

General Register Office
for
SCOTLAND
information about Scotland's people

Drug-related deaths in Scotland in 2008

Statistics of drug-related deaths in 2008 and earlier years, broken down by cause of death, selected drugs reported, age and sex.

Includes three tables of figures for Health Board areas,
and three for Council areas

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Main Points

The key points in this publication are:

- On the basis of the definition used for these statistics, there were 574 drug-related deaths in 2008, 119 (26 per cent) more than in 2007 and 325 (131 per cent) more than in 1998. The number of drug-related deaths has risen in eight of the past ten years: the long-term trend appears to be steadily upwards.
- Males accounted for 80 per cent of the drug-related deaths in 2008.
- In 2008, there were 211 drug-related deaths of people aged 25-34 (representing 37 per cent of all drug-related deaths) and 174 drug-related deaths of 35-44 year olds (30 per cent). In addition, 92 people aged under 25 died (16 per cent), as did 97 people aged 45 and over (17 per cent).
- The Health Board areas which accounted for the majority of the 574 drug-related deaths in 2008 were:
 - Greater Glasgow & Clyde - 197 (34 per cent);
 - Lothian - 94 (16 per cent); and
 - Tayside - 53 (9 per cent).
- Using the annual average for 2004-2008, to reduce the effect on the figures of year-to-year fluctuations:
 - for Scotland as a whole, the average of 428 drug-related deaths per year represented about 0.08 per 1,000 population;
 - only one Health Board area had a higher value: Greater Glasgow & Clyde (0.13 per 1,000 population);
 - the next highest rate was for Tayside (0.08 per 1,000 population);
 - six areas had rates of 0.07 per 1,000 population.
- Comparing the annual average for 2004-2008 with that for 1996-2000:
 - the percentage increase in the number of drug-related deaths was greater for males than for females;
 - the percentage increases for 35-44 year olds and people aged 45 and over were larger than for 25-34 year olds, and there was a fall in the number of drug-related deaths of people aged under 25; and
 - the Health Board areas with the largest increases in the numbers of drug-related deaths were Greater Glasgow & Clyde, Lanarkshire, Forth Valley and Ayrshire & Arran.
- Of the 574 drug-related deaths in 2008:
 - heroin and/or morphine were reported as present in the body in 336 cases (59 per cent);
 - methadone was present in 181 cases (32 per cent);
 - benzodiazepines (e.g. diazepam) were present in 364 cases (63 per cent);
 - cocaine, ecstasy and amphetamines were present in the body in 79, 7 and 12 cases respectively; and
 - the presence of alcohol was mentioned in 273 cases.

Because of a change in the method used to collect information about the substances which were reported as being found in the body (see section 2), these figures are not on the same basis as those for earlier years. However, comparing the annual averages for 2003-2007 and 1996-2000 shows:

- marked increases in the numbers of deaths for which heroin and/or morphine, cocaine and alcohol were reported;
- not much change in the numbers of deaths for which methadone, diazepam and ecstasy were reported; and
- a marked fall in the number of deaths for which temazepam was reported.

1 Introduction

1.1 This is the latest edition of an annual paper which provides statistics of drug-related deaths which were registered in Scotland over the period from 1996 to 2008. The figures were produced using a definition of "drug-related deaths" which was introduced in 2001 for the "baseline" figures for the UK Drugs Strategy. This definition was agreed by a working party set up following the publication, by the Advisory Council on the Misuse of Drugs, of a report on "Reducing drug related deaths". The Office for National Statistics has also prepared data on drug-related deaths in England and Wales using this definition. This paper's statistics of drug-related deaths are used in the development of policy by the Scottish Government, to inform the discussions and recommendations of its National Forum on Drug-related Deaths, and by a number of other interested parties.

1.2 Section 2 gives some background on the collection of information on drug-related deaths in Scotland. [Section 3](#) describes the figures for Scotland, [Section 4](#) covers the statistics for Health Board areas and [Section 5](#) refers to the figures for Council areas and postcode sectors. [Annex A](#) sets out the definition of drug-related deaths used in this paper; [Annex B](#) refers to, and gives figures for, some other definitions of drug-related deaths; [Annex C](#) provides some References; and [Annex D](#) contains the questionnaire used to collect further information about drug-related deaths with effect from 2008.

1.3 The main improvements which have been made for this edition are:

- Tables [3](#), [HB3](#) and [C3](#) have been expanded, in order to provide figures for the numbers of deaths for which benzodiazepines and amphetamine were reported;
- [section 5](#) has been expanded, in order to describe briefly the numbers of drug-related deaths in individual postal districts (e.g. G21);
- [Annex B](#) has been expanded, and a new [Table Y](#) has been added, in order to provide some information about the numbers of drug-related deaths, on the basis of the ONS "wide" definition, for which particular drugs were reported, including some substances which are not listed under the Misuse of Drugs Act.

2 Data sources

2.1 The General Register Office for Scotland (GROS) holds details of all deaths which are registered in Scotland. By convention, deaths are counted on the basis of the calendar year in which they are registered rather than the year of occurrence (as the latter might not be known). GROS closes its database for a calendar year around the end of the following June, so the statistics for 2008 are based upon the information which GROS had obtained by June 2009. GROS classifies the underlying cause of each death using International Classification of Diseases (ICD) codes, based on what appears in the medical certificate of the cause of death together with any additional information which is provided subsequently by (e.g.) certifying doctors, the Crown Office, pathologists or Procurators Fiscal.

2.2 Drug-related deaths are identified using details from the death registrations supplemented by information from a specially-designed questionnaire, which is completed by forensic pathologists. GROS requests this information for all deaths involving drugs or persons known, or suspected, to be drug-dependent. Additionally, GROS follows up all cases of deaths of people where the information on the death certificate is vague or suggests that there might be a background of drug abuse. A copy of the questionnaire used in 2008 is in [Annex D](#). This enhancement to the data collection system was described in a paper published by GROS in June 1995 (see [Annex C: References](#)).

2.3 The questionnaire was revised for 2008, in order to collect more complete information about the substances present in the body. This caused a break in the series of figures for "drugs reported". The discontinuity arose because:

- pre-2008, the form asked about the "principal drug or solvent found in a fatal dose" and about "any other drugs or solvents involved in this death" - so some pathologists reported only the substances which, they believed, contributed directly to each death;
- now the form asks about the drugs or solvents "implicated in, or which potentially contributed to" the death and about "any other[s] ... which were present, but which were not considered to have had any direct contribution to this death" - so some pathologists now report substances which they would not have mentioned previously.

It is thought that this change accounts for most (if not all) of the apparent large increases, between 2007 and 2008, in the figures for (e.g.) benzodiazepines, diazepam and alcohol.

2.4 There may be other differences, between years and/or between areas, in the way in which the information was produced. For example:

- technical advances may enable the detection of small quantities of substances that could not have been found in the post-mortems that were performed several years ago;
- the range of substances for which tests are conducted may change - e.g. for a number of years, a laboratory did not routinely test for the presence of cannabis (because the view was that, in general, it did not contribute to causing deaths), but now does so more often, because Procurators Fiscal are now more likely to want to know whether the deceased had been using it. More generally, advice is that there is a demand to obtain more complete and thorough toxicology on all cases tested for drugs, which includes fuller examinations for, and hence a greater possibility of finding, more drugs;
- pathologists in one area report any findings of benzodiazepines by referring to that group of drugs unless they are sure that only one particular benzodiazepine (e.g. diazepam) was used, so the areas which they serve appear to have low proportions of deaths for which diazepam is mentioned (compared to areas where diazepam is more likely to be reported, and where there are proportionately fewer reports of benzodiazepines as a group).

