



University of London

Drug-related deaths in the UK

**Hamid Ghodse
John Corkery
Hugh Claridge
Christine Goodair
Fabrizio Schifano**

Annual Report 2012

**National Programme on
Substance Abuse Deaths
(*np-SAD*)
International Centre for
Drug Policy (ICDP)
St George's,
University of London, UK**

National Programme on Substance Abuse Deaths
(*np-SAD*)

Drug-related deaths reported by Coroners in England,
Wales, Northern Ireland, Guernsey, Jersey and the Isle of
Man; Police forces in Scotland; & the Northern Ireland
Statistics and Research Agency

Annual Report January-December 2011

Hamid Ghodse
John Corkery
Hugh Claridge
Christine Goodair
Fabrizio Schifano

International Centre for Drug Policy
St George's, University of London
Cranmer Terrace, London SW17 0RE
Telephone +44 (0)20 8725 5522 & Fax +44 (0)20 8725 3538
E-mail: icdp@sgul.ac.uk
Website: <http://www.sgul.ac.uk/research/projects/icdp>

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Preface

It is with sadness that I dedicate the 13th np-SAD annual report to the memory of Professor Ghodse, (1938-2012) who led in establishing this national programme to report on drug-related mortality.

In 1978 he wrote, with others, a paper for the British Medical Journal on *Mortality among drug addicts in London*. His research interest in this area grew along with the belief that monitoring drug mortality data would contribute to the prevention and treatment of addiction, as well as informing policy, and as he stated in a press release in 1998:

“Information on drug-related deaths is suspected to be greatly under-reported in the United Kingdom. Factors which contribute to the under-reporting may include: the illicit nature of substance use, lack of training in recognising the problem, lack of resource and expertise in systematic data collection. In recognition of this the Department of Addictive Behaviour, based at St George’s Hospital Medical School, established a programme on Substance Abuse Deaths (np-SAD), with the intention of gathering information from various sources to inform clinicians and policy makers on risks associated with premature death due to substance misuse”

This report presents information on drug-related deaths, both of addicts and non-addicts, that occurred during 2011 and for which coronial inquests and similar formal investigations have been completed. Its main purpose is to provide an analytical summary of data received and provide high-quality and consistent surveillance, and to detect and identify emerging trends and issues in respect of this phenomenon. In this way, it contributes to the reduction and prevention of drug-related deaths in the UK due to the misuse of both licit and illicit drugs

The Programme could not achieve its goals and objectives without the invaluable voluntary collaboration and co-operation of Coroners and their officers across England, Wales, Northern Ireland, Guernsey, Jersey, and the Isle of Man. Scottish drug-related deaths data are provided by the Scottish Crime and Drug Enforcement Agency. Additional data is provided by the Northern Ireland Statistics and Research Agency on drug-related poisonings from the General Mortality Register. The contributions from all these sources are important as it enables the Programme to maintain a UK-wide reporting and surveillance system. We thank them all for their active participation and support.

The findings show a decrease in the number of deaths in 2011 reported directly to np-SAD by Coroners from England, Wales, Northern Ireland and the Islands when compared to the number reported in last year’s report. Death notifications recorded by the Scottish Police also decreased. Part of the fall in Coroners’ notifications may be attributed to a slightly lower notification rate, and partly to a fall in actual fatalities. The latter would be in line with official statistics which showed a fall in deaths registered in 2011.

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

The report also provides a number of indications of changes in patterns of drug abuse, trends over time, and emerging issues from our surveillance activities so that appropriate and timely action can be taken.

This programme owes its existence to the commitment and dedication that Professor Ghodse demonstrated, and we can only hope and trust that this excellent work continues as a memorial to him.

Professor Fabrizio Schifano
Acting Director
International Centre for Drug Policy
St George’s, University of London

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Executive summary

This thirteenth annual report from the national programme on Substance Abuse Deaths (*np-SAD*) presents information on drug-related deaths that occurred during 2011 and for which coronial inquests and similar formal investigations have been completed. The Programme's principal function is to provide high-quality and consistent surveillance, and to detect and identify emerging trends and issues in respect of this phenomenon. In this way, it contributes to the reduction and prevention of drug-related deaths in the UK due to the misuse of both licit and illicit drugs.

The data and analysis in this report is intended to inform government, and relevant bodies, such as the Advisory Council on the Misuse of Drugs, and authorities at the local, regional, and national country levels, as well as health professionals and the general public, about the serious consequences of drug abuse.

Key findings for the UK and Islands

There were 1,757 notifications of drug-related deaths occurring in 2011 in the UK and Islands. This represents a decrease of 126 (6.7%) over the same reporting period in 2010. Data were provided by 98 of the 114 Coroners' jurisdictions in England & Wales; a response rate of about 86%.

The highest rates of drug-related deaths per 100,000 population aged 16 and over in 2011 were in the following areas: City of Manchester (14.86); Blackburn, Hyndburn & Ribble Valley (13.35); Liverpool (11.37); and Blackpool & the Fylde (11.10).

The principal demographic characteristics of the decedents have remained consistent with previous reports. The majority of cases were males (72%), under the age of 45 years (66%), and White (97%). Most deaths (78%) occurred at a private residential address.

The main underlying cause(s) of death were: accidental poisoning (70%); intentional self-poisoning (13%); and poisoning of undetermined intent (9%). This pattern represents an increase in accidental overdoses compared to the previous year with consequent falls in other types of overdose deaths. Accidental poisoning still remains the most frequent underlying cause of death amongst all age-groups, and older females are more likely to die of intentional self-poisoning than males.

The overall pattern in the types of psychoactive drugs implicated in death has remained similar to previous years. Heroin/morphine continues to be the principal substance implicated in death in the UK and Islands. However, the proportion of deaths involving this substance has fallen from 53% in 2009 to 41% in 2010, and to 32% in 2011. The proportion of cases involving methadone rose by 4%, and that for other opiates/opioid analgesics rose by 6%. The proportion of cases in which hypnotics/sedatives (mainly the benzodiazepines diazepam and temazepam) remained stable, whilst cases involving alcohol-in-combination with other substances fell by 3%.

The involvement of multiple substances in death demonstrated in this report for England, a trend found across the UK as a whole, underlines the risks associated with the co-ingestion of substances, especially central nervous system depressants such as opiates/opioid analgesics, alcohol and benzodiazepines.

The decline in deaths reported in 2010 from stimulants appears to have reversed slightly for cocaine, amphetamines and ecstasy-type substances. The number of deaths involving piperazines appears to have declined further, whilst GBL/GHB cases fell compared to 2010.

As in 2010, there was a substantial number of deaths reported involving novel psychoactive substances such as mephedrone and other methcathinones, and the benzodiazepine phenazepam.

Regional key findings

England – np-SAD definition

A total of 1,263 deaths were reported for 2011 (1358 in 2010). The demographic and drug profiles remained stable. However, there was a significant fall in the proportion of deaths involving heroin/morphine and a modest increase in the proportion involving methadone. The most common prescribed medications implicated in death were anti-depressants followed by hypnotics/sedatives.

England – Drug Strategy definition (“drug misuse”)

A total of 904 deaths were reported for 2011 (968 in 2010). There was a substantial reduction in the proportion of deaths attributed to heroin/morphine in 2011 compared to 2010. Despite this, heroin/morphine remained the most frequently implicated substance in “drug misuse” cases. The number of deaths due to accidental poisoning rose from 75.1% in 2010 to 78.4% in 2011, whilst deaths attributed to intentional self-poisoning increased by 2.6%, from 10.1% to 12.6%.

Wales (np-SAD)

Notifications of 81 deaths were reported for 2011 (81 in 2010). There were increases in the proportions of males and those unemployed and those living with others. There were modest increases in the proportions of deaths involving methadone, other opiates/opioid analgesics, anti-depressants, and hypnotics/sedatives.

Scotland (np-SAD)

The number of deaths reported to police in Scotland fell in 2011 to 336 (365 in 2010). Opiates play a larger role in Scottish deaths than in other regions; this may be due in part to the different definition used by the police. Alcohol-in-combination with other substances and hypnotics/sedatives (mostly diazepam and temazepam) also featured prominently. There were falls in the proportions of deaths involving heroin/morphine and alcohol-in-combination, but increases for those involving methadone, other opiates/opioid analgesics and hypnotics/sedatives.

Northern Ireland (np-SAD)

The number of cases reported in 2011 was 70 (72 in 2010). The drug profile remained similar to recent years; heroin/morphine and methadone are less prominent than elsewhere. There was an increase in the proportion of female deaths.

The Islands (np-SAD)

Two deaths occurred on Jersey, two on the Isle of Man, and three on Guernsey during 2011. The general demographic profile of cases in the Islands is in line with the pattern in the UK as a whole. There were proportionately fewer deaths involving cocaine and methadone.

Key messages

The main changes noted in 2011 are a further overall fall in the proportion of deaths involving heroin/morphine but an increase in the contribution played by methadone. Whilst opiates and opioids continue to dominate, towards the end of 2009 there was a noticeable decline in the number and proportion of cases involving stimulants. To some extent these changes appear to have been reversed slightly for amphetamines, cocaine and ecstasy-type drugs.

Substances such as piperazines, ketamine and GBL which at the time of the 2009 report were ‘legal highs’ but became controlled drugs, continue to be present in post-mortem toxicology reports - although declining in the case of piperazines and GHB/GBL. Towards the end of 2009 new substances, chiefly

methcathinones such as mephedrone started to appear in reports to *np-SAD*. These increased during 2010 and 2011. The speed with which these and other new substances are continuing to replace established recreational drugs means it is important that surveillance and monitoring of the situation continues.

Introduction

This thirteenth annual report continues the series of reports published by the national programme on Substance Abuse Deaths (*np-SAD*). It covers deaths occurring between January and December 2011 reported to the Programme, as well as presenting information on emerging trends, and seeking to identify future potential issues that need monitoring.

There is a chapter for each constituent part of the UK (England, Wales, Scotland, Northern Ireland and Guernsey, Jersey and Isle of Man) with data tables. Chapter 1 provides a substantive description of the situation regarding drug-related deaths in England during 2011 meeting the *np-SAD* case definition, including data tables for a detailed breakdown of areas within England. Chapter 2 looks at deaths in England meeting the definition used for the Drug Strategy. Chapters 3 to 6 cover the other parts of the UK and Islands, with Chapter 7 presenting findings for the UK as a whole. A commentary on emerging issues is given in Chapter 8.

The appendices provide information on the Programme (Appendix 1), drug-related death definitions (Appendix 2), the areas reporting, (Appendix 3), and the Programme's data collection form (Appendix 4).

Quality Assurance of Data

The Programme has given consideration as to how it can ensure the quality, accuracy and comprehensiveness of the data collected in order to improve both the quality of information collected and to establish if all relevant cases are being identified and notified. Following a pilot phase in 2008-9, a continuous rolling programme of visits to a sample of geographically representative Coroners' areas in England and Wales was undertaken in 2009-10.

Such surveys help to establish the extent to which cases are being correctly identified. This makes it possible to extrapolate from the deaths notified by participating areas to the expected number of cases if all Coroners were reporting all cases, thereby providing a much more precise estimate of drug-related deaths (DRDs) for policy and intervention planning.

This activity also provides insights into the quality and accuracy of the information submitted to the Programme, and has provided a firm basis for a process of audit in the future, thereby ensuring the consistent validation of the Programme's surveillance work. This work also facilitates the drawing up of detailed guidance for Coroners and their staff in identifying and reporting relevant cases to *np-SAD*.

The methodology used for this study was to select and examine completed inquests for deaths, available in Coroners' offices, occurring in 2008. A statistically representative sample of 150 DRDs reported to the Programme was drawn for the quality assurance aspect based on cases reported by Coroners in England and Wales.

To ascertain the accuracy of case identification and reporting, a 10% sample of records was drawn randomly from files for all completed inquests (for whatever reason) for each selected Coroner's area. A total of 375 such completed inquests on all types of death in 2008 were examined.

Geographical representativeness was based on selecting one Coroner's area in each of the ten Strategic Health Authority (SHA) areas in England and two in Wales. For England there was a two-stage sampling process. In the first stage, three Coroners' areas from each SHA area was selected on the basis of the highest number of inquests completed. The second stage consisted of randomly selecting one of these three areas for investigation.

The key findings from this survey show that the information received by the Programme from Coroners is consistent with the coronial inquest file papers. This exercise did not identify any 'false positives' i.e. any over-reporting.

In 2008 five cases, where one or more controlled drugs or psychoactive substances were mentioned, were not reported to *np-SAD*. An extrapolation of these five cases projects an increase of 50 in the number of reported cases from Coroners in England and Wales in 2008. The degree of under reporting in both the 2007 and 2008 cases is comparable (3.9% and 3.3% respectively). This underlines the consistency in reporting.

Chapter 1: Drug-related deaths in England using the *np*-SAD definition

This chapter examines drug-related deaths which occurred in England in 2011 - reported voluntarily by Coroners - and also examines trends over the past decade for illicit substances and prescribed medications implicated in death. Responses were received from a total of 89 out of 101 Coroners' jurisdictions in England, giving a total coverage rate of 88.1%. The first section in this chapter examines the overall demographics of drug-related deaths reported

to *np*-SAD; 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. This section highlights any changes made between 2010 and 2011 including figures for the Coroners' jurisdictions and a breakdown for the English regions.

Profile of *np*-SAD cases

1. Demography

In 2011, there were 1,263 *np*-SAD drug-related deaths reported to the Programme. Male cases accounted for 70.5%, whilst 29.5% were female (Table 1.1 and Figure 1.2). Half (50.6%) were unemployed. Over sixty per cent

(60.9%) of deaths occurred for those less than 45 years old. 44.1% lived alone, 42.5% lived with others, and 2.1% were of no fixed abode. Where ethnicity was known ($n = 894$), the vast majority were White (95.4%); with the remainder Asian (1.9%); Black (1.6%); and Chinese and other ethnicities (1.1%).

Table 1.1: Demographic variables for *np*-SAD drug-related deaths, England, 2011

Variable	Category	Number (%)
Total		1263 (100.0)
Gender	Male	890 (70.5)
	Female	373 (29.5)
Employment status	Unemployed	639 (50.6)
	Employed	350 (27.7)
	Childcare/house-person	30 (2.4)
	Student	21 (1.7)
	Retired/sickness/invalidity	116 (9.2)
	Other	11 (0.9)
	Not known	96 (7.6)
Living arrangements	Alone	557 (44.1)
	With others	537 (42.5)
	No fixed abode	26 (2.1)
	Other	58 (4.6)
	Not known	85 (6.7)
Ethnicity	Asian	17 (1.3)
	Black	14 (1.1)
	Chinese and other	10 (0.8)
	White	853 (67.5)
	Not known	369 (29.2)

2. Age

Most *np*-SAD drug-related deaths in England during 2011 occurred amongst those aged 35 years and over (71.2%), with 21.9% aged 25-34, and only 6.9% being 15-24 years old

(Figure 1.1). The median age at death was 41.9 years (interquartile range = 16.4). Older male, White drug users are at most risk of drug-related deaths (Bird *et al.*, 2003; Ghodse

et al., 2009). Of the 1,263 np-SAD drug-related deaths in England in 2011, 87 were 24 years old and under and 317 were 50 and over.

Figure 1.1: np-SAD drug-related deaths by age-group, England, 2011

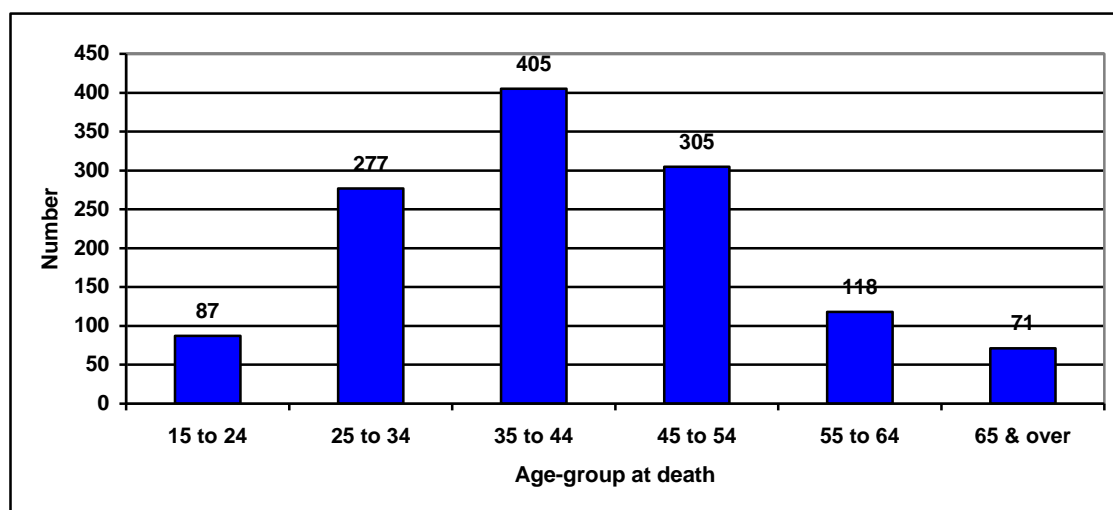
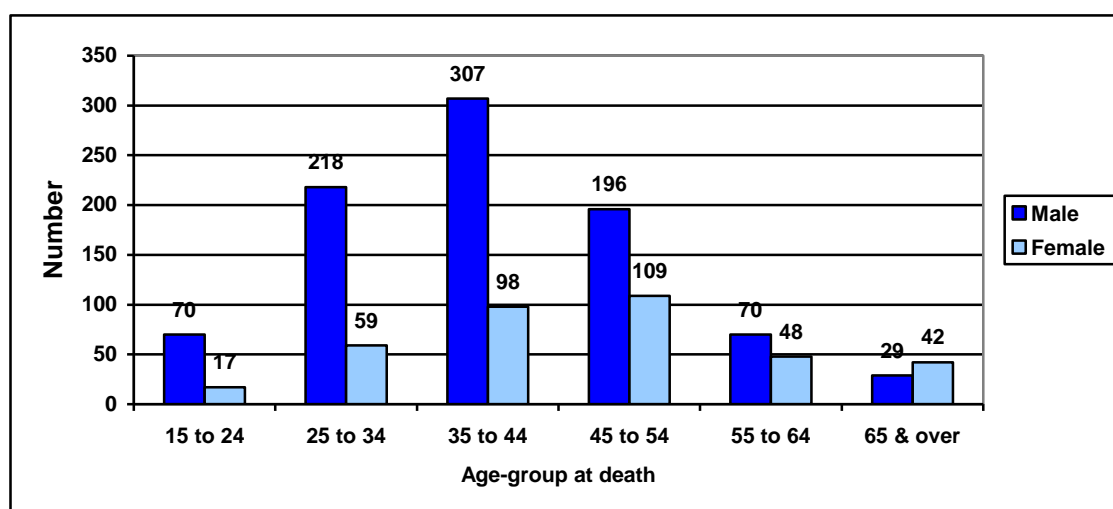


Figure 1.2: np-SAD drug-related deaths by age and gender, England, 2011



3. Location of death

In 2011, 71.0% of cases died at the deceased's home address or another private residential address; 11.2% died in hospital; and 11.2% died elsewhere (e.g. park, public facilities, other public spaces), with 7.5% of cases for which the place of death was not specified.

- Intentional self-poisoning (X60-X67): 15.4%
- Poisonings of undetermined intent (Y10-Y15): 9.8%
- Other (e.g. natural causes, drowning, hanging, unascertained): 10.4%

4. Underlying cause(s) of death

The categories of underlying cause(s) of death for coding within ICD-10 (Appendix 1) were as follows:

- Accidental poisoning (X40-X47): 64.4%

Males were significantly more likely than females to die from accidental poisoning (68.8% vs. 53.9%). (*Proportion Ratio [PR]: = 1.3, 95% Confidence Interval [CI]: = 1.2 – 1.4*). Females, by contrast, were more likely than males to die of intentional self-poisoning (22.3% vs. 12.6%) (*PR = 1.8, 95% CI = 1.4 –*

2.3), and poisoning of undetermined intent (15.5% vs. 7.5%) ($PR = 2.1$, 95% $CI = 1.5 - 2.9$).

In England, deaths amongst those aged 44 years and younger were more likely than older cases to be attributed to accidental poisoning (71.3% vs. 53.6%) ($PR = 1.3$, 95% $CI = 1.2 - 1.5$). By contrast, those aged 45 years or over were not only more likely to die of intentional self-poisoning than younger cases (25.5% vs. 9.0%) ($PR = 2.8$, 95% $CI = 2.2 - 3.7$), but also from poisoning of undetermined intent (13.4% vs. 7.8%) ($PR = 1.7$, 95% $CI = 1.2 - 2.4$).

