

DRUG RELATED DEATHS AND DEATHS DUE TO DRUG MISUSE REGISTERED IN NORTHERN IRELAND (1997-2007)



9.30 am – Thursday, 26 February 2009

Introduction

1. There is significant public interest in the impact of drugs on society. This report looks at the most recent official death registration data available relating to drug related mortality. There are a number of significant issues in producing accurate mortality figures. These issues relate to what is a drug related death, the impact of the coronial process on timing of drug related death registration and other issues around drug related mortality. A full discussion of these issues and the process of recording drug related deaths is provided in Annex C.
2. In terms of definition there are two standard definitions associated with drug related mortality used in this paper. The first definition is of a **drug related death**; this is when the underlying cause of death recorded on the death certificate is drug poisoning, drug abuse or drug dependence. These deaths can be identified solely through the International Classification of Diseases (ICD). The current National Statistics definition and the ICD ninth (ICD-09) and ICD tenth (ICD-10) revision codes used to define drug related deaths are listed in Annex A.
3. The second definition, which is a subset of the definition above, relates to **deaths due to drug misuse**. Deaths due to drug misuse are defined as being '*deaths where the underlying cause is drug poisoning, drug abuse or drug dependence and where any of the substances controlled under the Misuse of Drugs Act (1971) are involved*'. Further details on this definition for ICD-09 and ICD-10 codes are given in Annex B.
4. It should be noted that under both definitions some deaths that perhaps could be regarded as drug related deaths are excluded. For example, a death from a road traffic accident caused by someone under the influence of drugs is excluded. As noted above for a full definition of the classifications used see Annexes A, B and C.

5. The report contains six tables and one chart:

- Table 1: Number of drug related deaths and deaths due to drug misuse by sex and registration year, 1997–2007
- Figure 1: Drug related deaths and deaths due to drug misuse by registration year, 1997-2007
- Table 2a: Number of drug related deaths by age and registration year, 1997–2007
- Table 2b: Number of deaths due to drug misuse by age and registration year, 1997-2007
- Table 3a: Number of drug related deaths by underlying cause of death and registration year, 1997-2007
- Table 3b: Number of deaths due to drug misuse by underlying cause of death and registration year, 1997-2007
- Table 4: Number of drug related deaths where selected substances were mentioned on the death certificate by registration year, 1997-2007

Table 1: Number of drug related deaths and deaths due to drug misuse¹ by sex and registration year, 1997–2007