3 Drug-related deaths: trends, causes of death, drugs reported, sex and age

3.1 Overall numbers

3.1.1 On the basis of the definition used for these statistics, there were 574 drug-related deaths in 2008, 119 (26 per cent) more than in 2007 and 325 (131 per cent) more than in 1998. The figures in [Table 1](#) show that the number of drug-related deaths has risen in eight of the past ten years: the long-term trend appears to be steadily upwards.

3.1.2 However, the statistics also show some year to year fluctuations. For this reason, moving annual averages are likely to provide a better guide to the long-term trend than the change between one year and the next. [Figure 1](#) illustrates this:

- the black blobs show the figures for each year;
- the continuous grey lines show two moving annual averages - a 3-year average (thin grey line) and a 5-year average (thick grey line). The latter should provide a better indication of the overall long-term trend;
- the broken grey lines show the likely range of variation around the 5-year moving average (if the latter represents the underlying rate at which drug-related deaths occur, statistical theory suggests that random year to year variation would result in only about one year in 20 having a figure outwith that range).

Clearly, individual years' figures tend to fluctuate around a long-term upward trend, and are generally within the likely range for random year to year variation about the trend.

3.2 Underlying causes of death

3.2.1 [Table 2](#) shows the number of drug-related deaths categorised by the underlying cause, using groupings of the ICD codes. The majority (370 or 64 per cent in 2008) were coded to "drug abuse" (which is described within the ICD classification as "mental and behavioural disorders due to psychoactive substance use").

3.2.2 As some of the figures can fluctuate markedly from year-to-year, a better indication of the main changes over the years shown in the table should be obtained from a comparison of the averages for the 5-year periods at the start and end. These show that there have been increases in the numbers of deaths for which the underlying cause is "drug abuse" (from an average of 189 per year in 1996-2000 to an average of 277 in 2004-2008), "accidental poisoning" (from an average of 13 to an average of 42), and "undetermined intent" (from an average of 25 to an average of 74). There was little change in the number of deaths caused by intentional self-poisoning (averages of 34 per year in 1996-2000, and 35 in 2004-2008).

3.3 Selected drugs reported

3.3.1 The GROS database records a wide range of drug combinations (e.g., in 2006, diazepam was mentioned in almost a fifth of the deaths for which heroin or morphine were reported; and heroin, morphine or methadone were mentioned in over half of the deaths for which cocaine was reported). "Unspecified drug(s)" is recorded in only a small proportion of cases (on average, around 3% per year). [Table 3](#) gives information on the frequency of reporting of selected drugs, whether alone or in combination with other substances. The drugs listed in the table are reported in the majority of drug-related deaths (for example, not counting alcohol, at least one of them was reported in 91 per cent of the drug-related deaths in both 2000 and 2008). The table shows a combined figure for 'heroin/morphine' because it is believed that, in the overwhelming majority of cases where morphine has been identified in post-mortem toxicological tests, its presence is a result of heroin use.

3.3.2 Since the table records individual mentions of particular drugs, there will be multiple-counting of some deaths (e.g. a death for which both heroin and diazepam were reported would be counted in three columns: under "heroin/morphine", under "benzodiazepines" and under "diazepam"). This means that the table does not give the numbers of deaths that are attributable to each of the drugs mentioned. Where a number of drugs were reported for a particular death, the GROS database does not identify which (if any) of them was thought to be the (main) cause of the death, and has no information about the amounts of each drug that were found, or the possible consequences of taking particular combinations of drugs.

3.3.3 Heroin/morphine was reported in 336 (59 per cent) of the deaths in 2008; methadone was reported in 181 (32 per cent) of the deaths; and benzodiazepines were reported in 364 (63 per cent) of the deaths. Cocaine, ecstasy and amphetamines were reported in 79, 7 and 12 cases respectively. The presence of alcohol was mentioned for 273 of the 574 drug-related deaths in 2008.

3.3.4 The figures for 2008 are not directly comparable with those for earlier years, due to the revision, with effect from 2008, of the questionnaire which collected information about the drugs which were found in the body (see paragraph 2.3). The statistics may also be affected by other differences, between years or between areas, in the reporting of drugs

found in the body (see paragraph 2.4). Therefore, apparent changes in the numbers of deaths for which particular drugs were reported must be interpreted with caution, and with the knowledge that there is a clear break in the figures between 2007 and 2008. It is thought that the change in the method of data collection accounts for most (if not all) of the apparent large increases, between 2007 and 2008, in the figures for (e.g.) benzodiazepines, diazepam and alcohol.

3.3.5 Because some of the figures can fluctuate markedly from year to year, the main changes over time are best identified by comparing the averages for 1996-2000 and 2003-2007 (the latter being the final 5-year period before the break in the series). These show that there were marked increases in the numbers of deaths for which there were reports of:

- heroin and/or morphine - from an average of 128 per year in 1996-2000 to an average of 229 in 2003-2007;
- cocaine - from an average of 6 to an average of 38;
- alcohol - from an average of 91 to an average of 129;

that there was not much change in the numbers of deaths for which there were reports of:

- methadone (averages of 74 and 90);
- diazepam (averages of 116 and 103);
- ecstasy (averages of 7 and 13);

and a marked fall in the number of deaths for which temazepam was reported (from an average of 47 per year in 1996-2000 to an average of 12 in 2003-2007).

3.3.6 However, while comparing 5-year averages should reduce the effect of year-to-year fluctuations, it will not necessarily give the full picture. In this case, it does not reveal some marked changes during the period:

- the number of deaths for which diazepam was reported rose from under 100 in 1996 and 1997 to over 200 in 2002 and then fell back to under 100 in 2005, 2006 and 2007;
- the number of deaths for which methadone was reported appeared to fall in the late 1990s, but then rose to 114 in 2007 - above the level recorded in 1996 (100).

3.4 Sex and age

3.4.1 [Table 4](#) shows that males accounted for the vast majority (461, or 80 per cent) of the drug-related deaths in 2008. This was the case throughout the past decade, although the precise balance between the sexes varied from year to year. Comparing the averages for 1996-2000 and 2004-2008, to reduce the effects of year-to-year fluctuations on the figures, the increase in the number of drug-related deaths was greater for males (68 per cent) than for females (53 per cent).

3.4.2 In recent years, of the age-groups shown, the largest number of drug-related deaths has tended to be among 25-34 year olds: using the averages for 2004-2008, 151 out of 428 deaths (35 per cent) were of 25-34 year olds. There were also large numbers in the 35-44 age-group (on average, 134 per year from 2004 to 2008, or 31 per cent). In 2008, there were 211 drug-related deaths of people aged 25-34 (representing 37 per cent of all drug-related deaths) and 174 drug-related deaths of 35-44 year olds (30 per cent). In addition, 92 people aged under 25 died (16 per cent), as did 97 people aged 45 and over (17 per cent). The table shows that the number of deaths in a particular age-group can fluctuate markedly over the years (for example, the number of under 25s who died was 100 in 2002, 48 in 2005, and 94 in 2007). However, some clear trends can be seen. Comparing the averages for 1996-2000 and 2004-2008 (to reduce the effects of year-to-year fluctuations on the figures), there have been large percentage increases in the number of deaths of 35-44 year olds (from an average of 46 per year in 1996-2000 to an

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average of 134 in 2004-2008) and people aged 45 and over (from an average of 23 to an average of 67); the number of deaths of 25-34 year olds rose less rapidly (from an average of 108 to an average of 151) and there was a fall in the number of people aged under 25 who died (from an average of 83 to an average of 77).

3.4.3 Changes in the ages of drug-related deaths can also be seen from the values of the lower quartile (a quarter of drug-related deaths were of people of this age or under), median (half the deaths were of people of this age or under) and upper quartile (a quarter of the deaths were of people of this age or older), which appear in the table:

- the lower quartile age at death rose from 22 years in 1996 to 27 years in 2008;
- the median age at death increased from 28 years in 1996 to 34 years in 2008;
- the upper quartile age at death rose from 34 years in 1996 to 41 years in 2008.

