

C6 Drug-related deaths in Scotland 2003

This section is based on the General Register Office for Scotland's Short Paper published on the 26th August 2004. This paper and those for previous years can be found at www.gro-scotland.gov.uk. In order to be consistent with the other data sources in this publication, ISD have highlighted 5-year trends in drug related deaths (1999 to 2003) within the following Key Points. The original GROS paper focused on trends from 1996.

Key Points

Overview of drug related-deaths

- In 2003, there were 317 drug-related deaths. (Table C6.1)
- Most deaths (89%) were to persons aged under 45, with a quarter (25%) aged under 25. (Table C6.4)
- Men accounted for 81 per cent of the 317 drug-related deaths in 2003. (Table C6.4)
- Almost three quarters (74%) of the male deaths were known or suspected drug abusers compared to only 43 per cent of the female deaths. Twenty-six per cent of female deaths were intentional self-poisonings compared to only nine per cent in males. A further 26 per cent of the female deaths were coded as undetermined. (Table C6.4)
- Of the 36 cases aged 45 and over, only 10 (28%) were known, or suspected, to be drug-dependent, 18 (50%) were intentional self-poisonings and seven (19%) were undetermined and one (3%) accidental poisoning. (Table C6.4)

5 year trends - 1999 to 2003

- In 2003 there were 65 (17%) fewer drug-related deaths than in 2002, but 26 (9%) more than in 1999. (Table C6.1)
- Within these totals, the number of deaths caused by drug abuse fell substantially from 280 in 2002 to 216 in 2003. From 1999 to 2003, the number of deaths in this category has decreased by five per cent. Between 2002 and 2003 there were only minor changes in the number of deaths coded to the other categories. (Table C6.1)
- Between 1999 and 2003, the proportion of deaths in those over the age of 30 increased from 42 per cent (121) to 59 per cent (188). (Table C6.2)

Drugs recorded

Tables C6.5 and C6.6 give information on the involvement of selected drugs, either alone or, more commonly, in combination with other drugs. Since the tables record individual mentions of particular drugs they involve double counting of some deaths. It is believed that for the overwhelming majority of cases where morphine has been identified in post-mortem toxicological tests its presence is a result of heroin use. The tables therefore show a combined figure for 'heroin/morphine'. In 2003, the drugs listed were known to be involved in 272 (86%) of the 317 deaths.

- Heroin/morphine was involved in 175 (55%) of the deaths; diazepam was involved in 153 (48%) of the deaths; and methadone was involved in 87 (27%) of the deaths. (Table C6.5)
- There has been increases in the involvement of heroin/morphine and to a slightly lesser extent diazepam since 1999, though the figures for 2003 both show a fall from the peak recorded in 2002. (Table C6.5)
- Between 1996 and 2000 there was a downward trend in the number of deaths involving methadone from 100 to 55, but there has been a substantial increase since then, almost returning to the 1996 level. (Table C6.5)

- Since 1999, there have also been marked increases in the numbers involving cocaine and ecstasy. However, between 2002 and 2003, the number of deaths involving cocaine decreased slightly from 31 to 29, and the number involving ecstasy fell from 20 to 14. (Table C6.5)
- The decline in the number of deaths involving temazepam from 56 in 1999 to 16 in 2002 was reversed in 2003 to more than double the 2002 figure (35). (Table C6.5)

Geographical profile

- Of the 317 deaths in 2003, 107 (34%) occurred in the Greater Glasgow Health Board area. Lothian with 40 (13%) and Grampian with 37 (12%), had the next highest totals. (Table C6.2)
- Greater Glasgow showed a large decrease in drug-related deaths down from 126 in 2002 to 107 in 2003. Grampian fell from 47 to 37. Of the other areas there were sizable decreases for Ayrshire and Arran (down from 33 to 19), Forth Valley (down from 24 to 12) and Lanarkshire (down from 37 to 25). (Table C6.2).
- There were some geographic differences in the reported involvement of certain drugs. Heroin/morphine was mentioned in a larger proportion of the deaths in Greater Glasgow (60 out of 107) and Grampian (27 out of 37) than in Lothian (nine out of 40). However the pattern is reversed for methadone – only 40 out of 107 deaths in Greater Glasgow and five out of 37 in Grampian compared to 19 out of 40 in Lothian. The table also shows that diazepam was involved in almost two-thirds (72 out of 107) of the deaths in Greater Glasgow. Cocaine was involved in 20 out of the 107 deaths in Greater Glasgow, four out of the 25 deaths in Lanarkshire and three out of the 37 deaths in Grampian. (Table C6.6)

Care should be taken when assessing the trends shown in Tables C6.1 and C6.2 because of the relatively small numbers involved, particularly for some health board areas, and the possibility that more complete information has been reported in recent years.

