

DRUG-RELATED DEATHS IN ENGLAND,  
NORTHERN IRELAND, THE CHANNEL ISLANDS  
AND THE ISLE OF MAN:  
JANUARY-DECEMBER 2013

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## Preface

This surveillance report presents information on drug-related deaths that occurred during 2013 and for which Coronial inquests and similar formal investigations have been completed and information submitted. Its main purpose is to provide an analytical summary of data received, and, through consistent surveillance, to detect and identify emerging patterns and issues in respect of drug-related deaths.

The National Programme on Substance Abuse Deaths (NPSAD) could not achieve its goals and objectives without the invaluable voluntary collaboration and co-operation of Coroners and their staff across England, Northern Ireland, Guernsey, Jersey, and the Isle of Man. We thank them all for their active participation and support.

As in previous years, the statistics in this report are intended to inform authorities at local, regional and national levels, as well as health and other professionals about the serious consequences of drug abuse, especially polydrug use.

Previously, NPSAD has reported on the entirety of the UK, however due to the nature of data from Scotland and Wales, we have restricted this report to England, Northern Ireland, Guernsey, Jersey and the Isle of Man.

Please note that figures reported by the Programme for England do not match those reported by the Office of National Statistics (ONS) from the general mortality register for the same year for several reasons.

Firstly; the Programme's statistics are based on deaths occurring within the reporting year whereas ONS report on drug-related deaths registered in the year, and therefore the death may not have occurred in the registration year.

Secondly; statistics reported by substance or group of substances relate only to cases where that substance was implicated in death, except where otherwise stated, whereas ONS report substances mentioned on the death certificate.

Thirdly; it should also be noted that because reporting to the Programme is voluntary, information is not received from all Coroners. For 2013 deaths, 81.5% of Coroners in England submitted information to the Programme.

## Acknowledgements

We are grateful to the Coroners of England, Northern Ireland, Guernsey, Jersey, and the Isle of Man, and their deputies, assistant-deputies and staff, for providing the information in this report. In some areas, the Coroners do not have the resources to provide information but have kindly permitted others that collate such information to pass this on to us on their behalf; we thank those individuals who have contributed information in this way. Thanks are also due to those Coroners that have allowed staff to visit them and extract data from their records.

## Key findings

### England – National Programme on Substance Abuse Deaths (NPSAD) definition

A total of 1,344 drug-related deaths were reported for 2013. The demographics and the substances implicated in death remained relatively stable. However, in 2013 there was a continuation of the marked increase in the proportion of deaths involving heroin/morphine seen in 2011 and 2012, whilst the reduction in methadone-related deaths over the same period appears to have slowed. As seen in both 2011 and 2012, the most common prescribed medications implicated in death were anti-depressants and hypnotics/sedatives.

### England – Drug Strategy (DS) ‘drug misuse’ definition

A total of 1,115 ‘drug misuse’ deaths were reported for 2013 (1,041 in 2012). After the substantial increase in the proportion of deaths attributed to heroin/morphine from 2011 to 2012 noted in last year’s report (37.7% to 41.3%), the proportion in 2013 continued to rise to pre-2010 levels, at 46.3%. Heroin/morphine therefore remained the most frequently implicated substance in those deaths qualifying as DS cases.

### Northern Ireland – NPSAD definition

The number of NPSAD deaths reported for 2013 was 106. As found in recent years, heroin/morphine-related and methadone-related deaths were much less prominent, whilst other opiates/opioid analgesics played a much greater role in Northern Ireland (51.5% of psychoactive drugs deaths) compared to 30.7% for England. The proportion of deaths involving these drugs however, fell by 9.8%, whilst deaths involving alcohol in combination with other drugs fell by 15.3%. Meanwhile, deaths involving ecstasy-type drugs and cocaine both increased, by 7.3% and 4.8% respectively.

### Guernsey, Jersey and the Isle of Man – NPSAD definition

The Programme was notified of three deaths on the Isle of Man, two on Jersey and one on Guernsey during 2013.

### Novel Psychoactive Substances – England, Northern Ireland, Guernsey, Jersey and the Isle of Man

A full list of substances that have been included under this section in this report can be found in the accompanying [data tables](#) (Tables 8a and 8b). There is no universally agreed definition of Novel Psychoactive Substances (NPS). Some substances that were counted as NPS in previous reports have been removed from this category and as such are not included in these figures.

The number of deaths in England in 2013 in which NPS were implicated fell slightly from 2012, however for Northern Ireland the number of such cases increased from three to 15.



## Drug-related deaths in England, NPSAD definition

This chapter examines NPSAD drug-related deaths which occurred in England in 2013, reported voluntarily by Coroners.

An NPSAD case is defined as a death where any of the following criteria are met at a completed inquest, fatal accident inquiry or similar investigation: one or more psychoactive substance directly implicated in death; history of dependence or abuse of psychoactive drugs; presence of controlled drugs at post mortem; and/or cases with deaths directly due to drugs but with no inquest.

Responses were voluntarily submitted from a total of 75 out of 92 Coroners' jurisdictions in England, giving a total coverage rate of 81.5%; for an entirely voluntary process this represents a very high compliance rate.

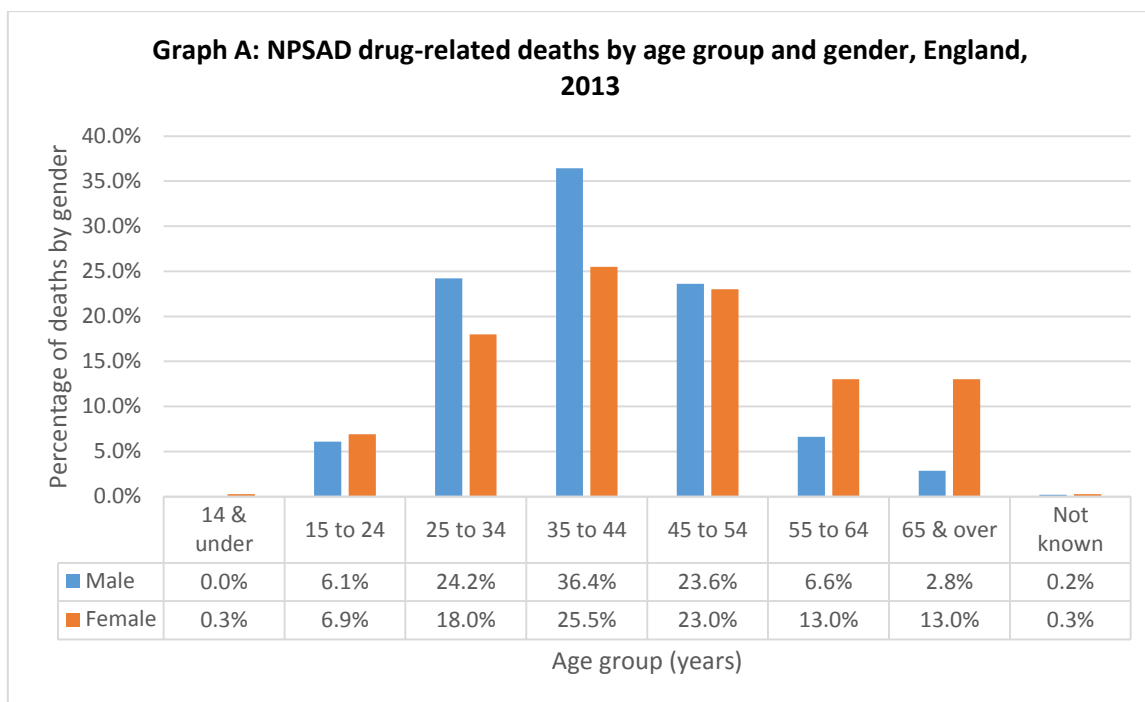
This chapter examines the overall demographics of drug-related deaths cases reported to NPSAD and examines cases that capture a range of psychoactive drugs. It covers the history of drug use irrespective of the cause of death, and includes a comparison between those with a history of drug use and those without.