The median is used (rather than the average) because it should be affected less by any unusually high (or low) values.

3.4.4 [Table 5](#) shows that, in 2008, 304 (66 per cent) of the male deaths were of known or suspected drug abusers compared to 66 (58 per cent) of the female deaths. Of the 97 deaths aged 45 and over, only 40 (41 per cent) were of people who were known, or suspected, to be drug-dependent. The table also provides a more detailed breakdown of the numbers by age-group for each sex.

4 Health Board areas: trends, causes, and drugs reported

4.1 Deaths are normally classified by geographical area on the basis of the usual place of residence of the deceased (or, if that is not known, or is outwith Scotland, on the basis of the location of the place of death). [Table HB1](#) shows the numbers of drug-related deaths for each Health Board area. Of the 574 deaths in 2008, 197 (34 per cent) were in the Greater Glasgow & Clyde NHS Board area. Lothian, with 94 (16 per cent), had the next highest total followed by Tayside (53 or 9 per cent), Lanarkshire (44 or 8 per cent), Grampian (41 or 7 per cent) and Ayrshire & Arran (40 or 7 per cent).

4.2 Because of the generally small numbers involved, particularly for some Health Board areas, great care should be taken when assessing any apparent trends shown in the table. As year-to-year variation in the figures could result in apparently large percentage changes (particularly for the smaller areas), the use of 5-year moving annual averages should "smooth out" the effects of any fluctuations, and so provide a better indication of the longer-term trends. The areas with the largest increases between their annual averages for 1996-2000 and 2004-2008 were Greater Glasgow & Clyde (up by 43, from 113 to 156), Lanarkshire (up by 22, from 19 to 41), Forth Valley (up by 17, from 4 to 21) and Ayrshire & Arran (up by 17, from 10 to 27).

4.3 The table also shows the population of each Health Board area, and what its average number of drug-related deaths per year (for 2004-2008) represented per 1,000 population (using the population in the middle of the 5-year period as a proxy for the average population over the whole period). For Scotland as a whole, the average of 428 drug-related deaths per year represented about 0.08 per 1,000 population. Only one area had a value higher than this: Greater Glasgow & Clyde (about 0.13 per 1,000 population). The next highest rate was for Tayside (0.08 per 1,000 population); six areas had rates of 0.07 per 1,000 population.

4.4 [Table HB2](#) gives a breakdown by cause of death for each Health Board area. [Table HB3](#) shows some geographical differences in the reporting of certain drugs: figures which should be used with particular care, in the light of the points mentioned in sections [2](#)

and 3.3, the effects of which could be proportionately greater on the figures of some of the smaller areas. For most NHS Board areas, heroin/morphine was reported in a majority of the deaths e.g. 118 out of 197 in Greater Glasgow & Clyde, 36 out of 53 in Tayside, 32 out of 44 in Lanarkshire, and 29 out of 41 in Grampian. However, a lower proportion was observed in Lothian (31 out of 94). Greater Glasgow & Clyde had an above-average proportion for which methadone was reported (77 out of 197) as did Ayrshire & Arran (15 out of 25); there were lower proportions reported in Tayside (8 out of 53) and Lanarkshire (10 out of 44). The table also shows that diazepam was reported in over three-quarters of the deaths in Greater Glasgow & Clyde (151 out of 197) and only a small proportion in Grampian (2 out of 41) - but this comparison is affected by differences in reporting practices (see section 2).

5 Council areas (trends, causes and drugs reported) and postal districts

5.1 Tables C1, C2 and C3 provide figures for individual Council areas. Again, because of the relatively small numbers involved, particularly for some areas, great care should be taken when using these figures; again, the points mentioned in sections 2 and 3.3 may have a proportionately greater effect on the numbers for some of the smaller areas.

5.2 As the numbers of drug-related death for smaller areas (such as postal districts) will be lower, and may be subject to proportionately larger year-to-year fluctuations, it is unlikely that much useful information could be obtained from looking at the figures for small areas for a single year, or for a few years taken together. There could also be concerns about the sensitivity of data relating to small areas, as it might be possible, in some circumstances, to infer something about identifiable individuals from such data. Therefore, one should only look at such figures for several years taken together.

5.3 An analysis for the National Forum on Drug-related Deaths used data for postal districts for the eight years from 2000 to 2007 (inclusive). In that period, there were 2,893 drug-related deaths in Scotland (on the basis of the standard definition). Of the postal districts, "G21" had the largest number (67 - an average of 8.4 per year). Four other postal districts had totals of 50 or more drug-related deaths for that period: "G33" (54); "G20" (53); "G32" (51); and "AB24" (50). There were 25 postal districts which each had 29 or more drug-related deaths over the eight years: each of them accounted for more than 1% of the total for Scotland for that period. Taken together, these 25 postal districts accounted for about a third of all drug-related deaths in Scotland between 2000 and 2007.

5.4 The remaining two-thirds of drug-related deaths in that period were deaths of residents of postal districts which had, at most, 28 such deaths over the eight years - i.e. areas which had, on average, at most 3½ drug-related deaths per year (many averaged fewer than one drug-related death per year). It follows that, while some postal districts have markedly more drug-related deaths than others, the problem is clearly a very widespread one, with most deaths being of people who had been living in areas which had relatively few drug-related deaths.

Annex A The definition of drug-related deaths used for these statistics (the GROS implementation of the "baseline" definition for the UK Drugs Strategy)

A1. The definition of a 'drug-related death' is not straightforward. Useful discussions on definitional problems may be found in articles in the Office for National Statistics publication "Population Trends" and in the journal "Drugs and Alcohol Today" (see the References). A report by the Advisory Council on the Misuse of Drugs (ACMD - see the References) considered current systems used in the United Kingdom to collect and analyse data on drug related deaths. In its report, the ACMD recommended that 'a short life technical working group should be brought together to reach agreement on a consistent coding framework to be used in future across England, Wales, Scotland and Northern Ireland'. GROS was represented on this group, and this paper presents information on drug-related deaths using the approach that was agreed, on the basis of the definition as it was implemented by GROS.

A2. The "baseline" definition for the UK Drugs Strategy covers the following cause of death categories (the relevant codes from the International Classification of Diseases, Tenth Revision [ICD10], are given in brackets):

- a) deaths where the underlying cause of death has been coded to the following sub-categories of 'mental and behavioural disorders due to psychoactive substance use':
 - (i) opioids (F11);
 - (ii) cannabinoids (F12);
 - (iii) sedatives or hypnotics (F13);
 - (iv) cocaine (F14);
 - (v) other stimulants, including caffeine (F15);
 - (vi) hallucinogens (F16); and
 - (vii) multiple drug use and use of other psychoactive substances (F19).
- b) deaths coded to the following categories and where a drug listed under the Misuse of Drugs Act (1971) was known to be present in the body at the time of death:
 - (i) accidental poisoning (X40 – X44);
 - (ii) intentional self-poisoning by drugs, medicaments and biological substances (X60 – X64);
 - (iii) assault by drugs, medicaments and biological substances (X85); and
 - (iv) event of undetermined intent, poisoning (Y10 – Y14).

A3. A number of categories of what may be regarded as "drug-related" deaths are excluded from the definition because the underlying cause of death was not coded to one of the ICD10 codes listed above. These include:

- deaths coded to mental and behavioural disorders due to the use of alcohol (ICD10 code: F10), tobacco (F17) and volatile substances (F18);
- deaths from AIDS where the risk factor was believed to be the sharing of needles;
- deaths from drowning, falls, road traffic and other accidents (except the inhalation of gastric contents) which occurred under the influence of drugs; and
- deaths due to assault by a person who was under the influence of drugs, or as a result of being involved in drug-related criminal activities.