Background Information

This section gives information about drug-related deaths in Scotland over the period 1996 – 2003 using the definition for baseline figures introduced in 2001. This definition was agreed by a working party set up following the publication, by the Advisory Council on the Misuse of Drugs (ACMD), of a report¹ on 'Reducing drug related deaths'. The Office for National Statistics has also prepared data on drug-related deaths in England and Wales using this new definition.

The paragraph below gives some background on the collection of information on drug-related deaths in Scotland. Annex A gives background on the definition of drug-related deaths used.

Data sources

Drug-related deaths are identified using details from death registrations supplemented by information from a specially designed questionnaire, completed by forensic pathologists, 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 currently used is given in Annex B. A paper² published in June 1995 by GROS described this enhancement to the data collection system.

References

1. The Advisory Council on the Misuse of Drugs. Reducing drug related deaths. Home Office, 2000.
2. Arrundale J and Cole S K. Collection of information on drug-related deaths by the General Register Office for Scotland. GROS, 1995.
3. Christophersen O, Rooney C and Kelly S. Drug-related mortality: methods and trends. Population Trends 93, ONS, 1998.

Notes on the definition of 'drug-related' deaths

1. The definition of a 'drug-related death' is not straightforward. A useful discussion on the definitional problems may be found in an article in the Office for National Statistics publication Population Trends³. More recently, a report¹ by the Advisory Council on the Misuse of Drugs (ACMD) 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 agreed.

2. The new baseline 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).

3. Categories of death excluded:

- a) deaths coded to mental and behavioural disorders due to the use of alcohol (F10), tobacco (F17) and volatile substances (F18);
- b) deaths coded to drug abuse which were caused by secondary infections and related complications (for example the 20 or so deaths in 2000 caused by *clostridium novyi* infection);
- c) deaths from AIDS where the risk factor was believed to be the sharing of needles;
- d) deaths from road traffic and other accidents which occurred under the influence of drugs; and
- e) deaths where a drug listed under the Misuse of Drugs Act was present because it was part of a compound analgesic or cold remedy: specific examples are:
 - Co-proxamol*: paracetamol, dextropropoxyphene
 - Co-dydramol*: paracetamol, dihydrocodeine
 - Co-codamol*: paracetamol, codeine sulphate

All three of these compound analgesics, but particularly co-proxamol, are commonly used in suicidal overdoses.

Note: As it is believed that dextropropoxyphene is rarely if ever available other than as a constituent of a paracetamol compound, it has been ignored on all occasions (even if there is no mention of a compound analgesic or paracetamol). However, deaths involving codeine or dihydrocodeine without mention of paracetamol have been included in the baseline as these drugs are routinely available on their own and known to be abused in this form.

General Register Office for Scotland

Crown Office

Confidential form to be completed in all deaths involving drugs, solvents or poisons

This information is essential for the correct coding and monitoring of drug-related deaths.

If you have any queries about the form or its completion, please contact Graham Jackson, telephone 0131 314 4229.

Please complete the form and return it, in the pre-paid addressed envelope provided, to:

Vital Events & NHS Branch
General Register Office for Scotland
Ladywell House
Ladywell Road
Edinburgh EH12 7TF

Name of deceased

Date of birth

Date of death

Place of death

Usual residence

Questions

(please tick)

- 1 Was alcohol involved in this death? Yes No Not known
If "Yes" what was the blood/alcohol level in mg/100ml?
- 2 If any other drugs or solvents were involved in this death, please specify the principal drug or solvent found in a fatal dose:- **IF NONE GO TO QUESTION 9**
- 3 Please specify any other drugs or solvents involved in this death.
- 4 Was the deceased a known or suspected habitual drug or solvent abuser? Yes No Not known
IF YES GO TO QUESTION 7
- 5 Was the deceased a novice or experimenting drug or solvent abuser? Yes No Not known
IF YES GO TO QUESTION 7
- 6 Was there any evidence from the police report or autopsy of a long-standing drug or solvent-abusing history?
Yes No Not Known NA
- 7 Do you believe this overdose to have been:-
accidental
suicidal
homicidal
or unknown/uncertain?
- 8 Were the drugs prescribed to the deceased? Yes No Not Known N/A
- 9 Any other comments or information which may help in coding this death?