### Demography

A total of 1,344 drug-related deaths in England were reported to the Programme for the year 2013. Males accounted for 73.1% of cases, whilst 26.9% were female. Almost half (48.0%) were known to be unemployed, and 46.9% were known to live alone. Again, consistent with last year, two-thirds of decedents were under the age of 45 (62.4%), with 41.0 being the median age at death (interquartile range = 16.0). See Table A and Graph A below for more demographic information, as well as Table 4a in the accompanying [data tables](#) for NPSAD case demographic information by DAAT area of death.

**Table A: Demographic variables for NPSAD drug-related deaths, England, 2013**

	Category	Number	%
<b>TOTAL</b>		1344	100.0%
<b>Gender</b>	<b>Male</b>	983	73.1%
	<b>Female</b>	361	26.9%
<b>Employment status</b>	<b>Employed</b>	405	30.1%
	<b>Unemployed</b>	645	48.0%
	<b>Childcare/house person</b>	23	1.7%
	<b>Student</b>	24	1.8%
	<b>Retired/invalidity/sickness</b>	124	9.2%
	<b>Not Known</b>	115	8.6%
<b>Living arrangement</b>	<b>Alone</b>	630	46.9%
	<b>With others</b>	500	37.2%
	<b>Other</b>	32	2.4%
	<b>No fixed abode</b>	35	2.6%
	<b>Not known</b>	147	10.9%
<b>Ethnicity</b>	<b>Black</b>	6	0.4%
	<b>White</b>	756	56.3%
	<b>Other</b>	21	1.6%
	<b>Not known</b>	561	41.7%



### Location of death

In 2013, 69.5% of cases died either at their home address or at another private residential address, such as a friend's home; 15.3% died in hospital; 5.3% died in public places (e.g. parks or public facilities); and 8.3% died at other or unknown locations. These findings are very similar to those for 2012 deaths. See Table 7a and 7b in the accompanying [data tables](#) for NPSAD case death rates by DAAT for 2012 and 2013.

### Manner of death

The results for 2013 cases are as follows:

- Accidental: 70.0%
- Suicidal: 16.4%
- Undetermined: 11.6%
- Natural: 1.9%
- Unclassified/unknown: 0.1%

The proportion of accidental deaths in 2013 is 6.5% higher than in 2012, and this is largely accounted for by a small drop in the proportions attributed to natural (-2.4%) and undetermined (-3.8%) manners. The proportion of suicides remained stable (16.3% in 2012).

As found in previous years, a greater proportion of male deaths were ruled accidental compared to female deaths (73.0% vs. 61.8%). In contrast, suicides accounted for 6.3% more deaths amongst females than amongst males (21.1% vs. 14.8%), and deaths of an undetermined manner were also more common amongst females than males (15.2% vs. 10.3%).

Accidental deaths were again more prevalent amongst those aged under 45 years than in older cases (77.7% vs. 57.2%), whilst conversely, those aged 45 years and over had proportionately more deaths attributed to suicide than younger cases (26.7% vs. 10.3%) and also more deaths attributed to an undetermined manner (13.9% vs. 10.3%).

## Psychoactive substances implicated in death

Of the 1,344 NPSAD deaths in England in 2013, psychoactive drugs – including alcohol in combination with other substances – were directly implicated in 1,237 (92.0%). This represents a slight increase when compared with the deaths in 2012, of which 89.7% (n = 1,222/1,363) involved psychoactive substances. Demographic information for NPSAD cases by primary drug types (Table 1a) can be found in the accompanying [data tables](#).

The principal substances implicated in the 2013 cases were heroin/morphine (40.8%); opiates/opioid analgesics (30.7%; with codeine accounting for 13.7%; tramadol for 10.2%); alcohol in combination with other substances (30.0%); hypnotics/sedatives (24.7%; with diazepam accounting for 16.4%; Z drugs for 5.0%); antidepressants (22.9%); and methadone (21.4%). See Table B for more information, and Table 5a in the accompanying [data tables](#).

**Table B: Psychoactive substances implicated in NPSAD deaths, England, 2013**

Drug category	Number of sole-drug deaths	% of all drug deaths	Total deaths (sole & in combination)	% deaths (sole & in combination)
<b>TOTAL</b>	-	-	1237	100.0%
<b>Alcohol in combination</b>	-	-	371	30.0%
<b>Amphetamines</b>	13	1.1%	47	3.8%
<b>Antidepressants</b>	50	4.0%	283	22.9%
Venlafaxine	7	0.6%	30	2.4%
<b>Antiepileptics</b>	2	0.2%	50	4.0%
Gabapentin	0	0.0%	17	1.4%
Pregabalin	0	0.0%	17	1.4%
<b>Antiparkinsons</b>	0	0.0%	3	0.2%
<b>Antipsychotics</b>	13	1.1%	83	6.7%
<b>Cannabis</b>	3	0.2%	18	1.5%
<b>Cocaine</b>	31	2.5%	151	12.2%
<b>Ecstasy-type</b>	17	1.4%	33	2.7%
<b>Heroin/morphine</b>	131	10.6%	505	40.8%
<b>Hypnotics/sedatives</b>	19	1.5%	306	24.7%
Diazepam	1	0.1%	203	16.4%
Z drugs	3	0.2%	62	5.0%
<b>Methadone</b>	48	3.9%	265	21.4%
<b>Other opiates/opioid analgesics</b>	77	6.2%	380	30.7%
Codeine	4	0.3%	169	13.7%
Tramadol	35	2.8%	126	10.2%

Compared to 2012, 2013 saw proportional increases in deaths involving amphetamines; antiepileptics; cocaine; heroin/morphine; hypnotics/sedatives; and other opiates/opioid analgesics. Drops were seen in the proportion of deaths involving alcohol in combination; antidepressants; antipsychotics; cannabis; ecstasy-type drugs; and methadone.

The most marked increases for drugs when alone and in combination between 2012 and 2013 were for heroin/morphine (+6.5%); other opiates/opioid analgesics (+3.5%); and cocaine (+2.1%). The largest drop seen was in antidepressants (-2.3%) whilst the remainder were negligible decreases.

In terms of sole drug-related deaths, the greatest increases between 2012 and 2013 were again for heroin/morphine (1.9%) and other opiates/opioid analgesics (1.3%). See Tables C and D for more information, and Table 6a in the accompanying [data tables](#).