GROS also excluded from its implementation of the definition a small proportion of the deaths which were coded to one of the ICD10 codes listed in paragraph A2, specifically:

- deaths coded to drug abuse where the direct cause of death was secondary infections or related complications. These include deaths caused by clostridium novyi infection, bronchopneumonia, organ failure and other later complications of drug use, in cases

where drug misuse was not the direct and immediate cause of death (even though it may have damaged greatly the person's health);

- deaths where a drug listed under the Misuse of Drugs Act was present as part of a compound analgesic or cold remedy. These deaths are excluded in order that deaths from overdoses of legally prescribed non-controlled drugs are not counted as "drug-related". Examples of such combinations include:
 - co-proxamol (paracetamol and dextropropoxyphene);
 - co-dydramol (paracetamol and dihydrocodeine); and
 - co-codamol (paracetamol and codeine sulphate).

All three of these compound analgesics, particularly co-proxamol, have commonly been used in suicidal overdoses. As it is believed that dextropropoxyphene has rarely, if ever, been available other than as a constituent of a paracetamol compound, deaths caused by dextropropoxyphene have been excluded even if there is no mention of a compound analgesic or paracetamol. However, deaths for which codeine or dihydrocodeine were reported without any mention of paracetamol have been included, as these drugs are available on their own and are known to be abused in that form.

A4. From time to time, there may be minor discrepancies between the figures that were published previously and those which are produced henceforth. This is due to a change in the way in which "drug-related" deaths are identified using the data held by GROS. This process has two stages:

- first, extract all the records of deaths which satisfy the "wide" definition (see [Annex B](#)). The method used for this stage has not been changed.
- second, scrutinise the extracted records and identify the ones which should be counted under GROS's implementation of the "baseline" definition. The method used for this stage was changed with effect from June 2008:
 - previously, the data were examined by the GROS Vital Events Statistician, who had considerable knowledge and experience of dealing with information about drug-related deaths. He used Excel's facilities to set a number of indicators, and so identified the cases which should be counted under GROS's implementation of the "baseline" definition. This method clearly relied greatly on the Statistician's personal expertise. He retired in Spring 2008.
 - now, most of this work is done by SAS computer programs, using a look-up table to identify particular types of drugs (John Corkery of the National Programme on Substance Abuse Deaths supplied most of the content of the look-up table).

The new method was tested by using it to prepare figures for each year for 2000 to 2006, inclusive. The results were the same as, or within just 1-2 of, the figures which had been published previously. After examining the cases which were being counted differently by the old and the new methods, it was concluded that any flaws in the new method were not significant, and that it should be used henceforth. However, to avoid confusing users of these statistics, the tables which appeared in editions of this publication which were produced before the method was changed give figures for 2006 and earlier years which were extracted from the database produced by the old method, and so are as published previously. However, any subsequent new analyses of the data for 2000 onwards are likely to use the database produced by the new method, and so may include some totals or sub-totals (for the years from 2000 to 2006, inclusive) that differ slightly from the figures which were published previously, because the new method was used to produce the database of relevant cases for those years.

Annex B Some other definitions of drug-related deaths

B1. Other bodies may use other definitions for other purposes: this annex gives some examples.

B2 First, there is a "wide" definition which is used by the Office for National Statistics (ONS) to provide figures for deaths from drug poisoning. It covers the following cause of death categories (the relevant codes from the International Classification of Diseases, Tenth Revision [ICD10], are given in brackets):

- deaths where the underlying cause of death has been coded to the following sub-categories of 'mental and behavioural disorders due to psychoactive substance use':
 - opioids (F11);
 - cannabinoids (F12);
 - sedatives or hypnotics (F13);
 - cocaine (F14);
 - other stimulants, including caffeine (F15);
 - hallucinogens (F16);
 - volatile solvents (F18); and
 - multiple drug use and use of other psychoactive substances (F19).
- deaths coded to the following categories:
 - accidental poisoning (X40 – X44);
 - intentional self-poisoning by drugs, medicaments and biological substances (X60 – X64);
 - assault by drugs, medicaments and biological substances (X85); and
 - event of undetermined intent, poisoning (Y10 – Y14).

The main differences between this "wide" definition and the one used to produce the statistics given in this paper (the "baseline" definition for the UK Drugs Strategy) are:

- the first part also includes deaths coded to "volatile substances" (F18);
- the second part is not restricted to cases where a drug listed under the Misuse of Drugs Act (1971) was known to be present in the body at the time of death.
- So the "wide" definition's figures are markedly higher.

B3. Second, there is the definition used by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) for its "general mortality register". The rules for this definition refer to particular codes for the underlying causes and the types of substance involved, and (in some cases) specify the combinations that must occur for a death to be counted under this definition. It produces figures which are broadly similar to those of the UK Drug Strategy definition, but which cover deaths which involved the use of a different (albeit overlapping) range of drugs: so some deaths which are counted under the EMCDDA definition are not counted under the UK Drug Strategy definition, and vice versa.

B4. Because GROS has details of all the deaths which were registered in Scotland, it can produce figures using the ONS "wide" definition and the EMCDDA "general mortality register" definition, as well as using the definition of the "baseline" for the UK Drug Strategy. These are given in [Table X](#). As the table and [Figure 2](#) show, the numbers produced using the three definitions tend to rise and fall in broadly similar ways, and so all three definitions give similar impressions of the long-term trend, although they differ regarding the numbers of deaths in each year.

B5. As explained above, the ONS "wide" definition includes all deaths coded to accidental poisoning, and to intentional self-poisoning by drugs, medicaments and biological substances, whether or not a drug listed under the Misuse of Drugs Act was present in the body. [Table Y](#) shows the numbers of deaths (on this basis) in each year

from 2000 to 2008 for which a range of drugs (including anti-depressants, anti-psychotics, paracetamol or a compound, and tramadol) were reported: for example, the number of deaths for which anti-depressants were reported tended to be in the range 70-90 per year between 2000 and 2007, whereas for paracetamol or a compound the number fell from around 120 to about 60. [Section 2](#) explains why there is a break in the series between 2007 and 2008.

B6. The Scottish Crime and Drug Enforcement Agency (SCDEA) uses a different definition. In Autumn 2007, GROS compared some of the details of the drug-related deaths (in terms of the "baseline" UK Drug Strategy definition) in 2006 that were held by GROS and the deaths that were recorded in an SCDEA database of drug-related deaths. The results may be summarised as follows:

- 321 deaths were counted by both GROS and SCDEA;
- 100 deaths were counted by GROS but not by SCDEA. These included:
 - 14 deaths occurring in December 2005 which were not registered until 2006;
 - 28 definite suicides;
 - 19 probable suicides (classified as "events of undetermined intent");
 - 8 cases coded to "accidental overdose";
 - 29 cases coded to "drug abuse".
- 53 cases were counted by SCDEA but not by GROS. These comprised:
 - 13 deaths occurring in December 2006 which were not registered until 2007 - most (if not all) of which will be included in the GROS figures for 2007;
 - 21 deaths for which drugs (whether named or unspecified) were recorded in the GROS database - but either the drugs mentioned were not covered by the "baseline" definition or the deaths were coded to causes other than drug abuse or drug overdose;
 - 19 deaths which had no mention of drugs in the GROS database (13 were coded to "unascertained" cause of death). Returns from Procurators Fiscal were still outstanding for several of these when the GROS database for 2006 was closed at the end of June 2007. SCDEA recorded the involvement of heroin or methadone in 15 deaths, so it is likely that some of them would have been counted in GROS's figures for drug-related deaths had all the relevant information been available before its database for 2006 closed.

B7. Other organisations may interpret the term "drug-related deaths" in other ways.

Annex C References

Arrundale J and Cole S K. "Collection of information on drug-related deaths by the General Register Office for Scotland". General Register Office for Scotland, 1995.

Christophersen O, Rooney C and Kelly S. "Drug-related mortality: methods and trends". "Population Trends" 93, Office for National Statistics, 1998.