Table C6.1 : Drug-related deaths by cause of death : 1996 - 2003

	Scotland	Cause of death category (ICD10 codes)				
		Drug abuse (F11-F16, F19)	Accidental poisoning (X40-X44)	Intentional self-poisoning (X60-X64)	Assault by drugs, etc. (Y85)	Undetermined (Y10-Y14)
1996	244	175	10	41	-	18
1997	224	142	14	42	-	26
1998	249	179	16	32	-	22
1999	291	227	12	19	1	32
2000	292	220	11	34	-	27
2001	332	227	19	34	-	52
2002	382	280	17	30	-	55
2003	317	216	15	40	-	46

Source : General Register Office for Scotland (GROS).

Table C6.2 : Drug related deaths : 1996 - 2003

NHS board, council area of residence and age

	1996	1997	1998	1999	2000	2001	2002	2003
Scotland	244	224	249	291	292	332	382	317
<i>by NHS board</i>								
Argyll & Clyde	18	16	23	30	31	22	31	27
Ayrshire & Arran	3	6	4	15	20	35	33	19
Borders	2	1	1	-	1	1	-	2
Dumfries & Galloway	4	7	4	7	7	8	9	9
Fife	3	8	13	9	12	11	12	12
Forth Valley	-	4	2	8	4	9	24	12
Grampian	29	22	26	38	31	46	47	37
Greater Glasgow	90	67	93	100	104	96	126	107
Highland	2	3	1	7	1	5	8	7
Lanarkshire	11	12	21	23	29	24	37	25
Lothian	58	48	37	39	37	54	39	40
Orkney	-	-	-	-	-	-	-	-
Shetland	-	-	1	-	1	1	1	-
Tayside	24	30	23	14	14	19	14	19
Western Isles	-	-	-	1	-	1	1	1
<i>by council area</i>								
Aberdeen City	24	13	20	22	22	32	34	21
Aberdeenshire	4	7	6	11	6	14	9	13
Angus	-	2	4	2	3	1	4	5
Argyll & Bute	1	-	1	1	3	1	5	3
Clackmannanshire	-	1	2	-	-	-	7	2
Dumfries & Galloway	4	7	4	7	7	8	9	9
Dundee City	18	22	12	12	7	13	6	9
East Ayrshire	-	1	2	6	3	10	12	3
East Dunbartonshire	2	3	5	2	4	3	1	6
East Lothian	4	4	1	2	1	2	6	4
East Renfrewshire	1	-	3	3	4	3	5	3
Edinburgh, City of	44	33	29	25	28	39	27	26
Eilean Siar	-	-	-	1	-	1	1	1
Falkirk	-	2	-	5	1	7	8	6
Fife	3	8	13	9	12	11	12	12
Glasgow City	83	59	83	91	96	84	111	93
Highland	2	3	1	7	1	5	8	7
Inverclyde	8	5	9	12	11	12	8	7
Midlothian	2	4	4	4	3	5	2	3
Moray	1	2	-	5	3	-	4	3
North Ayrshire	2	2	2	5	11	15	14	9
North Lanarkshire	6	7	12	11	18	12	28	22
Orkney Islands	-	-	-	-	-	-	-	-
Perth & Kinross	6	6	7	-	4	5	4	5
Renfrewshire	6	6	10	11	11	5	9	11
Scottish Borders	2	1	1	-	1	1	-	2
Shetland Islands	-	-	1	-	1	1	1	-
South Ayrshire	1	3	-	4	6	10	7	7
South Lanarkshire	7	7	11	17	12	16	14	8
Stirling	-	1	-	3	3	2	9	4
West Dunbartonshire	5	8	3	5	5	6	13	6
West Lothian	8	7	3	8	5	8	4	7
<i>by age</i>								
< 15	-	-	1	-	-	1	-	-
15 - 19	19	21	23	26	20	23	23	18
20 - 24	67	55	64	68	53	56	77	60
25 - 29	47	49	62	76	68	67	91	51
30 - 34	56	40	41	42	58	73	62	72
35 - 39	18	22	22	39	42	44	55	59
40 - 44	14	9	15	23	27	25	37	21
45 - 49	8	10	7	4	8	22	20	9
50 - 54	5	4	2	6	8	9	7	11
55 - 59	3	3	2	3	1	6	6	10
60 & over	7	11	10	4	7	6	4	6