5. Manner of death

The results for 2011 cases are as follows:

- Accidental: 67.4%
- Suicidal: 18.1%
- Undetermined: 11.2%

- Natural: 3.1%
- Homicidal: 0.2%

Males were more likely than females to die an accidental death (72.0% vs. 56.3%) ($PR = 1.3$, 95% $CI = 1.1 - 1.4$). Conversely, there were more deaths attributed to suicide in females than in males (23.1% vs. 16.1%) ($PR = 1.4$, 95% $CI = 1.1 - 1.8$), and also deaths where the manner was undetermined (16.9% vs. 8.9%) ($PR = 1.9$, 95% $CI = 1.4 - 2.6$).

Cases aged less than 45 years were more likely than older cases to die accidentally (75.7% vs. 54.5%) ($PR = 1.4$, 95% $CI = 1.3 - 1.5$). Those aged 45 years or over were more likely than younger cases to have deaths attributed to suicide (27.7% vs. 12%) ($PR = 2.3$, 95% $CI = 1.8 - 2.9$), or to a manner that was undetermined (14.2% vs. 9.4%) ($PR = 1.5$, 95% $CI = 1.1 - 2.1$).

Psychoactive substances implicated in death

1.1 Psychoactive substances

Of the 1,263 np-SAD-related deaths in 2011, psychoactive drugs, including alcohol, were directly implicated in 1,172 (92.8%). Of these, the principal substances implicated were

heroin/morphine (30.3%); other opiates/opioid analgesics (28.0%); alcohol-in-combination with other substances (27.7%); methadone (27.9%); hypnotics/sedatives (24.4%); anti-depressants (24.5%); and cocaine (10.4%) shown in Table 1.2.

Table 1.2: Psychoactive substances implicated in np-SAD deaths, England, 2011

Drug category	Number (%) of cases where substance was implicated alone	Number (%) of cases where substance was implicated both alone and in combination
Total	1,172 (100.0)	
Alcohol-in-combination	-	325 (27.7)
Amphetamines	19 (1.6)	43 (3.7)
Anti-depressants	65 (5.5)	287 (24.5)
Anti-epileptics	6 (0.5)	34 (2.9)
Anti-Parkinson's	1 (0.1)	5 (0.4)
Anti-psychotics	15 (1.3)	66 (5.6)
Cannabis	6 (0.5)	23 (2.0)
Cocaine	17 (1.5)	122 (10.4)
Ecstasy-type drugs	6 (0.5)	20 (1.7)
GHB/GBL	4 (0.3)	10 (0.9)
Heroin/morphine	103 (8.8)	355 (30.3)
Hypnotics/sedatives	28 (2.4)	286 (24.4)
Methadone	82 (7.0)	327 (27.9)
Other opiates/opioid analgesics	81 (6.9)	328 (28.0)

Notes: Column totals may sum to more than 100% since more than one substance may be implicated in a death. Not all cases had drugs directly implicated in death; these are excluded from this table.

1.2 Psychoactive substances most frequently implicated for each age-group

As shown in Table 1.3 below, for 15-24 year olds, methadone was the most frequently implicated psychoactive drug (alone or in combination) in their deaths, whilst

heroin/morphine was identified as the psychoactive substance most frequently implicated in the deaths of those aged between 25-44 years, representing 65.6% of all deaths implicated to the drug reported in England, in 2011. Anti-depressants were once again the most frequently implicated psychoactive drugs in the deaths of those aged 45-54 years, with other opiates/opioid analgesics being the psychoactive substance implicated most often in the 55-64 years age-group. Meanwhile, hypnotics/sedatives were the drugs most frequently implicated in the deaths of those aged 65 and over.

1.3 Age-group with highest frequency for each psychoactive substance implicated

As Table 1.3 below shows, amphetamines; anti-psychotics; cocaine; heroin/morphine;

hypnotics/sedatives; methadone; other opiates/opioid analgesics; and alcohol-in-combination were most commonly implicated in the deaths of those aged between 35-44 years. Anti-depressants were implicated most frequently in the deaths of those in the 45-54 years age category, whilst cannabis was implicated most often in the deaths of 25-34 year-olds. Ecstasy-type drugs were most commonly implicated in the deaths of the 15-24 and 35-44 year age-groups. Anti-epileptics were implicated most often in the age-groups 35-54, whilst anti-Parkinson's featured more frequently in the age-groups of 25-34 and 45-54 than in all other age-groups combined. GHB/GBL was most commonly implicated in the deaths of those aged between 25-44 years.

Table 1.3: Age-group and psychoactive substance implicated in death, *np-SAD* cases, England, 2011

		Age-group at death						Total number of cases where substance implicated	Percentage of total deaths overall with psychoactive substances implicated
		15-24	25-34	35-44	45-54	55-64	65+		
Number of cases where psychoactive substance implicated in death (% of total deaths with substance implicated)	Amphetamines	5 (11.6)	13 (30.2)	17 (39.5)	5 (11.6)	3 (7.0)	0 (0.0)	43	3.7%
	Anti-depressants	7 (2.4)	46 (16.0)	84 (29.3)	95 (33.1)	28 (9.8)	27 (9.4)	287	24.5%
	Anti-epileptics	1 (2.9)	5 (14.7)	10 (29.4)	10 (29.4)	6 (17.6)	2 (5.9)	34	2.9%
	Anti-Parkinson's	0 (0.0)	1 (20.0)	1 (20.0)	2 (40.0)	0 (0.0)	1 (20.0)	5	0.4%
	Anti-psychotics	2 (3.0)	16 (24.2)	27 (40.9)	13 (19.7)	3 (4.5)	5 (7.6)	66	5.6%
	Cannabis	6 (26.1)	8 (34.8)	5 (21.7)	3 (13.0)	1 (4.3)	0 (0.0)	23	2.0%
	Cocaine	13 (10.7)	34 (27.9)	47 (38.5)	20 (16.4)	8 (6.6)	0 (0.0)	122	10.4%
	Ecstasy-type	6 (30.0)	5 (25.0)	6 (30.0)	3 (15.0)	0 (0.0)	0 (0.0)	20	1.7%
	GHB/GBL	2 (20.0)	3 (30.0)	3 (30.0)	2 (20.0)	0 (0.0)	0 (0.0)	10	0.9%
	Heroin/morphine	11 (3.1)	88 (24.8)	145 (40.8)	77 (21.7)	28 (7.9)	6 (1.7)	355	30.3%
	Hypnotic/sedative	14 (4.9)	63 (22.0)	99 (34.6)	54 (18.9)	30 (10.5)	26 (9.1)	286	24.4%
	Methadone	19 (5.8)	81 (24.8)	119 (36.4)	88 (26.9)	17 (5.2)	3 (0.9)	327	27.9%
	Other opiates/opioid analgesics	13 (4.0)	51 (15.5)	102 (31.1)	92 (28.0)	47 (14.3)	23 (7.0)	328	28.0%
Alcohol-in-combination	14 (4.3)	81 (24.9)	121 (37.2)	64 (19.7)	34 (10.5)	11 (3.4)	325	27.8%	

Notes: Column totals may sum to more than 100% since more than one substance may be implicated in a death. Not all cases had drugs directly implicated in death; these are excluded from this table.

1.4 Gender and implicated psychoactive substance

The type of psychoactive substances implicated in fatalities is somewhat different between male and female cases.

Among males, the top five substances most frequently implicated alone or in combination, presented in numerical order were:

1. Heroin/morphine (34.2%)
2. Alcohol-in-combination (29.9%)
3. Methadone (29.9%)
4. Other opiates/opioid analgesics (25.3%)
5. Hypnotics/sedatives (24.6%).

Amongst female cases, the substances most frequently implicated alone or in combination were:

1. Anti-depressants (42.7%)
2. Other opiates/ opioid analgesics (34.5%)
3. Hypnotics/sedatives (24.0%)
4. Methadone (23.1%)
5. Alcohol-in-combination (23.1%)

Comparing the type of psychoactive substances implicated in the deaths of males and females reveals that there is a higher proportion of male deaths compared to female deaths involving heroin/morphine; alcohol-in-combination; methadone; hypnotics/sedatives; cocaine; GHB/GBL; cannabis; and ecstasy-type drugs.

Females, compared to males, show a greater proportion of deaths implicating anti-depressants; other opiates/opioid analgesics; anti-psychotics; anti-epileptics; anti-Parkinson's drugs; and amphetamines.

2. Polysubstances

In 2011, 10.2% of the 1,172 psychoactive substance-related deaths reported to np-SAD involved heroin/morphine in combination with alcohol. 7.0% of cases involved hypnotics/sedatives with anti-depressants; 6.8% of cases involved other opiates/opioid analgesics combined with alcohol; whilst 6.2% of deaths involved heroin/morphine and other opiates/ opioid analgesics combined. The combination of heroin/morphine and other opiates/opioid analgesics fluctuated between 4% and 9% over the past ten years, with a general downward trend. Over the last decade alcohol-in-combination with two other stimulants constantly featured. Combinations

of drugs, with or without alcohol, pose greater risks for mortality (Ghodse *et al.*, 2010).

Hypnotics/sedatives in combination with other opiates/opioid analgesics accounted for 8.5% of cases in 2002 compared to 8.1% in 2011.

In 2011, several different substance types, when implicated in combination, often featured with alcohol. Alcohol was implicated in 33.5% of deaths involving heroin/morphine, 35.2% involving cocaine, 34.8% of deaths involving cannabis, 30.0% of GHB/GBL deaths and 27.8% of deaths in which methadone was implicated.

3. Single substances

In 2011, there were 433 (36.9%) psychoactive substance deaths in which only one of the following substances was implicated. Of these 433 deaths from single substances, heroin/morphine accounted for 23.8% of deaths; methadone for 18.9%; other opiates/opioid analgesics – 18.7%; anti-depressants – 15.0%; cocaine – 3.9%; hypnotics/sedatives – 6.5%; amphetamines – 4.4%; anti-psychotics – 3.5%; cannabis – 1.4%; ecstasy-type drugs – 1.4%; anti-epileptics – 1.4%; GHB/GBL – 0.9%; and anti-Parkinson's – 0.2%.

4. Prescribed psychoactive drugs

In total, 780/1263 cases (61.8%) were reported to be receiving prescribed psychoactive drugs at the time of their death in 2011 (Table 1.4). Within this group, prescribed drugs reported were: anti-depressants (59.5%); hypnotic/sedatives (42.8%); other opiate/opioid analgesics (28.9%); anti-psychotics (20.3%); methadone (19.3%); anti-epileptics (14.3%); heroin/morphine (6.1%); anti-Parkinson's (1.8%); and amphetamines (0.5%). 'Polypharmacy', i.e. multiple prescriptions of psychoactive drugs, occurred in 67.3% (525/780) of these cases.

Age appeared to be related to whether the cases were on prescribed psychoactive medication or not when prescribing history was known at the time of death, with 21.8% of 15-24 year olds prescribed psychoactive medication; 51.3% for 25-34; 35-44 (63.5%); 45-54 (71.1%); 55-64 (75.4%); and 65 and over (78.9%).

Table 1.4: Prescribed psychoactive medication, np-SAD cases, England, 2011

Drug category	Number (%) of cases on prescribed psychoactive medication by drug	Number (%) of these cases where same prescribed drug was implicated in death
Total	780 (100.0)	
Amphetamines	4 (0.5)	1 (25.0)
Anti-depressants	464 (59.5)	199 (42.9)
Anti-epileptics	112 (14.4)	16 (14.3)
Anti-Parkinson's	14 (1.8)	3 (21.4)
Anti-psychotics	158 (20.3)	47 (29.7)
Heroin/morphine	47 (6.0)	35 (74.5)
Hypnotic/sedatives	334 (42.8)	131 (39.2)
Methadone	150 (19.2)	123 (82.0)
Other opiates/opioid analgesics	225 (28.8)	143 (63.6)

Note: Column totals may sum to more than 100% since more than one substance may be prescribed to an individual and more than one substance may be implicated in a death.

The following paragraphs further examine np-SAD deaths and the involvement of prescribed medication.

Methadone, alone and in combination with other drugs, was implicated in 327 cases. Of these, 204 people (62.4%) may have obtained methadone from illicit sources, compared to 123 (37.6%) who were known to be receiving prescribed methadone prior to their death ($PR = 1.7$, 95% $CI = 1.4 - 2.0$). Methadone alone was implicated in 82 cases. Of these, 47 (57.3%) may have obtained the drug from illicit sources, compared to 35 (42.7%) who were known to be receiving prescribed methadone ($PR = 1.3$, 95% $CI = 1.0 - 1.8$).

Hypnotic/sedatives, alone and in combination with other drugs, were implicated in 286 cases. Of these, 131 (45.8%) were known to be prescribed this drug, thus 155 (54.2%) may have obtained them illicitly ($PR = 1.2$, 95% $CI = 1.0 - 1.4$). Of the 28 cases in which hypnotic/sedatives alone were implicated, 12 (42.9%) had received the drug on prescription, compared to 16 (57.1%) who may have illegally obtained it ($PR = 1.3$, 95% $CI = 0.8 - 2.3$).

Anti-depressants, alone and in combination with other drugs, were implicated in 287 cases. Of these, 199 (69.3%) were known to be receiving prescribed anti-depressants at the time of their death, compared to 88 (30.7%) who may have taken drugs prescribed to others ($PR = 2.3$, 95% $CI = 1.9 - 2.7$). Anti-depressants alone were implicated in 65

cases. Of these, 48 (73.8%) were known to be prescribed anti-depressants, compared to 17 (26.2%) who may have used drugs that were prescribed to others ($PR = 2.8$, 95% $CI = 1.8 - 4.4$).

Other opiates/opioid analgesics (e.g. dextropropoxyphene, or where the exact opiate-type drug was unknown) alone and in combination with other drugs, were implicated in 328 cases. Of these, 185 (56.4%) may have obtained the drug by illicit means, compared to the 143 (43.6%) who were known to be prescribed other opiates/opioid analgesics ($PR = 1.3$, 95% $CI = 1.1 - 1.5$). Other opiate/opioid analgesics alone were implicated in 81 cases. In 36 (44.4%) of these cases the drugs were listed as prescribed to the individual in whose death the drugs were implicated, however for the remaining 45 (55.6%) cases, the drugs appear to have been obtained by other means ($PR = 1.3$, 95% $CI = 0.9 - 1.7$).

Heroin/morphine, alone and in combination with other drugs, was implicated in 355 deaths. 320 (90.1%) of these cases were not prescribed heroin/morphine, and as such may have obtained the drug illegally. Only 35 (9.9%) of the cases with heroin/morphine implicated were receiving the drug on prescription ($PR = 9.1$, 95% $CI = 6.7 - 12.5$). Where heroin/morphine was implicated alone, out of 103 cases, only 12 (11.7%) were known to be prescribed the drug, meaning 91 individuals (88.3%) may have obtained heroin/morphine illegally ($PR = 7.6$, 95% $CI = 4.4 - 13.0$).

Drug abuse/dependence

Information was available for 946/1263 individuals on their past or current history of drug abuse/dependence. Those with such a history (DAs) accounted for 64.2% ($n = 607/946$). Those without such a history - non drug abusers (NDAs) - accounted for 35.8% (339/946). Out of the total number of np-SAD cases reported for 2011, 25.1% (317/1263) were reported as "not known" with respect to known history of drug abuse/dependence. These cases were excluded from further analysis.

1. Demography

Those with a history of drug abuse (DA) were more likely to be male than those without such a history (NDA) (78.7% vs. 56.6%) ($PR = 1.4$, 95% $CI = 1.3 - 1.5$) and 44 years and younger (71.5% compared to 42.2%) ($PR = 1.7$, 95% $CI = 1.5 - 1.9$). The median age at death for DAs was 38.9 years (interquartile range = 13.2), while that for NDAs was 47.2 years (interquartile range = 20.0) ($Mann-Whitney U = 66,385.0 p < 0.001$).

2. Location of death

When location of death was known, there was no difference between the two groups with respect to dying at home or at a private residential address, with DAs (76.5%) and NDAs (76.5%). Indeed, hospital deaths also

accounted for a similar proportion of deaths in both DA (12.6%) and NDA (14.0%) groups. A similar proportion of DAs (6.7%) as NDAs (6.3%) died in public places (e.g. park, street, public toilets etc.).

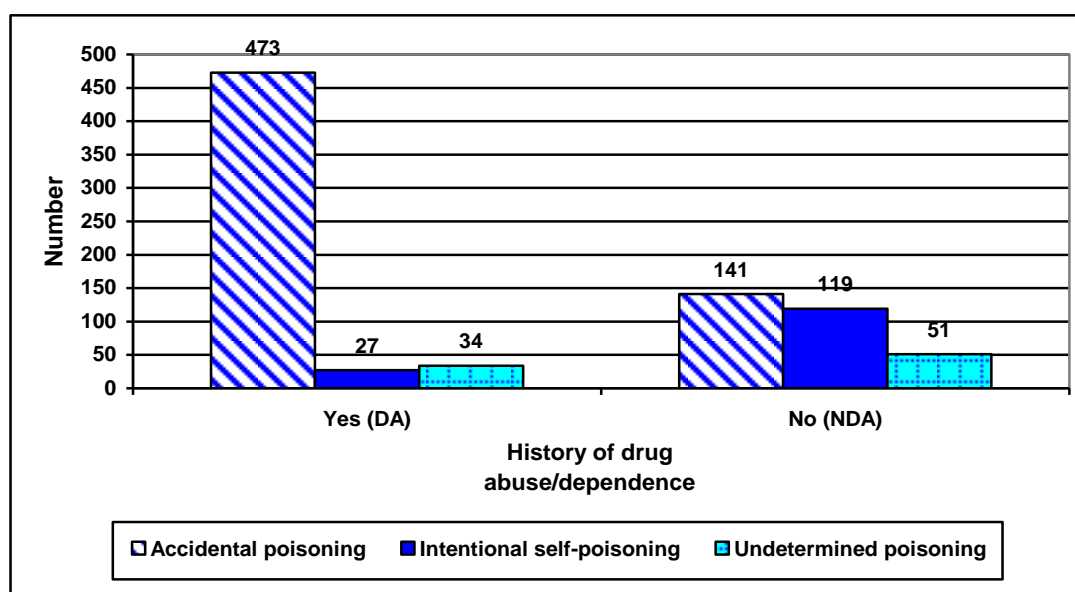
3. Underlying cause(s) of death

DAs were more likely than NDAs to die of accidental poisoning (77.9% vs. 41.6%) ($PR = 1.9$, 95% $CI = 1.6 - 2.1$) – see Figure 1.3. Conversely, a significantly greater proportion of NDAs died of intentional self-poisoning compared to DAs (35.1% vs. 4.4%) ($PR = 7.9$, 95% $CI = 5.3 - 11.7$), and also poisoning of undetermined intent (15.0% vs. 5.6%) ($PR = 2.7$, 95% $CI = 1.8 - 4.1$).

4. Manner of death

A similar pattern is exhibited with regard to manner of death. DAs were more likely than NDAs to die an accidental death (81.5% vs. 44.2%) ($PR = 1.8$, 95% $CI = 1.6 - 2.1$). In contrast, deaths of NDAs were more likely than those of DAs to be attributed to suicide (38.3% vs. 6.4%) ($PR = 6.0$, 95% $CI = 4.3 - 8.3$), or to a death where the manner was undetermined (15.6% vs. 7.6%) ($PR = 2.1$, 95% $CI = 1.4 - 3.0$). Natural deaths were more common amongst DAs (4.4%) than NDAs (1.8%) ($PR = 2.5$, 95% $CI = 1.0 - 6.0$).

Figure 1.3: Principal underlying cause(s) of death by drug abuse/dependence history, np-SAD cases, England, 2011



Changes between 2010 and 2011

The following section compares deaths in 2011 with those that occurred in 2010. Deaths in 2011 are reported as 1,263, whereas in 2010, 1,358 cases were reported. This is a decrease in reported np-SAD deaths of 7.0% for 2011. These figures for 2011 (and 2010, to a lesser extent) can be expected to increase as further inquests on drug-related deaths of those who died in these calendar years are finally completed (some inquests do happen in the same calendar year) and reported to the Programme.

1. Demography

There were small changes between 2010 and 2011 in the demographic profile of cases. There was a slight reduction in the number of male deaths, from 72.1% to 70.5%, with a 0.5% drop in the number of deaths amongst White cases. Deaths amongst those aged between 15-34 years fell 6.3% (35.1% in 2010 to 28.8%), whilst a rise was seen in deaths of those aged 35 years and over (64.6% to 71.2%). Those listed as living with others rose 3.9%, and those with no fixed abode fell 1.1%. Decreases were also observed in the proportion of deaths occurring at a defined residential address (from 75.2% to 70.1%), and those occurring in hospital (from 14.1% to 11.2%). A 4.4% fall was seen in the number of people listed as drug addicts/abusers when history was known.