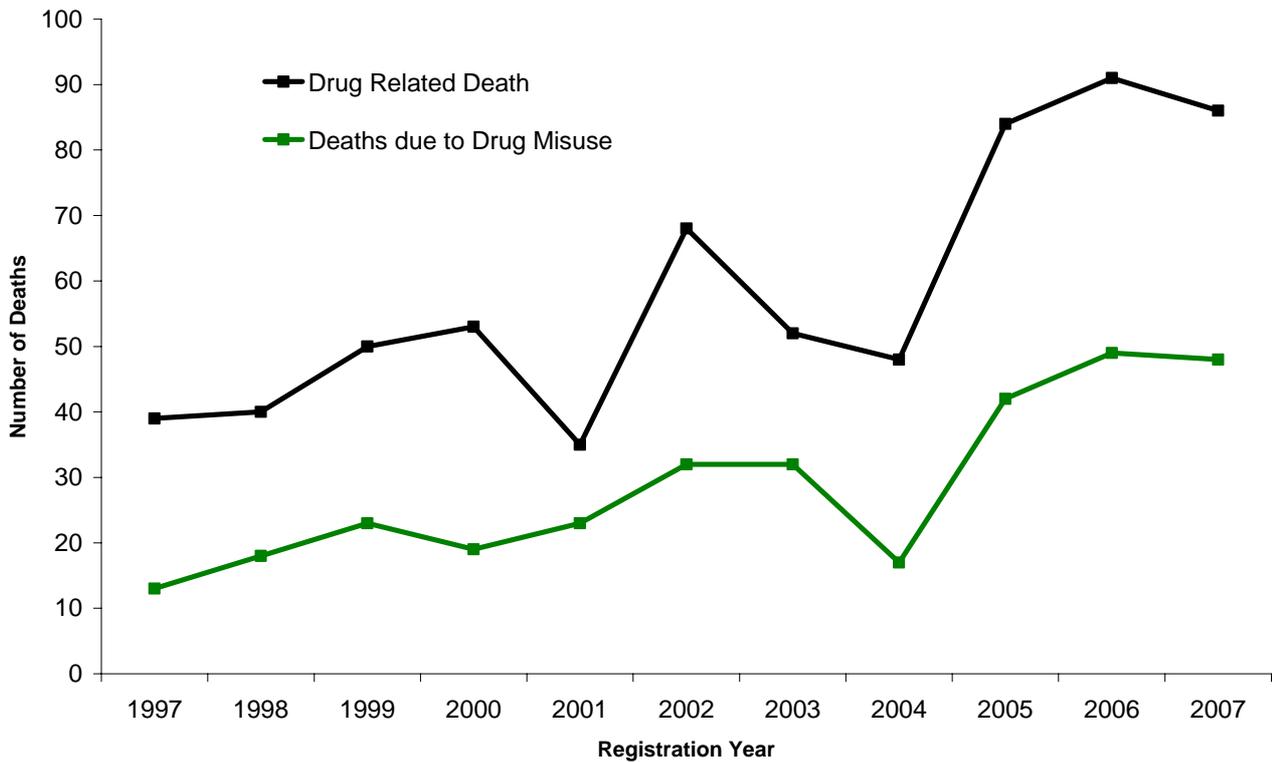
		Registration Year											Total (1997-2007)
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Drug related deaths	Male	19	24	35	31	25	38	36	27	48	51	51	385
	Female	20	16	15	22	10	30	16	21	36	40	35	261
	Person	39	40	50	53	35	68	52	48	84	91	86	646
<u>Of which</u> Deaths due to drug misuse	Male	5	13	16	13	14	21	21	14	29	28	27	201
	Female	8	5	7	6	9	11	11	3	13	21	21	115
	Person	13	18	23	19	23	32	32	17	42	49	48	316
Deaths due to drug misuse as a percentage of drug related deaths	Male	26%	54%	46%	42%	56%	55%	58%	52%	60%	55%	53%	52%
	Female	40%	31%	47%	27%	90%	37%	69%	14%	36%	53%	60%	44%
	Person	33%	45%	46%	36%	66%	47%	62%	35%	50%	54%	56%	49%

¹As defined by the current UK indicator of drug misuse (see Annex B)

- Between 1997 and 2007, the number of drug related deaths has generally increased. The annual average number of drug related deaths registered between 1997 and 1999 was 43, this compares to an annual average of 87 drug related deaths registered between 2005 and 2007. The number of drug related deaths is higher for males than females, with males accounting for 60% of drug related deaths between 1997 and 2007.
- The number of deaths due to drug misuse has increased between 1997 and 2007, with an annual average of 18 such deaths between 1997 and 1999 compared to an annual average of 46 deaths between 2005 and 2007. Drug misuse deaths are more common in males, with males accounting for 64% of deaths due to drug misuse between 1997 and 2007.

8. Figure 1 shows the upward trend in drug related deaths, and deaths due to drug misuse. Between 1997 and 2007, around half (49%) of drug related deaths were deaths due to drug misuse.

Figure 1: Drug related deaths and deaths due to drug misuse by registration year, 1997-2007



9. All data presented in this paper relates to the year the death was registered and not when the death occurred. For events such as drug related deaths, which are generally referred to the coroner, it can take some time for the death to be registered (see Annex C). Although not presented here there is less fluctuation in drug related deaths by date of occurrence with a clearer upward trend.

Table 2a: Number of drug related deaths by age and registration year, 1997–2007

Registration Year	Age Group					
	Under 25	25-34	35-44	45-54	55 and over	All ages
1997	8	10	4	7	10	39
1998	4	12	13	7	4	40
1999	9	17	10	6	8	50
2000	11	11	15	7	9	53
2001	2	8	11	6	8	35
2002	6	24	19	12	7	68
2003	7	9	14	11	11	52
2004	3	9	9	19	8	48
2005	15	16	15	20	18	84
2006	9	13	33	24	12	91
2007	9	17	29	18	13	86
Total (1997-2007)	83	146	172	137	108	646

10. Between 1997 and 2007, 62% of drug related deaths were to persons aged under 45, with 27% of drug related deaths in the 35 to 44 age group. Almost 13% of drug related deaths were to persons aged under 25.