Corkery, J. "UK drug-related mortality - issues in definition and classification". "Drugs and Alcohol Today" volume 8 issue 2, Pavilion Journals, 2008.

The Advisory Council on the Misuse of Drugs. "Reducing drug related deaths". Home Office, 2000.

Annex D The questionnaire used to obtain further information about drug-related deaths, with effect from 2008

NB: previous editions of this publication show the questionnaire which was used in earlier years. That was revised, following consultation with members of the Pathologists sub-group of the National Forum on Drug-related Deaths, and the current version was introduced for use with effect from 2008.

Confidential
General Register Office for Scotland

Form ME4
Crown Office

DEATHS INVOLVING OR RESULTING FROM ABUSE OF CONTROLLED SUBSTANCES

Please return to: Vital Events Branch, GROS, Ladywell House, Ladywell Road, Edinburgh EH12 7TF

Name of deceased:

Date of birth (dd/mm/yyyy): / / **Date of death: (dd/mm/yyyy):** / /

1. Was the deceased a known or suspected **habitual** drug/solvent abuser? Yes No

2. Was the death the result of overdose / intoxication? Yes No

3. Was the death due to a complication of drug abuse? Yes No

(e.g. acute infection or cocaine-related cardiac arrhythmia
- but **not** chronic infections or diseases, such as Hepatitis C or HIV)

If 'Yes', please specify

4(i) Based on the available evidence, what were the main drugs or solvents you believe were implicated in, or which potentially contributed to, the cause of death? (If possible, list in **descending** order of importance in relation to the cause of death):

- | | |
|---------|---------|
| a. | d. |
| b. | e. |
| c. | f. |

4(ii) Please specify any other drug(s)/solvent(s) which were present, but which were not considered to have had any direct contribution to this death:

- | | |
|---------|---------|
| a. | c. |
| b. | d. |

5. Was alcohol present at the time of death? Yes No

If 'Yes', was it implicated in the cause of death Yes No

6. Pathologist's view of cause of death (full details - as would appear on a medical certificate of cause of death):

- I (a)
- (b)
- (c)
- (d)
- II

7. Any other comments or information which may help in coding this death?

.....

.....

Table 1 Drug-related deaths in Scotland, 1996 - 2008

Year	Drug-related deaths registered in year	Annual moving averages		Likely range of values around 5-year average	
		3-year average	5-year average	likely lower	likely upper
1996	244				
1997	224	239			
1998	249	255	260	228	292
1999	291	277	278	245	310
2000	292	305	309	275	344
2001	332	335	323	288	358
2002	382	344	336	300	372
2003	317	352	345	308	381
2004	356	336	362	325	400
2005	336	371	377	339	415
2006	421	404	428	388	469
2007	455	483			
2008	574				

Figure 1 Drug-related deaths in Scotland, 3- and 5-year moving averages, and likely range of values around 5-year moving average

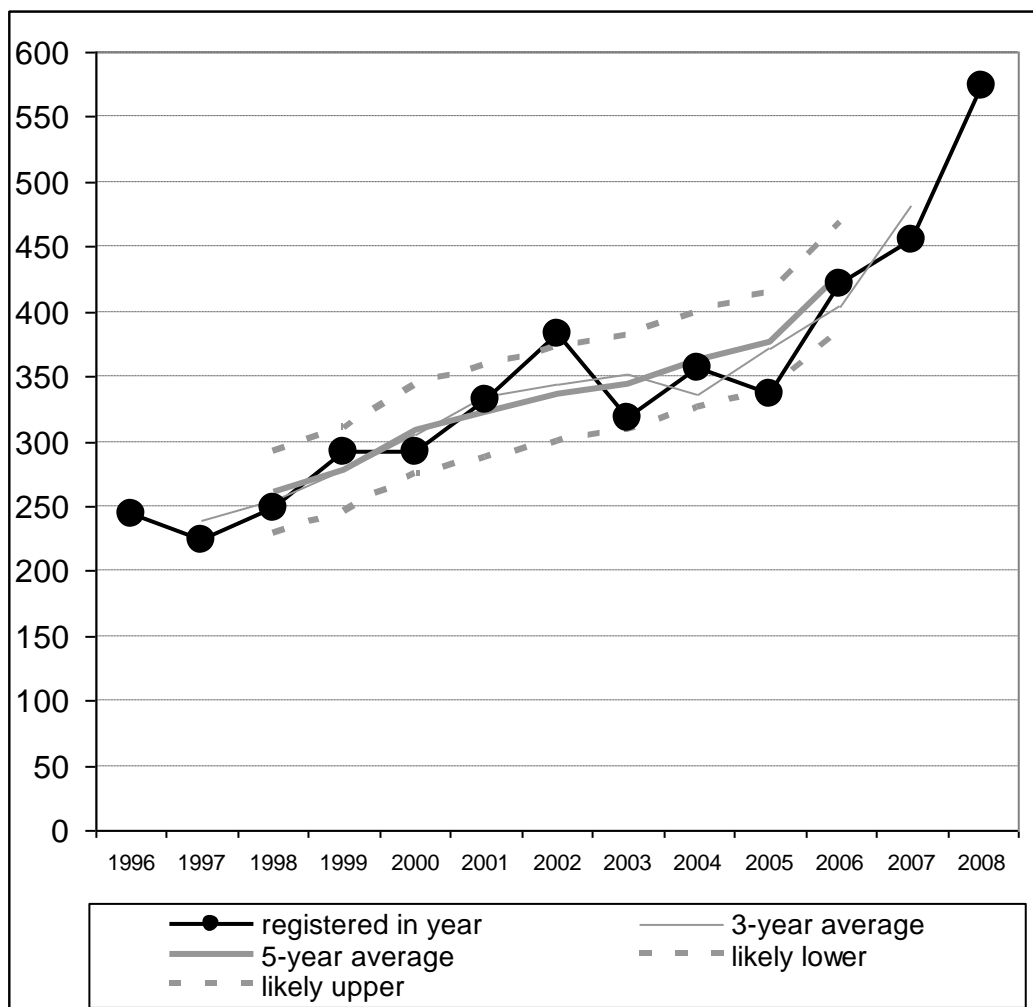


Table 2 Drug-related deaths by cause of death, Scotland, 1996 - 2008

Year	All categories	Cause of death category (ICD10 codes)				
		Drug abuse (F11-F16, F19)	Accidental poisoning (X40-X44)	Intentional self-poisoning (X60-X64)	Assault by drugs, etc. (X85)	Undetermined intent (Y10-Y14)
1996-2000 average	260	189	13	34	0	25
1996	244	175	10	41	0	18
1997	224	142	14	42	0	26
1998	249	179	16	32	0	22
1999	291	227	12	19	1	32
2000	292	220	11	34	0	27
2001	332	227	19	34	0	52
2002	382	280	17	30	0	55
2003	317	216	15	40	0	46
2004	356	232	32	32	0	60
2005	336	204	31	43	0	58
2006	421	280	51	40	0	50
2007	455	299	39	27	0	90
2008	574	370	59	34	0	111
2004-2008 average	428	277	42	35	0	74

Table 3 Drug-related deaths by selected drugs reported¹, Scotland, 1996 - 2008

Year	Heroin / morphine ²	Methadone	Benzodiazepines			Cocaine	Ecstasy	Amphetamines	Alcohol
			Any benzo-diazepine	of which: Diazepam Temazepam					
1996-2000 average	128	74	..	116	47	6	7	..	91
1996	84	100	..	84	48	3	9	..	87
1997	74	86	..	93	33	5	2	..	70
1998	121	64	..	113	58	4	3	..	86
1999	167	63	..	142	56	12	8	..	89
2000	196	55	164	146	39	4	11	3	123
2001	216	69	182	156	20	19	20	5	140
2002	248	98	245	214	16	31	20	13	156
2003	175	87	186	153	35	29	14	10	128
2004	225	80	140	113	5	38	17	10	116
2005	194	72	110	90	7	44	10	11	114
2006	260	97	94	78	10	33	13	11	131
2007	289	114	109	79	4	47	11	11	157
2008	336	181	364	317	12	79	7	12	273
annual averages:									
2003-2007	229	90	128	103	12	38	13	11	129
2004-2008	261	109	163	135	8	48	12	11	158

1. More than one drug may be reported per death. These are mentions of each drug, and should not be added to give total deaths. Up to 2007, some pathologists reported only those drugs which they thought caused, or contributed to, the death. With effect from 2008, pathologists were asked to report all the drugs which were found to be present in the body.