2. Underlying cause(s) of death

The proportion of deaths attributed to accidental drug poisoning rose to 64.4% in 2011 (59.9% in 2010), with intentional self-poisoning deaths also increasing from 14.0% in 2010 to 15.4% in 2011. Deaths from other causes dropped from 16.0% to 10.4%, whilst poisonings of undetermined intent remained relatively stable at 9.8% in 2011 (10.1% in 2010).

3. Manner of death

The patterns observed for manner of death in 2011 remained relatively stable with those seen in 2010 – deaths attributed to accidents increased by 0.7%. This is consistent with the rise seen in accidental poisonings and the

sharp drop in other accidental causes, such as drowning, RTA etc. A 0.1% reduction was witnessed in the number of deaths attributed to suicide.

4. Psychoactive substances implicated in death

In 2011 there were 1,172/1,263 deaths that involved psychoactive substances; 91 cases were therefore excluded from the following analyses as they did not involve psychoactive substances. In 2010, 1,222/1,358 cases involved psychoactive substances

4.1 Psychoactive substances, both alone and in combination

There were both absolute and proportional increases in deaths involving the following substances both alone and in combination: amphetamines; anti-depressants; anti-epileptics; anti-psychotics; cannabis; cocaine; ecstasy-type drugs; hypnotics/sedatives; methadone; and other opiates/opioid analgesics (Table 1.5). Despite heroin/morphine once again being the most frequently implicated drug, both alone and in combination, a significant drop of 6.9% was seen between the years (37.2% in 2010 down to 30.3% in 2011). Drops were also seen in deaths involving alcohol-in combination; anti-Parkinson's; and GHB/GBL when implicated both alone and in combination.

4.2 Single substance

There were slight changes between 2010 and 2011 in terms of the proportions accounted for by deaths involving a single psychoactive substance. For substances implicated alone, there were absolute and proportional increases in deaths attributed to amphetamines; anti-depressants; anti-epileptics; cannabis; ecstasy-type drugs; hypnotics/sedatives; and other opiates/opioid analgesics (Table 1.6). Anti-psychotics meanwhile were implicated in just 0.1% more single substance deaths in 2011 than 2010. There were decreases in the proportions accounted for by the following substances when implicated alone: cocaine; GHB/GBL; heroin/morphine; and methadone.

Table 1.5: Changes in percentages of psychoactive substances, alone and in combination, implicated in psychoactive substance deaths, np-SAD cases, England, 2010 and 2011

Substance	2010 (n = 1,222) %	2010 (n = 1,241) † %	2011 (n = 1,172) %	Ratio of Proportions (PR)	95% CI	Change (percentage points)
Alcohol-in-combination	31.9	31.5	27.7	1.2	1.0 – 1.3	- 4.2
Amphetamines	3.2	3.2	3.7	1.1	0.8 – 1.8	+ 0.5
Anti-depressants	21.5	21.5	24.5	1.1	1.0 – 1.3	+ 3.0
Anti-epileptics	2.3	2.3	2.9	1.3	0.8 – 2.1	+ 0.6
Anti-Parkinson's	0.6	0.6	0.4	1.3	0.4 – 4.2	- 0.2
Anti-psychotics	5.3	5.3	5.6	1.1	0.8 – 1.5	+ 0.3
Cannabis	1.6	1.6	2.0	1.3	0.7 – 2.3	+ 0.4
Cocaine	9.3	9.4	10.4	1.1	0.9 – 1.4	+ 1.1
Ecstasy-type drugs	0.7	0.6	1.7	2.6	1.2 – 5.9	+ 1.0
GHB/GBL	1.1	1.2	0.9	1.2	0.5 – 2.8	- 0.2
Heroin/morphine	37.2	37.0	30.3	1.2	1.1 – 1.4	- 6.9
Hypnotics/sedatives	21.7	21.4	24.4	1.1	1.0 – 1.3	+ 2.7
Methadone	25.2	25.0	27.9	1.1	1.0 – 1.3	+ 2.7
Other opiates/ opioid analgesics	24.9	24.8	28.0	1.1	1.0 – 1.3	+ 3.1

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.
†On average approximately 300 cases of inquest from the year of death are not completed and are added to next year.
Column highlighted in includes deaths in 2010 reported since the last report and is **not** used in the PR, CI or change in percentage points calculations

Table 1.6: Changes in percentages of single psychoactive substances implicated alone in psychoactive substance deaths, np-SAD cases, England, 2010 and 2011

Substance	2010 (n = 1,222) %	2010 (n = 1,241) † %	2011 (n = 1,172) %	Ratio of Proportions (PR)	95% CI	Change (percentage points)
Amphetamines	1.4	1.4	1.6	1.2	0.6 – 2.2	+ 0.2
Anti-depressants	4.7	4.7	5.5	1.2	0.8 – 1.6	+ 0.8
Anti-epileptics	0.4	0.4	0.5	1.3	0.4 – 4.1	+ 0.1
Anti-Parkinson's	0.1	0.1	0.1	1.0	0.1 – 16.7	0.0
Anti-psychotics	1.2	1.3	1.3	1.0	0.5 – 2.1	+ 0.1
Cannabis	0.2	0.2	0.5	3.1	0.6 – 15.5	+ 0.3
Cocaine	2.1	2.2	1.5	1.5	0.8 – 2.7	- 0.6
Ecstasy-type drugs	0.3	0.3	0.5	1.3	0.4 – 4.1	+ 0.2
GHB/GBL	0.5	0.6	0.3	1.4	0.4 – 5.1	- 0.2
Heroin/morphine	11.1	11.1	8.8	1.3	1.0 – 1.6	- 2.3
Hypnotics/sedatives	1.6	1.7	2.4	1.5	0.8 – 2.6	+ 0.8
Methadone	7.1	7.1	7.0	1.0	0.8 – 1.4	- 0.1
Other opiates/ opioid analgesics	5.3	5.2	6.9	1.3	0.9 – 1.8	+ 1.6

†On average approximately 300 cases of inquest from the year of death are not completed and are added to next year.
Column highlighted in includes deaths in 2010 reported since the last report and is **not** used in the PR, CI or change in percentage points calculations

Deaths per 100,000 population by area

This section provides a break-down of information by different geographical units for deaths of those aged 16 years and older. Table A provides information on rates per 100,000 population by Coroners' jurisdiction for 2011; Table B shows the rates per 100,000 for both 2010 and 2011 by Coroners' jurisdiction to allow for comparison between the two years; Tables C and E provide breakdowns by Drug and Alcohol Action Team (DAAT) and Primary Care Trust (PCT) areas respectively; and Table D gives detailed breakdowns by DAAT area for key aspects, such as key demographic details and primary drugs implicated.

Coroners' jurisdictions with highest and lowest rates in 2011

The following Coroner's jurisdictions in England reported annual drug-related death rates higher than 10/100,000 population in 2011: City of Manchester (14.86); Blackburn, Hyndburn & Ribble Valley (13.35); Liverpool (11.37); and Blackpool & the Fylde (11.10).

The following Coroner's jurisdictions reported drug-related death rates for 2011 below 1/100,000 population: Stamford (0.91); Southern London (0.91); Black Country (0.88); Spilsby & Louth (0.78); Milton Keynes (0.51); West Lincolnshire (0.44); Newcastle-upon-Tyne (0.43); Knowsley, St Helens & Sefton (0.41); Plymouth & South West Devon (0.40); and Northern London (0.17).

The following areas reported that there had been no relevant cases: The Queen's household and the Isles of Scilly. Further information for each jurisdiction and its associated rate per 100,000 can be found in Table A.

Commentary

The demographic profile of drug-related deaths in England meeting the np-SAD case criteria for 2011 remains generally consistent with previous reports: a higher proportion of males to females; majority of White ethnicity; with the majority aged less than 45 years. Deaths amongst those aged 15-24 appear to have dropped over the past ten years by about 60%. The number and proportion of deaths of known drug users aged more than 45 years at the time of death notified to the Programme

Changes in death rates from 2010 to 2011 by Coroners' jurisdiction

The following jurisdictions reported notable increases (>2.5/100,000) in annual drug-related death rates by 100,000 population from 2010 to 2011: North Tyneside (3.68 to 9.67); Blackburn, Hyndburn & Ribble Valley (9.23 to 13.35); Hartlepool (4.09 to 8.09); Rutland & North Leicestershire (1.35 to 4.84); North & West Cumbria (1.80 to 4.82); Boston & Spalding (2.53 to 5.51); Wiltshire (2.25 to 4.92); Darlington & South Durham (1.34 to 3.92); and Western Dorset (0.54 to 3.08).

The following jurisdictions reported notable decreases (>2.5/100,000) in annual drug-related death rates by 100,000 population from 2010 to 2011: Brighton & Hove (15.69 to 8.77); Inner North London (7.19 to 2.51); North Lincolnshire & Grimsby (5.80 to 1.88); Portsmouth & South East Hampshire (6.37 to 2.54); Plymouth & South West Devon (4.04 to 0.40); Cornwall (7.65 to 4.06); Teeside (10.24 to 6.65); and Wirral (4.80 to 1.53).

Further information for each jurisdiction and its associated rate per 100,000 for 2010 and 2011 can be found in Table B.

Brighton and Hove, as highlighted above, witnessed a drop in np-SAD deaths of 6.92/100,000 population from 2010 to 2011. This continues the apparent steep downward trend in the number of such deaths for this jurisdiction, with a total drop in np-SAD-relevant deaths of 14.59/100,000 from 2009 to 2011 (from 23.36 to 8.77).

also increased over the past decade: from 141 (13.1%) to 183 (27.9%) cases.

As found in previous years, accidental poisoning still remains the most frequent underlying cause of death across all age-groups. However, when compared with females and males of younger age-groups, older females exhibit higher rates of deaths attributed to intentional self-poisoning.

Heroin/morphine was the drug most frequently implicated in the deaths of males, closely followed by methadone. In contrast, for females it was anti-depressants, closely followed by other opiates/opioid analgesics.

The drug-related deaths in England reported to the Programme for 2011 show that there have been increases in involvement at death of amphetamines; anti-depressants; anti-epileptics; anti-psychotics; cannabis; cocaine; ecstasy-type drugs; hypnotics/sedatives; methadone; and other opiates/opioid analgesics. Meanwhile, deaths involving heroin/morphine; alcohol-in-combination; anti-Parkinson's; and GHB/GBL have decreased. This trend is similar to that as found in "drug misuse" cases.

The decline in monovalent deaths noted in last year's report appears to be faltering, with a

slight increase back to 2009 levels of around 37%, as in 2010 they accounted for 36% of cases. With regards polysubstance deaths, heroin/morphine combined with alcohol remains the most frequent polysubstance combination over the past ten years, followed by anti-depressants combined with hypnotics/sedatives.

The most commonly prescribed medications implicated in death were anti-depressants, followed by hypnotics/sedatives. From information available on individuals' prescribed medication status, it would appear that upwards of 54% of hypnotics/sedatives, other opiates/opioid analgesics and methadone-related deaths were sourced either illegally, or through other means.

Table A: England cases in 2011 by Coroner's jurisdiction (16 years and over) and deaths in 2010 reported in 2011/12

Coroner's Jurisdiction & county district	np-SAD deaths Jan-Dec 2011	Annual death rate per 100,000 population ⁽¹⁾	np-SAD 2010 deaths reported in 2011/12 ⁽²⁾
Queen's Household	0	0.00	0
ENGLAND			
AVON	-	-	-
BEDFORDSHIRE & LUTON	27	5.54	0
BERKSHIRE	15	2.52	0
BUCKINGHAMSHIRE			
Buckinghamshire	5	1.23	0
Milton Keynes	1	0.51	0
CAMBRIDGESHIRE			
North & East Cambridgeshire	4	2.75	0
Peterborough	8	5.84	0
South & West Cambridgeshire	9	2.49	0
CHESHIRE	26	3.11	0
CORNWALL			
Cornwall	18	4.06	2
Isles of Scilly	0	0.00	0
CUMBRIA			
North & West Cumbria	11	4.82	1
South & East Cumbria	6	3.17	0
DERBYSHIRE			
Derby & South Derbyshire	12	2.41	0
North Derbyshire	17	5.08	1
DEVON			
Exeter & Greater Devon	19	3.79	3
Plymouth & South West Devon	1	0.40	1
Torbay & South Devon	4	2.03	0
DORSET			
Bournemouth, Poole & Eastern Dorset	24	5.61	0
Western Dorset	6	3.08	0
DURHAM			
Darlington & South Durham	9	3.92	0
North Durham	10	3.56	0
EAST SUSSEX			
Brighton & Hove	20	8.77	2
East Sussex	16	3.67	0
ESSEX			
Essex & Thurrock	0	0.00	0
Southend & South East Essex	0	0.00	0
GLOUCESTERSHIRE	10	2.04	0
GREATER MANCHESTER			
Manchester (City)	60	14.86	7
North Manchester	-	-	5
South Manchester	41	6.97	2
West Manchester	36	5.40	2
HAMPSHIRE			
Central Hampshire	4	1.37	2
North East Hampshire	8	2.43	0
Portsmouth & South East Hampshire	12	2.54	0
Southampton & New Forest	22	6.42	0

Coroner's Jurisdiction & county district	np-SAD deaths Jan-Dec 2011	Annual death rate per 100,000 population ⁽¹⁾	np-SAD 2010 deaths reported in 2011/12 ⁽²⁾
HEREFORDSHIRE	-	-	-
HERTFORDSHIRE	21	2.35	0
HUMBERSIDE			
East Riding & Hull	17	3.49	0
ISLE OF WIGHT	9	7.78	0
KENT			
Central & South East Kent	-	-	-
Mid Kent & Medway	-	-	-
North East Kent	22	7.87	0
North West Kent	12	3.07	3
LANCASHIRE			
Blackburn, Hyndburn & Ribble Valley	30	13.35	0
Blackpool & the Fylde	20	11.10	0
East Lancashire	19	9.70	0
Preston & West Lancashire	42	7.17	0
LEICESTERSHIRE			
Leicester City & South Leicestershire	12	2.65	0
Rutland & North Leicestershire	18	4.84	5
LINCOLNSHIRE			
Boston & Spalding	7	5.51	0
North Lincolnshire & Grimsby	5	1.88	0
Spilsby & Louth	1	0.78	0
Stamford	1	0.91	0
West Lincolnshire	1	0.44	0
LONDON			
City of London	1	14.79	0
Eastern London	11	1.11	0
Inner North London	19	2.51	1
Inner South London	29	3.36	0
Inner West London	17	2.30	1
Northern London	2	0.17	0
Southern London	8	0.91	0
Western London	78	6.96	7
MERSEYSIDE			
Knowsley, St Helens & Sefton	2	0.41	0
Liverpool	44	11.37	0
Wirral	4	1.53	0
NORFOLK	12	1.68	0
NORTHAMPTONSHIRE	30	5.41	0
NORTHUMBERLAND			
North Northumberland	2	2.03	0
South Northumberland	4	2.43	0
NORTH YORKSHIRE			
North Yorkshire Eastern	-	-	-
North Yorkshire Western	3	1.04	0
York	4	2.41	2
NOTTINGHAMSHIRE	21	2.35	0
OXFORDSHIRE	0	0.00	0
SHROPSHIRE			
Mid & North Shropshire	6	3.55	0
South Shropshire	-	-	-
The Wrekin	6	4.53	0

Coroner's Jurisdiction & county district	np-SAD deaths Jan-Dec 2011	Annual death rate per 100,000 population ⁽¹⁾	np-SAD 2010 deaths reported in 2011/12 ⁽²⁾
SOMERSET			
Eastern Somerset	6	2.70	0
Western Somerset	6	2.80	0
SOUTH YORKSHIRE			
South Yorkshire East	18	3.97	0
South Yorkshire West	-	-	-
STAFFORDSHIRE			
South Staffordshire	15	2.91	0
Stoke-on-Trent & North Staffordshire	12	3.13	0
SUFFOLK	13	2.18	0
SURREY	20	2.18	0
TEESSIDE			
Hartlepool	6	8.09	0
Teesside	25	6.65	1
TYNE & WEAR			
Gateshead & South Tyneside	-	-	-
Newcastle-upon-Tyne	1	0.43	0
North Tyneside	16	9.67	0
Sunderland	15	6.65	0
WARWICKSHIRE	-	-	-
WEST MIDLANDS			
Birmingham	-	-	-
Black Country	6	0.88	0
Coventry	7	2.74	0
Wolverhampton	-	-	-
WEST SUSSEX	12	1.81	0
West YORKSHIRE			
West Yorkshire Eastern	33	3.75	0
West Yorkshire Western	23	2.55	0
WILTSHIRE	27	4.92	0
WORCESTERSHIRE	5	1.07	0

Note that (0) refers to either no drug-related deaths or death rates of less than 0.01, whilst (-) indicates that no reports were submitted for the specific period from that jurisdiction or area. In subsequent reports these rates may increase as more inquests on deaths in 2011 are held and/or notified to the np-SAD. These rates should therefore be regarded as minimum rates. Rows for administrative counties have been shaded where there are Coroners' areas located within them; Coroners' areas which correspond to a complete administrative county have not been shaded.

- (1) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question. However, the areas covered by 23 of the Coroners' jurisdictions in England and Wales are not co-terminous with these boundaries and cover parts of such areas (see Appendix 3). Where administrative areas are split between jurisdictions, the estimated population has been divided into two or three as applicable. However, this means that the population of some Coroners' jurisdictions may be either over- or under-estimated. It is necessary to make such assumptions until more accurate figures can be obtained or calculated.
- (2) Notified after the publication of the np-SAD Annual Report, 2011.
- (3) The amalgamations of the following Coroners' jurisdictions during the period covered by this report mean that rates for the new areas have been calculated retrospectively based on published figures: High Peak and Scarsdale were merged to form North Derbyshire (1 February 2006); Gloucester and Cheltenham merged to form Gloucestershire (1 April 2006). In Norfolk, King's Lynn and Norwich & Central Norfolk to form Greater Norfolk (6 April 2007); in Cumbria, the three jurisdictions of North East Cumbria, Southern Cumbria & Furness, and Western Cumbria to form two new areas - North & West Cumbria and South & East Cumbria (1 May 2007). Great Yarmouth merged with Greater Norfolk to form Norfolk on 1 April 2010.

