

A6

Drug-related deaths in Scotland, 2001

This chapter contains a copy of the General Register Office for Scotland's Occasional Paper No.8 published on the 7 August 2002. Papers from previous years can be found at www.gro-scotland.gov.uk

Key Points

- The number of drug-related deaths in 2001 was 332, 40 (14 per cent) more than in 2000 and 88 (36 per cent) more than in 1996. (Table A6.1)
- Within these totals, the number of deaths of persons known or suspected to be drug-dependant increased slightly from 220 in 2000 to 227 in 2001. (Table A6.1)
- Of the 332 deaths in 2001, heroin/morphine was involved in 216 (65 per cent), diazepam in 156 (47 per cent), and methadone in 69 (21 per cent). (Table A6.5)
- The highest number of deaths - 96 - was in the Greater Glasgow Health Board area, with 54 in Lothian, and 46 in Grampian. (Table A6.2)
- Whilst the number of drug-related deaths in Greater Glasgow fell slightly between 2000 and 2001 there were large increases in Lothian, Grampian and Ayrshire & Arran. (Table A6.2)

Drug-related deaths in Scotland, 2001

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Introduction

This chapter gives information about drug-related deaths in Scotland over the period 1996 – 2001 using the new definition for baseline figures introduced last year. The new 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 definition².

Below gives some background to the collection of information on drug-related deaths in Scotland; and summarises the main points arising from the information for 2001 and earlier years presented in Tables A6.1 – A6.6; and Annex A (page 52) gives a detailed description of the definition used.

Background

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 Trends*³. 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 chapter presents information on drug-related deaths using the approach agreed. A full description of the new definition is given in Annex A.

The new definition differs in two significant ways from that used previously by GROS. First, for deaths where habitual drug abuse was not known or suspected, it limits inclusion to those where particular drugs are known to have been involved. Second, it includes deaths from intentional self-harm (suicides). Further information about the differences between the old and the new definitions may be found in GROS Occasional Paper No. 5, *Drug-related deaths in Scotland in 2000*⁴.

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 young 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 (page 53). A paper⁵ published in June 1995 by GROS described this enhancement to the data collection system.

Summary of results

Recent trends (Table A6.1)

There were 332 drug-related deaths in 2001, 40 (14 %) more than in 2000 and 88 more than in 1996. Within these totals, the number of deaths of known or suspected habitual drug abusers increased slightly from 220 in 2000 to 227 in 2001. Since 1996, the number of deaths in this category has risen by 30 per cent. Between 2000 and 2001 there was a large increase, from 27 to 52, in the number of deaths coded to the 'undetermined' category. These represent drug-related deaths of persons who were not known or suspected drug abusers and where it was not clear if the death was accidental or suicidal.

Health board areas (Tables A6.2 & A6.3)

Of the 332 deaths in 2001, 96 (29%) occurred in the Greater Glasgow Health Board area. Lothian, with 54 (16%), and Grampian with 46 (14%), had the next highest totals. Whilst the number of drug-related deaths in Greater Glasgow fell slightly between 2000 and 2001 there were large increases in Lothian, Grampian and Ayrshire & Arran.

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, care should be taken when assessing the trends shown in Tables A6.1 and A6.2.

Age groups and gender (Tables A6.4)

Most deaths (87%) were to persons aged under 45, with almost a quarter (24%) aged under 25. Of the 43 cases aged 45 and over, only 15 were known, or suspected, to be drug-dependent. Men accounted for four out of five (80 %) of the 332 drug-related deaths in 2001. Almost three-quarters (73%) of the male deaths were of known or suspected drug abusers compared to under a half (49%) of the female deaths.

Types of drug involved (Tables A6.5 & A6.6)

Tables A6.5 and A6.6 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 2001, the drugs listed were known to be involved in 296 (89%) of the 332 deaths. Heroin/morphine was involved in 216 (65%) of the deaths; diazepam was involved in 156 (47%) of the deaths; and methadone was involved in 69 (21%) of the deaths. A wide range of drug combinations was recorded. Of particular note was the fact that diazepam was also mentioned in over half (110) of the 216 deaths involving heroin/morphine. The presence of alcohol was mentioned for 140 of the 332 drug-related deaths in 2001. The blood-alcohol level was not given for all cases but, where mentioned, it was often at a relatively low level.

Table A6.5 shows that there have been significant increases in the involvement of heroin/morphine, and to a lesser extent diazepam, between 1996 and 2001. There have also been marked increases in the smaller numbers involving cocaine and ecstasy. Between 1996 and 2000 there was a downward trend in the number of deaths involving methadone, but there was an increase in the latest year. The table also shows a marked reduction in the number of deaths involving temazepam.

Table A6.6 shows some geographical differences in the reported involvement of certain drugs. For example, heroin/morphine was mentioned in a much larger proportion (78 out of 96) of the deaths in Greater Glasgow than in Lothian (29 out of 54). A similar picture emerges for diazepam which was involved in 52 out of 96 of the deaths in Greater Glasgow compared to only 18 out of 54 in Lothian. However the pattern is reversed for methadone – only 12 out of 96 deaths in Greater Glasgow compared to 14 out of 54 in Lothian. It should also be noted that methadone was involved in 12 of the 19 deaths in Tayside.

