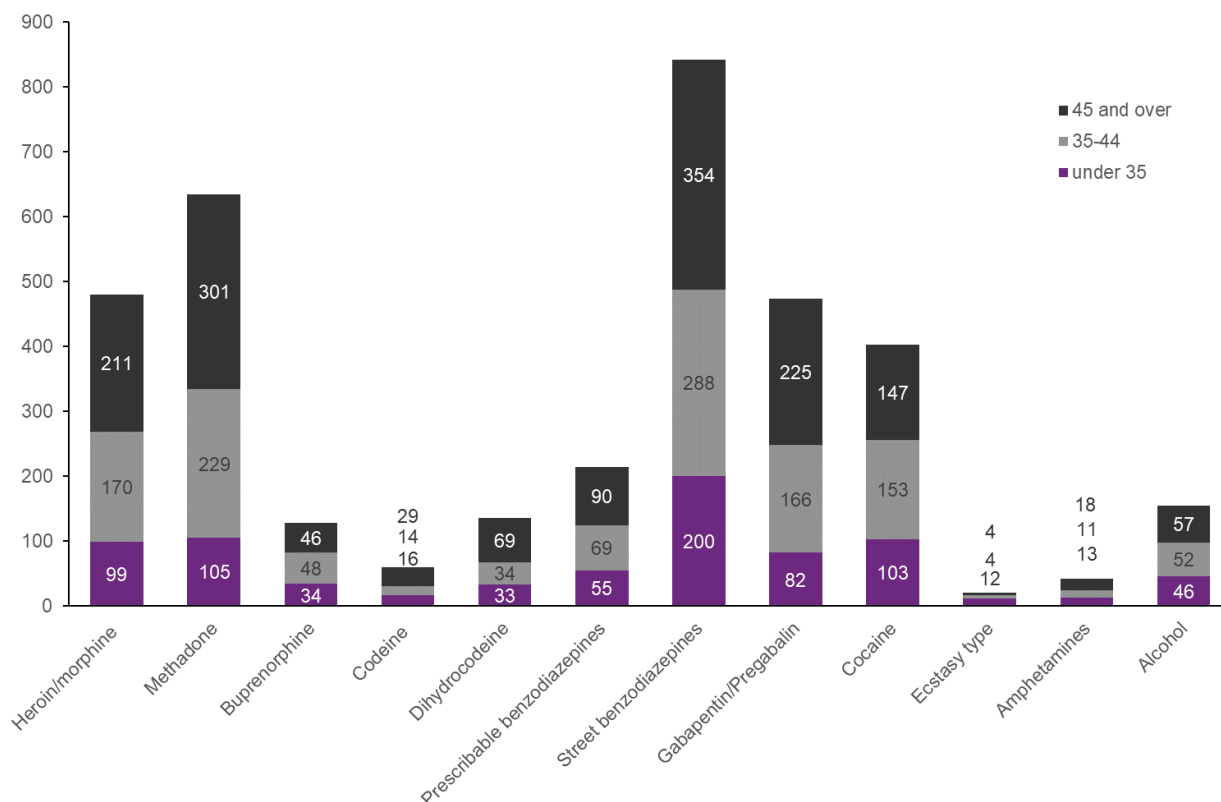


Table HB3 and HB4 show the numbers of drug misuse deaths in Scotland's health boards broken down by drug implicated, age and sex. Tables C3 and C4 show the same data for council areas.

## Notes on how NRS report on substances found

1. Deaths are only counted as drug misuse if they take place after the drugs implicated became controlled substances. For example, etizolam was not classed as a controlled substance until 2017. Deaths where etizolam was implicated would be counted as drug misuse if they happened in 2017 or later, but not if they happened earlier than that. We might expect to see a sudden spike in drug misuse deaths every time a new drug becomes controlled. In practice this isn't usually the case because the vast majority of drug misuse deaths in Scotland are as a result of multiple drugs. So prior to 2017, a death where etizolam was implicated would be classed as drug misuse if the person also took another substance that was already controlled.
2. There is a complete list of all substances which were reported to NRS for every death from poisoning in Table 6.12 of the Vital events reference tables. This list includes all poisoning deaths, not just those counted as drug misuse
3. The tables that list which drugs are found or implicated in deaths is based on individual mentions of each drug. So if diazepam was implicated in a death, that death will be counted in several columns ( 'any benzodiazepine', 'any prescribable benzodiazepine' and 'diazepam'.) This means the columns will not add up to the total number of drug misuse deaths. All tables show a combined figure for 'heroin/morphine' because in most cases where morphine has been identified post-mortem its presence is a result of heroin use.
4. Annex H explains which benzodiazepines are categorised as 'prescribable' drugs, and which as 'street' drugs.
5. It is not possible to make a direct comparison with the figures for 2007 and earlier years because there is a break in the series between 2007 and 2008, due to the revision of the questionnaire which collects information about the drugs found in the body (there is more information on this in Annex C, paragraphs C4 to C6).

## Age standardised death rates per 1,000 problem drug user

The age standardised death rates in the publication are the number of drug misuse deaths per 100,000 population. However, this rate is relatively small as the majority of people in Scotland are not problematic drug users. Another way to calculate the rate of drug misuse deaths is to look at the number of drug misuse deaths compared with the number of problem drug users. This also allows for better comparison of death rates between areas that have different numbers of problem drug users.

Public health Scotland produce an estimate of the number of people who are considered problem drug users. The most recent estimates are for 2015-2016 and are available on the PHS website. These are people aged between 15 and 64 who regularly and problematically use opiates and/or benzodiazepines.

Table 10 shows that there were on average 730 drug misuse deaths per year in Scotland between 2013 and 2017. There were 57,300 estimated problem drug users in 2015-2016.

This is a rate of 12.7 drug misuse deaths per year per 1,000 problem drug users. The confidence intervals around this population estimate mean that it could be as low as 12.4 and as high as 13.1 deaths per 1,000 problem drug users.

The rate of drug misuse deaths per 1,000 is very slightly higher for females (12.9) than for males (12.6) but this difference is not statistically significant.

The death rate is highest for those aged 35-64 (13.9 per 1,000) and lowest for those aged 15-24 (6.3 per 1,000). PHS does not publish confidence intervals around the breakdowns by age and sex, however they are likely to be wider than those for the overall population.

Table HB6 shows drug misuse death rates per 1,000 problem drug users in Scotland's health boards.

Here we only discuss drug misuse death rates per 1,000 problem drug users in the health boards where there were on average 10 or more drug misuse deaths each year.

Borders health board had the highest rate of drug misuse deaths with 21.6 deaths per 1,000 problem drug users. Lanarkshire health board had the lowest rate with 11.3 deaths per 1,000 problem drug users.

Table C6 shows the same information for council areas.

### **Drug deaths and COVID-19**

In 2021, there were no drug misuse deaths which had COVID-19 mentioned on the death certificate. There were however 2 drug poisoning deaths where COVID-19 was mentioned as a contributory factor on the death certificate.

### **Volatile substance and Helium deaths**

In 2021 there were 12 deaths in Scotland where an abusable volatile substance was implicated. This is an increase from 2020 where there were 8 deaths. The number of deaths where volatile substances were implicated has remained relatively low since 2000. The most recorded in one year was 24 in 2011 and the least was one in 2004. Of the 12 deaths in 2021, four were also counted as drug misuse deaths and six were also counted as drug poisoning deaths.

In 2021, there were four deaths where helium was implicated. All of these were also counted as drug misuse and drug poisoning deaths