Table B: Changes in annual death rate per 100,000 population for np-SAD cases (16 years old and over), and annual percentage of all inquests held, 2010 and 2011

Coroner's Jurisdiction & county district	Number of np-SAD deaths 2010	Annual death rate per 100,000 population 2010 (1)	Annual % of all inquests held in 2010 (2)	Number of np-SAD deaths 2011	Annual death rate per 100,000 population 2011 (1)	Annual % of all inquests held in 2011 (2)
Queen's Household	0	0.00	0.00	0	0.00	0.00
ENGLAND						
AVON	-	-	-	-	-	-
BEDFORDSHIRE & LUTON	25	5.11	12.14	27	5.54	14.4
BERKSHIRE	17	2.46	5.90	15	2.52	5.19
BUCKINGHAMSHIRE						
Buckinghamshire	5	1.26	4.24	5	1.23	3.16
Milton Keynes	0	0.00	0.00	1	0.51	0.88
CAMBRIDGESHIRE						
North & East Cambridgeshire	4	2.78	6.78	4	2.75	9.3
Peterborough	3	2.19	3.41	3	2.07	2.65
South & West Cambridgeshire	1	0.28	0.56	9	2.49	4.5
CHESHIRE	27	3.29	4.07	26	3.11	3.59
CORNWALL						
Cornwall	34	7.65	10.09	18	4.06	5.24
Isles of Scilly	-	-	-	-	-	-
CUMBRIA						
North & West Cumbria	4	1.80	2.22	11	4.82	5.69
South & East Cumbria	6	3.19	3.45	6	3.17	3.22
DERBYSHIRE						
Derby & South Derbyshire	16	3.23	5.56	12	2.41	4.30
North Derbyshire	11	3.32	3.34	17	5.08	5.41
DEVON						
Exeter & Greater Devon	26	5.05	7.37	19	3.79	5.33
Plymouth & South West Devon	10	4.04	2.54	1	0.40	0.29
Torbay & South Devon	6	3.00	6.00	4	2.03	5.63
DORSET						
Bournemouth, Poole & Eastern Dorset	24	5.88	13.71	24	5.61	14.28
Western Dorset	1	0.54	1.18	6	3.08	8.95
DURHAM						
Darlington & South Durham	3	1.34	2.16	9	3.92	5.32
North Durham	1	0.36	0.38	10	3.56	2.83
EAST SUSSEX						
Brighton & Hove	34	15.69	15.31	20	8.77	9.38
East Sussex	25	5.89	7.72	16	3.67	4.16
ESSEX						
Essex & Thurrock	8	0.71	1.35	-	-	-
Southend & South East Essex	8	2.91	7.77	-	-	-
GLOUCESTERSHIRE	4	0.82	0.96	10	2.04	2.38
GREATER MANCHESTER						
Manchester (City)	62	15.15	7.70	60	14.86	8.13
North Manchester	19	3.96	3.50	-	-	-
South Manchester	41	7.06	8.55	41	6.97	7.03
West Manchester	45	6.95	7.04	36	5.40	5.61

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HAMPSHIRE						
Central Hampshire	10	3.53	4.30	4	1.37	2.29
North East Hampshire	10	3.08	6.67	8	2.43	7.4
Portsmouth & South East Hampshire	30	6.37	7.73	12	2.54	2.7
Southampton & New Forest	18	5.17	8.91	22	6.42	9.36
HEREFORDSHIRE						
HEREFORDSHIRE	4	2.70	3.70	-	-	-
HERTFORDSHIRE						
HERTFORDSHIRE	22	2.48	6.55	21	2.35	6.26
HUMBERSIDE						
East Riding & Hull	15	3.01	5.47	17	3.49	5.96
ISLE OF WIGHT						
ISLE OF WIGHT	5	4.25	6.67	9	7.78	14.51
KENT						
Central & South East Kent	-	-	-	-	-	-
Mid Kent & Medway	1	0.23	0.48	-	-	-
North East Kent	20	7.19	9.57	22	7.87	10.42
North West Kent	14	3.68	6.43	12	3.07	7.79
LANCASHIRE						
Blackburn, Hyndburn & Ribble Valley	20	9.23	6.25	30	13.35	9.61
Blackpool & the Fylde	21	11.77	16.03	20	11.10	15.87
East Lancashire	19	9.85	14.96	19	9.70	12.41
Preston & West Lancashire	29	4.96	7.16	42	7.17	8.89
LEICESTERSHIRE						
Leicester City & South Leicestershire	6	1.38	1.44	12	2.65	3.48
Rutland & North Leicestershire	5	1.35	3.7	18	4.84	8.69
LINCOLNSHIRE						
Boston & Spalding	3	2.53	6.00	7	5.51	12.5
North Lincolnshire & Grimsby	15	5.80	12.50	5	1.88	3.37
Spilsby & Louth	1	0.76	2.04	1	0.78	2.43
Stamford	0	0.00	0.00	1	0.91	9.09
West Lincolnshire	0	0.00	0.00	1	0.44	0.70
LONDON						
City of London	1	13.97	6.25	1	14.79	10
Eastern London	9	1.01	2.33	11	1.11	3.34
Inner North London	52	7.19	9.60	19	2.51	4.94
Inner South London	38	4.41	9.95	38	4.21	8.17
Inner West London	12	1.55	3.03	17	2.30	3.68
Northern London	5	0.46	0.99	2	0.17	0.51
Southern London	5	0.58	1.69	8	0.91	2.61
Western London	91	8.35	15.11	78	6.96	15.05
MERSEYSIDE						
Knowsley, St Helens & Sefton	5	1.02	1.75	2	0.41	0.78
Liverpool	35	9.49	6.77	44	11.37	8.38
Wirral	12	4.80	4.74	4	1.53	1.54
NORFOLK						
NORFOLK	24	3.34	5.03	12	1.68	2.45
NORTHAMPTONSHIRE						
NORTHAMPTONSHIRE	21	3.81	8.61	30	5.41	11.27

Coroner's Jurisdiction & county district	Number of np-SAD deaths 2010	Annual death rate per 100,000 population 2010 (1)	Annual % of all inquests held in 2010 (2)	Number of np-SAD deaths 2011	Annual death rate per 100,000 population 2011 (1)	Annual % of all inquests held in 2011 (2)
NORTHUMBERLAND						
North Northumberland	0	0.00	0.00	2	2.03	1.62
South Northumberland	7	4.33	7.00	4	2.43	4.49
NORTH YORKSHIRE						
North Yorkshire Eastern	2	0.96	1.55	-	-	-
North Yorkshire Western	1	0.35	0.79	3	1.04	2.47
York	2	1.17	1.5	4	2.41	3.53
NOTTINGHAMSHIRE	2	0.22	0.50	21	2.35	5.18
OXFORDSHIRE	9	1.71	3.18	-	-	-
SHROPSHIRE						
Mid & North Shropshire	6	3.74	6.90	6	3.55	8.1
South Shropshire	-	-	-	-	-	-
The Wrekin	6	4.64	6.74	6	4.53	8.69
SOMERSET						
Eastern Somerset	6	2.75	4.20	6	2.70	4.19
Western Somerset	9	4.25	7.32	6	2.80	6.00
SOUTH YORKSHIRE						
South Yorkshire East	13	2.95	4.50	18	3.97	5.32
South Yorkshire West	12	1.86	3.16	12	1.86	2.51
STAFFORDSHIRE						
South Staffordshire	18	3.62	5.81	15	2.91	4.13
Stoke-on-Trent & North Staffordshire	14	3.72	2.95	12	3.13	2.71
SUFFOLK	15	2.55	5.45	13	2.18	4.74
SURREY	30	3.30	7.61	20	2.18	6.38
TEESSIDE						
Hartlepool	3	4.09	5.26	6	8.09	13.04
Teesside	39	10.24	13.29	25	6.65	8.8
TYNE & WEAR						
Gateshead & South Tyneside	7	2.45	3.11	-	-	-
Newcastle-upon-Tyne	2	0.82	0.63	1	0.43	0.28
North Tyneside	6	3.68	2.65	16	9.67	7.8
Sunderland	18	7.68	3.95	15	6.65	4.02
WARWICKSHIRE	-	-	-	-	-	-
WEST MIDLANDS						
Birmingham	12	1.23	1.19	-	-	-
Black Country	-	-	-	-	-	-
Coventry	2	0.79	1.18	7	2.74	3.58
Wolverhampton	0	0.00	0.00	-	0.00	0.00
WEST SUSSEX	16	2.45	5.73	12	1.81	4.59
West YORKSHIRE						
West Yorkshire Eastern	40	4.31	7.42	33	3.75	6.8
West Yorkshire Western	42	4.75	9.15	23	2.55	5.06
WILTSHIRE	12	2.25	2.88	27	4.92	8.08
WORCESTERSHIRE	3	0.66	0.84	5	1.07	1.52

Note that (0) refers to either no drug-related deaths or death rates of less than 0.01, whilst (-) indicates that no reports were submitted for the specific period from that jurisdiction or area. In subsequent reports these rates may increase as more inquests on deaths in 2011 are held and/or notified to the np-SAD. These rates should therefore be regarded as

minimum rates. Rows for administrative counties have been shaded where there are Coroners' areas located within them; Coroners' areas which correspond to a complete administrative county have not been shaded.

- (1) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question. However, the areas covered by 23 of the Coroners' jurisdictions in England and Wales are not co-terminous with these boundaries and cover parts of such areas (see Appendix 3). Where administrative areas are split between jurisdictions, the estimated population has been divided into two or three as applicable. However, this means that the population of some Coroners' jurisdictions may be either over- or under-estimated. It is necessary to make such assumptions until more accurate figures can be obtained or calculated.
- (2) Inquests held on all ages.
- (3) The amalgamations of the following Coroners' jurisdictions during the period covered by this report mean that rates for the new areas have been calculated retrospectively based on published figures: High Peak and Scarsdale were merged to form North Derbyshire (1 February 2006); Gloucester and Cheltenham merged to form Gloucestershire (1 April 2006). In Norfolk, King's Lynn and Norwich & Central Norfolk to form Greater Norfolk (6 April 2007); in Cumbria, the three jurisdictions of North East Cumbria, Southern Cumbria & Furness, and Western Cumbria to form two new areas - North & West Cumbria and South & East Cumbria (1 May 2007). Great Yarmouth merged with Greater Norfolk to form Norfolk on 1 April 2010.

Table C: np-SAD cases in 2011 by Drug and Alcohol Action Team area (16 years and over) – number and rate per 100,000 population

Drug and Alcohol Action Team	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
ENGLAND				
NORTH EAST				
County Durham	16	3.77	6	1.42
Darlington	4	4.65	3	3.49
Gateshead	0	0.00	0	0.00
Hartlepool	8	10.81	6	8.11
Middlesbrough	11	10.00	6	5.45
Newcastle upon Tyne	3	1.30	2	0.87
North Tyneside*	12	7.23	13	7.83
Northumberland	8	3.04	7	2.66
Redcar and Cleveland	4	3.60	5	4.50
South Tyneside	0	0.00	0	0.00
Stockton on Tees	8	5.19	10	6.49
Sunderland	14	6.17	14	6.17
NORTH WEST				
Blackburn with Darwen	16	14.04	13	11.40
Blackpool	17	14.53	15	12.82
Bolton	12	5.45	12	5.45
Bury	0	0.00	0	0.00
Cheshire*	14	2.43	12	2.08
Cumbria	15	3.60	13	3.12
Halton	2	1.98	0	0.00
Knowsley	2	1.71	1	0.85
Lancashire	74	7.73	65	6.79
Liverpool	35	9.04	33	8.53
Manchester	49	12.16	45	11.17
Oldham	2	1.14	1	0.57
Rochdale	3	1.80	3	1.80
Salford	22	11.64	20	10.58
Sefton	7	3.08	2	0.88
St Helens	0	0.00	0	0.00
Stockport	13	5.65	10	4.35
Tameside	17	9.60	14	7.91
Trafford	6	3.31	7	3.87
Warrington	11	6.71	9	5.49
Wigan	10	3.88	10	3.88
Wirral	4	1.53	0	0.00
YORKSHIRE AND HUMBER				
Barnsley	0	0.00	0	0.00
Bradford	14	3.49	10	2.49
Calderdale	0	0.00	0	0.00
Doncaster	4	1.63	3	1.22
East Riding of Yorkshire	4	1.43	4	1.43
Kingston upon Hull	13	6.28	13	6.28
Kirklees	9	2.67	8	2.37
Leeds	24	3.92	24	3.92
North East Lincolnshire	3	2.33	1	0.78
North Lincolnshire	2	1.47	1	0.74

Drug and Alcohol Action Team	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
North Yorkshire	4	0.80	3	0.60
Rotherham	1	0.48	1	0.48
Sheffield	11	2.45	12	2.67
Wakefield	11	4.14	11	4.14
York*	4	2.42	3	1.82
EAST MIDLANDS				
Derby	5	2.53	6	3.03
Derbyshire	23	3.63	17	2.68
Leicester	12	4.62	6	2.31
Leicestershire*	17	3.19	8	1.50
Lincolnshire	11	1.85	9	1.52
Northamptonshire	27	4.86	24	4.32
Nottingham	5	2.03	4	1.63
Nottinghamshire*	17	2.64	12	1.86
Rutland*	2	6.37	2	6.37
WEST MIDLANDS				
Birmingham*	0	0.00	1	0.12
Coventry	5	1.98	3	1.19
Dudley*	3	1.18	3	1.18
Herefordshire	1	0.66	0	0.00
Sandwell	2	0.83	1	0.41
Shropshire*	5	1.97	7	2.76
Solihull*	0	0.00	0	0.00
Staffordshire	16	2.29	14	2.00
Stoke-on-Trent	10	5.00	9	4.50
Telford and Wrekin	6	4.51	4	3.01
Walsall*	1	0.47	1	0.47
Warwickshire*	0	0.00	0	0.00
Wolverhampton	2	1.00	1	0.50
Worcestershire	5	1.07	5	1.07
EAST				
Bedfordshire	19	5.72	18	5.42
Cambridgeshire	9	1.77	6	1.18
Essex	0	0.00	0	0.00
Hertfordshire	17	1.90	21	2.34
Luton	7	4.46	8	5.10
Norfolk	11	1.54	8	1.12
Peterborough	9	6.21	9	6.21
Southend-on-Sea	0	0.00	0	0.00
Suffolk	12	2.01	7	1.17
Thurrock	0	0.00	0	0.00
LONDON				
Inner London				
Camden	2	1.09	1	0.54
City of London	0	0.00	0	0.00
Hackney	8	4.08	5	2.55
Hammersmith and Fulham	10	6.54	14	9.15
Haringey	1	0.49	0	0.00
Islington	7	4.05	2	1.16
Kensington and Chelsea	1	0.75	2	1.49
Lambeth	4	1.60	5	2.00

Drug and Alcohol Action Team	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
Lewisham	5	2.27	1	0.45
Newham	5	2.08	2	0.83
Southwark	7	2.98	5	2.13
Tower Hamlets	3	1.46	1	0.49
Wandsworth	0	0.00	0	0.00
Westminster	12	6.45	11	5.91
Outer London				
Barking and Dagenham	1	0.72	1	0.72
Barnet	2	0.71	1	0.35
Bexley	2	1.08	1	0.54
Brent	1	0.40	0	0.00
Bromley	1	0.40	0	0.00
Croydon	9	3.15	5	1.75
Ealing	23	8.49	23	8.49
Enfield	1	0.41	0	0.00
Greenwich	2	1.00	1	0.50
Harrow	1	0.52	1	0.52
Havering	1	0.52	1	0.52
Hillingdon	11	5.05	10	4.59
Hounslow	12	5.91	12	5.91
Kingston-upon-Thames	6	4.62	7	5.38
Merton	3	1.86	1	0.62
Redbridge	1	0.46	0	0.00
Richmond-upon-Thames	9	6.00	8	5.33
Sutton	3	1.96	2	1.31
Waltham Forest	4	1.96	2	0.98
SOUTH EAST				
Bracknell Forest	2	2.22	2	2.22
Brighton and Hove	22	9.65	17	7.46
Buckinghamshire	4	0.99	1	0.25
East Sussex	16	3.67	13	2.98
Hampshire	22	2.04	18	1.67
Isle of Wight	9	7.76	8	6.90
Kent*	35	2.96	32	2.70
Medway towns	0	0.00	0	0.00
Milton Keynes	2	1.03	2	1.03
Oxfordshire	1	0.19	0	0.00
Portsmouth	8	4.79	8	4.79
Reading	2	1.60	6	4.80
Slough	2	1.87	1	0.93
Southampton	17	8.76	17	8.76
Surrey	21	2.29	19	2.07
West Berkshire	1	0.81	0	0.00
West Sussex	9	1.36	9	1.36
Windsor and Maidenhead	5	4.28	5	4.28
Wokingham	0	0.00	0	0.00
SOUTH WEST				
Bath and North East Somerset*	0	0.00	0	0.00
Bournemouth	13	8.39	6	3.87
Bristol*	0	0.00	0	0.00
Cornwall & Isles of Scilly	14	3.14	9	2.02
Devon	20	3.21	20	3.21

Drug and Alcohol Action Team	National and annual death rate per 100,000 population – usual area of residence		National and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
Dorset	8	2.31	3	0.86
Gloucestershire	10	2.04	9	1.83
North Somerset*	1	0.60	0	0.00
Plymouth	1	0.47	1	0.47
Poole	10	8.20	7	5.74
Somerset	10	8.00	11	2.52
South Gloucestershire*	0	0.00	0	0.00
Swindon	16	9.52	16	9.52
Torbay	3	2.73	3	2.73
Wiltshire	11	2.87	10	2.61

Note: In addition there were a number of cases that could not be allocated to specific DAAT areas because they were of no fixed abode and/or the jurisdiction in which the inquest was held covers more than one DAAT. Some cases were usually resident outside the UK. Some DAATs are covered by Coroners' jurisdictions that did not submit information or only partial information) to the *np*-SAD; they are marked thus - *.

Table D: np-SAD cases in 2011 by Drug and Alcohol Action Team area demographics and drugs implicated.

Drug and Alcohol Action Team	No	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated					
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65 & over	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine
ENGLAND																				
NORTH EAST																				
County Durham	16	12	4	2	6	4	2	2	0	2	0	0	0	14	2	3	3	0	1	1
Darlington	4	3	1	0	0	1	2	0	1	1	0	0	0	3	0	0	1	0	0	0
Gateshead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hartlepool	8	6	2	0	1	1	4	2	0	8	0	0	0	0	1	1	2	0	0	0
Middlesbrough	11	9	2	0	4	5	2	0	0	9	1	0	1	0	2	3	4	3	1	0
Newcastle upon Tyne	3	3	0	0	1	1	1	0	0	2	0	0	0	1	1	2	0	0	0	0
North Tyneside*	12	6	6	2	5	0	2	3	0	11	0	0	0	1	0	2	2	1	1	0
Northumberland	8	8	0	1	0	3	3	0	1	7	1	0	0	0	2	2	5	0	0	0
Redcar and Cleveland	4	2	2	0	1	0	1	0	2	4	0	0	0	0	0	1	3	0	0	0
South Tyneside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stockton on Tees	8	5	3	2	4	1	0	1	0	8	0	0	0	0	3	3	3	0	0	1
Sunderland	14	12	2	2	4	5	1	1	1	13	0	0	0	1	2	0	2	0	0	0
NORTH WEST																				
Blackburn with Darwen	16	12	4	0	2	7	2	5	0	15	0	0	0	1	8	3	5	1	1	0
Blackpool	17	12	5	2	5	6	3	1	0	15	0	0	0	2	10	3	3	0	2	1
Bolton	12	11	1	1	1	4	5	1	0	5	0	0	0	7	5	3	3	0	0	0
Bury	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cheshire	14	10	4	0	4	4	2	1	3	14	0	0	0	0	4	2	4	0	0	0
Cumbria	15	10	5	3	7	5	0	0	0	14	0	0	0	1	1	8	7	0	0	0
Halton	2	1	1	0	0	1	1	0	0	2	0	0	0	0	0	0	0	1	1	1
Knowsley	2	2	0	0	1	1	0	0	0	2	0	0	0	0	2	0	0	1	0	0
Lancashire	74	54	20	3	15	30	15	4	7	22	0	0	0	52	24	20	23	2	6	0
Liverpool	35	24	11	1	1	18	10	4	1	32	0	0	0	3	5	15	4	6	1	2
Manchester	49	26	23	2	4	14	18	8	3	34	1	0	3	11	7	11	4	2	2	0
Oldham	2	2	0	1	1	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0
Rochdale	3	3	0	1	0	1	1	0	0	2	0	1	0	0	1	1	0	1	1	0
Salford	22	14	8	0	3	11	5	1	2	5	0	0	0	17	6	6	4	0	2	0
Sefton	7	5	2	0	3	2	2	0	0	7	0	0	0	0	5	3	1	1	0	1
St. Helens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stockport	13	12	1	0	4	5	2	0	2	11	0	0	1	1	3	4	5	3	0	0
Tameside	17	10	7	0	6	6	5	0	0	14	0	0	0	3	3	6	0	1	0	2
Trafford	6	4	2	0	0	4	1	1	0	6	0	0	0	0	2	3	1	0	0	0
Warrington	11	7	4	1	4	2	1	2	1	10	0	0	0	1	1	3	3	1	1	1
Wigan	10	8	2	1	4	3	1	1	0	0	0	0	0	10	2	5	2	0	0	0
Wirral	4	4	0	0	1	1	0	2	0	3	0	0	0	1	0	0	1	0	0	0