This accounts for most (if not all) of the apparent large increases for (e.g.) benzodiazepines, diazepam and alcohol.

There may be other differences between years and/or areas in the way in which the information was produced - see Section 2.

2. See paragraph 3.3.1 of commentary.

Table 4 Drug-related deaths by sex and age, Scotland, 1996 - 2008

Year	Drug-related deaths	Sex		Age-group				Age		
		Male	Female	under 25	25 - 34	35 - 44	45 & over	Lower quartile	Median	Upper quartile
1996-2000										
average	260	207	53	83	108	46	23	..	..	..
1996	244	185	59	86	103	32	23	22	28	34
1997	224	179	45	76	89	31	28	23	29	35
1998	249	194	55	88	103	37	21	23	27	34
1999	291	237	54	94	118	62	17	23	28	35
2000	292	239	53	73	126	69	24	25	30	36
2001	332	267	65	80	140	69	43	25	31	38
2002	382	321	61	100	153	92	37	24	30	37
2003	317	256	61	78	123	80	36	25	31	37
2004	356	289	67	81	138	92	45	25	31	38
2005	336	259	77	48	104	126	58	28	36	41
2006	421	334	87	69	154	128	70	27	34	40
2007	455	393	62	94	149	149	63	26	34	41
2008	574	461	113	92	211	174	97	27	34	41
2004-2008										
average	428	347	81	77	151	134	67	..	..	..

Table 5 Drug-related deaths by sex, age and cause of death, Scotland, 2008

All categories	Drug abuse (F11-F16, F19)	Cause of death category (ICD10 codes)				
		Accidental poisoning (X40-X44)	Intentional self-poisoning (X60-X64)	Assault by drugs, etc. (X85)	Undetermined intent (Y10-Y14)	
All deaths	574	370	59	34	0	111
Males	461	304	55	26	0	76
Females	113	66	4	8	0	35
Under 25	92	51	19	4	0	18
25-34	211	157	20	6	0	28
35-44	174	122	13	12	0	27
45 and over	97	40	7	12	0	38
Males						
Under 25	68	36	17	3	0	12
25-34	178	129	19	5	0	25
35-44	145	103	13	9	0	20
45 and over	70	36	6	9	0	19
Females						
Under 25	24	15	2	1	0	6
25-34	33	28	1	1	0	3
35-44	29	19	0	3	0	7
45 and over	27	4	1	3	0	19

Table HB1 Drug-related deaths by NHS Board area, 1998 - 2008 (with averages for 1996-2000 and 2004-2008)

NHS Board area	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Annual averages		Population in 2006	2004-2008 average deaths per 1,000 pop'n
												1996 to 2000	2004 to 2008		
Scotland	249	291	292	332	382	317	356	336	421	455	574	260	428	5,116,900	0.08
Ayrshire & Arran	4	15	20	35	33	19	20	15	25	36	40	10	27	366,450	0.07
Borders	1	0	1	1	0	2	2	7	2	4	7	1	4	110,247	0.04
Dumfries & Galloway	4	7	7	8	9	9	7	7	5	10	9	6	8	148,030	0.05
Fife	13	9	12	11	12	12	17	21	19	28	37	9	24	358,858	0.07
Forth Valley	2	8	4	9	24	12	16	14	24	26	23	4	21	286,053	0.07
Grampian	26	38	31	46	47	37	39	23	47	45	41	29	39	529,889	0.07
Greater Glasgow & Clyde	115	129	132	117	152	131	151	111	162	157	197	113	156	1,191,584	0.13
Highland	2	8	4	6	13	10	12	13	12	16	24	4	15	306,701	0.05
Lanarkshire	21	23	29	24	37	25	33	40	40	48	44	19	41	558,139	0.07
Lothian	37	39	37	54	39	40	36	57	46	54	94	44	57	801,310	0.07
Orkney	0	0	0	0	0	0	0	0	1	0	1	0	0	19,770	0.02
Shetland	1	0	1	1	1	0	0	1	2	2	1	0	1	21,880	0.05
Tayside	23	14	14	19	14	19	23	26	35	29	53	21	33	391,639	0.08
Western Isles	0	1	0	1	1	1	0	1	1	0	3	0	1	26,350	0.04
Argyll & Clyde	23	30	31	22	31	27	35	29	36	..	..	..	..	..	..
Greater Glasgow & Clyde pt.	22	29	28	21	26	24	31	26	35	..	..	..	..	..	..
Highland pt.	1	1	3	1	5	3	4	3	1	..	..	..	..	..	..
Greater Glasgow	93	100	104	96	126	107	120	85	127	..	..	..	..	..	..
Highland	1	7	1	5	8	7	8	10	11	..	..	..	..	..	..

1. using the population in the middle of the 5-year period as a proxy for the average population over the whole period

2. New NHS Board areas including parts of former Argyll & Clyde.

3. Former NHS Board areas (before dissolution of Argyll & Clyde on 1 April 2006).

Table HB2 Drug-related deaths by cause of death and NHS Board area, 2008

NHS Board area	All categories	Cause of death category (ICD10 codes)				
		Drug abuse (F11-F16, F19)	Accidental poisoning (X40-X44)	Intentional self-poisoning (X60-X64)	Assault by drugs, etc. (X85)	Undetermined intent (Y10-Y14)
Scotland	574	370	59	34	0	111
Ayrshire & Arran	40	29	1	5	0	5
Borders	7	7	0	0	0	0
Dumfries & Galloway	9	6	1	0	0	2
Fife	37	15	15	4	0	3
Forth Valley	23	12	8	1	0	2
Grampian	41	31	1	3	0	6
Greater Glasgow & Clyde	197	136	1	8	0	52
Highland	24	13	1	4	0	6
Lanarkshire	44	33	0	4	0	7
Lothian	94	66	1	5	0	22
Orkney	1	1	0	0	0	0
Shetland	1	1	0	0	0	0
Tayside	53	18	30	0	0	5
Western Isles	3	2	0	0	0	1

Table HB3 Drug-related deaths by selected drugs reported¹ and NHS Board area, 2008

NHS Board area	Heroin / morphine ²	Methadone	Benzodiazepines			Cocaine	Ecstasy	Amphetamines	Alcohol
			Any benzo-diazepine	of which: Diazepam	Temazepam				
Scotland	336	181	364	317	12	79	7	12	273
Ayrshire & Arran	25	15	29	25	3	5	0	3	21
Borders	3	0	2	2	0	1	0	0	2
Dumfries & Galloway	5	4	4	4	0	1	0	0	5
Fife	24	9	13	12	1	3	2	2	16
Forth Valley	18	5	11	10	0	1	0	0	8
Grampian	29	12	28	2	0	15	2	1	22
Greater Glasgow & Clyde	118	77	156	151	4	34	2	4	109
Highland	13	6	13	8	1	2	0	0	7
Lanarkshire	32	10	31	31	0	5	1	0	24
Lothian	31	34	62	58	3	6	0	1	40
Orkney	0	1	0	0	0	0	0	0	1
Shetland	1	0	0	0	0	0	0	0	1
Tayside	36	8	12	12	0	5	0	1	16
Western Isles	1	0	3	2	0	1	0	0	1

1. More than one drug may be reported per death. These are mentions of each drug, and should not be added to give total deaths.