**Table C: Changes in percentages of psychoactive substances, alone and in combination, implicated in psychoactive substance NPSAD deaths, England, 2012 and 2013**

Substance alone and in combination	2012 (n = 1,033) %	2012 (n = 1,222) %	2013 (n = 1,237) %	Change in %
Alcohol in combination	33.7	31.2	30.0	-1.2
Amphetamines	4.0	3.4	3.8	+0.4
Antidepressants	25.1	25.2	22.9	-2.3
Antiepileptics	2.4	2.8	4.0	+1.2
Antiparkinsons	0.2	0.3	0.2	-0.1
Antipsychotics	5.8	7.2	6.7	-0.5
Cannabis	2.3	2.2	1.5	-0.7
Cocaine	11.1	10.1	12.2	+2.1
Ecstasy-type	3.7	4.0	2.7	-1.3
Heroin/morphine	35.2	34.3	40.8	+6.5
Hypnotics/sedatives	24.1	24.5	24.7	+0.2
Methadone	22.7	22.7	21.4	-1.3
Other opiates/ opioid analgesics	26.7	27.2	30.7	+3.5
Excluded from analysis due to update				

**Table D: Changes in percentages of psychoactive substances implicated alone in psychoactive substance NPSAD deaths, England, 2012 and 2013**

Substance alone	2012 (n = 1,033) %	2012 (n = 1,222) %	2013 (n = 1,237) %	Change in %
Amphetamines	1.5	1.0	1.1	+0.1
Antidepressants	4.6	4.5	4.0	-0.5
Antiepileptics	0.6	0.6	0.2	-0.4
Antiparkinsons	0.0	0.0	0.0	0.0
Antipsychotics	0.5	0.6	1.1	+0.5
Cannabis	0.2	0.2	0.2	0.0
Cocaine	2.3	2.0	2.5	+0.5
Ecstasy-type	1.8	2.0	1.4	-0.6
Heroin/morphine	8.5	8.7	10.6	+1.9
Hypnotics/sedatives	2.3	2.0	1.5	-0.5
Methadone	3.9	3.8	3.9	+0.1
Other opiates/ opioid analgesics	4.5	4.9	6.2	+1.3
Excluded from analysis due to update				

### Psychoactive substances most frequently implicated for each age group

For those aged 14 years and under, the one death reported involved other opiates/opioid analgesics, whilst for 15-24 year olds, heroin/morphine was implicated most often, but in 2012 it was alcohol in combination with other drugs. For both 2012 and 2013, heroin/morphine was implicated far more often than any other substance in deaths amongst 25-44 year olds. Other opiates/opioid analgesics accounted for the greatest number of deaths in the 45-54; 55-64; and 65+ groups whereas in 2012 the most prevalent substances in these groups were alcohol in combination; antidepressants; and hypnotics/sedatives respectively. See Table E for more information.

**Table E: Age group and psychoactive substances implicated in NPSAD deaths, England, 2013**

	Age group at death								Total for substance and % of total deaths
	14 & under	15-24	25-34	35-44	45-54	55-64	65 & over	not known	
<b>TOTAL</b>	1	76	279	412	294	102	70	3	1237
<b>Alcohol</b>	0 0.0%	18 23.7%	76 27.2%	141 34.2%	94 32.0%	26 25.5%	15 21.4%	1 33.3%	371 30.0%
<b>Amphetamines</b>	0 0.0%	5 6.6%	18 6.5%	15 3.6%	8 2.7%	1 1.0%	0 0.0%	0 0.0%	47 3.8%
<b>Antidepressants</b>	0 0.0%	8 10.5%	44 15.8%	89 21.6%	97 33.0%	28 27.5%	16 22.9%	1 33.3%	283 22.9%
<b>Antiepileptics</b>	0 0.0%	1 1.3%	9 3.2%	18 4.4%	13 4.4%	5 4.9%	4 5.7%	0 0.0%	50 4.0%
<b>Antiparkinsons</b>	0 0.0%	0 0.0%	2 0.7%	1 0.2%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	3 0.2%
<b>Antipsychotics</b>	0 0.0%	2 2.6%	20 7.2%	33 8.0%	23 7.8%	4 3.9%	1 1.4%	0 0.0%	83 6.7%
<b>Cannabis</b>	0 0.0%	3 3.9%	6 2.2%	8 1.9%	1 0.3%	0 0.0%	0 0.0%	0 0.0%	18 1.5%
<b>Cocaine</b>	0 0.0%	10 13.2%	51 18.3%	46 11.2%	35 11.9%	7 6.9%	1 1.4%	1 33.3%	151 12.2%
<b>Ecstasy-type</b>	0 0.0%	16 21.1%	18 6.5%	11 2.7%	4 1.4%	1 1.0%	0 0.0%	0 0.0%	50 4.0%
<b>Heroin/morphine</b>	0 0.0%	23 30.3%	137 49.1%	201 48.8%	99 33.7%	28 27.5%	16 22.9%	1 33.3%	505 40.8%
<b>Hypnotics/sedatives</b>	0 0.0%	10 13.2%	72 25.8%	110 26.7%	69 23.5%	25 24.5%	18 25.7%	2 66.7%	306 24.7%
<b>Methadone</b>	0 0.0%	10 13.2%	57 20.4%	115 27.9%	66 22.4%	15 14.7%	0 0.0%	2 66.7%	265 21.4%
<b>Other opiates/ opioid analgesics</b>	1 100%	17 22.4%	73 26.2%	116 28.2%	100 34.0%	42 41.2%	31 44.3%	0 0.0%	380 30.7%

### Gender and implicated psychoactive substance

As found in 2012, the type of psychoactive substances implicated in death is somewhat different between males and females. Amongst male psychoactive drug cases (n = 900), the top five substances implicated in death (both alone and in combination), presented in numerical order, were:

1. Heroin/morphine: 44.8%
2. Alcohol in combination: 32.2%
3. Other opiates/opioid analgesics: 28.1%
4. Hypnotics/sedatives: 24.7%
5. Methadone: 21.7%

This is the same ranking as in 2012 with the exception that hypnotics/sedatives and methadone have changed places. The proportions of male deaths attributed to heroin/morphine; other opiates/opioid analgesics; and hypnotics/sedatives have increased slightly from 2012, with corresponding drops for methadone and alcohol in combination.

Among female psychoactive drug cases (n = 337):

1. Other opiates/opioid analgesics: 37.7%
2. Antidepressants: 32.7%
3. Heroin/morphine: 30.3%
4. Alcohol in combination: 26.7%
5. Hypnotics/sedatives: 24.9%

The order has changed somewhat compared to 2012, with a substantial increase in the proportion of female deaths in which other opiates/opioid analgesics were implicated with a corresponding large drop in the proportion which were antidepressant-related deaths. A smaller increase between 2012 and 2013 was seen in heroin/morphine-related for female deaths than for males, whilst a slight drop was found in the proportion of deaths involving alcohol in combination.

Comparing males and females directly, male deaths were more often attributed to heroin/morphine; alcohol in combination; amphetamines; cocaine; ecstasy-type drug and methadone, whilst for females, proportionately more deaths involved antidepressants; other opiates/opioid analgesics; antiepileptics; antipsychotics; cannabis; and hypnotics/sedatives.

### **Polysubstances**

Alcohol has always featured in a large proportion of certain drug deaths in NPSAD figures, and for 2013 this is no different. Alcohol was implicated in 37.8% of all deaths in which heroin/morphine was also implicated; 37.3% involving hypnotics/sedatives; 35.5% involving methadone; 33.3% involving cannabis; and 31.1% involving cocaine.

Heroin/morphine was implicated in half of all hypnotics/sedatives deaths; 44.4% of all cocaine-related deaths; and 40.4% of methadone deaths. Meanwhile hypnotics/sedatives featured in over half (52.0%) of deaths involving anti-epileptics. They were also implicated in 41.1% of all methadone deaths; and 39.8% of all antipsychotic-related deaths. See Table 2a in the accompanying [data tables](#) for a cross tabulation of key implicated substance types.