Drug and Alcohol Action Team	N o	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated						
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65 & over	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine	Ecstasy-type
YORKSHIRE AND HUMBER																					
Barnsley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bradford	14	9	5	2	3	7	2	0	0	13	0	1	0	0	1	4	0	2	1	0	0
Calderdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Doncaster	4	4	0	0	1	3	0	0	0	3	0	0	0	1	2	2	2	0	0	0	0
East Riding of Yorkshire	4	4	0	0	2	2	0	0	0	4	0	0	0	0	2	3	2	0	0	0	0
Kingston upon Hull	13	11	2	2	5	6	0	0	0	9	0	0	0	4	7	6	6	1	0	0	0
Kirklees	9	7	2	2	4	2	1	0	0	8	0	1	0	0	5	5	3	2	0	0	0
Leeds	24	13	11	2	5	7	5	5	0	23	0	1	0	0	4	3	5	2	2	0	0
North East Lincolnshire	3	2	1	0	0	2	0	0	1	1	0	0	0	2	0	2	1	0	0	0	0
North Lincolnshire	2	2	0	0	2	0	0	0	0	2	0	0	0	0	2	1	0	1	0	0	0
North Yorkshire	4	4	0	0	2	2	0	0	0	3	0	0	0	1	3	2	2	1	1	0	0
Rotherham	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0
Sheffield	11	8	3	3	1	5	1	0	1	11	0	0	0	0	1	3	2	1	1	1	0
Wakefield	11	10	1	1	5	4	0	1	0	10	0	1	0	0	3	2	1	0	0	0	0
York	4	4	0	1	0	3	0	0	0	4	0	0	0	0	1	1	0	0	0	1	0
EAST MIDLANDS																					
Derby	5	4	1	0	2	1	2	0	0	3	1	0	1	0	1	1	2	0	2	0	0
Derbyshire	23	17	6	2	4	9	6	1	1	19	0	0	0	4	7	6	2	3	2	0	0
Leicester	12	10	2	0	1	7	0	1	3	10	0	0	0	2	5	4	6	0	0	0	0
Leicestershire*	17	9	8	1	2	8	3	1	2	6	0	0	0	11	3	5	5	1	0	0	0
Lincolnshire	11	9	2	1	5	3	1	0	1	10	0	1	0	0	6	4	2	0	2	0	0
Northamptonshire	27	17	10	2	8	7	8	2	0	27	0	0	0	0	4	10	7	2	1	0	0
Nottingham	5	3	2	1	0	1	2	0	1	5	0	0	0	0	2	2	2	1	0	0	0
Nottinghamshire*	17	10	7	2	6	2	4	2	1	17	0	0	0	0	7	4	4	5	0	0	0
Rutland*	2	1	1	0	0	0	1	0	1	0	0	0	0	2	1	0	0	0	0	0	0
WEST MIDLANDS																					
Birmingham*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coventry	5	5	0	0	1	3	1	0	0	2	0	0	0	3	1	3	1	0	0	0	0
Dudley*	3	3	0	0	1	1	0	0	1	3	0	0	0	0	0	2	2	0	0	0	0
Herefordshire	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0
Sandwell	2	2	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
Shropshire	5	3	2	0	0	4	0	0	1	0	0	0	0	5	3	0	1	0	0	0	0
Solihull*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staffordshire	16	9	7	4	1	4	4	3	0	15	0	0	0	1	3	2	5	3	1	0	0
Stoke-on-Trent	10	8	2	0	6	3	1	0	0	7	0	0	0	3	2	4	2	0	0	0	0
Telford & Wrekin	6	4	2	2	0	1	2	1	0	5	0	0	0	1	1	1	0	0	0	0	0
Walsall	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Warwickshire*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wolverhampton	2	2	0	0	0	2	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0
Worcestershire	5	4	1	0	4	0	1	0	0	3	0	0	0	2	0	2	1	0	0	0	0
EAST																					
Bedfordshire	19	11	8	0	3	6	4	3	3	19	0	0	0	0	4	4	5	2	0	0	0
Cambridgeshire	9	8	1	2	1	1	4	0	0	0	0	0	0	9	1	1	1	1	0	0	0
Essex*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hertfordshire	17	8	9	0	5	4	4	4	0	0	0	0	0	17	8	4	4	0	0	0	0
Luton	7	5	2	1	1	0	3	0	2	6	1	0	0	0	1	0	0	0	0	0	0
Norfolk	11	9	2	1	3	4	1	1	1	2	0	0	0	9	7	4	4	0	0	0	0

Drug and Alcohol Action Team	N o	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated					
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65 & over	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine
Peterborough	9	7	2	1	4	2	1	0	1	8	0	0	0	1	4	1	0	1	0	0
Southend-on-Sea*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Suffolk	12	8	4	1	2	6	3	0	0	4	0	0	0	8	1	3	1	0	0	0
Thurrock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LONDON																				
Inner London																				
Camden	2	2	0	0	1	0	0	1	0	1	0	0	0	1	1	0	1	0	0	0
City of London	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hackney	8	5	3	3	1	3	0	1	0	5	1	1	0	1	5	2	0	3	0	0
Hammersmith and Fulham	10	5	5	0	2	1	2	4	1	9	0	0	0	1	2	3	1	2	0	0
Haringey	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Islington	7	5	2	0	1	1	5	0	0	5	0	0	0	2	3	1	1	1	0	0
Kensington and Chelsea	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0	1	0	0	0	0
Lambeth	4	3	1	0	2	0	1	1	0	2	1	0	0	1	2	2	0	0	0	0
Lewisham	5	3	2	0	0	4	1	0	0	2	0	0	0	3	0	2	0	1	2	0
Newham	5	5	0	1	0	3	1	0	0	1	0	1	1	2	1	0	1	1	1	1
Southwark	7	5	2	0	2	4	1	0	0	5	1	0	0	1	2	3	1	3	0	1
Tower Hamlets	3	3	0	1	1	0	1	0	0	2	0	0	0	1	1	1	1	0	0	0
Wandsworth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westminster	12	7	5	1	1	5	3	1	1	4	0	0	0	8	2	3	5	5	0	1
Outer London																				
Barking and Dagenham	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0
Barnet	2	2	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	0	0
Bexley	2	1	1	0	1	0	1	0	0	2	0	0	0	0	1	4	1	0	0	0
Brent	1	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0
Bromley	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0
Croydon	9	8	1	0	4	3	2	0	0	3	0	0	0	6	2	2	0	5	0	0
Ealing	23	17	6	1	4	5	6	4	3	14	2	5	0	1	7	9	2	6	0	0
Enfield	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0
Greenwich	2	1	1	0	1	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0
Harrow	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Havering	1	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Hillingdon	11	6	5	1	1	2	5	0	2	6	0	2	0	3	2	5	3	4	1	0
Hounslow	12	10	2	1	1	4	5	1	0	10	0	0	0	2	3	4	1	3	0	0
Kingston-upon-Thames	6	5	1	0	3	1	1	1	0	6	0	0	0	0	2	1	4	3	0	0
Merton	3	2	1	0	1	1	0	1	0	1	0	0	0	1	2	0	0	1	0	1
Redbridge	1	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Richmond-upon-Thames	9	7	2	0	1	2	4	1	1	6	0	0	0	3	1	0	3	0	0	0
Sutton	3	3	0	0	0	2	1	0	0	2	0	0	0	1	2	1	1	1	0	0
Waltham Forest	4	2	2	0	0	2	0	2	0	3	1	0	0	0	0	0	0	0	0	0
SOUTH EAST																				
Bracknell Forest	2	2	0	0	0	1	1	0	0	0	0	0	0	2	0	0	1	0	0	0
Brighton & Hove	22	17	5	0	5	6	8	3	0	18	1	0	1	2	7	9	12	0	0	0
Buckinghamshire	4	2	2	1	0	1	2	0	0	3	0	0	0	1	3	2	1	1	0	0
East Sussex	16	11	5	3	4	2	6	1	0	16	0	0	0	8	3	6	1	0	0	0
Hampshire	22	14	8	2	3	5	9	1	2	21	0	0	0	1	3	3	0	4	1	2
Isle of Wight	9	6	3	1	1	3	3	1	0	9	0	0	0	0	2	0	2	0	0	0
Kent	35	22	13	2	6	11	8	5	3	4	0	0	0	31	9	1	10	4	1	0
Medway towns*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Milton Keynes	2	2	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0

Drug and Alcohol Action Team	No	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated					
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65 & over	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine
Oxfordshire	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Portsmouth	8	6	2	0	1	3	3	1	0	7	0	0	0	1	5	1	2	1	0	0
Reading	2	2	0	0	0	1	0	1	0	0	0	0	0	2	0	1	0	0	0	0
Slough	2	1	1	1	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0
Southampton	17	13	4	3	1	4	5	3	1	15	0	0	0	2	2	3	0	2	0	1
Surrey	21	16	5	1	4	9	5	0	2	5	0	0	0	16	6	3	6	3	1	1
West Berkshire	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
West Sussex	9	5	4	0	2	0	4	1	2	3	0	0	0	6	1	1	2	1	0	0
Windsor and Maidenhead	5	4	1	0	0	4	0	1	0	0	0	0	0	5	2	0	3	0	0	0
Wokingham*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH WEST																				
Bath and North East Somerset*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bournemouth	13	11	2	0	3	4	5	1	0	13	0	0	0	0	5	11	3	1	0	0
Bristol*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cornwall & Isles of Scilly	14	10	4	0	2	4	5	2	1	8	0	0	0	6	0	2	3	0	0	0
Devon	20	13	7	0	5	4	4	4	3	2	0	0	0	18	3	2	4	0	0	0
Dorset	8	7	1	1	3	1	2	1	0	7	0	0	0	1	6	2	2	0	0	0
Gloucestershire	10	2	8	0	1	3	6	0	0	10	0	0	0	0	3	2	3	0	0	0
North Somerset*	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	1	0	0	0
Plymouth	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Poole	10	8	2	0	4	3	1	1	1	9	0	1	0	0	3	3	1	0	0	0
Somerset	10	7	3	1	2	1	4	1	1	8	0	0	0	2	3	1	2	0	1	0
South Gloucestershire*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Swindon	16	12	4	0	6	3	7	0	0	15	0	0	0	1	5	7	2	2	0	0
Torbay	3	1	2	0	0	2	0	1	0	3	0	0	0	0	2	1	2	1	1	0
Wiltshire	11	4	7	0	1	2	3	4	1	11	0	0	0	0	3	1	2	0	0	0

Note: In addition there were a number of cases that could not be allocated to specific DAAT areas because they were of no fixed abode and/or the jurisdiction in which the inquest was held covers more than one DAAT. Some cases were usually resident outside the UK. Some DAATs are covered by coroner's jurisdictions that did not submit information (or only partial information) to the np-SAD; they are marked thus - *.

Table E: np-SAD cases in 2011 by Primary Care Trust and Strategic Health Authority areas in England (16 years and over)

Area	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
ENGLAND (SHA and PCT)				
NORTH EAST SHA*	88	4.13	72	3.38
County Durham	16	3.76	6	1.41
Darlington	4	4.91	3	3.69
Gateshead	0	0.00	0	0.00
Hartlepool	8	10.96	6	8.22
Middlesbrough	11	9.26	6	5.05
Newcastle-upon-Tyne	3	1.28	2	0.85
North Tyneside*	12	7.03	13	7.62
Northumberland	8	3.09	7	2.71
Redcar and Cleveland	4	3.73	5	4.66
South Tyneside	0	0.00	0	0.00
Stockton on Tees Teaching	8	5.21	10	6.52
Sunderland Teaching	14	6.11	14	6.11
NORTH WEST SHA*	334	5.83	293	5.11
Ashton, Leigh and Wigan	10	4.06	10	4.06
Blackburn with Darwen	16	13.81	13	11.22
Blackpool	17	15.07	15	13.30
Bolton	12	5.69	12	5.69
Bury	0	0.00	0	0.00
Central and Eastern Cheshire*	12	3.29	10	2.74
Central Lancashire	19	5.21	16	4.38
Cumbria Teaching	15	3.62	13	3.14
Halton and St Helens	30	10.20	29	9.86
Heywood, Middleton and Rochdale	2	0.81	0	0.00
Knowsley	3	1.87	3	1.87
Lancashire East	3	2.52	1	0.84
Liverpool	35	9.32	33	8.78
Manchester	49	11.39	45	10.46
North Lancashire Teaching	25	9.24	21	7.76
Oldham	2	1.15	1	0.58
Salford	22	11.59	20	10.54
Sefton	7	3.17	2	0.91
Stockport	13	5.60	10	4.31
Tameside and Glossop	20	10.96	17	9.31
Trafford	6	3.49	7	4.07
Warrington	11	6.95	9	5.69
Western Cheshire*	2	0.99	2	0.99
Wirral	4	1.60	4	1.60
YORKSHIRE AND HUMBER SHA*	104	2.37	94	2.14
Barnsley	0	0.00	0	0.00
Bradford and Airedale Teaching	14	3.53	10	2.52
Calderdale	0	0.00	0	0.00
Doncaster	4	1.69	3	1.27
East Riding of Yorkshire	4	1.55	4	1.55
Hull Teaching	13	5.51	13	5.51
Kirklees	9	2.83	8	2.51
Leeds	24	3.60	24	3.60

Area	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
North East Lincolnshire	3	2.28	1	0.76
North Lincolnshire	2	1.54	1	0.77
North Yorkshire and York*	8	1.24	6	0.93
Rotherham	1	0.51	1	0.51
Sheffield	11	2.37	12	2.59
Wakefield District	11	4.00	11	4.00
EAST MIDLANDS SHA*	116	3.17	85	2.32
Bassetlaw*	4	4.57	2	2.28
Derby City	5	2.20	6	2.64
Derbyshire	20	3.49	14	2.44
Leicester City	12	4.70	5	1.96
Leicestershire County and Rutland*	19	3.55	11	2.06
NHS Lincolnshire	11	1.88	9	1.54
NHS Northamptonshire	27	5.03	24	4.47
Nottingham City	5	1.85	4	1.48
Nottinghamshire County Teaching*	13	2.45	10	1.89
WEST MIDLANDS SHA*	56	1.24	49	1.09
Birmingham East and North*	0	0.00	0	0.00
Coventry Teaching	5	1.86	3	1.11
Dudley*	3	1.22	3	1.22
Heart of Birmingham Teaching*	0	0.00	0	0.00
Herefordshire	1	0.69	0	0.00
North Staffordshire	2	1.18	2	1.18
Sandwell	2	0.82	1	0.41
Shropshire County*	5	2.13	7	2.98
Solihull*	0	0.00	0	0.00
South Birmingham*	0	0.00	1	0.35
South Staffordshire	14	2.90	12	2.49
Stoke-on-Trent	10	4.76	9	4.28
Telford and Wrekin	6	4.65	4	3.10
Walsall Teaching*	1	0.51	1	0.51
Warwickshire*	0	0.00	0	0.00
Wolverhampton City	2	1.04	1	0.52
Worcestershire	5	1.12	5	1.12
EAST OF ENGLAND SHA	84	1.77	77	1.62
Bedfordshire	19	5.62	18	5.33
Cambridgeshire	9	1.84	6	1.23
Hertfordshire	17	1.88	21	2.33
Great Yarmouth and Waveney	4	2.15	3	1.61
Luton	7	4.62	8	5.28
Mid Essex	0	0.00	0	0.00
Norfolk	9	1.45	6	0.97
North East Essex	0	0.00	0	0.00
Peterborough	9	7.20	9	7.20
South East Essex	0	0.00	0	0.00
South West Essex	0	0.00	0	0.00
Suffolk	10	2.05	6	1.23
West Essex	0	0.00	0	0.00

Area	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
LONDON SHA	158	2.40	125	1.90
Barking and Dagenham	1	0.75	1	0.75
Barnet	2	0.72	1	0.36
Bexley	2	1.16	1	0.58
Brent Teaching	1	0.47	0	0.00
Bromley	1	0.40	0	0.00
Camden	2	0.96	1	0.48
City and Hackney Teaching	8	4.37	5	2.73
Croydon	9	3.34	5	1.86
Ealing	23	8.51	23	8.51
Enfield	1	0.46	0	0.00
Greenwich Teaching	2	1.08	1	0.54
Hammersmith and Fulham	10	7.34	14	10.28
Haringey Teaching	1	0.52	0	0.00
Harrow	1	0.59	1	0.59
Havering	1	0.50	1	0.50
Hillingdon	11	5.46	10	4.96
Hounslow	12	6.35	12	6.35
Islington	7	4.38	2	1.25
Kensington and Chelsea	1	0.64	2	1.28
Kingston	6	3.99	7	4.66
Lambeth	4	1.60	5	2.00
Lewisham	5	2.36	1	0.47
Newham	5	2.73	2	1.09
Redbridge	1	0.50	0	0.00
Richmond and Twickenham	9	6.10	8	5.43
Southwark	7	3.13	5	2.24
Sutton and Merton	6	1.99	3	1.00
Tower Hamlets	3	1.59	1	0.53
Waltham Forest	4	2.20	2	1.10
Wandsworth	0	0.00	0	0.00
Westminster	12	5.51	11	5.05
SOUTH EAST COAST SHA*	103	2.83	89	2.45
Brighton and Hove City	22	9.96	17	7.69
East Sussex Downs and Weald	7	2.56	6	2.20
Eastern and Coastal Kent*	21	3.54	19	3.20
Hastings and Rother	9	6.28	7	4.88
Medway	0	0.00	0	0.00
Surrey	21	2.37	19	2.14
West Kent*	14	2.57	12	2.20
West Sussex	9	1.38	9	1.38
SOUTH CENTRAL SHA	74	2.20	67	1.99
Berkshire East	9	2.81	8	2.50
Berkshire West	3	0.79	5	1.31
Buckinghamshire	4	1.00	1	0.25
Hampshire	22	2.16	18	1.76
Milton Keynes	9	7.74	8	6.88
NHS Isle of Wight	2	1.05	2	1.05
Oxfordshire	0	0.00	0	0.00
Portsmouth City Teaching	8	4.62	8	4.62
Southampton City	17	8.03	17	8.03

Area	National and annual death rate per 100,000 population – usual area of residence		National and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
SOUTH WEST SHA	118	2.70	95	2.17
Bath and North East Somerset*	0	0.00	0	0.00
Bournemouth and Poole Teaching	23	8.35	13	4.72
Cornwall & Isles of Scilly	0	0.00	0	0.00
Devon	14	3.18	9	2.04
Dorset	20	3.29	20	3.29
Gloucestershire	8	2.55	3	0.96
NHS Bristol*	10	2.08	9	1.87
North Somerset*	1	0.58	0	0.00
Plymouth Teaching	1	0.47	1	0.47
Somerset	10	2.37	11	2.61
South Gloucestershire*	0	0.00	0	0.00
Swindon	17	10.35	16	9.74
Torbay Care Trust	3	2.58	3	2.58
Wiltshire	11	3.12	10	2.83

Note: In addition there were a number of cases that could not be allocated to specific PCT areas because they were of no fixed abode and/or the jurisdiction in which the inquest was held covers more than one PCT. Some cases were usually resident outside the UK. Some PCTs are covered by Coroners' jurisdictions that did not submit information (or only partial information) to the np-SAD; they are marked thus - *.

Chapter 2: “Drug misuse” deaths in England using the Drug Strategy definition

This chapter considers cases meeting the definition used to monitor the Government’s drug strategy, i.e. “drug misuse”.

(v) Mental and behavioural disorders due to use of volatile solvents. For full details see Appendix 2.

The definition comprises two types of deaths. Firstly, deaths where the underlying cause of death is mental and/or behavioural disorders due to psychoactive substance use (excluding alcohol, tobacco and volatile solvents). Secondly, 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; (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

To derive these cases, the following two categories of cases are excluded from the np-SAD 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. Of the 1,263 cases reported to the Programme for 2011, 71.6% (n = 904) met the criteria for classification as a “drug misuse” death.

Profile of Drug Strategy cases

1. Demography

Similar patterns were found to those seen in previous years. Of the 904 Drug Strategy (DS) cases reported to the Programme, 73.5% of cases were male and 26.5% female (Figure 2.1 and Table 2.1). The majority (55.8%) were unemployed, whilst 235 cases (26.0%) were employed. Those aged less than 45 years

accounted for 64.9% of deaths. Deaths amongst those who lived alone represented 45.1% of cases, with 41.5% living with others, and 2.4% of no fixed abode. Where ethnicity was known (n = 638), the vast majority were White (96.2%); the rest were Black (1.3%), Asian (1.7%), and Chinese and other ethnicities (0.8%).