Table 2b: Number of deaths due to drug misuse¹ by age and registration year, 1997-2007

Registration Year	Age Group					
	Under 25	25-34	35-44	45-54	55 and over	All ages
1997	3	3	1	1	5	13
1998	2	5	5	5	1	18
1999	5	9	4	2	3	23
2000	3	7	5	2	2	19
2001	1	5	7	4	6	23
2002	4	11	8	7	2	32
2003	6	5	8	6	7	32
2004	1	1	6	7	2	17
2005	9	12	7	8	6	42
2006	5	9	16	15	4	49
2007	5	10	19	7	7	48
Total (1997-2007)	44	77	86	64	45	316

¹ As defined by the current headline indicator on drug misuse (see Annex B)

11. Between 1997 and 2007, two-thirds (66%) of deaths due to drug misuse occurred in the under 45 age group, with 27% of deaths due to drug misuse in the 35 to 44 age group. Almost 14% of deaths due to drug misuse were to persons aged under 25.

12. For drug related deaths, the median age at death for 1997 to 2007 was 40 years, while the median age at death due to drug misuse for 1997 to 2007 was 39 years. These are significantly below the median age at death, 78 years, for all deaths registered between 1997 and 2007. This shows the potential years of life lost due to drug related mortality.

Table 3a: Number of drug related deaths by underlying cause of death and registration year, 1997-2007

Underlying Cause (ICD-10; ICD-09 codes)	Registration Year											Total (1997-2007)
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Mental and behavioural disorders due to drug use (excluding alcohol and tobacco) (F11-F16, F18-F19; 292, 304, 305.2-305.9)	-	-	-	-	2	6	3	2	2	1	5	21
Accidental poisoning by drugs, medicaments and biological substances (X40-X44; E850-E858)	14	16	20	12	9	19	26	15	33	20	28	212
Intentional self-poisoning by drugs, medicaments and biological substances (X60-X64; E950.0-E950.5)	21	18	17	29	20	32	17	20	36	41	39	290
Assault by drugs, medicaments and biological substances (X85; E962.0)	-	-	-	-	-	-	-	-	-	-	-	-
Poisoning by drugs, medicaments and biological substances, undetermined intent (Y10-Y14; E980.0-E980.5)	4	6	13	12	4	11	6	11	13	29	14	123
All drug related deaths	39	40	50	53	35	68	52	48	84	91	86	646

*From 2001, cause of death is coded to ICD-10, prior to this year ICD-09 was used.

Table 3b: Number of deaths due to drug misuse¹ by underlying cause of death and registration year, 1997-2007

Underlying Cause (ICD-10; ICD-09 codes)	Registration Year											Total (1997-2007)
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Mental and behavioural disorders due to drug use (excluding alcohol and tobacco) (F11-F16, F18-F19; 292, 304, 305.2-305.9)	-	-	-	-	1	3	3	-	2	1	4	14
Accidental poisoning by drugs, medicaments and biological substances (X40-X44; E850-E858)	7	10	15	8	8	10	20	8	19	10	18	133
Intentional self-poisoning by drugs, medicaments and biological substances (X60-X64; E950.0-E950.5)	4	6	4	7	12	13	6	6	16	20	17	111
Assault by drugs, medicaments and biological substances (X85; E962.0)	-	-	-	-	-	-	-	-	-	-	-	-
Poisoning by drugs, medicaments and biological substances, undetermined intent (Y10-Y14; E980.0-E980.5)	2	2	4	4	2	6	3	3	5	18	9	58
All deaths due to drug misuse	13	18	23	19	23	32	32	17	42	49	48	316

* From 2001, cause of death is coded to ICD-10, prior to this year ICD-09 was used.