These figures are broadly similar to 2012, however with a slight increase in the proportion of deaths attributed to heroin/morphine and hypnotics/sedatives combined.

### **Single substances**

In 2013, there were 404 psychoactive substance-related deaths in which only one of the following substances was implicated, representing 32.7% of all relevant deaths. Of these 404 single substance deaths, heroin/morphine accounted for 32.4%; other opiates/opioid analgesics – 19.1%; antidepressants – 12.4%; methadone 11.9%; cocaine – 7.7%; hypnotics/sedatives – 4.7%; ecstasy-type – 4.2%; amphetamines – 3.2%; antipsychotics – 3.2%; cannabis – 0.7%; and antiepileptics – 0.5%. These proportions are broadly similar to 2012, with the greatest differences seen for heroin/morphine and other opiates/opioid analgesics, which both increased. See Table 1a in the accompanying [data tables](#).

## Prescribed psychoactive drugs

Three-quarters (75.0%) of those prescribed morphine had the drug implicated in death, and of those prescribed methadone, 69.9% of their deaths were deemed to have been as a direct result of methadone, either alone or in combination with other substances. Just under two-thirds of those prescribed other opiates/opioid analgesics had that drug type implicated in death. See Table F below for more information, and Table 3a in the accompanying [data tables](#).

The proportions prescribed the drugs involved in their death were nigh-identical to 2012, with just 7.1% of heroin/morphine-related cases reported as having been prescribed the prescription equivalent.

Of the 265 individuals who died from a methadone-related death, just 32.5% were known to have been prescribed it, meaning up to 67.5% were not.

The opposite was found for the cases in which antidepressants (such as amitriptyline and fluoxetine) were implicated, with 69.3% confirmed as having been prescribed such medications, whilst the remaining 30.7% may have taken antidepressants not prescribed for them.

Just 126 of the 306 (41.1%) people whose deaths related to hypnotics/sedatives (including diazepam and zopiclone) were known to be prescribed such drugs.

Only 37.4% of those cases with other opiates/opioid analgesics (such as dihydrocodeine and tramadol) implicated in death were definitely prescribed the drugs.

**Table F: Prescribed psychoactive medication, NPSAD cases, England, 2013**

Drug category	Number prescribed drug	% prescribed drug	Number prescribed & implicated	% prescribed & implicated
<b>TOTAL</b>	783	100.0%	-	-
<b>Antidepressants</b>	491	62.7%	196	39.9%
<b>Antiepileptics</b>	147	18.8%	25	17.0%
<b>Antiparkinsons</b>	16	2.0%	3	18.8%
<b>Antipsychotics</b>	181	23.1%	56	30.9%
<b>Morphine</b>	48	6.1%	36	75.0%
<b>Hypnotics/sedatives</b>	319	40.7%	126	39.5%
<b>Methadone</b>	123	15.7%	86	69.9%
<b>Other opiates/ opioid analgesics</b>	233	29.8%	142	60.9%

## Drug abuse/dependence

Information pertaining to drug abuse/dependence history was available for 1,067/1,344 cases reported to the Programme for 2013, and of these, those with such a history – drug abusers (DAs) – accounted for 63.9% (682/1,067), whilst those without such a history – non drug abusers (NDAs) – accounted for 36.1% of cases. These proportions are similar to those reported for 2012, but with a 2.1% decrease in the proportion of DAs.

Those whose status was given as ‘not known’ were excluded from further analysis (277/1,344).



## Demography

A greater proportion of DAs than NDAs were male (79.8% vs. 63.4%) and 44 years and younger (71.3% vs. 47.5%). The median ages at death also differed between DAs and NDAs – 39.0 (interquartile range = 13.0) and 46.0 (interquartile range = 20.5) respectively.

## Location of death

For cases where the location of death was known, a slightly greater proportion of NDAs than DAs died at home or at another private residential address (78.0% vs. 71.9%); slightly more DAs died in hospital than NDAs (17.9% vs. 14.7%); and double the proportion of DAs than NDAs died in a public place, such as in a park or public building (7.0% vs. 3.5%).

## Manner of death

In previous years, NPSAD DA cases have typically had more deaths attributed to accidents than NDAs, whilst the latter group have had proportionately more suicides and deaths of an undetermined manner. The deaths for 2013 are no exception to this trend, with accidental deaths in DAs attributed to 84.0% vs. 49.9% for NDAs; undetermined deaths 7.0% vs. 18.7% respectively; and suicides at 6.9% vs. 30.1% respectively.

## Mental health problems

Coroners submitting drug-related cases to the Programme will often include information on the mental health of decedents, if such information is available. However, information of this nature is not routinely submitted, thus the figures presented here are to be regarded as the minimum.

Of the 1,344 cases for 2013 in England reported to the Programme, 350 (26.0%) were reported as having some kind of mental health problem, such as depression; paranoid schizophrenia; bipolar disorder etc. As noted above, this does not necessarily mean that the remaining 74.0% (n = 994) did not have any mental health problems, just rather that information pertaining to such conditions was not submitted to the Programme.

Of those with a known history of mental health problems, where drug abuse/dependence history status was also known, 59.5% (160/269) had a history of drug abuse or dependence.

The manner of death distribution for the group was as follows:

- Accidental: 59.7%
- Suicidal: 23.4%
- Undetermined: 14.9%
- Natural: 2.0%

Over three-quarters (77.1%) were known to be prescribed psychoactive medication, whilst the remainder were either confirmed as not (9.1%), or their prescription status was not known (13.7%).

The principal mental health conditions reported were (total will sum to more than 100% due to some cases having more than one condition):

- Depression: 61.1%
- Anxiety: 18.6%
- Schizophrenia: 14.9%
- Paranoia: 6.6%
- Psychosis: 6.3%
- Bipolar: 6.0%

- Eating disorder: 2.3%
- Post-traumatic stress disorder: 0.9%
- Unspecified: 21.4%

## Drug-related deaths in England, Drug Strategy ‘drug misuse’ definition

This chapter examines Drug Strategy (DS) defined ‘drug misuse’ deaths which occurred in England in 2013, reported voluntarily by Coroners.

There are two types of ‘drug misuse’ death: the first is where the underlying cause of death is mental and/or behavioural disorders due to psychoactive substance use (excluding alcohol, tobacco and volatile solvents). The second is where a drug controlled under the Misuse of Drugs Act 1971 and the underlying cause of death is one of the following: (i) Accidental poisoning by drugs, medicaments and biological substances; (ii) Intentional self-poisoning by drugs, medicaments and biological substances; (iii) Poisoning by drugs, medicaments and biological substances, undetermined intent; (iv) Assault by drugs, medicaments and biological substances; and (v) Mental and behavioural disorders due to use of volatile solvents.

To derive these cases, the following two categories of cases are excluded from the NPSAD cases: (a) deaths of non-drug abusers where no controlled drugs were found at post mortem or where specific compound analgesics were found at post mortem; and (b) deaths of drug abusers where no controlled drugs were found at post mortem or where specific compound analgesics were found at post mortem and the mechanism of death was traumatic, such as hanging, drowning, car accident, etc. For this reason, ‘drug misuse’ cases will typically number fewer than NPSAD cases, as only NPSAD cases are reported to the Programme, and it is from these that ‘drug misuse’ cases are derived.

The first section in this chapter examines the overall demographics of drug-related deaths cases reported to NPSAD; examines cases that capture a range of psychoactive drugs; and covers the history of drug use irrespective of the cause of death. Included within this section is a comparison of those with a history of drug use against those without.