Figure 2.1: “Drug misuse” deaths reported to np-SAD by age-group and gender, England, 2011

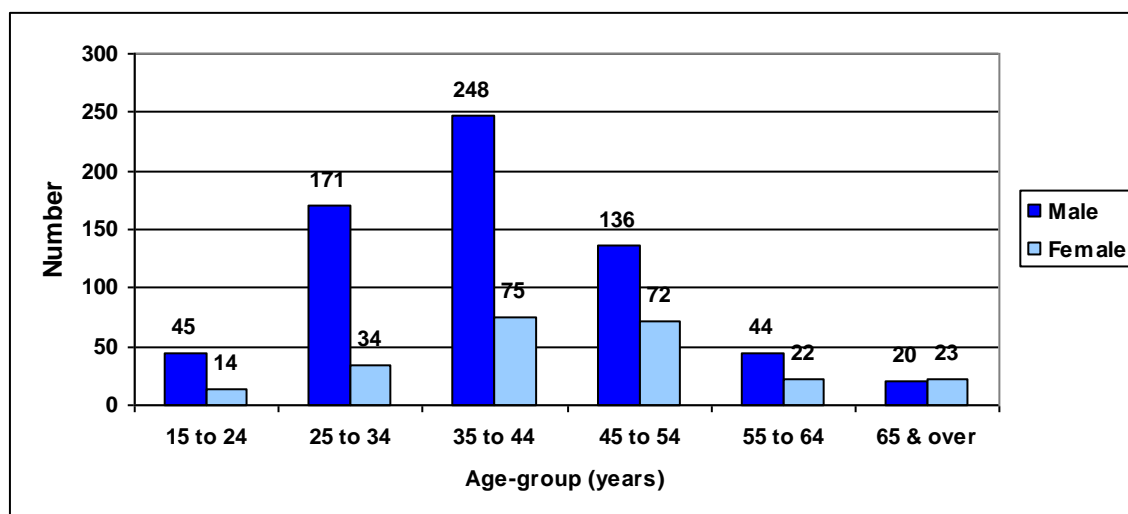


Table 2.1: Demographic characteristics of “drug misuse” deaths reported to np-SAD, England, 2011

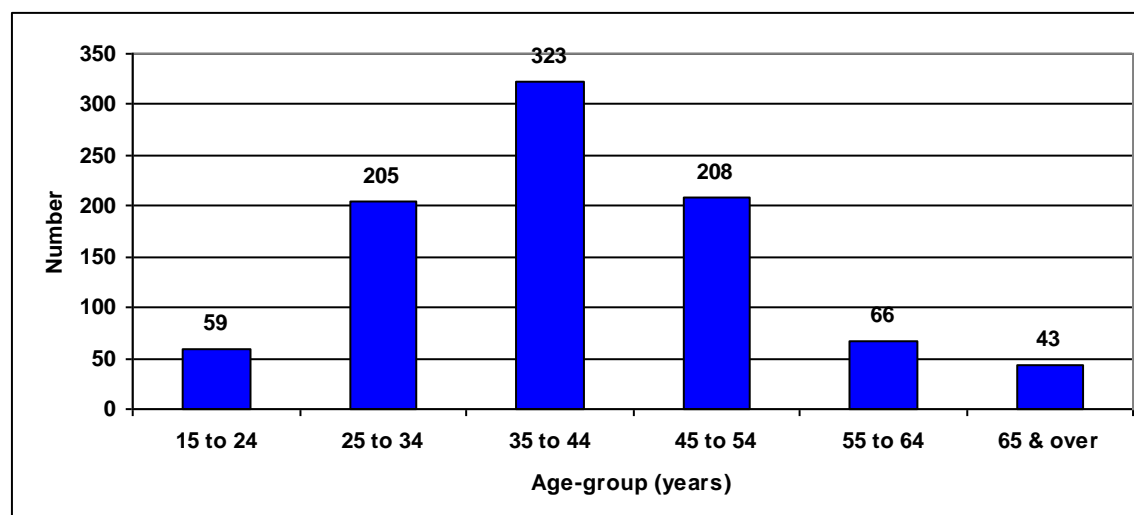
Variable	Category	Number (%)
Total		904 (100.0)
Gender	Male	664 (73.5)
	Female	240 (26.5)
Employment status	Unemployed	504 (55.8)
	Employed	235 (26.0)
	Childcare/house person	21 (2.3)
	Student	14 (1.5)
	Retired/sickness/invalidity	61 (6.7)
	Other	4 (0.4)
	Not known	65 (7.2)
	Living arrangements	Alone
With others		375 (41.5)
No fixed abode		22 (2.4)
Other		46 (5.1)
Not known		53 (5.9)
Ethnicity	Asian	11 (1.2)
	Black	8 (0.9)
	Chinese and other	5 (0.6)
	White	614 (67.9)
	Not known	266 (29.4)

2. Age

Most DS deaths in England during 2011 occurred amongst those aged 35 years and over (70.8%), 22.7% were aged 25-34, and 15-24 years olds accounted for just 6.5% of DS cases (Figure 2.2). The median age at

death was 40.9 years (interquartile range = 15.0). Older male, White drug users are at most risk of drug-related deaths (Bird *et al.*, 2003; Ghodse *et al.*, 2009).

Figure 2.2: “Drug misuse” deaths reported to np-SAD by age-group, England, 2011



3. Location of death

In 2011, 74.7% of DS cases died either at the deceased's home address or at another private residential address, whilst 9.4% died in hospital, 8.1% died elsewhere (e.g. public open space, public facilities, railway station etc.) and the remaining 7.9% were listed with an unknown location of death.

4. Underlying cause(s) of death

The categories of underlying cause of death (based on ICD-10 codes) were as follows:

- Accidental poisoning (X40-X47): 78.4%
- Intentional self-poisoning (X60-X67): 12.6%
- Poisonings of undetermined intent (Y10-Y14): 8.5%
- Other (e.g. natural causes, drowning, hanging, unascertained): 0.4%

Males were significantly more likely than females to die from accidental poisoning (83.0% vs. 65.8%) (*Proportion Ratio [PR]: = 1.3, 95% Confidence Interval [CI]: = 1.1 – 1.4*). Females, by contrast, were significantly more likely than males to die of intentional self-poisoning (19.6% vs. 10.1%) (*PR = 1.9, 95% CI = 1.4 – 2.7*), and also from poisoning of undetermined intent (14.2% vs. 6.5%) (*PR = 2.2, 95% CI = 1.4 – 3.3*).

Deaths of those aged less than 45 years were more likely than older cases to be as a result of accidental poisoning (85.9% vs. 64.7%) (*PR*

= 1.3, 95% CI = 1.2 – 1.4). Those aged 45 years or over were more likely than younger cases to die of intentional self-poisoning (22.5% vs. 7.3%) (*PR = 3.1, 95% CI = 2.1 – 4.4*), and poisoning of undetermined intent (12.6% vs. 6.3%) (*PR = 2.0, 95% CI = 1.3 – 3.1*).

5. Manner of death

The manner of death in DS cases was as follows:

- Natural: 1.1%
- Accidental: 77.5%
- Suicidal: 12.7%
- Undetermined: 8.6%

Males were more likely than females to die an accidental death (82.2% vs. 64.6%) (*PR = 1.3, 95% CI = 1.2 – 1.4*). Conversely, females were more likely than males to have deaths attributed to suicide (19.6% vs. 10.2%) (*PR = 1.9, 95% CI = 1.4 – 2.7*), or a death where the manner was undetermined (14.2% vs. 6.6%) (*PR = 2.1, 95% CI = 1.4 – 3.3*).

Cases aged less than 45 years were more likely than older cases to die accidentally (85.5% vs. 62.8%) (*PR = 1.4, 95% CI = 1.2 – 1.5*). Those aged 45 years or over were more likely than younger cases to die intentionally (22.7% vs. 7.3%) (*PR = 3.1, 95% CI = 2.2 – 4.4*), or in a manner that was undetermined (12.6% vs. 6.5%) (*PR = 1.9, 95% CI = 1.3 – 3.0*).

Substances implicated in death

1. Psychoactive substances

Of the 904 Drug Strategy (DS) cases reported, 888 (98.2%) were directly attributed to psychoactive drugs. Sixteen DS cases (1.8%) were excluded from further analysis, as no psychoactive drugs were implicated in the cause of death. The principal substances implicated in psychoactive drug-related deaths were: heroin/morphine (38.2%) and methadone (35.2%).

Other psychoactive substances implicated alone and in combination that made a sizeable contribution (10% or over) to deaths were: alcohol-in-combination with other drugs (28.0%); other opiates/opioid analgesics (27.9%); hypnotics/sedatives (26.8%); anti-depressants (19.1%) and cocaine (12.0%). Deaths attributed to heroin/morphine alone accounted for 11.3% of cases (Table 2.2).

Table 2.2: Psychoactive substances implicated in “drug misuse” deaths reported to *np*-SAD, England, 2011

Drug category	Number (%) of cases where substance was implicated alone	Number (%) of cases where drug was implicated both alone and in combination
Total	888 (100.0)	
Alcohol-in-combination	-	249 (28.0)
Amphetamines	15 (1.7)	39 (4.4)
Anti-depressants	12 (1.4)	170 (19.1)
Anti-epileptics	3 (0.3)	23 (2.6)
Anti-Parkinson’s	0 (0.0)	1 (0.1)
Anti-psychotics	4 (0.5)	34 (3.8)
Cannabis	1 (0.1)	14 (1.6)
Cocaine	16 (1.8)	107 (12.0)
Ecstasy-type drugs	6 (0.7)	19 (2.1)
GHB	4 (0.5)	10 (1.1)
Heroin/morphine	100 (11.3)	339 (38.2)
Hypnotic/sedatives	17 (1.9)	238 (26.8)
Methadone	83 (9.3)	313 (35.2)
Other opiates/opioid analgesics	55 (6.2)	248 (27.9)

Notes: Column totals may sum to more than 100% since more than one substance may be implicated in a death. Not all cases had drugs directly implicated in death; these are excluded from this table.

1.1 Psychoactive substances most frequently implicated by age-group

As Table 1.3 below shows, for the 15-24 year age-group, methadone was the psychoactive substance most frequently implicated (alone or in combination) in their deaths (19/52 = 36.5%), whilst heroin/morphine was found to be most commonly implicated in the deaths of those aged between 25-44 years (222/524 = 42.4%), accounting for 65.5% of all DS deaths implicated to the drug in England in 2011 reported to *np*-SAD. Methadone was the psychoactive drug most frequently implicated for those aged between 45-54 years (86/205 = 42.0%), whilst other opiates/opioid analgesics were implicated in the greatest proportion of deaths amongst those aged from 55-64 years (29/65 = 44.6%). For those older than 65,

hypnotics/sedatives featured most frequently in their deaths compared to other psychoactive drugs (19/42 = 45.2%).

1.2 Highest frequency of each psychoactive substance implicated

As shown in Table 1.3 below, amphetamines; anti-depressants; anti-epileptics; anti-psychotics; cocaine; ecstasy-type; heroin/morphine; hypnotics/sedatives; methadone; other opiates/opioid analgesics; and alcohol-in-combination were most commonly implicated in the deaths of those aged between 35-44 years. GHB/GBL was most frequently implicated in the 25-44 year age-group, whilst cannabis and anti-Parkinson’s drugs were implicated most often in the 25-34 year age-group.

Table 2.3: Age-group and psychoactive substance implicated Drug Strategy death in 2011 in England reported to np-SAD

		Age-group at death						Total number of cases where substance implicated	Percentage of total deaths overall with psychoactive drugs implicated
		15-24	25-34	35-44	45-54	55-64	65+		
Number of cases where psychoactive substance implicated in death (% of total deaths with substance implicated)	Amphetamines	5 (12.8)	11 (28.2)	15 (38.5)	5 (12.8)	3 (7.7)	0 (0.0)	39	4.4%
	Anti-depressants	3 (1.8)	31 (18.2)	58 (34.1)	55 (32.4)	12 (7.1)	11 (6.5)	170	19.1%
	Anti-epileptics	0 (0.0)	4 (17.4)	9 (39.1)	5 (21.7)	3 (13.0)	2 (8.7)	23	2.6%
	Anti-Parkinson's	0 (0.0)	1 (100)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1	0.1%
	Anti-psychotics	1 (2.9)	10 (29.4)	14 (41.2)	6 (17.6)	1 (2.9)	2 (5.9)	34	3.8%
	Cannabis	3 (21.4)	5 (35.7)	3 (21.4)	3 (21.4)	0 (0.0)	0 (0.0)	14	1.6%
	Cocaine	10 (9.3)	31 (29.0)	42 (39.3)	19 (17.8)	5 (4.7)	0 (0.0)	107	12.0%
	Ecstasy-type	5 (26.3)	5 (26.3)	6 (31.6)	3 (15.8)	0 (0.0)	0 (0.0)	19	2.1%
	GHB/GBL	2 (20.0)	3 (30.0)	3 (30.0)	2 (20.0)	0 (0.0)	0 (0.0)	10	1.1%
	Heroin/morphine	10 (2.9)	86 (25.4)	136 (40.1)	76 (22.4)	25 (7.4)	6 (1.8)	339	38.2%
	Hypnotics/sedatives	13 (5.5)	59 (24.8)	85 (35.7)	42 (17.6)	20 (8.4)	19 (8.0)	238	26.8%
	Methadone	19 (6.1)	79 (25.2)	113 (36.1)	86 (27.5)	13 (4.2)	3 (1.0)	313	35.2%
	Other opiates/opioid analgesics	11 (4.4)	40 (16.1)	86 (34.7)	65 (26.2)	29 (11.7)	17 (6.9)	248	27.9%
Alcohol-in-combination	9 (3.6)	71 (28.5)	100 (40.2)	46 (18.5)	17 (6.8)	6 (2.4)	249	28.0%	

Notes: Column totals may sum to more than 100% since more than one substance may be implicated in a death. Not all cases had drugs directly implicated in death; these are excluded from this table.

1.3 Gender and implicated psychoactive substance

The pattern of psychoactive substances with regards their implication in the deaths of the different genders reveals some interesting differences.

Amongst males, the five most frequently implicated psychoactive substances (alone or in combination), presented in numerical order, were:

1. Heroin/morphine (41.4%)
2. Methadone (36.0%)
3. Alcohol-in-combination (29.8%)
4. Hypnotics/sedatives (26.3%)
5. Other opiates/opioid analgesics (25.2%)

Among female cases, the most frequently implicated psychoactive substances, alone or in combination were:

1. Anti-depressants (36.1%)
2. Other opiates/opioid analgesics (35.6%)
3. Methadone (33.0%)
4. Heroin/morphine (29.2%)
5. Hypnotics/sedatives (28.3%)

Comparing the type of psychoactive substances implicated in the deaths of males and females reveals that there is a higher proportion of male compared to female deaths in which the following drugs were implicated:

heroin/morphine; alcohol-in-combination; cocaine; cannabis; and GHB/GBL.

Meanwhile, females showed a greater proportion of deaths attributed to anti-depressants; other opiates/opioid analgesics; hypnotics/sedatives; anti-epileptics; amphetamines; anti-psychotics; and anti-Parkinson's. Equal proportions of males and females had deaths attributed to ecstasy-type substances.

2. Polysubstances

In 2011, heroin/morphine in combination with alcohol was implicated in 13.0% of the 888 psychoactive drug-related Drug Strategy deaths reported to np-SAD. Where other opiates/opioid analgesics combined with heroin/morphine was implicated, these cases made up 7.8% of reported deaths, whilst when heroin/morphine was implicated in combination with hypnotics/sedatives, such deaths accounted for 9.0%. 6.3% of deaths involved other opiates/opioid analgesics combined with alcohol, whilst 7.0% of deaths had hypnotics/sedatives implicated with alcohol.

When implicated in combination, several different substance types often featured with alcohol. Alcohol was implicated in 33.9% of all deaths involving heroin/morphine; 31.8% involving cocaine; 28.6% involving cannabis; and 26.8% of deaths in which methadone was implicated.

Over the past decade, one-fifth (18%) of drug-related deaths has involved heroin/morphine in combination with alcohol. 7.8% of deaths involved other opiates/opioid analgesics combined with alcohol, and in 8.2% of deaths heroin/morphine and other opiates/opioid analgesics were combined. Opiates and opioids including heroin/morphine accounted for 82% of deaths where a psychoactive substance was involved. This pattern has remained stable over the past decade. The combination of heroin/morphine and other opiates/opioid analgesics fluctuated between 5% and 12% over the past ten years.

The most prevalent substance combinations implicated during 2002-11 were: heroin/morphine with alcohol (18%); heroin/morphine with hypnotics/sedatives (9.6%); and hypnotics/sedatives with alcohol (8.5%). Over the last decade alcohol-in-combination with two other stimulants did not feature (1.3%) compared to alcohol with one stimulant (6.4%). Combinations of drugs, with or without

alcohol, pose greater risks for mortality (Ghodse *et al.*, 2010).

3. Single substances

In 2011, there were 316 (35.6%) Drug Strategy deaths reported to np-SAD in which only one of the following substances was implicated. Of these single substance deaths, heroin/morphine accounted for 31.6%; methadone for 26.3%; other opiates/opioid analgesics – 17.4%; hypnotics/sedatives – 5.4%; cocaine – 5.1%; amphetamines – 4.7%; anti-depressants – 3.8%; ecstasy-type drugs – 1.9%; GHB/GBL – 1.3%; anti-psychotics – 1.3%; anti-epileptics – 0.9%; and cannabis – 0.3%.

4. Prescribed psychoactive drugs

Of the 904 Drug Strategy cases reported to np-SAD for 2011, 61.5% (n = 556) were reported as being prescribed psychoactive drugs at the time of their death (Table 2.4). Of those being prescribed such drugs, the most common prescribed medications were anti-depressants (57.6%); hypnotics/sedatives (47.3%); other opiates/opioid analgesics (30.4%); methadone (23.9%); anti-psychotics (19.2%); anti-epileptics (15.1%); heroin/morphine (7.6%); anti-Parkinsons (1.4%) and amphetamines (0.7%).

'Polypharmacy', i.e. multiple prescriptions of psychoactive drugs, occurred in 69.1% (384/556) of cases.

As with np-SAD cases, age appeared to be related in some way to whether cases were being prescribed psychoactive medication when prescribing history was known. For 15-24 year olds, 29.3% were prescribed psychoactive medication; 25-34 – 66.5%; 35-44 – 75.7%; 45-54 – 85.8%; 55-64 – 87.7%; and 65 & over – 86.5%.

The following paragraphs further examine the Drug Strategy deaths and the involvement of prescribed medication.

The most frequent combinations of prescribed psychoactive drugs in 2002 were also the most common in 2011. However, no single drug combination exceeded more than 26%. Prescribed hypnotics/sedatives in combination with anti-depressants accounted for 17.9% of cases in 2002 and 25.8% in 2011. Hypnotics/sedatives in combination with other opiates/opioid analgesics accounted for 14.3% of cases in 2002 compared to 13.5% in 2011.

Hypnotics/sedatives together with anti-psychotics accounted for 8.5% in 2002 and 11.5% of cases in 2011. Methadone and hypnotics/sedatives accounted for 4.6% of cases in 2002 and 8.5% in 2011. There was also a slight increase in the proportion of cases involving both methadone and anti-depressants from 1.9% in 2002 to 7.7% in 2011.

In 2011, methadone alone and in combination with other drugs, was implicated in 313 cases.

Of these, 62.9% may have obtained methadone from illicit sources, compared to 37.1% who were known to be receiving prescribed methadone prior to their death ($PR = 1.7$, $95\% CI = 1.4 - 2.0$). Methadone alone was implicated in 83 cases. Of these, 59.0% may have obtained the drug from illicit sources, compared to 41.0% who were known to be receiving prescribed methadone ($PR = 1.4$, $95\% CI = 1.1 - 2.0$).

Table 2.4: Prescribed psychoactive medication, “drug misuse” deaths reported to np-SAD, England, 2011

Drug category	Number (%) of cases on prescribed psychoactive medication by drug	Number (%) of these cases where same prescribed drug was implicated in death
Total	556 (100.0)	
Amphetamines	4 (0.7)	1 (25.0)
Anti-depressants	320 (57.6)	114 (35.6)
Anti-epileptics	84 (15.1)	9 (10.7)
Anti-Parkinson's	8 (1.4)	0 (0.0)
Anti-psychotics	107 (19.2)	22 (20.6)
Heroin/morphine	42 (7.6)	33 (78.6)
Hypnotics/sedatives	263 (47.3)	108 (41.1)
Methadone	133 (23.9)	116 (87.2)
Other opiates/opioid analgesics	169 (30.4)	111 (65.7)

Note: Column totals may sum to more than 100% since more than one substance may be prescribed to an individual and more than one substance may be implicated in a death.

Hypnotics/sedatives, alone and in combination with other drugs, were implicated in 238 cases. Of these, 54.6% may have obtained them illicitly, compared to the 45.4% who were known to be receiving a prescription for this drug ($PR = 1.2$, $95\% CI = 1.0 - 1.4$). Seventeen cases had hypnotics/sedatives alone implicated in their death, of whom 9 (52.9%) had received the drug on prescription, compared to 8 (47.1%) who may have obtained it illicitly ($PR = 1.1$, $95\% CI = 0.6 - 2.2$).

Anti-depressants, alone and in combination with other drugs, were implicated in 170 cases. Of these, 67.1% were known to be receiving prescribed anti-depressants at the time of their death, compared to 32.9% who may have used drugs prescribed for others ($PR = 2.0$, $95\% CI = 1.6 - 2.9$). Anti-depressants alone were implicated in 12 cases. Of these, 10 (83.3%) were known to be receiving prescribed anti-depressants, compared to 2 (16.7%) who may have used

drugs prescribed for others ($PR = 5.0$, $95\% CI = 1.4 - 18.2$).

Other opiates/opioid analgesics (e.g. dihydrocodeine, dextropropoxyphene) alone and in combination with other drugs, were implicated in 248 cases. Of these, 55.2% may have obtained the drug by other means, compared to the 44.8% who were known to be receiving prescribed opiate/opioid analgesics prior to their death ($PR = 1.2$, $95\% CI = 1.0 - 1.5$). Other opiate/opioid analgesics alone were implicated in 55 cases. Of these, the drugs were prescribed in 47.3% of cases, compared to 52.7% apparently being obtained by other means ($PR = 1.1$, $95\% CI = 0.8 - 1.6$).