¹ As defined by the current headline indicator on drug misuse (see Annex B)

13. Between 1997 and 2007, 45% of drug related deaths were due to intentional self-poisoning with a further 19% due to undetermined intent. Accidental poisoning accounted for 33% of drug related deaths between 1997 and 2007. Mental and behavioural disorders due to drug use (excluding alcohol and tobacco) accounted for a very small percentage of drug related deaths (3%) between 1997 and 2007.
14. Between 1997 and 2007, accidental poisoning accounted for over 42% of deaths due to drug misuse, with a further 35% due to intentional self-poisoning and 18% due to undetermined intent. Mental and behavioural disorders due to drug use (excluding alcohol and tobacco) accounted for a very small percentage of deaths due to drug misuse (4%) between 1997 and 2007.
15. There were no deaths due to assault by drugs, medicaments and biological substances registered in Northern Ireland between 1997 and 2007.
16. Care should be taken when comparing deaths coded using ICD-09 (before 2001) to deaths coded using ICD-10 (2001 to present) as the two classification systems do not always produce comparable figures. However research in Great Britain showed that the introduction of ICD-10 had little overall effect on the number of deaths coded as drug related deaths.

Table 4: Number of drug related deaths¹ where selected substances were mentioned² on the death certificate by registration year, 1997-2007

	Registration Year											Total (1997- 2007)
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Heroin/Morphine*	1	4	9	3	4	3	11	-	9	12	10	66
Methadone*	2	-	1	-	1	1	-	1	1	2	1	10
Cocaine*	-	-	-	1	-	2	2	-	1	1	3	10
All amphetamines*	3	1	2	2	1	3	1	1	8	2	5	29
MDMA/Ecstasy*	3	1	1	2	1	3	1	1	7	2	5	27
All benzodiazepines*	8	8	7	8	15	14	17	12	21	26	29	165
Temazepam*	3	1	4	4	9	3	7	5	3	4	8	51
Diazepam*	5	7	5	2	7	8	7	9	19	20	21	110
All antidepressants	9	10	16	19	9	16	11	12	19	25	20	166
Dothiepin	5	8	9	8	5	6	7	7	4	4	4	67
Amitriptyline	4	2	3	4	4	5	2	3	8	9	7	51
Paracetamol (includes dextropropoxyphene mentioned without paracetamol)	16	11	7	11	1	13	8	8	18	14	8	115
Codeine not from compound formulation*	-	4	1	1	5	6	2	4	6	9	16	54
Dihydrocodeine not from compound formulation*	2	6	7	7	6	12	3	3	9	14	9	78

¹ Some deaths may be counted in more than one category. For example, if heroin and temazepam are recorded on the death certificate, the death will be recorded once under heroin and once under temazepam. The numbers given are mentions of each drug and should not be added to give total deaths.

² Where a drug is mentioned as being present, this does not indicate primary responsibility for the death.

* A drug related death that mentions this drug or any drug in this class will always be a death due to drug misuse as these drugs are controlled under the Misuse of Drugs Act 1971.

Note: The total for all amphetamines, all benzodiazepines and all antidepressants is the total number of death certificates these drugs in any form have been mentioned on. For example, it is possible for temazepam and diazepam to be mentioned on the same death certificate, this would count as one death that mentions temazepam, one that mentions diazepam but would only count once in the all benzodiazepines category.

17. Antidepressants were mentioned on 166 death certificates between 1997 and 2007. Benzodiazepines were mentioned on 165 death certificates between 1997 and 2007, with diazepam mentioned on 110 death certificates. Mentions of heroin or morphine have increased between 1997 and 2007 from an annual average of five between 1997 and 1999, to an annual average of 10 between 2005 and 2007.
18. Deaths involving paracetamol and its compounds have fluctuated between 1997 and 2007 from as low as one to as high as 18 deaths, with no strong underlying trend.
19. Although not included in the tables between 1997 and 2007, around a third (37%) of drug related deaths also included a mention of alcohol.
20. Drugs commonly associated with drug addiction such as heroin and cocaine are mentioned on fewer death certificates than drugs such as amphetamines, benzodiazepines and antidepressants. Table 4 was not reproduced for deaths due to drug misuse as many of the drugs included in Table 4 are controlled under the Misuse of Drugs Act 1971 (for example, heroin, temazepam, diazepam and ecstasy), these are marked with an asterisk in Table 4.
21. The figures in Table 4 should be interpreted with caution for the following reasons:
- Where more than one drug is mentioned on the death certificate, it is not always possible to tell which drug was primarily responsible. Therefore such deaths can be counted in more than one category. For example, if heroin and temazepam are recorded on the death certificate, the death will be recorded once under heroin and once under temazepam. Hence, the number in each column cannot be added together to give a total number of deaths.
 - As heroin (diamorphine) breaks down in the body into morphine, the latter may be detected at post mortem and recorded on the death certificate. Therefore a combined figure for deaths where heroin or morphine was mentioned on the death certificate is included in Table 4.