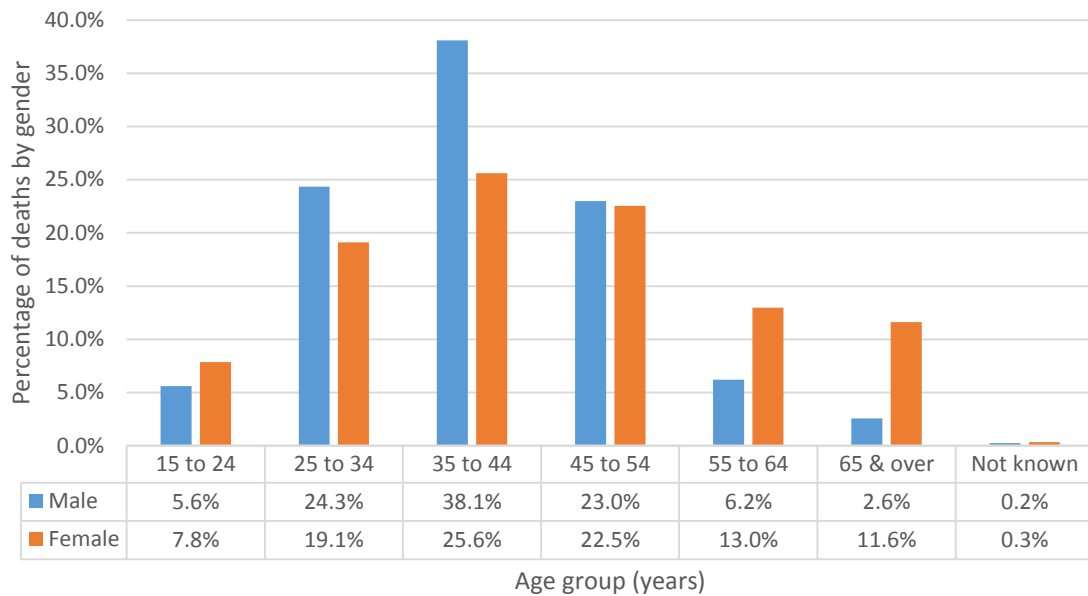
### Demography

A total of 1,115 ‘drug misuse’ deaths in England were reported to the Programme for 2013, with males accounting for 73.7% and females 26.3%. Just over half of cases were known to be unemployed (50.4%), with 47.5% known to be living alone. Two-thirds (63.9%) of cases were under the age of 45 years at the time of their death, with the median age at death being 40.0 (interquartile range = 15.0). See Table G and Graph B for more details, as well as Table 4b in the accompanying [data tables](#) for DS case demographic information by DAAT area of death.

**Table G: Demographic variables for DS drug-related deaths, England, 2013**

	Category	Number	%
<b>TOTAL</b>		1115	100.0%
<b>Gender</b>	Male	822	73.7%
	Female	293	26.3%
<b>Employment status</b>	Employed	322	28.9%
	Unemployed	562	50.4%
	Childcare/house person	19	1.7%
	Student	19	1.7%
	Retired/invalidity/sickness	100	9.0%
	Not Known	87	7.8%
	<b>Living arrangement</b>	Alone	530
With others		408	36.6%
Other		30	2.7%
No fixed abode		35	3.1%
Not known		112	10.0%
<b>Ethnicity</b>	Black	4	0.4%
	Indian	4	0.4%
	Pakistani	6	0.5%
	White	644	57.8%
	Other	8	0.7%
	Not known	449	40.3%

**Graph B: DS drug-related deaths by age group and gender, England, 2013**



## Location of death

Those who died at their home or at another private residential address accounted for 71.7% of cases; 14.3% died in hospital; 3.8% died in parks or other public areas; and the place of death was unknown for 6.7%. See Tables 7c and 7d in the accompanying [data tables](#) for DS case death rates by DAAT for 2012 and 2013.

## Manner of death

The manner of death for 2013 drug misuse cases can be broken down as follows:

- Accidental: 74.9%
- Suicidal: 12.5%
- Undetermined: 10.6%
- Natural: 2.1%

The proportion of deaths attributed to accidents rose by 1.6% from 2012; suicides rose by 2.5%; undetermined deaths fell by 1.4%; and deaths attributed to natural causes fell by 2.4%.

Comparing between genders, a greater proportion of male deaths were ruled accidental than female deaths (75.3% vs. 65.2%); whilst females showed not only higher proportions of suicides than males (18.4% vs. 10.3%); but also deaths of an undetermined manner (14.3% vs. 9.2%). Natural deaths were balanced.

## Psychoactive substances implicated in death

Out of the 1,115 drug misuse deaths in England in 2013, psychoactive drugs including alcohol in combination, were directly implicated in 1,067 (95.7%) of cases, representing a 0.8% increase on the proportion of 2012 drug misuse cases with psychoactive substances implicated in death. Demographic information for DS cases by primary drug types (Table 1b) can be found in the accompanying [data tables](#).

The five substances most commonly implicated in death were: heroin/morphine (45.4%); other opiates/opioid analgesics (33.5%; with codeine accounting for 15.5%; tramadol for 10.8%); alcohol in combination (30.4%); hypnotics/sedatives (27.4%; with diazepam accounting for 18.7%; Z drugs for 5.3%); and methadone (24.1%). See Table H for more information, and Table 5b in the accompanying [data tables](#).

When comparing the 2013 data with that of 2012, minor proportional increases were seen in the number of deaths involving antiepileptics; cocaine; and hypnotics/sedatives; whilst deaths involving heroin/morphine and other opiates/opioid analgesics rose by 4.1% and 3.8% respectively. Meanwhile, small drops were seen for deaths involving alcohol when in combination with other substances; amphetamines; antidepressants; cannabis; ecstasy-type; with the largest decrease being methadone-related deaths, which fell by 3.7%.

When drugs were implicated alone, the greatest increases between 2012-13 were for other opiates/opioid analgesics (2.2%) and heroin/morphine (2.1%), with the greatest drop being 1.0% for ecstasy-type drugs. See Tables I and J for more information, and Table 6b in the accompanying [data tables](#).

**Table H: Psychoactive substances implicated in DS deaths, England, 2013**

<b>Drug category</b>	<b>Number of sole-drug deaths</b>	<b>% of all drug deaths</b>	<b>Total deaths (sole &amp; in combination)</b>	<b>% deaths (sole &amp; in combination)</b>
<b>TOTAL</b>	-	-	1067	100.0%
<b>Alcohol in combination</b>	-	-	324	30.4%
<b>Amphetamines</b>	13	1.2%	45	4.2%
<b>Antidepressants</b>	21	2.0%	216	20.2%
<b>Venlafaxine</b>	3	0.3%	18	1.7%
<b>Antiepileptics</b>	1	0.1%	43	4.0%
<b>Gabapentin</b>	0	0.0%	14	1.3%
<b>Pregabalin</b>	0	0.0%	16	1.5%
<b>Antiparkinsons</b>	0	0.0%	3	0.3%
<b>Antipsychotics</b>	5	0.5%	63	5.9%
<b>Cannabis</b>	3	0.3%	14	1.3%
<b>Cocaine</b>	29	2.7%	143	13.4%
<b>Ecstasy-type</b>	16	1.5%	46	4.3%
<b>Heroin/morphine</b>	129	12.1%	494	46.3%
<b>Hypnotics/sedatives</b>	15	1.4%	292	27.4%
<b>Diazepam</b>	1	0.1%	199	18.7%
<b>Z drugs</b>	1	0.1%	57	5.3%
<b>Methadone</b>	46	4.3%	257	24.1%
<b>Other opiates/opioid analgesics</b>	71	6.7%	357	33.5%
<b>Codeine</b>	4	0.4%	165	15.5%
<b>Tramadol</b>	32	3.0%	115	10.8%