Source : General Register Office for Scotland (GROS).

Table C6.3 : Drug related deaths by cause of death : 2003

NHS board and council area of residence

	Total	Cause of death category (ICD10 codes)				Assault by drugs, etc. (Y85)	Undetermined (Y10-Y14)
		Drug abuse (F11-F16, F19)	Accidental poisoning (X40-X44)	Intentional self-poisoning (X60-X64)			
Scotland	317	216	15	40	-	46	
<i>by NHS board</i>							
Argyll & Clyde	27	22	1	1	-	3	
Ayrshire & Arran	19	11	-	4	-	4	
Borders	2	1	-	-	-	1	
Dumfries & Galloway	9	7	-	1	-	1	
Fife	12	7	-	2	-	3	
Forth Valley	12	5	-	1	-	6	
Grampian	37	27	3	3	-	4	
Greater Glasgow	107	81	7	13	-	6	
Highland	7	1	1	2	-	3	
Lanarkshire	25	20	-	2	-	3	
Lothian	40	23	2	9	-	6	
Orkney	-	-	-	-	-	-	
Shetland	-	-	-	-	-	-	
Tayside	19	11	-	2	-	6	
Western Isles	1	-	1	-	-	-	
<i>by council area</i>							
Aberdeen City	21	17	2	-	-	2	
Aberdeenshire	13	7	1	3	-	2	
Angus	5	4	-	1	-	-	
Argyll & Bute	3	2	-	-	-	1	
Clackmannanshire	2	-	-	1	-	1	
Dumfries & Galloway	9	7	-	1	-	1	
Dundee City	9	5	-	1	-	3	
East Ayrshire	3	2	-	1	-	-	
East Dunbartonshire	6	4	1	1	-	-	
East Lothian	4	2	-	2	-	-	
East Renfrewshire	3	2	-	1	-	-	
Edinburgh, City of	26	16	-	6	-	4	
Eilean Siar	1	-	1	-	-	-	
Falkirk	6	3	-	-	-	3	
Fife	12	7	-	2	-	3	
Glasgow City	93	73	5	9	-	6	
Highland	7	1	1	2	-	3	
Inverclyde	7	6	-	-	-	1	
Midlothian	3	3	-	-	-	-	
Moray	3	3	-	-	-	-	
North Ayrshire	9	4	-	2	-	3	
North Lanarkshire	22	17	-	3	-	2	
Orkney Islands	-	-	-	-	-	-	
Perth & Kinross	5	2	-	-	-	3	
Renfrewshire	11	8	1	1	-	1	
Scottish Borders	2	1	-	-	-	1	
Shetland Islands	-	-	-	-	-	-	
South Ayrshire	7	5	-	1	-	1	
South Lanarkshire	8	6	1	-	-	1	
Stirling	4	2	-	-	-	2	
West Dunbartonshire	6	5	-	1	-	-	
West Lothian	7	2	2	1	-	2	

Source : General Register Office for Scotland (GROS).

Table C6.4 : Drug related deaths by cause of death : 2003

age group and gender

	Total	Cause of death category (ICD10 codes)				
		Drug abuse (F11-F16, F19)	Accidental poisoning (X40-X44)	Intentional self-poisoning (X60-X64)	Assault by drugs, etc. (Y85)	Undetermined (Y10-Y14)
Scotland	3 17	2 16	15	40	-	46
<i>by age group</i>						
15 - 19	18	11	4	1	-	2
20 - 24	60	45	3	4	-	8
25 - 29	51	41	-	4	-	6
30 - 34	72	56	2	4	-	10
35 - 39	59	39	4	7	-	9
40 - 44	21	14	1	2	-	4
45 - 49	9	4	1	3	-	1
50 - 54	11	3	-	6	-	2
55 - 59	10	3	-	5	-	2
60 & over	6	-	-	4	-	2
<i>by gender</i>						
Males	2 56	1 90	12	24	-	30
Females	61	26	3	16	-	16

Source : General Register Office for Scotland (GROS).