- The figure for cocaine in Table 4 includes deaths where cocaine was taken in the form of crack cocaine. It is not possible to separately identify crack cocaine from other forms of cocaine at post mortem. Other evidence to distinguish the form of cocaine taken is rarely provided on death certificates.

22. Between 1997 and 2007, 5% of drug related deaths mentioned a 'drug overdose', a general reference to drugs or had no specific drugs mentioned on the death certificate. In 57% of deaths one drug is mentioned, in 33% of deaths two or three drugs are mentioned and in 5% of drug related deaths more than three drugs are mentioned on the death certificate.

Further Information

23. Further information on the statistics provided in this publication can be obtained from:

NISRA Customer Services
McAuley House
2-14 Castle Street
BELFAST
BT1 1SA
Phone: 028 90348160
Fax: 028 90348161
E-mail: census.nisra@dfpni.gov.uk

24. Information on prevalence rates for illegal drugs among the population; the number of problem drug users presenting for treatment and information on the use of specialist drug treatment services such as needle and syringe exchange and substitute prescribing are published by the DHSSPSNI.

For further information please contact :

Public Health Information and Research Branch
Annex 2, Castle Buildings
Stormont
BELFAST
BT4 3SQ
Phone: 028 90522520
E-mail: phirb@dhsspsni.gov.uk

25. Further information on drug related deaths in Northern Ireland by year of death is published by the following agencies:

- The National Programme on Substance Abuse Deaths¹
- The United Kingdom Focal Point (for the European Monitoring Centre for Drugs and Drug Addiction)²
- The European Monitoring Centre for Drugs and Drug Addiction (which uses both the two definitions used here as well as the EMCDDA Standard)³

NISRA

February 2009

¹ The National Programme on Substance Abuse Deaths annual report available at: <http://www.sgul.ac.uk/depts/icdp/our-programmes/national-programme-on-substance.cfm>

² The United Kingdom Focal Point annual report available at: <http://www.ukfocalpoint.org.uk/web/Publications201.asp>

³ The European Monitoring Centre for Drugs and Drug Addiction Statistical Bulletin. Available at: <http://www.emcdda.europa.eu/stats08/drd>

Annex A Definition of a Drug Related Death

1. In Northern Ireland, all deaths are coded according to the International Classification of Diseases Ninth Revision (ICD-09) for 1997 to 2000 and Tenth Revision (ICD-10) for 2001 onwards. This is in line with the rest of the United Kingdom.
2. Deaths are identified as being **drug related deaths** using the underlying cause of death according to the current National Statistics definition:

Table: ICD9 and ICD10 codes relating to **“drug related deaths”**

ICD-10 Underlying Cause Code	ICD-09 Underlying Cause Code	Description
F11–F16, F18–F19	292, 304, 305.2– 305.9	Mental and behavioural disorders due to drug use (excluding alcohol and tobacco)
X40–X44	E850–E858	Accidental poisoning by drugs, medicaments and biological substances
X60–X64	E950.0– E950.5	Intentional self-poisoning by drugs, medicaments and biological substances
X85	E962.0	Assault by drugs, medicaments and biological substances
Y10–Y14	E980.0– E980.5	Poisoning by drugs, medicaments and biological substances, undetermined intent

3. Similar information on drug related deaths is also published for other countries in the United Kingdom. The Office for National Statistics (ONS) publish annual figures for England and Wales in their Health Statistics Quarterly publication⁴ and the General Register Office for Scotland (GROS) publish annual figures on their website⁵.