**Table I: Changes in percentages of psychoactive substances, alone and in combination, implicated in psychoactive substance DS deaths, England, 2012 and 2013**

Substance alone and in combination	2012 (n = 827) %	2012 (n = 988) %	2013 (n = 1,067) %	Change in %
Alcohol in combination	35.1	32.7	30.4	-2.3
Amphetamines	4.6	4.3	4.2	-0.1
Antidepressants	19.7	20.4	20.2	-0.2
Antiepileptics	2.1	2.5	4.0	+1.5
Antiparkinsons	0.2	0.4	0.3	-0.1
Antipsychotics	4.8	5.9	5.9	0.0
Cannabis	2.4	2.2	1.3	-0.9
Cocaine	12.9	11.6	13.4	+1.8
Ecstasy-type	4.1	5.1	4.3	-0.8
Heroin/morphine	42.8	41.3	46.3	+5.0
Hypnotics/sedatives	26.6	27.1	27.4	+0.3
Metadone	27.9	27.8	24.1	-3.7
Other opiates/ opioid analgesics	28.8	29.7	33.5	+3.8
Excluded from analysis due to update				

**Table J: Changes in percentages of psychoactive substances implicated alone in psychoactive substance DS deaths, England, 2012 and 2013**

Substance alone	2012 (n = 827) %	2012 (n = 988) %	2013 (n = 1,067) %	Change in %
Amphetamines	1.6	1.2	1.2	0.0
Antidepressants	1.7	1.6	2.0	+0.4
Antiepileptics	0.2	0.3	0.1	-0.2
Antiparkinsons	0.0	0.0	0.0	0.0
Antipsychotics	0.0	0.0	0.5	+0.5
Cannabis	0.1	0.1	0.3	+0.2
Cocaine	2.5	2.2	2.7	+0.5
Ecstasy-type	2.3	2.5	1.5	-1.0
Heroin/morphine	9.9	10.0	12.1	+2.1
Hypnotics/sedatives	2.2	1.8	1.4	-0.4
Metadone	4.7	4.7	4.3	-0.4
Other opiates/ opioid analgesics	3.9	4.5	6.7	+2.2
Excluded from analysis due to update				

### Psychoactive substances most frequently implicated for each age group

Consistent with previous years, for those aged between 15-44 years, heroin/morphine was the substance most frequently implicated in death. For those aged 45-54, heroin/morphine again featured most often, however this was joint with other opiates/opioid analgesics. For those in the 55 years and above category, as found in 2012, other opiates/opioid analgesics were implicated in the greatest proportion of deaths. See Table K below for more information.

**Table K: Age group and psychoactive substances implicated in DS deaths, England, 2013**

	Age group at death							Total for substance and % of total deaths
	15-24	25-34	35-44	45-54	55-64	65 & over	not known	
<b>TOTAL</b>	67	247	370	246	83	51	3	1067
<b>Alcohol</b>	15 22.4%	67 27.1%	130 35.1%	80 32.5%	22 26.5%	9 17.6%	1 33.3%	324 30.4%
<b>Amphetamines</b>	4 6.0%	18 7.3%	15 4.1%	7 2.8%	1 1.2%	0 0.0%	0 0.0%	45 4.2%
<b>Antidepressants</b>	6 9.0%	32 13.0%	75 20.3%	71 28.9%	23 27.7%	8 15.7%	1 33.3%	216 20.2%
<b>Antiepileptics</b>	1 1.5%	7 2.8%	16 4.3%	12 4.9%	4 4.8%	3 5.9%	0 0.0%	43 4.0%
<b>Antiparkinsons</b>	0 0.0%	2 0.8%	1 0.3%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	3 0.3%
<b>Antipsychotics</b>	2 3.0%	14 5.7%	28 7.6%	16 6.5%	2 2.4%	1 2.0%	0 0.0%	63 5.9%
<b>Cannabis</b>	3 4.5%	4 1.6%	6 1.6%	1 0.4%	0 0.0%	0 0.0%	0 0.0%	14 1.3%
<b>Cocaine</b>	9 13.4%	46 18.6%	46 12.4%	33 13.4%	7 8.4%	1 2.0%	1 33.3%	143 13.4%
<b>Ecstasy-type</b>	14 20.9%	17 6.9%	11 3.0%	3 1.2%	1 1.2%	0 0.0%	0 0.0%	46 4.3%
<b>Heroin/morphine</b>	23 34.3%	133 53.8%	200 54.1%	95 38.6%	27 32.5%	15 29.4%	1 33.3%	494 46.3%
<b>Hypnotics/sedatives</b>	10 14.9%	68 27.5%	108 29.2%	66 26.8%	23 27.7%	15 29.4%	2 66.7%	292 27.4%
<b>Methadone</b>	10 14.9%	52 21.1%	114 30.8%	65 26.4%	14 16.9%	0 0.0%	2 66.7%	257 24.1%
<b>Other opiates/ opioid analgesics</b>	16 23.9%	70 28.3%	110 29.7%	95 38.6%	38 45.8%	28 54.9%	0 0.0%	357 33.5%



## Gender and implicated psychoactive substance

The types of substances implicated in death typically differ quite dramatically between males and females, and 2013 deaths were no exception to this.

Amongst the 788 male psychoactive drug cases, the five substances implicated most often were:

1. Heroin/morphine: 50.0%
2. Alcohol in combination: 32.9%
3. Other opiates/opioid analgesics: 30.3%
4. Hypnotics/sedatives: 27.3%
5. Methadone: 24.0%

The order has changed somewhat from 2012, where previously methadone was 3<sup>rd</sup>, other opiates/opioid analgesics were 4<sup>th</sup> and hypnotics/sedatives placed 5<sup>th</sup>. The proportions attributed to each drug for males have also seen marked changes, with increases in deaths attributed to heroin/morphine; other opiates/opioid analgesics; and hypnotics/sedatives, and drops for alcohol in combination and methadone.

Among the 279 female psychoactive drug cases, the five top substances were:

1. Other opiates/opioid analgesics: 42.3%
2. Heroin/morphine: 35.8%
3. Antidepressants: 28.3%
4. Hypnotics/sedatives: 27.6%
5. Methadone: 24.4%

Compared to 2012, heroin/morphine has fallen in both proportion and position, to be replaced by other opiates/opioid analgesics at the top spot, with a subsequent large increase in the proportion of female deaths attributed to these types of drugs when compared to 2012. Alcohol in combination with other drugs featured 4<sup>th</sup> in last year's top five for females, but in 2013 it has been replaced by hypnotics/sedatives, closely followed by methadone.

Comparing the genders directly, male deaths were more often attributed to heroin/morphine; alcohol in combination; amphetamines; cocaine; ecstasy-type drugs. Female deaths involved proportionately more antidepressants; antiepileptics; antipsychotics; cannabis; hypnotics/sedatives; methadone; and other opiates/opioid analgesics.