Up to 2007, some pathologists reported only those drugs which they thought caused, or contributed to, the death.

With effect from 2008, pathologists were asked to report all the drugs which were found to be present in the body.

There may be other differences between years and/or areas in the way in which the information was produced - see Section 2.

2. See paragraph 3.3.1 of commentary.

Table C1 Drug-related deaths by Council area, 1998 - 2008 (with averages for 1996-2000 and 2004-2008)

Council area	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Annual averages		Population in 2006	2004-2008 average deaths per 1,000 pop'n
												1996 to 2000	2004 to 2008		
Scotland	249	291	292	332	382	317	356	336	421	455	574	260	428	5,116,900	0.08
Aberdeen City	20	22	22	32	34	21	27	11	26	23	27	20	23	206,880	0.11
Aberdeenshire	6	11	6	14	9	13	8	10	16	17	11	7	12	236,260	0.05
Angus	4	2	3	1	4	5	8	8	11	3	8	2	8	109,320	0.07
Argyll & Bute	1	1	3	1	5	3	4	3	1	9	4	1	4	91,390	0.05
Clackmannanshire	2	0	0	0	7	2	5	3	7	5	4	1	5	48,900	0.10
Dumfries & Galloway	4	7	7	8	9	9	7	7	5	10	9	6	8	148,030	0.05
Dundee City	12	12	7	13	6	9	11	11	16	23	29	14	18	142,170	0.13
East Ayrshire	2	6	3	10	12	3	4	4	9	13	13	2	9	119,290	0.07
East Dunbartonshire	5	2	4	3	1	6	5	1	2	7	6	3	4	105,460	0.04
East Lothian	1	2	1	2	6	4	2	5	3	4	7	2	4	92,830	0.05
East Renfrewshire	3	3	4	3	5	3	5	1	3	3	6	2	4	89,290	0.04
Edinburgh, City of	29	25	28	39	27	26	17	41	30	43	66	32	39	463,510	0.09
Eilean Siar	0	1	0	1	1	1	0	1	1	0	3	0	1	26,350	0.04
Falkirk	0	5	1	7	8	6	7	8	10	15	10	2	10	149,680	0.07
Fife	13	9	12	11	12	12	17	21	19	28	37	9	24	358,930	0.07
Glasgow City	83	91	96	84	111	93	106	75	113	90	121	82	101	580,690	0.17
Highland	1	7	1	5	8	7	8	10	11	7	20	3	11	215,310	0.05
Inverclyde	9	12	11	12	8	7	9	7	9	10	5	9	8	81,540	0.10
Midlothian	4	4	3	5	2	3	5	5	6	1	6	3	5	79,290	0.06
Moray	0	5	3	0	4	3	4	2	5	5	3	2	4	86,750	0.04
North Ayrshire	2	5	11	15	14	9	13	6	11	18	15	4	13	135,490	0.09
North Lanarkshire	12	11	18	12	28	22	20	25	24	27	30	11	25	323,780	0.08
Orkney Islands	0	0	0	0	0	0	0	0	1	0	1	0	0	19,770	0.02
Perth & Kinross	7	0	4	5	4	5	4	7	8	3	16	5	8	140,190	0.05
Renfrewshire	10	11	11	5	9	11	14	10	17	21	27	9	18	169,590	0.10
Scottish Borders	1	0	1	1	0	2	2	7	2	4	7	1	4	110,240	0.04
Shetland Islands	1	0	1	1	1	0	0	1	2	2	1	0	1	21,880	0.05
South Ayrshire	0	4	6	10	7	7	3	5	5	5	12	3	6	111,670	0.05
South Lanarkshire	11	17	12	16	14	8	17	16	22	31	23	11	22	307,670	0.07
Stirling	0	3	3	2	9	4	4	3	7	6	9	1	6	87,810	0.07
West Dunbartonshire	3	5	5	6	13	6	8	15	12	16	23	5	15	91,240	0.16
West Lothian	3	8	5	8	4	7	12	7	7	6	15	6	9	165,700	0.06

Table C2 Drug-related deaths by cause of death and Council area, 2008

Council area	All categories	Cause of death category (ICD10 codes)				
		Drug abuse (F11-F16, F19)	Accidental poisoning (X40-X44)	Intentional self-poisoning (X60-X64)	Assault by drugs, etc. (X85)	Undetermined intent (Y10-Y14)
Scotland	574	370	59	34	0	111
Aberdeen City	27	20	1	3	0	3
Aberdeenshire	11	8	0	0	0	3
Angus	8	3	5	0	0	0
Argyll & Bute	4	2	0	0	0	2
Clackmannanshire	4	3	1	0	0	0
Dumfries & Galloway	9	6	1	0	0	2
Dundee City	29	11	16	0	0	2
East Ayrshire	13	9	0	1	0	3
East Dunbartonshire	6	3	0	0	0	3
East Lothian	7	6	0	0	0	1
East Renfrewshire	6	2	1	0	0	3
Edinburgh, City of	66	46	0	4	0	16
Eilean Siar	3	2	0	0	0	1
Falkirk	10	5	3	1	0	1
Fife	37	15	15	4	0	3
Glasgow City	121	90	0	4	0	27
Highland	20	11	1	4	0	4
Inverclyde	5	2	0	0	0	3
Midlothian	6	5	0	0	0	1
Moray	3	3	0	0	0	0
North Ayrshire	15	12	1	1	0	1
North Lanarkshire	30	22	0	2	0	6
Orkney Islands	1	1	0	0	0	0
Perth & Kinross	16	4	9	0	0	3
Renfrewshire	27	20	0	1	0	6
Scottish Borders	7	7	0	0	0	0
Shetland Islands	1	1	0	0	0	0
South Ayrshire	12	8	0	3	0	1
South Lanarkshire	23	18	0	2	0	3
Stirling	9	4	4	0	0	1
West Dunbartonshire	23	12	0	3	0	8
West Lothian	15	9	1	1	0	4

Table C3 Drug-related deaths by selected drugs reported¹ and Council area, 2008

Council area	Heroin / morphine ²	Methadone	Benzodiazepines			Cocaine	Ecstasy	Amphetamines	Alcohol
			Any benzo-diazepine	<i>of which:</i> Diazepam	Temazepam				
Scotland	336	181	364	317	12	79	7	12	273
Aberdeen City	20	10	19	1	0	12	1	1	14
Aberdeenshire	8	2	8	1	0	3	0	0	6
Angus	3	1	1	1	0	2	0	1	4
Argyll & Bute	4	1	3	3	0	1	0	0	1
Clackmannanshire	3	1	4	4	0	0	0	0	2
Dumfries & Galloway	5	4	4	4	0	1	0	0	5
Dundee City	22	5	8	8	0	1	0	0	6
East Ayrshire	10	4	8	7	1	2	0	0	8
East Dunbartonshire	3	2	3	3	0	2	0	0	3
East Lothian	0	5	4	4	0	0	0	0	2
East Renfrewshire	3	1	4	4	0	2	0	1	4
Edinburgh, City of	21	25	44	42	2	5	0	1	31
Eilean Siar	1	0	3	2	0	1	0	0	1
Falkirk	6	3	2	2	0	0	0	0	3
Fife	24	9	13	12	1	3	2	2	16
Glasgow City	75	52	95	93	3	21	2	2	64
Highland	9	5	10	5	1	1	0	0	6
Inverclyde	2	3	5	5	0	0	0	0	3
Midlothian	4	1	6	5	0	0	0	0	2
Moray	1	0	1	0	0	0	1	0	2
North Ayrshire	10	6	13	12	0	2	0	0	9
North Lanarkshire	20	6	22	22	0	5	0	0	17
Orkney Islands	0	1	0	0	0	0	0	0	1
Perth & Kinross	11	2	3	3	0	2	0	0	6
Renfrewshire	18	8	24	23	0	5	0	0	16
Scottish Borders	3	0	2	2	0	1	0	0	2
Shetland Islands	1	0	0	0	0	0	0	0	1
South Ayrshire	5	5	8	6	2	1	0	3	4
South Lanarkshire	17	9	16	16	0	1	1	0	13
Stirling	9	1	5	4	0	1	0	0	3
West Dunbartonshire	12	6	18	16	1	3	0	1	13
West Lothian	6	3	8	7	1	1	0	0	5

1. More than one drug may be reported per death. These are mentions of each drug, and should not be added to give total deaths.