⁴ “Deaths related to drug poisoning in England and Wales, 2003-2007”. Health Statistics Quarterly 39, p82-88. Available at http://www.statistics.gov.uk/downloads/theme_health/HSQ39.pdf

⁵ “Drug-Related Deaths in Scotland 2007”. Available at <http://www.gro-scotland.gov.uk/files1/stats/drug-related-deaths-in-scotland-2007/drug-related-deaths-in-scotland-2007.pdf>

Annex B: Definition of a Death Related to Drug Misuse

4. In 2000 the UK Advisory Council on the Misuse of Drugs (ACMD) published a report - Reducing Drug Related Deaths⁶. In response to this report's recommendations on improving the present system for collecting data on drug related deaths, a technical working group was set up. This group consisting of experts across government, the devolved administrations, coroners, toxicologists and drugs agencies, proposed a headline indicator for drug misuse related deaths as part of the Government's Action Plan. The Department of Health published The Government Response to the Advisory Council on the Misuse of Drugs Report into Drug Related Deaths⁷. This definition was subsequently endorsed by the ACMD.
5. This headline indicator for deaths due to drug misuse takes into account some of the information needs of the European Monitoring Centre for Drugs and Drug Addiction.
6. The definition of deaths due to drug misuse is '**deaths where the underlying cause is poisoning, drug abuse or drug dependence and where any of the substances controlled under the Misuse of Drugs Act (1971) are involved**'. This definition has been adopted across the United Kingdom.
7. The data presented in this paper is based on the number of deaths due to drug misuse, using this definition and the current list of drugs controlled under the Misuse of Drugs Act, for 2003 to 2007. The indicator is based on the current list of drugs controlled under the Misuse of Drugs Act and earlier years' data reflect any changes made to the Misuse of Drugs Act. Historic data would be amended to reflect any changes to the Misuse of Drugs Act, that is to say if a drug was added to the Misuse of Drugs Act, historical data would be updated to reflect the addition of this drug to the Misuse of Drug Act.
8. Further details for the definition for ICD-09 and ICD-10 are given below

⁶ The Advisory Council on the Misuse of Drugs (2000) Reducing drug related deaths, Home Office. Available at: <http://drugs.homeoffice.gov.uk/publication-search/acmd/reducing-drug-related-deaths/>

⁷ The Government Response to the Advisory Council on the Misuse of Drugs Report into Drug Related Deaths (2001), Department of Health. Available at: http://www.dh.gov.uk/en/Publichealth/Healthimprovement/Drugmisuse/Substancemisusegeneralinformation/DH_4064342

Definition of a Death Related to Drug Misuse for ICD-09:

9. Cause of death categories included in the headline indicator of drug misuse deaths (the relevant codes from ICD-09 are given in brackets):

a) Deaths where the underlying cause of death has been coded to the following categories:

- (i) drug psychoses (292);
- (ii) dependence on morphine-type drugs (304.0);
- (iii) dependence on barbiturate-type drugs (304.1);
- (iv) dependence on cocaine (304.2);
- (v) dependence on cannabis (304.3);
- (vi) dependence on amphetamine-type drugs or other psychostimulants (304.4);
- (vii) dependence on hallucinogens (304.5);
- (viii) dependence on combinations of morphine-type drugs with any other (304.7);
- (ix) dependence on combinations other than with morphine-type drugs (304.8);
- (x) dependence on unspecified drugs (304.9);
- (xi) nondependent abuse of cannabis (305.2);
- (xii) nondependent abuse of hallucinogens (305.3);
- (xiii) nondependent abuse of barbiturates and tranquillisers (305.4);
- (xiv) nondependent abuse of morphine-type drugs (305.5);
- (xv) nondependent abuse of cocaine-type drugs (305.6);
- (xvi) nondependent abuse of amphetamine-type drugs (305.7);
- (xvii) nondependent abuse of antidepressants (305.8); and
- (xviii) nondependent abuse of other, mixed or unspecified drugs (305.9).

b) Deaths coded to the following categories **and** where a drug controlled under the Misuse of Drugs Act 1971 was mentioned on the death record:

- (i) accidental poisoning by drugs, medicaments and biologicals (E850-E858);
- (ii) suicide and self-inflicted poisoning by solid or liquid substances (E950.0-E950.5);
- (iii) poisoning by solid or liquid substances, undetermined whether accidentally or purposely inflicted (E980.0-E980.5);
- (iv) assault by poisoning – drugs and medicaments (E962.0); and
- (v) dependence on other drugs (304.6).