## Polysubstances

Alcohol, when combined with other substances, always features highly in drug misuse deaths reported by NPSAD, and for 2013 when found in combination, it was implicated in 37.7% of all heroin/morphine-related deaths; 37.7% of all hypnotics/sedatives deaths; 35.0% of all methadone-related deaths; and 30.0% of all cocaine-related deaths.

Heroin/morphine was implicated in 51.4% of all hypnotics/sedatives deaths; 45.5% of all cocaine-related deaths; and 40.5% of methadone deaths. Meanwhile hypnotics/sedatives featured prominently in deaths involving anti-epileptics, with 60.5% of such deaths involving a combination of the drugs. They were also implicated in 52.4% of all antipsychotic-related deaths; and 44.0% of all antidepressant-related deaths. See Table 2b in the accompanying [data tables](#) for a cross tabulation of key implicated substance types.

## Single substances

Of the total 1,067 drug misuse deaths in which psychoactive substances were implicated, 349 (32.7%) of these involved just one of the main drug types reported to NPSAD. Of these 349 single substance deaths, the following drugs contributed to these given proportions of deaths: heroin/morphine – 37.0%; other opiates/opioid analgesics – 20.3%; methadone – 13.2%; cocaine 8.3%; antidepressants 6.0%; ecstasy-type – 4.6%; hypnotics/sedatives – 4.3%; amphetamines 3.7%; antipsychotics – 1.4%; cannabis – 0.9%; and antiepileptics – 0.3%. The primary changes since 2012 are that of large increases in the proportion of single-substance deaths from heroin/morphine and other opiates/opioid analgesics. See Table 1b in the accompanying [data tables](#).

## Prescribed psychoactive drugs

Over four-fifths (83.7%) of those prescribed morphine also succumbed to a morphine-related death, whilst 70.9% of those prescribed methadone also had the drug implicated in death, whilst almost two-thirds (63.6%) of those prescribed other opiates/opioid analgesics had the drug type involved in death. See Table L below for more information, and Table 3b in the accompanying [data tables](#).

Amongst NPSAD drug misuse cases who had heroin/morphine implicated in their death just 7.3% were prescribed it, whilst 83 (32.3%) of the 257 methadone-related deaths were confirmed as being prescribed it, meaning up to 174 may have obtained the drug without a prescription. These proportions were essentially reversed for deaths involving antidepressants, as at least 70.4% were prescribed them, leaving just 29.6% who may not have been.

Of those who died with hypnotics/sedatives implicated, just 40.4% were known to be prescribed such drugs, and for those with other opiates/opioid analgesics implicated in death just 37.3% were prescribed them.

**Table L: Prescribed psychoactive medication, DS cases, England, 2013**

Drug category	Number prescribed drug	% prescribed drug	Number prescribed & implicated	% prescribed & implicated
<b>TOTAL</b>	658	100.0%	-	-
<b>Antidepressants</b>	409	62.2%	152	37.2%
<b>Antiepileptics</b>	128	19.5%	23	18.0%
<b>Antiparkinsons</b>	15	2.3%	3	20.0%
<b>Antipsychotics</b>	153	23.3%	42	27.5%
<b>Morphine</b>	43	6.5%	36	83.7%
<b>Hypnotics/sedatives</b>	294	44.7%	118	40.1%
<b>Methadone</b>	117	17.8%	83	70.9%
<b>Other opiates/ opioid analgesics</b>	209	31.8%	133	63.6%

## Drug abuse/dependence

Of the 1,115 drug misuse cases reported to NPSAD, information on drug abuse/dependence history was available for 902 (80.9%) cases. Of these, 602 (66.7%) were confirmed drug abusers (DAs), with 33.3% confirmed as having no history of drug use (NDAs). Those with unknown status were excluded from the following analysis.

## **Demography**

Males accounted for a greater proportion of deaths amongst DAs than NDAs (80.4% vs. 63.3%), as did those aged 44 years and younger (72.9% vs. 47.3%). Median age at death also differed greatly between the two groups: DAs – 39.0 (interquartile range = 12.0); NDAs – 46.0 (interquartile range = 21.0).

## **Location of death**

For cases where the location of their death was known, a rather greater proportion of NDAs than DAs died at their home address or at another private residential address, such as at the home of a friend (81.5% vs. 73.2%), whilst marginally more DAs died in hospital than NDAs (17.9% vs. 13.0%) and almost three times as large a proportion of DAs died in a public place than NDAs (5.3% vs. 1.9%).

## **Manner of death**

Consistent with previous years, DAs had a substantially greater proportion of their deaths attributed to accidents than NDAs (87.9% vs. 53.3%). The proportion of NDAs who committed suicide was seven times larger than for DAs (26.7% vs. 3.8%) and the proportion of whose deaths were ruled undetermined in manner among NDAs was triple the size of DAs (18.3% vs. 6.1%).

## Drug-related deaths in Northern Ireland and the Islands

### Northern Ireland NPSAD cases

Notifications of 106 drug-related deaths occurring in 2013 which met the NPSAD case criteria were received from Coroners for Northern Ireland. In 2012 the number of such deaths was 85; whilst in 2011, 82 deaths were reported (these figures include deaths in these years submitted to the Programme since the previous report, and as such the figures shown here – for 2013 especially – are to be regarded as the minimum). This represents an increase of 24.7% in reported deaths in Northern Ireland from 2012-13.

In 2013, 62.3% of cases were male and 37.7% were female. Drug abuse/dependence history status was known in 56/106 cases, 41 (73.2%) of which had a history of drug use or dependence, and five of these individuals were confirmed to be users of IV drugs (injection status was unknown for 34 cases). Demographic information for NPSAD cases by primary drug types can be found in Table 1c in the accompanying [data tables](#).

The median age at death was 37.5 years (interquartile range = 18.0), with more than two-thirds of decedents (67.0%) under the age of 45 years.

Of the 106 reported cases, 99 had psychoactive substances directly implicated in death. The drug type which was implicated in the greatest number of cases was other opiates/opioid analgesics (such as tramadol and codeine) having been implicated in 51 (51.5%) deaths. There were some marked changes in the proportion of deaths in which such substances were implicated compared to 2012, with deaths involving alcohol in combination falling from 37.5% to 22.2%; antidepressants from 41.3% to 30.3%; and other opiates/opioid analgesics from 61.3% to 51.5%. However, the proportion of deaths involving ecstasy-type drugs increased from 3.8% to 11.1%, and those involving cocaine rose from accounting for 1.3% to 6.1%. A cross tabulation of implicated drug types (Table 2c); information on psychoactive drugs implicated in deaths (Tables 5c and 6c); as well as prescription information (Table 3c) for Northern Ireland cases can be found in the accompanying [data tables](#).

### Guernsey, Jersey and the Isle of Man NPSAD cases

The Programme has been notified of six drug-related deaths that occurred in 2013: one on Guernsey; two on Jersey and three on the Isle of Man. Since 2009, a total of 39 cases have been reported, with 14 in 2009; eight in 2010; four in 2012; and six in 2013. Considering the number of deaths on each island in the five year period, it was: six on Guernsey; 17 on Jersey; and 16 on the Isle of Man.

Of the 39 deaths that occurred between 2009-2013, 69.2% of cases were male and 30.8% were female. Drug abuse/dependence history status was known in 32/39 cases, 20 (51.3%) of which had a history of drug use or dependence, and seven of these were known IV drug users (injection status was unknown for the remaining 13 cases).

The median age at death was 35.0 years (interquartile range = 14.0), with 87.2% of cases aged under 45.