References

- 1 The Advisory Council on the Misuse of Drugs. Reducing drug related deaths. Home Office, 2000.
- 2 Deaths related to drug poisoning: results for England and Wales, 1993 - 2000. Health Statistics Quarterly 13. ONS, 2002. (http://www.statistics.gov.uk/downloads/theme_health/HSQ13_v4.pdf)
- 3 Christophersen O, Rooney C and Kelly S. Drug-related mortality: methods and trends. Population Trends 93, ONS, 1998.
- 4 Occasional Paper No. 5, Drug-related deaths in Scotland in 2000. GROS, 2001 (<http://www.gro-scotland.gov.uk/grosweb/grosweb.nsf/pages/00ddeaths>)
- 5 Arrundale J and Cole S K. Collection of information on drug-related deaths by the General Register Office for Scotland. GROS, 1995.

A 6.1 | Drug-related deaths ; cause of death : 1996 - 2001

	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. (X85)	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

Source : General Register Office for Scotland (GRO Scotland).

A6.2 | Drug-related deaths : 1996 - 2001

NHS board

	1996	1997	1998	1999	2000	2001
Scotland	244	224	249	291	292	332
Argyll & Clyde	18	16	23	30	31	22
Ayrshire & Arran	3	6	4	15	20	35
Borders	2	1	1	-	1	1
Dumfries & Galloway	4	7	4	7	7	8
Fife	3	8	13	9	12	11
Forth Valley	-	4	2	8	4	9
Grampian	29	22	26	38	31	46
Greater Glasgow	90	67	93	100	104	96
Highland	2	3	1	7	1	5
Lanarkshire	11	12	21	23	29	24
Lothian	58	48	37	39	37	54
Shetland	-	-	1	-	1	1
Tayside	24	30	23	14	14	19
Western Isles	-	-	-	1	-	1

Source : General Register Office for Scotland (GRO Scotland).

A6.3 | Drug-related deaths ; cause of death : 2001

NHS board

Health impact

	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. (X85)	Undetermined (Y10-Y14)
Scotland	332	227	19	34	-	52
Argyll & Clyde	22	18	-	1	-	3
Ayrshire & Arran	35	21	2	5	-	7
Borders	1	-	-	1	-	-
Dumfries & Galloway	8	5	-	2	-	1
Fife	11	8	-	1	-	2
Forth Valley	9	3	-	4	-	2
Grampian	46	32	5	2	-	7
Greater Glasgow	96	72	6	5	-	13
Highland	5	1	-	2	-	2
Lanarkshire	24	20	-	2	-	2
Lothian	54	35	6	4	-	9
Shetland	1	1	-	-	-	-
Tayside	19	10	-	5	-	4
Western Isles	1	1	-	-	-	-

Source : General Register Office for Scotland (GRO Scotland).

A6.4 | Drug-related deaths ; cause of death : 2001

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. (X85)	Undetermined (Y10-Y14)
Scotland	332	227	19	34	-	52
<i>by age group</i>						
Under 25 years	80	53	7	5	-	15
25 - 34 years	140	115	8	5	-	12
35 - 44 years	69	44	1	10	-	14
45 years and over	43	15	3	14	-	11
<i>by gender</i>						
Males	267	195	19	19	-	34
Females	65	32	-	15	-	18

Source : General Register Office for Scotland (GRO Scotland).

A6.5 | Drug-related deaths ; selected drugs involved¹ : 1996 - 2001

	Heroin / Morphine ²	Diazepam	Methodone	Temazepam	Ecstasy	Cocaine
1996	84	84	100	48	9	3
1997	74	93	86	33	2	5
1998	121	113	64	58	3	4
1999	167	142	63	56	8	12
2000	196	146	55	39	11	4
2001	216	156	69	20	20	19

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 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 (GRO Scotland).

A6.6 | Drug-related deaths ; selected drugs involved¹ : 2001

NHS board

	Heroin / Morphine ²	Diazepam	Methadone	Temazepam	Ecstasy	Cocaine
Scotland	216	156	69	20	20	19
Argyll & Clyde	16	14	6	2	1	-
Ayrshire & Arran	21	15	6	3	1	3
Borders	1	-	-	-	-	-
Dumfries & Galloway	6	2	2	-	-	2
Fife	8	4	4	-	1	-
Forth Valley	4	-	-	1	-	-
Grampian	28	15	9	1	4	2
Greater Glasgow	78	52	12	6	8	6
Highland	2	2	-	-	-	-
Lanarkshire	17	17	3	2	2	3
Lothian	29	18	14	3	3	3
Orkney	-	-	-	-	-	-
Shetland	-	1	1	-	-	-
Tayside	5	15	12	2	-	-
Western Isles	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 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 (GRO Scotland).

Additional notes on the new baseline definition

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).

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.

AnnexB

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 Branch
 General Register Office for Scotland
 Ladywell House
 Ladywell Road
 Edinburgh EH12 7TF

Health impact

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 N/A

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?