Definition of a Death Related to Drug Misuse for ICD-10:

10. Cause of death categories included in the headline indicator of drug misuse deaths (the relevant codes from ICD-10 are given in brackets):

a) deaths where the underlying cause of death has been coded to the following categories of mental and behavioural disorders due to psychoactive substance use (excluding alcohol, tobacco and volatile substances):

- (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 controlled under the Misuse of Drugs Act 1971 was mentioned on the death record:

- (i) Accidental poisoning by drugs, medicaments and biological substances (X40–X44);
- (ii) Intentional self-poisoning by drugs, medicaments and biological substances (X60–X64);
- (iii) Poisoning by drugs, medicaments and biological substances, undetermined intent (Y10–Y14);
- (iv) Assault by drugs, medicaments and biological substances (X85); and
- (v) Mental and behavioural disorders due to use of volatile substances (F18)

- Deaths coded to opiate abuse which resulted from the injection of contaminated heroin have been *included* in the indicator. This differs from the approach taken in Scotland, where these deaths have been *excluded*. This is because the General Register Office for Scotland (GROS) is able to identify deaths which occurred as a result of the use of contaminated heroin, whereas in Northern Ireland similar to England and Wales, these deaths cannot be readily identified. In practice, in Northern Ireland, they will only be included where the drug was mentioned on the death record and the death was coded to one of the ICD codes for drug-related poisonings and not to an infection code.

- Specific rules were adopted for dealing with compound analgesics which contain relatively small quantities of drugs listed under the Misuse of Drugs Act, the major ones being dextropropoxyphene, dihydrocodeine and codeine. Where these drugs are mentioned on a death record, they have been excluded if they are part of a compound analgesic (such as coproxamol, co-dydramol or co-codamol) or cold remedy. Dextropropoxyphene has been excluded on all occasions, whether or not paracetamol or a compound analgesic was mentioned. This is because dextropropoxyphene is rarely, if ever, available other than as part of a paracetamol compound. However, codeine or dihydrocodeine mentioned alone were included in the indicator. This is because they are routinely available and known to be abused in this form. This approach is the same as that taken by GROS.
- Drugs controlled under the Misuse of Drugs Act 1971 include class A, Band C drugs.

Annex C: Issues Concerning Drug Related Deaths

11. There are a number of classification issues associated with measuring drug related deaths, this means that the statistics produced need to be interpreted with caution. This annex explains some of these problems by describing the procedures by which data on drug related deaths are collected and compiled.
12. One of the main difficulties in producing statistics on drug related deaths relates to the definition of drug related deaths, since deaths involving drugs may occur under a range of different circumstances. For example, the deceased may be a long term addict or an occasional recreational user; the drugs involved may be controlled drugs, prescribed substances or a mixture; the death may be due to direct, indirect or long term effects of drug use and it may be an accident, suicide or a homicide. However, it is not always possible to make these distinctions from the information available regarding the circumstances of the death and in a small number of cases the death is recorded as undetermined intent.
13. Drug related deaths include accidents and suicides involving drug poisoning, as well as poisonings due to drug abuse and drug dependence, but not other adverse effects of drugs such as cardiovascular disease or kidney failure. Some deaths that may be regarded as drug related deaths have been excluded; for example, deaths from road traffic accidents which occurred under the influence of drugs would be excluded, as in this case the cause of death would be recorded as a road traffic accident.
14. Deaths from substances of abuse which are not traditionally regarded as drugs, such as alcohol and tobacco, as well as over the counter drugs are also excluded from the definition used here.

Civil Registration Process/Timing

15. Usually after someone dies, a Medical Certificate of Cause of Death (MCCD) is signed by the doctor confirming the cause of death. For funeral arrangements a MCCD or equivalent must be available to the undertaker. For cremation purposes a further medical practitioner must confirm the person is deceased – this is usually dealt with by the undertaker/crematorium. The undertaker also informs the deceased's family about the civil registration process. Therefore there are no strict requirements for a civil death certificate to be issued prior to burial/cremation.

16. By law, deaths occurring in Northern Ireland must be registered on the Northern Ireland civil register. A death should be registered no later than five days from the date of death. In practice this does not always happen for a number of reasons. The most relevant being coroner's cases, around 25% of all deaths are referred to the Coroner, however, between 1997 and 2007, 99% of drug related deaths were referred to the Coroner.
17. All the data presented in this paper relates to the date of registration of the event and not to the date of occurrence. For events such as drug related deaths, which are likely to be referred to the coroner, it can take some time for the event to be registered. 78% of the drug related deaths recorded between 1997 and 2007 were not registered in the year in which they occurred.
18. Prior to 2004 there were seven coroner's districts in Northern Ireland, following a review of the coroner's service the separate districts were amalgamated into one centralised coroner's service. This change may affect the timing of registration of deaths with statistics from 2004 onwards being more timely and consistent.