All 39 cases had psychoactive substances implicated in death, with heroin/morphine and other opiates/opiate analgesics accounting for the greatest proportions (33.3% respectively), closely followed by hypnotics/sedatives (23.1%) and antidepressants (23.1%).

## Novel Psychoactive Substances

This section presents information pertaining to the presence at post mortem and implication in death of certain psychoactive substances that have either only been brought under control in recent years or that were legal to obtain at the time of writing, or, in some cases, medicines which have recently been identified as being misused for their psychoactive effects. A full list of substances that have been included in the Novel Psychoactive Substances (NPS) totals used in this report can be found in the accompanying data tables (Tables 8a and 8b). Whilst NPS are often referred to as ‘legal highs’, it is important to note that this is a misnomer, as many of these substances are now controlled under the Misuse of Drugs Act 1971. For example, mephedrone (the substance implicated in NPSAD deaths most often in the cathinones group of NPS) is often still called a ‘legal high’ by the media, despite having been banned in 2010. It is also important to note that these cases cannot be taken as a proportion of NPSAD cases, as not all qualify for this definition due to the nature of some of the substances involved.

There has been an increase in the number of cases in which the selected NPS were found at post mortem for England, Northern Ireland and the Islands of Guernsey, Jersey and the Isle of Man (46 in 2011, 65 in 2012, 79 in 2013) and implicated in death (33 in 2011, 50 in 2012, 59 in 2013) which in both cases are attributed to increases in Northern Ireland – see Table M below and Tables 8a and 8b in the accompanying [data tables](#). Of importance to note, is that whilst in England the number of the deaths in which NPS were implicated fell slightly, in Northern Ireland the figure increased from 3 in 2012 to 15 in 2013.

**Table M: Novel Psychoactive Substance-related deaths, England, Northern Ireland and the Islands, 2009 to 2013**

		Year of death					Five year total
		2009	2010	2011	2012	2013	
<b>At post mortem</b>	<b>England</b>	22	44	40	60	60	<b>226</b>
	<b>Northern Ireland</b>	3	15	4	4	18	<b>44</b>
	<b>Guernsey, Jersey and the Isle of Man</b>	1	1	2	1	1	<b>6</b>
	<b>TOTAL</b>	<b>26</b>	<b>60</b>	<b>46</b>	<b>65</b>	<b>79</b>	<b>276</b>

		Year of death					Five year total
		2009	2010	2011	2012	2013	
<b>Implicated</b>	<b>England</b>	11	27	28	46	43	<b>155</b>
	<b>Northern Ireland</b>	3	7	3	3	15	<b>31</b>
	<b>Guernsey, Jersey and the Isle of Man</b>	0	0	2	1	1	<b>4</b>
	<b>TOTAL</b>	<b>14</b>	<b>34</b>	<b>33</b>	<b>50</b>	<b>59</b>	<b>190</b>

Although not considered an NPS and therefore not included in the above table, there has been a resurgence in deaths in recent years in which PMA was implicated in deaths in England and Northern Ireland (0 in 2010, 4 in 2011, 22 in 2012, and 26 in 2013), possibly as a result of individuals taking what they believed to be MDMA. Whilst this has been controlled for over 30 years, the resurgence of its implication in deaths is of interest. Death data for PMA and other substances of interest such as DNP and anabolic steroids are included at the bottom of the accompanying data tables (Tables 8a and 8b).

## Appendix

### Aims and objectives

The principal aim of the National Programme on Substance Abuse Deaths is to reduce and prevent drug-related deaths in the UK due to the misuse of drugs, both licit and illicit, by collecting, analysing, and disseminating information on the extent and nature of drug-related deaths.

The Programme's objectives are to:

- Collect and collate drug-related mortality data
- Develop and maintain a computerised surveillance system
- Monitor and examine patterns and trends, e.g. geographic, demographic, substances implicated in death, method of death
- Act as an early warning system for new trends in mortality and drug misuse
- Collaborate with relevant agencies in research on substance-related mortality locally, nationally and internationally
- Inform and facilitate discussion on the prevention of drug-related deaths, whether accidental or intentional
- Provide data for local and national drug abuse policy formulation and programme planning
- Disseminate information on drug-related mortality to the scientific community, clinicians, policy makers and other interested parties

### Surveillance data management

Data collated for this programme is stored on the NPSAD Coroners' database which was established in 1997. Its purpose is to provide information for the Programme's surveillance system of monitoring drug-related deaths reported by Coroners other agencies. All data held, whether electronic or paper, are stored securely and treated as confidential.

### Data collection

Data submission is mostly directly on paper by Coroners or their staff. Forms are submitted when inquests are complete. Manual extraction of data by team members is undertaken at some Coroners' courts.

### Statistical analysis

Due to the nature of the information collected by the programme, i.e. drug-related deaths as reported by the Coroners, this is an observational study. Hence, statistical methods employed are based on proportions. The data were analysed using IBM® SPSS™ Statistics for Windows version 19.

### National Programme on Substance Abuse Deaths definition

An NPSAD case is defined as a relevant death where any of the following criteria are met at a completed inquest, fatal accident inquiry or similar investigation:

- One or more psychoactive substances\* directly\*\* implicated in death;
- History of dependence or abuse of psychoactive drugs;
- Presence of Controlled Drugs\*\*\* at post mortem; or
- Cases of deaths directly due to drugs but with no inquest.

Alcohol is included only when implicated in combination with other qualifying drugs, as are solvents.

\* 'Psychoactive' substances are those having a direct effect on perception, mood, cognition, behaviour or motor function. Typically these include opiates and opioid analgesics, hypnotics, sedatives, anti-depressants, anti-epileptics, anti-psychotics, hallucinogens, and stimulants (such as amphetamines and cocaine) and "legal highs".

\*\* 'Directly implicated' means that drugs were considered by the Coroner or other person investigating the death to have been instrumental in the coming about of the deceased's death (e.g. through poisoning or intoxication), or causing their powers of reasoning and/or perception to be so affected as to induce them to take risks which they would not have done had they been sober (e.g. thinking they could fly).

\*\*\* 'Controlled Drugs' are those drugs specifically classified by the Misuse of Drugs Act 1971 as amended by subsequent legislation. Controlled drugs include opioids, cocaine, amphetamines, cannabis, GHB, hallucinogens and most benzodiazepines.

### **Drug Strategy 'drug misuse' definition**

There are two types of 'drug misuse' death: the first is where the underlying cause of death is mental and/or behavioural disorders due to psychoactive substance use (excluding alcohol, tobacco and volatile solvents). The second is where a drug controlled under the Misuse of Drugs Act 1971 and the underlying cause of death is one of the following: (i) Accidental poisoning by drugs, medicaments and biological substances; (ii) Intentional self-poisoning by drugs, medicaments and biological substances; (iii) Poisoning by drugs, medicaments and biological substances, undetermined intent; (iv) Assault by drugs, medicaments and biological substances; and (v) Mental and behavioural disorders due to use of volatile solvents.

To derive these cases, the following two categories of cases are excluded from the NPSAD cases: (a) deaths of non-drug abusers where no controlled drugs were found at post mortem or where specific compound analgesics were found at post mortem; and (b) deaths of drug abusers where no controlled drugs were found at post mortem or where specific compound analgesics were found at post mortem and the mechanism of death was traumatic, such as hanging, drowning, car accident, etc. For this reason, 'drug misuse' cases will typically number fewer than NPSAD cases, as only NPSAD cases are reported to the Programme, and it is from these that 'drug misuse' cases are derived.