Up to 2007, some pathologists reported only those drugs which they thought caused, or contributed to, the death

With effect from 2008, pathologists were asked to report all the drugs which were found to be present in the body.

There may be other differences between years and/or areas in the way in which the information was produced - see Section 2.

2. See paragraph 3.3.1 of commentary.

Table X Drug-related deaths in Scotland - different definitions, 1996 - 2008

Year	this paper (based on UK Drug Strategy "baseline" definition)	ONS "wide" definition	EMCDDA "general mortality register" definition
1996	244	460	208
1997	224	447	188
1998	249	449	230
1999	291	492	272
2000	292	495	318
2001	332	551	376
2002	382	566	417
2003	317	493	331
2004	356	546	387
2005	336	480	352
2006	421	578	416
2007	455	630	450
2008	574	737	556

Figure 2 Drug-related deaths in Scotland - different definitions

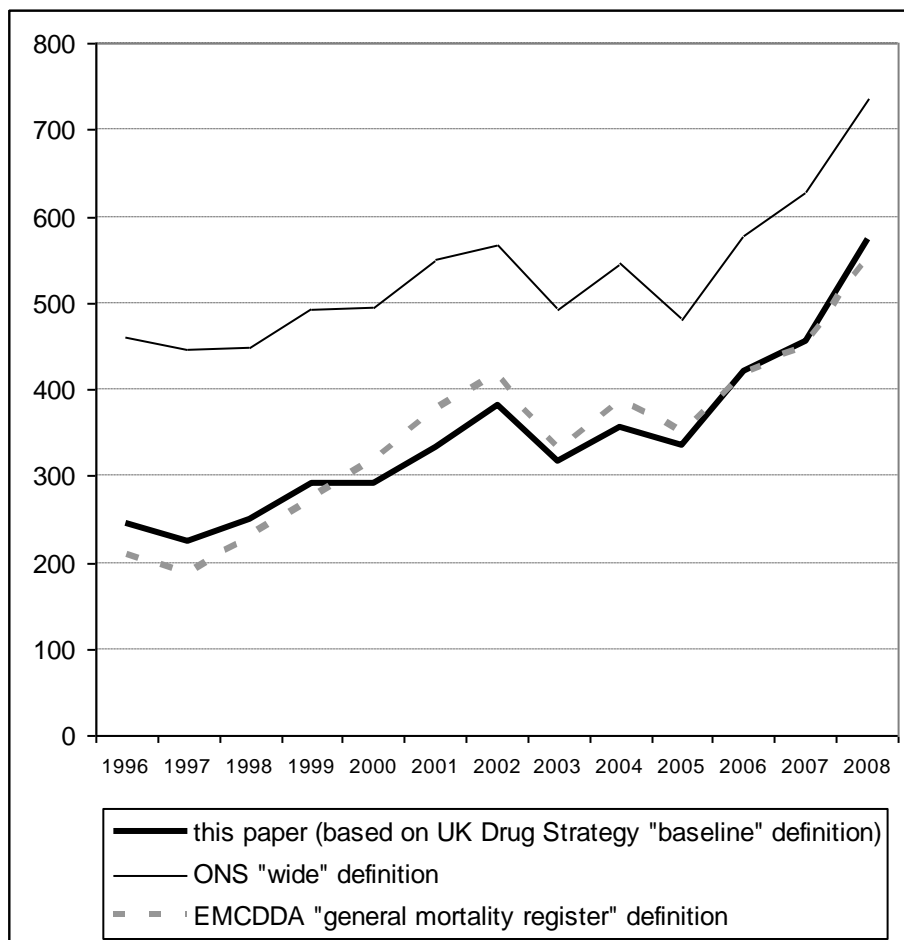


Table Y Drug-related deaths, on the basis of the Office for National Statistics (ONS) "wide" definition, by selected drugs reported, 2000 - 2008

Drugs ^{1, 2}	2000	2001	2002	2003	2004	2005	2006	2007	2008
All drug-related deaths (on the "wide" definition)	495	551	566	493	546	480	577	630	737
Amphetamines	3	5	13	10	10	11	11	12	13
Anti-depressants ³	78	93	82	83	86	67	93	84	150
Anti-psychotics ⁴	12	10	8	8	11	5	21	26	39
Benzodiazepines ⁵	165	185	248	189	140	110	94	109	370
Cannabis	24	23	35	21	5	6	3	8	44
Cocaine	4	20	31	30	38	44	33	47	84
Diazepam	147	159	217	154	113	90	78	79	323
Ecstasy-type	12	21	20	15	17	10	12	12	7
Heroin/diamorphine or Morphine	218	221	250	176	226	194	260	291	339
Methadone	56	71	100	91	80	71	96	115	186
Paracetamol or a compound ⁶	120	127	117	85	107	62	53	56	73
Temazepam	39	20	16	37	5	7	9	4	12
Tramadol	1	8	6	15	11	16	17	26	35
Alcohol	164	186	190	168	145	134	151	181	308

1. More than one drug may be reported per death. These are mentions of each drug, so do not add up to the overall total.
Up to 2007, some pathologists reported only those drugs which they thought caused, or contributed to, the death
With effect from 2008, pathologists were asked to report all the drugs which were found to be present in the body.
This accounts for most (if not all) of the apparent large increases for (e.g.) benzodiazepines, diazepam and alcohol.
There may be other differences between years and/or areas in the way in which the information was produced - see Section 2.
2. The figures for some of the "controlled" drugs may differ slightly from those given in earlier tables for two reasons.
First, they were produced from GROS's new database, rather than the old database (see paragraph A4).
Second, a small proportion of the deaths which involved controlled drugs were excluded from the figures which appear in the earlier tables, for reasons such as those given in paragraph A3.
3. e.g. amitriptyline, citalopram, dothiepin, fluoxetine, prothiaden
4. e.g. chlorpromazine, clozapine, olanzapine
5. including diazepam and temazepam (which appear separately below)
6. see paragraph 3.3.1 of commentary.
7. e.g. co-codamol or co-proxamol, or mention of dextropropoxyphene or propoxyphene (even if there is no mention of paracetamol or a compound analgesic)

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<p>The Office for National Statistics (ONS) is responsible for producing a wide range of economic and social statistics. It also, for England and Wales, registers life events and holds the Census of Population.</p>	<p>Customer Contact Centre, Room 1.015, Office for National Statistics, Cardiff Road, Newport, NP10 8XG.</p> <p>Telephone: 0845 601 3034</p> <p>Minicom: 01633 812399</p> <p>E-mail: info@statistics.gsi.gov.uk</p> <p>Website: http://www.ons.gov.uk</p>
<p>The Northern Ireland Statistics and Research Agency (NISRA) is Northern Ireland's official statistics organisation. The Agency also has responsibility, in Northern Ireland, for the registration of births, marriages, adoptions and deaths and the Census of Population.</p>	<p>Northern Ireland Statistics and Research Agency, McAuley House, 2-14 Castle Street, Belfast, BT1 1SA.</p> <p>Telephone: 028 9034 8100</p> <p>Website: http://www.nisra.gov.uk</p>

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