Heroin/morphine, alone and in combination with other drugs, was implicated in 339 deaths. The majority (90.3%) of these cases were not prescribed heroin/morphine, and as such may have obtained the drug illegally. Only 9.7% of the cases with heroin/morphine implicated were receiving the drug on

prescription ($PR = 9.3$, $95\% CI = 6.7 - 12.8$). Where heroin/morphine was implicated alone, out of 100 cases, only 11.0% of these were they known to be prescribed the drug,

meaning 89.0% may have obtained heroin/morphine illegally ($PR = 8.1$, $95\% CI = 4.6 - 14.2$).

Drug abuse/dependence

No information was available for 211/904 cases with regards past or current history of drug abuse/dependence, but those with such a history (DAs) accounted for 71.3% of cases where history was known ($n = 494/693$). Individuals listed as non-drug abusers (NDAs) accounted for 28.7% ($n = 199/693$). The 211 cases where such history was not known were excluded from the following analyses.

1. Demography

Those with a history of drug abuse/dependence (DA) were more likely than those without such a history (NDA) to be male (79.1% vs. 62.3%) ($PR = 1.3$, $95\% CI = 1.1 - 1.4$) and less than 45 years of age (72.9% compared to 48.2%) ($PR = 1.5$, $95\% CI = 1.3 - 1.8$). The median age at death for DAs was 39.1 years (interquartile range = 12.8), while that for NDAs was 45.6 years (interquartile range = 20.0) ($Mann-Whitney U = 34,722.5$ $p < 0.001$).

Where ethnicity was known, there was a similar proportion of cases recorded as belonging to a White ethnic group for NDA and DA cases (96.4% vs. 96.3% White) ($PR = 1.0$, $95\% CI = 1.0 - 1.0$).

DA cases were more likely to live alone (47.6% vs. 45.2%) ($PR = 1.1$, $95\% CI = 0.9 - 1.3$) or be of no fixed abode than NDAs (3.0% vs. 0.0%). The latter group however, were more likely to live with others, 50.8% vs. 36.8%, ($PR = 1.4$, $95\% CI = 1.2 - 1.6$).

DA cases were more likely to be unemployed, 64.2% vs. 36.2%, ($PR = 1.8$, $95\% CI = 1.5 - 2.2$). NDA cases were more likely to be employed, 33.7% compared to 23.9%, ($PR =$

1.4 , $95\% CI = 1.1 - 1.8$) or to be retired/receiving invalidity benefits: 18.6% compared to 1.8%, ($PR = 10.2$, $95\% CI = 5.0 - 20.8$), or carrying-out childcare, 4.5% vs. 1.8% ($PR = 2.5$, $95\% CI = 1.0 - 6.2$).

2. Location of death

With respect to the location of death for DAs and NDAs, in both groups the majority died at home or in a defined residential address (74.1% of DAs and 72.9% of NDAs) ($PR = 1.0$, $95\% CI = 0.9 - 1.1$). Hospital deaths accounted for a slightly greater proportion of NDA (12.1%) than DA (9.1%) deaths ($PR = 1.3$ $95\% CI = 0.8 - 2.1$).

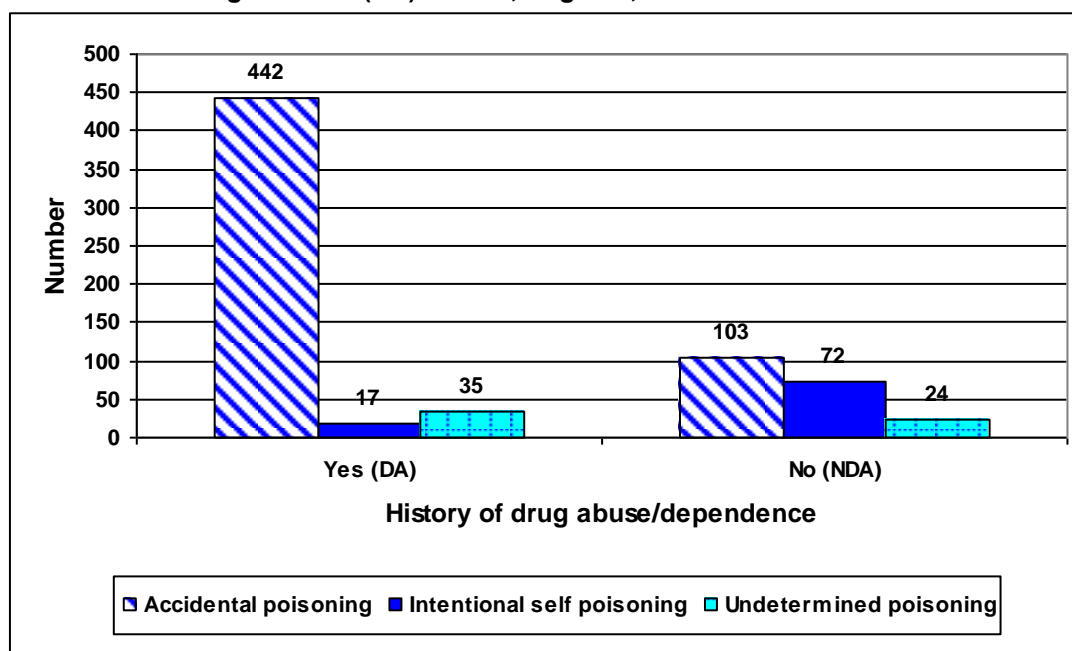
3. Underlying cause(s) of death

DAs were more likely than NDAs to die from accidental poisoning, (89.5% vs. 51.8%) ($PR = 1.7$, $95\% CI = 1.5 - 2.0$) – see Figure 2.3. NDAs, by contrast, were more likely than DAs to die of intentional self-poisoning (36.2% vs. 3.4%: $PR = 10.5$, $95\% CI = 6.4 - 17.4$), and poisoning of undetermined intent (12.1% vs. 6.3%: $PR = 1.9$, $95\% CI = 1.2 - 3.2$).

4. Manner of death

A similar pattern is exhibited with regard to manner of death. DAs were more likely than NDAs to die as the result of an accident (88.3% vs. 51.8%: $PR = 1.7$, $95\% CI = 1.5 - 2.0$). Conversely, NDAs were more likely than DAs to suffer deaths attributed to suicide (36.2% vs. 3.4%: $PR = 10.5$, $95\% CI = 6.4 - 17.4$), or a death where the manner was undetermined (11.6% vs. 6.9%: $PR = 1.7$, $95\% CI = 1.0 - 2.8$).

Figure 2.3: Principal underlying cause(s) of death by drug abuse/dependence history, “drug misuse” (DS) deaths, England, 2011



Other issues

Information on other aspects of the “drug misuse” individuals reported to np-SAD was also reported on the data collection form, such as whether the individual had at some point been in prison; had certain diseases such as hepatitis or HIV/AIDS; or was recorded as having certain mental health issues. These cases are investigated further below.

6.1 Prison

Ten “drug misuse” cases in 2011 were reported to np-SAD with information on their prison history (9 in 2010 and 52 in 2009). The majority of these had been imprisoned for drug-related offences and assault. As found in previous years, the principal substances implicated were opiates or synthetic opioids alone or in combination, such as methadone or heroin/morphine, with methadone implicated in 6/10 cases; heroin/morphine in 4/10; hypnotics/sedatives also in 4/10; other opiates/opioid analgesics in 3/10; and alcohol-in-combination implicated in 2/10 of the individuals with prison history.

6.2 Hepatitis and HIV/AIDS

A total of 23 individuals were noted as being infected with hepatitis C at death. The primary underlying cause of death for this group was accidental poisoning by narcotics and

psychodysleptics (20/23 – 87.0%), whilst in only four cases was hepatitis C recorded as a contributory factor in death. This condition is frequently associated with intravenous drug use, and of the nine individuals in which injecting status was known, seven (77.8%) were known to be injecting.

Three cases were reported to np-SAD as suffering from HIV/AIDS, and in one of these cases the disease was a contributory factor in death.

6.3 Mental Health Issues

Of the cases reported to the Programme, 131 were noted as having some form of mental health problem. These included depression; schizophrenia; bipolar disorder; and psychosis, amongst others (see Table 2.5 for detailed breakdown)

Of the 131 cases noted as diagnosed with mental health issues, 51.9% (68/131) were listed as suffering from depression, with 25.0% of these (17/68) having deaths attributed to suicide. The principal substances implicated in the deaths of those listed with depression were other opiates and opioid analgesics (27/68 – 39.7%); anti-depressants (20/68 – 29.4%); hypnotics/sedatives (20/68 – 29.4%); methadone (17/68 – 25.0%); heroin/morphine

(16/68 – 23.5%); and alcohol-in-combination (14/68 – 20.6%).

Thirteen individuals were reported as being schizophrenic (13/131 – 9.9%), with the principal implicated substance being heroin/morphine (5/13 – 38.5%), with anti-psychotics, anti-depressants, methadone and hypnotics/sedatives each being implicated

equally in 30.8% (4/13) of cases. Amongst those listed as diagnosed with schizophrenia, 76.9% (10/13) died as the result of an accident, whilst 23.1% (3/13) committed suicide.

Table 2.5: Psychoactive substances implicated alone and in combination in percentage of cases diagnosed with specific mental health problems

Psychoactive substance implicated alone and in combination	Mental health problem						
	Depression n = 68 (%)	Schizophrenia n = 13 (%)	Bipolar disorder n = 7 (%)	Anxiety n = 8 (%)	Psychosis n = 6 (%)	Behavioural and personality disorders n = 8 (%)	Mental issues n = 26 (%)
Alcohol-in-combination	20.6	15.4	14.3	25.0	16.7	25.0	26.9
Amphetamines	1.5	0.0	0.0	0.0	16.7	0.0	0.0
Anti-depressants	29.4	30.8	14.3	25.0	33.4	25.0	34.6
Anti-epileptics	1.5	0.0	14.3	0.0	16.7	0.0	7.6
Anti-Parkinson's	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Anti-psychotics	4.4	15.4	14.3	0.0	16.7	12.5	19.2
Cannabis	0.0	0.0	0.0	0.0	0.0	0.0	3.8
Cocaine	11.7	15.4	0.0	0.0	33.3	0.0	7.7
Ecstasy-type drug	1.5	0.0	0.0	0.0	0.0	0.0	0.0
GHB/GBL	0.0	0.0	0.0	0.0	16.7	0.0	0.0
Heroin/morphine	23.6	38.5	28.6	12.5	16.7	0.0	26.9
Hypnotics/sedatives	29.4	30.8	28.6	12.5	33.3	12.5	38.4
Methadone	25.0	30.8	28.6	12.5	16.7	37.5	26.9
Other opiates/ opioid analgesics	39.7	23.1	42.9	50.0	16.7	37.5	34.6

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death. The case total sums to greater than the total number of cases of 131 since an individual may have more than one disorder.
Cells highlighted in indicate the drug most frequently implicated for each mental health problem

Changes between 2010 and 2011

The following section compares deaths in 2011 with those that occurred in 2010. Drug Strategy (DS) deaths in 2011 are reported as 904, whereas in 2010, 968 cases were reported. This is a decrease in reported DS deaths of 6.6% in 2011. Figures for 2011 (and 2010, to a lesser extent) can be expected to increase as further inquests on drug-related deaths are completed and reported to the Programme.

1. Demography

There were changes between 2010 and 2011 in terms of the demographic profile of cases. Whilst ethnicity, gender, living arrangements and employment status remained relatively stable, there were marked changes in other aspects. The median age at death rose from 38.5 to 40.9 years, with the number of deaths amongst those aged 35 years and over rising from 62.0% to 70.8%. The number of individuals listed as having a history of drug abuse/addiction when such information was given fell by 5.0%, from 76.3% to 71.3%, whilst a drop of 4.3% was also observed in the number of deaths occurring at the deceased's home or other private residential address (from 79.0% to 74.7%), and also in hospital deaths (from 14.0% to 9.4%).

2. Underlying cause(s) of death

The number of deaths due to accidental poisoning rose from 75.1% in 2010 to 78.4% in 2011 whilst deaths attributed to intentional self-poisoning increased by 2.5%, from 10.1% to 12.6%. Meanwhile, there was a reduction in poisonings of undetermined intent, from 10.3% to 8.5%, and deaths from other causes dropped from 4.5% to 0.4%.

3. Manner of death

There was a slight decrease in accidental deaths between 2010 and 2011 from 78.2% to 77.5% and an increase in suicides from 10.5% to 12.7%. Cases in which the manner of death was undetermined showed a small decrease, from 10.0% in 2010 to 8.6% in 2011.

4. Psychoactive substances implicated in death

In 2011 there were 888/904 Drug Strategy deaths that involved psychoactive substances; 16 cases were therefore excluded from the following analyses due to their not involving psychoactive substances. In 2010, 955 of the 968 DS cases reported involved psychoactive drugs.

4.1 Psychoactive substances, both alone and in combination

There was a substantial reduction in the proportion of deaths attributed to heroin/morphine in 2011 compared to 2010 (46.2% down to 38.2% of deaths). Despite this, heroin/morphine remained the most frequently implicated substance in deaths of DS cases. A reduction was also seen in the proportion of cases in which alcohol was implicated in combination with other psychoactive substances (from 32.5% to 28.0%), and also in deaths involving GHB/GBL (1.4% to 1.1%).

Significant increases were seen in the proportion of cases in which anti-depressants, ecstasy-type drugs, hypnotics/sedatives and methadone were implicated. Non-significant increases were found in the number of cases in which the following drugs were implicated: amphetamines; anti-epileptics; anti-psychotics; cannabis; cocaine; and other opiates/opioid analgesics (Table 2.6).

4.2 Single substance

A significant increase in deaths in which other opiates/opioid analgesics were implicated alone was seen, shown by a 1.8% rise from 2010 to 2011 (4.4% to 6.2%), whilst deaths involving heroin/morphine as the sole drug dropped significantly by 2.5% (from 13.8% to 11.3%). Other non-significant rises were seen in the number of deaths involving the following drugs when implicated alone: amphetamines; anti-depressants; anti-epileptics; ecstasy-type drugs; hypnotics/sedatives; and methadone. Non-significant decreases were seen in the number of deaths in which GHB/GBL and Cocaine were implicated alone (Table 2.7).

Table 2.6: Changes in percentages of psychoactive substances, alone and in combination, implicated in psychoactive substance “drug misuse” deaths, England, 2010 and 2011

Substance	2010 (n = 955) %	2011 (n = 888) %	Ratio of Proportions (PR)	95% CI	Change (percentage points)
Alcohol-in-combination	32.5	28.0	1.2	1.0 – 1.3	- 4.5
Amphetamines	3.5	4.4	1.3	0.8 – 2.0	+ 0.9
Anti-depressants	14.9	19.1	1.3	1.1 – 1.6	+ 4.2
Anti-epileptics	1.6	2.6	1.6	0.9 – 3.1	+ 1.0
Anti-Parkinson’s	0.1	0.1	1.1	0.1 – 17.2	0.0
Anti-psychotics	2.8	3.8	1.4	0.8 – 2.2	+ 1.0
Cannabis	1.3	1.6	1.3	0.6 – 2.7	+ 0.3
Cocaine	10.4	12.0	1.2	0.9 – 1.5	+ 1.6
Ecstasy-type drugs	0.8	2.1	2.6	1.1 – 5.8	+ 1.3
GHB/GBL	1.4	1.1	1.2	0.5 – 2.7	- 0.3
Heroin/morphine	46.2	38.2	1.2	1.1 – 1.3	- 8.0
Hypnotics/sedatives	24.1	26.8	1.1	1.0 – 1.3	+ 2.7
Methadone	31.3	35.2	1.1	1.0 – 1.3	+ 3.9
Other opiates/ opioid analgesics	25.8	27.9	1.1	0.9 – 1.3	+ 2.1

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.

Table 2.7: Changes in percentages of psychoactive substances implicated alone in psychoactive substance “drug misuse” deaths, England, 2010 and 2011

Substance	2010 (n = 955) %	2011 (n = 888) %	Ratio of Proportions (PR)	95% CI	Change (percentage points)
Amphetamines	1.5	1.7	1.2	0.6 – 2.4	+ 0.2
Anti-depressants	1.0	1.4	1.3	0.6 – 3.0	+ 0.4
Anti-epileptics	0.1	0.3	3.2	0.3 – 31.0	+ 0.2
Anti-Parkinson’s	0.0	0.0	n/a	n/a	0.0
Anti-psychotics	0.4	0.5	1.1	0.3 – 4.3	+ 0.1
Cannabis	0.1	0.1	1.1	0.7 – 17.2	0.0
Cocaine	2.6	1.8	1.5	0.8 – 2.7	- 0.8
Ecstasy-type drugs	0.4	0.7	1.6	0.5 – 5.7	+ 0.3
GHB/GBL	0.6	0.5	1.4	0.4 – 4.9	- 0.1
Heroin/morphine	13.8	11.3	1.2	1.0 – 1.6	- 2.5
Hypnotics/sedatives	1.2	1.9	1.7	0.8 – 3.5	+ 0.7
Methadone	9.0	9.3	1.0	0.8 – 1.4	+ 0.3
Other opiates/ opioid analgesics	4.4	6.2	1.4	1.0 – 2.1	+ 1.8

†On average approximately 300 cases of inquest from the year of death are not completed and are added to next year.
n/a Not applicable

Ten-year trends in death 2002-2011

This section examines deaths that occurred between 2002 and 2011 using the “drug misuse” definition used to monitor the Government’s drug strategy. The analysis is based on a ‘panel’ approach, that is, only areas which reported in every single year of the 2002-11 ten-year period were examined.

This selection has resulted in a different panel to that reported on in the previous annual report. Therefore, the results for this year

cannot be compared with those for previous reports.

Sixty-eight coronial areas in England (total = 101) are represented, accounting for 73.1% of all cases reported. In all, a total of 9,101 cases meet the criteria for inclusion in the sample analysed here, for the ten-year period.

This method had been adopted as it enhances the statistical robustness of the findings and the conclusions that can be derived from them.

Table 2.8: Demographic characteristics of “drug misuse” deaths reported to np-SAD, panel of Coroners’ areas, 2002-2011

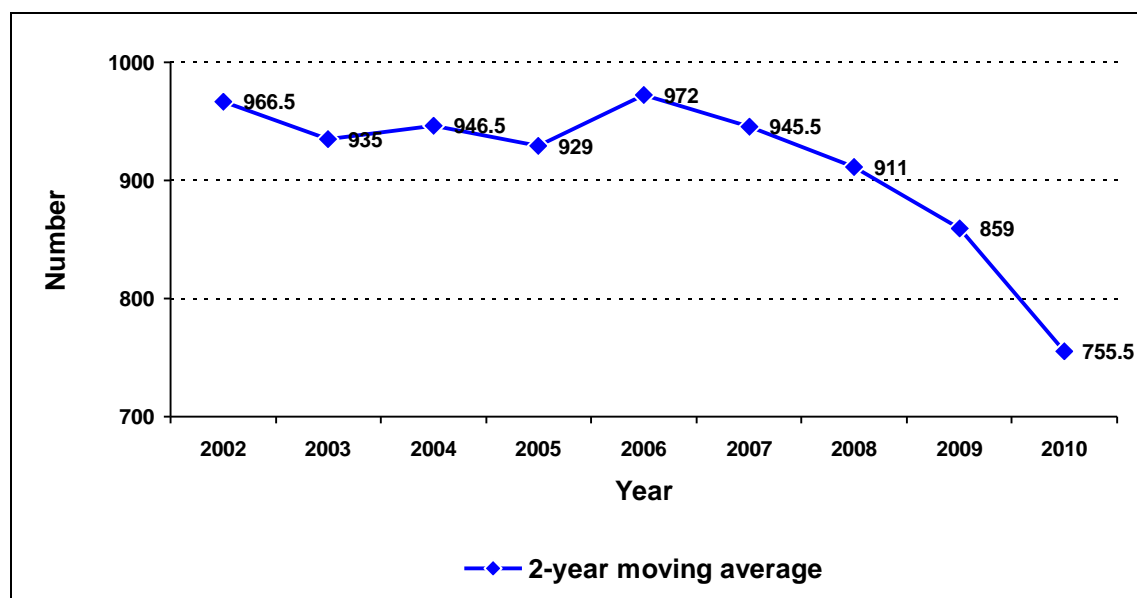
Variable	Category	Number (%)
Total		9,101 (100.0)
Gender	Male	6,973 (76.6)
	Female	2,128 (23.4)
Age (years)	Under 15	10 (0.1)
	15-24	1,006 (11.1)
	25-34	2,889 (31.7)
	35-44	2,935 (32.2)
	45-54	1,372 (15.1)
	55-64	508 (5.6)
	Over 64	381 (4.2)
Ethnicity	White	6,788 (74.6)
	Black	139 (1.5)
	Asian	96 (1.1)
	Other	147 (1.6)
	Not known	1,931 (21.2)
Employment status	Unemployed	4,866 (53.5)
	Employed	2,559 (28.1)
	Childcare/house person	145 (1.6)
	Student/pupil	167 (1.8)
	Retired/sickness/invalidity	763 (8.4)
	Other	62 (0.7)
	Not known	539 (5.9)
Living arrangements	Alone	3,657 (40.2)
	With others	3,844 (42.2)
	No fixed abode	479 (5.3)
	Other	485 (5.3)
	Not known	636 (7.0)
History of drug use	History	5,848 (64.3)
	No history	1,839 (20.2)
	Not known	1,414 (15.5)
Place of death	Defined residential address	6,323 (69.5)
	Hospital	1,880 (20.7)
	Other locations	798 (8.8)
	Not specified	100 (1.1)

1. Demography

Summary information for some of the key demographics is given in Table 2.8 for the period as a whole. The information has not been broken down by year since there was very little variation either across the decade or in terms of changes from year-to-year. Previous annual reports have noted the consistency in many of these attributes over time especially in terms of the proportion of ethnic groups represented, those aged less than 45 years, gender, living arrangements, employment status, place of death, and manner of death.