Collecting Data on Drug Related Deaths

19. The law requires that in certain circumstances a death must be reported to a Coroner for investigation. The Coroner will usually be notified by a doctor or by the police, where a death appears to be unexpected or unexplained, as a result of violence, an accident, as a result of negligence, due to industrial disease or from any cause other than natural illness or disease. Deaths must also be reported when the cause of death is unknown or a doctor has not seen and treated the person for the fatal illness during the previous 28 days. The Coroner's primary function is to establish the cause of death by making whatever inquiries are necessary to do this e.g. ordering a post-mortem examination, obtaining witness statements and medical records, or holding an inquest.
20. The Coroner will decide if a post-mortem examination should be carried out. In Northern Ireland, the Coroner will direct the State Pathologist's Department or Hospital Pathology Department to carry it out. Most Coroners' post-mortem examinations are carried out by the State Pathologist's Department at Belfast City Mortuary. The post-mortem may, but does not necessarily, include a toxicological examination. Where a toxicological examination is carried out, there is still no guarantee that all substances present in the deceased's body will be identified; only those drugs which are tested for will be detected.

Similarly where several substances are detected, the post-mortem may not be sufficiently detailed to detect which was primarily responsible for the death.

21. Following the post-mortem the Coroner will then consider if an inquest needs to be held. If the Coroner decides that an inquest is not necessary the Registrar of Deaths will be notified and the death can then be registered and a Death Certificate issued.
22. If an inquest is to be held it will not be possible to register the death or have a Death Certificate issued until the inquest has been completed. An inquest is not a trial; it is a public inquiry by a Coroner, sitting with or without a jury, into the circumstances surrounding the death. The purpose of the inquest is to determine the identity of the person who has died, how, when and where they died, and to provide the details that the Registrar of Deaths requires to allow the death to be registered and a certificate issued.
23. On the death certificate there will be the general details of the deceased such as name, age, sex, date of death, occupation, usual address, along with the cause of death from the Coroner's investigation. The Coroner in the case of unnatural deaths will also make a determination of whether the death was accidental, suicide, homicide or of undetermined intent.
24. The Coroner's findings are then sent to the Registrar who registers the death using the information together with details from an informant (usually a relative). The Registrar does not receive the reports by the pathologist or the police. NISRA only receives the information recorded on the death certificate.
25. In the cause of death section of the certificate, the coroner may mention any drugs identified but, where more than one substance is recorded, there is usually no indication of the relative quantities or which substance was likely to be responsible for the death. Occasionally only a general description, such as 'drug overdose', is recorded without the actual drugs taken being specified.
26. For each drug related death, a list of substances involved in the death may be recorded on the death certificate. The range of substances listed is wide, including legal and illegal drugs, prescription drugs and over-the-counter medications. However, deaths from poisoning with non-medicinal substances such as household, agricultural or industrial chemicals are not included in this report.

27. The process of investigating a death and holding an inquest can delay the registration of a death. Therefore it should be noted that some deaths in the tables in this report may not be registered in the same year that they occurred.

Coding Cause of Death

28. All causes of death mentioned on the death registration form since 2001 are coded according to the International Classification of Diseases (Tenth Revision), ICD-10. Prior to 2001 the Ninth version of the International Classification of Diseases was used. There are five main groups of ICD-10 codes which cover deaths directly due to drugs. A table detailing the ICD-09 and ICD-10 codes which cover drug related deaths can be found in Annex A.

29. Drug dependence and non-dependent abuse of drugs are not coded separately, but combined into 'Mental and behavioural disorders due to drug use (excluding alcohol and tobacco).

30. Each death registered has an underlying cause of death which reflects the verdict of the Coroner. Many deaths also have associated or secondary causes of death which are reported by the Coroner. The tables in this paper are based on the underlying cause of death.

31. Information on the text field of cause of death from the death certificate is only available electronically from 1997 onwards so all tables in this report start at 1997 as it is not possible to analyse earlier years' deaths in this way.