Table C6.5 : Drug related deaths by selected drugs involved¹ : 1996 - 2003

	Heroin/ morphine ²	Diazepam	Methadone	Temazepam	Cocaine	Ecstasy
1996	84	84	100	48	3	9
1997	74	93	86	33	5	2
1998	121	113	64	58	4	3
1999	167	142	63	56	12	8
2000	196	146	55	39	4	11
2001	216	156	69	20	19	20
2002	248	214	98	16	31	20
2003	175	153	87	35	29	14

1 Individual deaths often involved more than one of these drugs. The numbers given are mentions of the drug and should not be added to give total deaths.

2 It is believed that that for the overwhelming majority of cases where morphine has been identified in post-mortem toxicological tests its presence is a result of heroin use. This table therefore shows a combined figure for 'heroin/morphine'.

Source : General Register Office for Scotland (GROS).

Table C6.6 : Drug related deaths by selected drugs involved : 2003

NHS board and council area of residence

	Heroin/ morphine ²	Diazepam	Methadone	Temazepam	Cocaine	Ecstasy
Scotland	175	153	87	35	29	14
<i>by NHS Board</i>						
Argyll & Clyde	22	13	4	7	-	1
Ayrshire & Arran	12	6	4	2	1	-
Borders	1	-	-	-	-	-
Dumfries & Galloway	6	3	1	3	-	-
Fife	4	1	4	1	-	1
Forth Valley	7	3	1	2	-	-
Grampian	27	15	5	2	3	2
Greater Glasgow	60	72	40	10	20	6
Highland	-	1	2	2	-	-
Lanarkshire	19	16	4	2	4	1
Lothian	9	18	19	2	1	2
Orkney	-	-	-	-	-	-
Shetland	-	-	-	-	-	-
Tayside	8	4	2	2	-	-
Western Isles	-	1	1	-	-	1
<i>by council area</i>						
Aberdeen City	15	8	2	1	3	1
Aberdeenshire	9	6	3	1	-	1
Angus	2	1	1	-	-	-
Argyll & Bute	3	2	-	1	-	-
Clackmannanshire	1	-	-	-	-	-
Dumfries & Galloway	6	3	1	3	-	-
Dundee City	3	1	-	1	-	-
East Ayrshire	2	2	-	1	-	-
East Dunbartonshire	4	4	1	-	1	-
East Lothian	-	3	3	-	-	-
East Renfrewshire	2	2	1	-	-	-
Edinburgh, City of	7	12	12	1	-	1
Eilean Siar	-	1	1	-	-	1
Falkirk	3	1	1	-	-	-
Fife	4	1	4	1	-	1
Glasgow City	50	65	37	10	19	6
Highland	-	1	2	2	-	-
Inverclyde	6	1	1	6	-	-
Midlothian	-	-	3	-	-	-
Moray	3	1	-	-	-	-
North Ayrshire	6	2	-	-	1	-
North Lanarkshire	16	15	1	1	4	-
Orkney Islands	-	-	-	-	-	-
Perth & Kinross	3	2	1	1	-	-
Renfrewshire	8	8	3	-	-	-
Scottish Borders	1	-	-	-	-	-
Shetland Islands	-	-	-	-	-	-
South Ayrshire	4	2	4	1	-	-
South Lanarkshire	7	2	3	1	-	1
Stirling	3	2	-	2	-	-
West Dunbartonshire	5	2	1	-	-	1
West Lothian	2	3	1	1	1	1

1 Individual deaths often involved more than one of these drugs. The numbers given are mentions of the drug and should not be added to give total deaths.

2 It is believed that that for the overwhelming majority of cases where morphine has been identified in post-mortem toxicological tests its presence is a result of heroin use. This table therefore shows a combined figure for 'heroin/morphine'.

Source : General Register Office for Scotland (GROS).