Figure 2.6 shows the trend (using a 2-year moving average) in the number of deaths meeting the 'drug misuse' criteria for the Drug Strategy definition that occurred in a panel of English coronial areas from 2002 to 2011. The number of deaths fell steadily from a peak in 2002/3 to 2005/6 before rising again by 2006-7, followed by a decline. Although this decrease appears to continue in the last year or so, this fall may not be as pronounced as the graph indicates, as more inquests relating to deaths in 2010 and 2011 are completed and notified to the Programme. Upward revisions to figures for these two years reported on should be expected.

Figure 2.6: Trend in number of “drug misuse” deaths reported to np-SAD, selected panel of coronial areas, 2002-2011



The number of cases broken down by gender is presented in Figure 2.7. There have been some fluctuations in the male : female ratio (range 2.9:1 to 4.2) over the decade; there was a gradual increase up to 2006 followed by a general decline. Overall, there were 10 deaths of individuals aged less than 15 years, with 3 in 2010. The number of deaths amongst those aged 15 to 24 years tended to fall over time, as did those in the 25-34 age-group (Figure 2.8). An increasing proportion of deaths was accounted for by those in the 35-

44 and 45-54 age-groups, and to a lesser extent in the 55-64 age-group. In the oldest age-group (65 years and over) there was a fairly stable pattern of death. The median age at death increased progressively year on year from 34.0 to 40.7 years between 2002 and 2011. Where known, the proportion of cases with a known history of drug abuse or dependence fell from 78% to 71% over the decade, although there were year-to-year variations.

Figure 2.7: Trend in number of “drug misuse” deaths reported to np-SAD, selected panel of coronial areas, by gender, 2002-2011

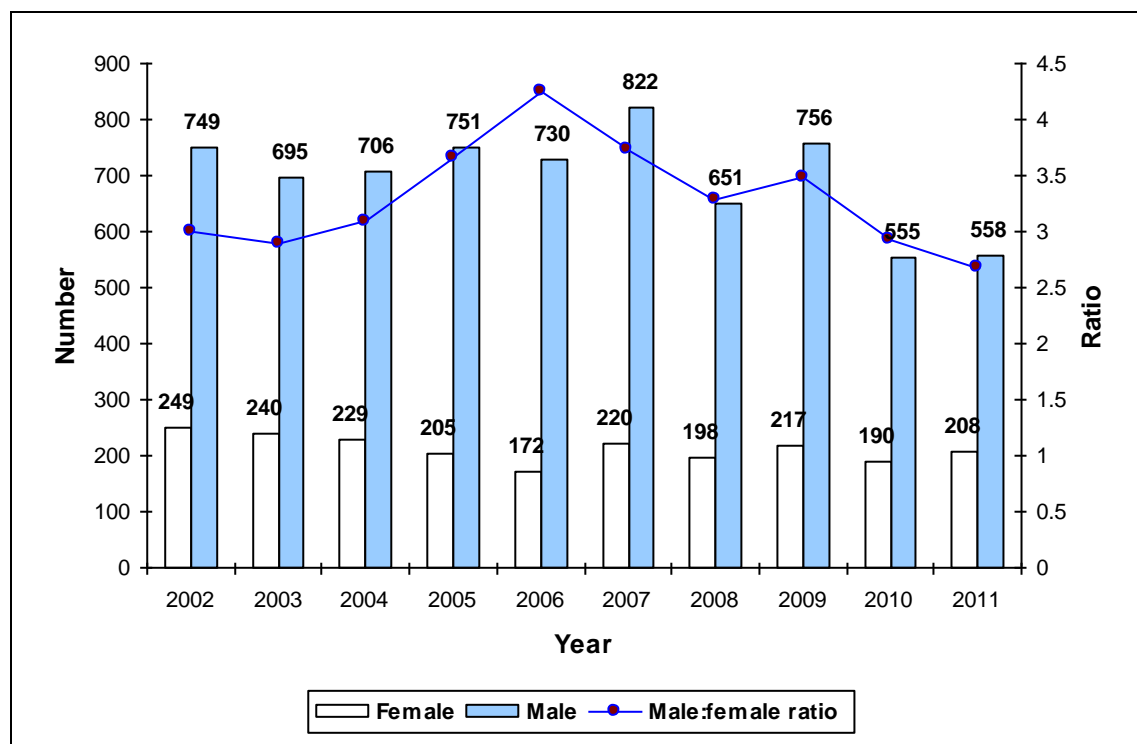
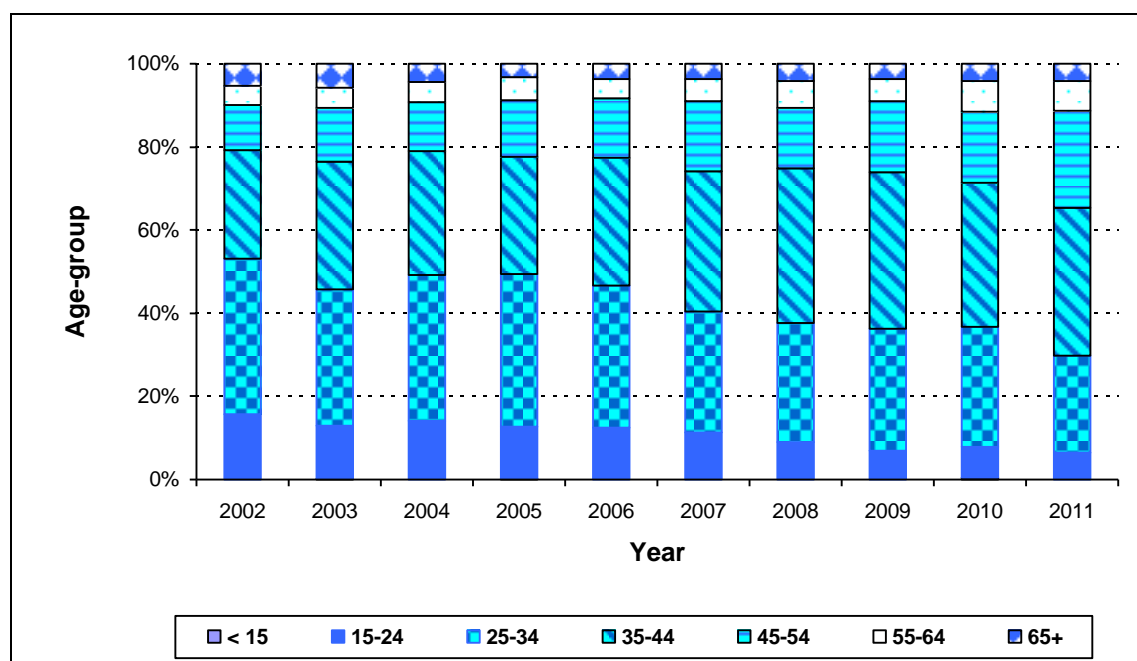


Figure 2.8: Trend in proportion accounted for by age-group of “drug misuse” deaths reported to np-SAD, selected panel of coronial areas, 2002-2011

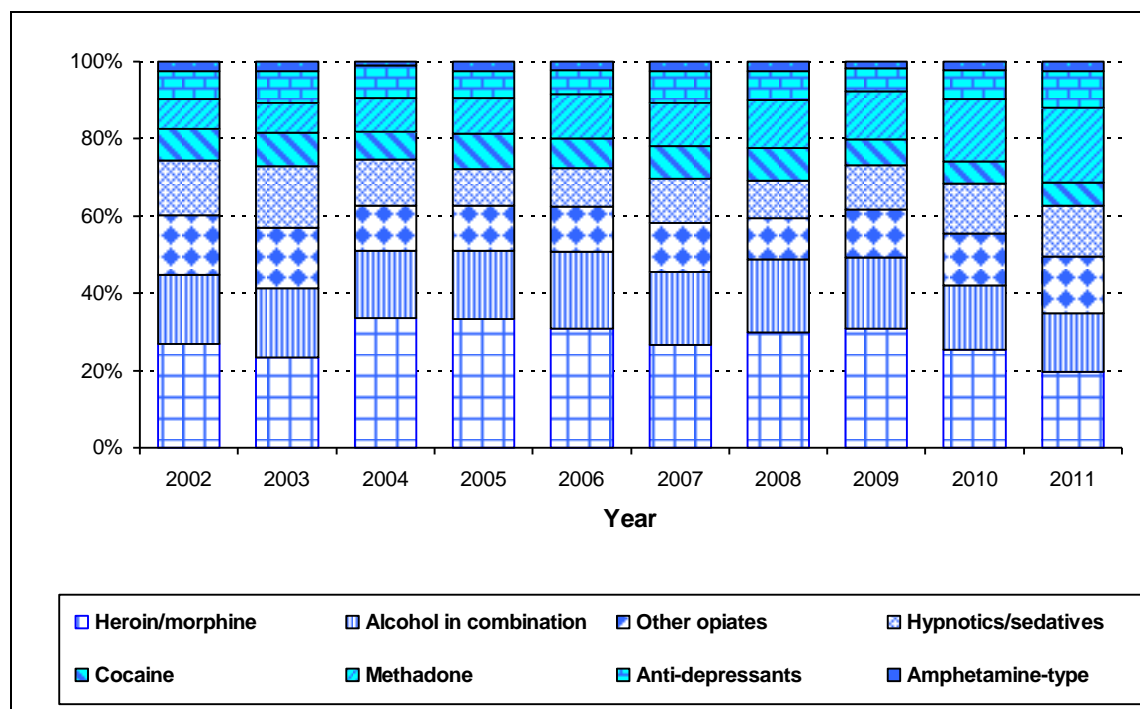


2. Substances implicated in death

Figure 2.9 shows the substances most commonly implicated, whether alone or in combination, in death. The figure indicates the proportion of selected substances implicated in death rather than the proportion of cases in which the substances is involved. Overall, heroin/morphine (27.9%) accounted for the largest proportion of these selected substances, followed by alcohol-in-

combination (18.0%); other opiates/opioid analgesics (13.2%); and hypnotics/sedatives (12.1%). The other most frequently implicated drugs were methadone (11.3%); cocaine (7.7%); anti-depressants (7.5%); and amphetamines (2.3%). These proportions did not change dramatically over time, although there appears to have been a recent decline in the contribution made by amphetamine-type substances, and an increasing presence of methadone.

Figure 2.9: Trend in substances implicated in “drug misuse” deaths reported to np-SAD, selected panel of coronial areas in England, 2002-2011



Breakdowns for English regions

This section provides information by different geographical units for “drug misuse” deaths reported to *np*-SAD. Tables F and H provide rates by Drug and Alcohol Action Team (DAAT) and Primary Care Trust (PCT) areas respectively per 100,000 population; and G gives detailed breakdowns by key aspects (gender, age, ethnicity, drug implicated) by DAAT area.

Tables I to L provide a profile of cases in the English regions which are the same as the Clusters used since autumn 2011 for Strategic Health Authorities. The annual rate of “drug misuse” deaths per 100,000 population ranged from 0.91 in the West Midlands to 4.31 in the North West. [The rates in most English regions are affected by partial geographical coverage, and thus these rates should be regarded as the minimum]. The proportion of males ranged from 68.0% in the South East Coast to 85.4% in the West Midlands. The North East, South Central and Yorkshire and Humber showed proportionately more deaths in the 15-24 year age-group than other regions. Where ethnicity is known, most deaths amongst minority communities appear to occur in the following regions: London;

Yorkshire and Humber; and the South East Coast. However, numbers are low. The proportion of cases with a known history of drug use or addiction ranges from 44.9% in South Central England to 64.6% in the East Midlands.

In each region, the overall profile of drugs commonly implicated in death is consistent with the national picture. However, there appear to be some drugs with a higher presence in some regions compared to others. For example, in the East of England heroin/morphine was implicated in 43.6% of cases, whilst in the North East the same drugs accounted for just 26.0% of cases. London exhibited the highest proportion of cocaine-related deaths (30.5%), which is in stark contrast to the South West in which cocaine was implicated in 3.7% of relevant deaths. Meanwhile, hypnotics/sedatives were implicated in 48.0% of deaths in the North East compared to just 20.3% in London. Deaths attributed to suicide accounted for 20.4% of deaths in South Central England, compared to 6.8% in London. Further information on such aspects for each English region can be found in Tables I to L.

Commentary

The demographic profile of “drug misuse” deaths in England remains generally consistent with previous reports: a higher proportion (73.5%) of males to females, White, with the majority under 45 years of age. “Drug misuse” deaths reported to the Programme amongst those aged 15-24 appear to have dropped over the past ten years by nearly 70%; the median age increased over the period by nearly seven years.

Accidental poisoning, as noted in previous years, still remains the most frequent underlying cause of death across all age-groups. However, in comparison with females and males of younger age-groups, older females show a greater proportion of deaths attributed to intentional self-poisoning.

As was found in *np*-SAD cases, heroin/morphine followed by methadone were the most frequently implicated drug in deaths of males, whilst in females it was anti-depressants, closely followed by other opiates/opioid analgesics.

“Drug misuse” deaths reported to the Programme for 2011 suggest that the involvement in death of amphetamines, anti-depressants, anti-epileptics, cocaine, ecstasy-type drugs, hypnotics/sedatives, methadone and other opiates/opioid analgesics have increased, whilst deaths in which heroin/morphine and alcohol-in-combination with other drugs have decreased. The patterns seen here are similar to those found in *np*-SAD cases in respect of controlled drugs. The decline in monovalent deaths noted in last year’s report appears to have plateaued somewhat: in 2011 they accounted for 36% of cases – the same rate as in 2010, whilst in 2009 they represented 37%. Heroin/morphine combined with alcohol remains the most frequently implicated polysubstance combination over the past ten years, followed by heroin/morphine combined with hypnotics/sedatives, and then hypnotics/sedatives with alcohol.

The most commonly prescribed medications implicated in death were methadone; anti-depressants; other opiates/opioid analgesics; followed by hypnotics/sedatives. From information on the prescribed drugs of cases, it appears that upwards of 54% of hypnotics/sedatives, other opiates/opioid analgesics, methadone and heroin/morphine-related deaths are more likely to involve drugs obtained by illicit rather than legal means.

It has to be acknowledged that there are some distinct differences between the definition of drug-related death used by *np*-SAD and that of “drug misuse” employed by Government departments to monitor trends in the effectiveness of drug strategies.

Whilst the main source of information for the Office for National Statistics is the medical certificate of death, supplemented by part V of the Coroner’s Inquisition form, the *np*-SAD receives detailed information from inquests with reports from various sources (including toxicology) to the Coroner to determine the cause of death and thus the verdict. Both sets of data are of value and complementary. The detailed data from Coroners allows for the Programme to contribute to early warning monitoring systems, providing information on the epidemiology of Novel Psychoactive Substances (including “legal highs”), as well as on prescribing history, risk factors, etc. Both sources of data are needed to obtain a fuller understanding of the nature of drug-related mortality in England, and the UK as a whole.

Table F: “Drug misuse” cases in 2011 by Drug and Alcohol Action Team area (16 years and over) – number and rate per 100,000 population

Drug and Alcohol Action Team	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
ENGLAND				
NORTH EAST				
County Durham	10	2.36	3	0.71
Darlington	0	0.00	1	1.16
Gateshead	0	0.00	0	0.00
Hartlepool	4	5.41	4	5.41
Middlesbrough	5	4.55	4	3.64
Newcastle upon Tyne	2	0.87	1	0.43
North Tyneside*	7	4.22	8	4.82
Northumberland	7	2.66	6	2.28
Redcar and Cleveland	3	2.70	4	3.60
South Tyneside	0	0.00	0	0.00
Stockton on Tees	4	2.60	4	2.60
Sunderland	8	3.52	8	3.52
NORTH WEST				
Blackburn with Darwen	12	10.53	8	7.02
Blackpool	15	12.82	14	11.97
Bolton	9	4.09	10	4.55
Bury	0	0.00	0	0.00
Cheshire*	8	1.39	7	1.22
Cumbria	11	2.64	9	2.16
Halton	1	0.99	0	0.00
Knowsley	2	1.71	1	0.85
Lancashire	55	5.75	48	5.02
Liverpool	24	6.20	27	6.98
Manchester	30	7.44	29	7.20
Oldham	1	0.57	0	0.00
Rochdale	3	1.80	3	1.80
Salford	22	11.64	20	10.58
Sefton	7	3.08	2	0.88
St Helens	0	0.00	0	0.00
Stockport	10	4.35	7	3.04
Tameside	10	5.65	8	4.52
Trafford	5	2.76	6	3.31
Warrington	10	6.10	8	4.88
Wigan	8	3.10	8	3.10
Wirral	2	0.77	0	0.00
YORKSHIRE AND HUMBER				
Barnsley	0	0.00	0	0.00
Bradford	7	1.75	5	1.25
Calderdale	0	0.00	0	0.00
Doncaster	4	1.63	3	1.22
East Riding of Yorkshire	4	1.43	4	1.43
Kingston upon Hull	12	5.80	12	5.80
Kirklees	9	2.67	8	2.37
Leeds	12	1.96	13	2.12
North East Lincolnshire	2	1.55	1	0.78
North Lincolnshire	2	1.47	1	0.74

Drug and Alcohol Action Team	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
North Yorkshire	4	0.80	3	0.60
Rotherham	1	0.48	1	0.48
Sheffield	6	1.34	6	1.34
Wakefield	6	2.26	6	2.26
York	2	1.21	1	0.61
EAST MIDLANDS				
Derby	3	1.52	4	2.02
Derbyshire	20	3.15	16	2.52
Leicester	12	4.62	6	2.31
Leicestershire*	14	2.63	5	0.94
Lincolnshire	10	1.69	8	1.35
Northamptonshire	19	3.42	18	3.24
Nottingham	5	2.03	4	1.63
Nottinghamshire*	9	1.40	8	1.24
Rutland*	1	3.18	1	3.18
WEST MIDLANDS				
Birmingham*	0	0.00	1	0.12
Coventry	4	1.58	2	0.79
Dudley	3	1.18	3	1.18
Herefordshire	1	0.66	0	0.00
Sandwell	1	0.41	1	0.41
Shropshire	5	1.97	7	2.76
Solihull*	0	0.00	0	0.00
Staffordshire	11	1.57	9	1.29
Stoke-on-Trent	6	3.00	7	3.50
Telford and Wrekin	3	2.26	1	0.75
Walsall*	1	0.47	1	0.47
Warwickshire*	0	0.00	0	0.00
Wolverhampton	2	1.00	1	0.50
Worcestershire	4	0.86	4	0.86
EAST				
Bedfordshire	9	2.71	8	2.41
Cambridgeshire	4	0.79	1	0.20
Essex	0	0.00	0	0.00
Hertfordshire	15	1.67	18	2.01
Luton	3	1.91	4	2.55
Norfolk	9	1.26	7	0.98
Peterborough	7	4.83	7	4.83
Southend-on-Sea	0	0.00	0	0.00
Suffolk	8	1.34	5	0.84
Thurrock	0	0.00	0	0.00
LONDON				
Inner London				
Camden	1	0.54	0	0.00
City of London	0	0.00	0	0.00
Hackney	7	3.57	4	2.04
Hammersmith and Fulham	7	4.58	12	7.84
Haringey	1	0.49	0	0.00
Islington	6	3.47	1	0.58
Kensington and Chelsea	1	0.75	2	1.49
Lambeth	3	1.20	3	1.20

Drug and Alcohol Action Team	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
Lewisham	5	2.27	1	0.45
Newham	4	1.67	1	0.42
Southwark	6	2.55	5	2.13
Tower Hamlets	2	0.98	0	0.00
Wandsworth	0	0.00	0	0.00
Westminster	10	5.38	8	4.30
Outer London				
Barking and Dagenham	1	0.72	1	0.72
Barnet	2	0.71	1	0.35
Bexley	2	1.08	1	0.54
Brent	1	0.40	0	0.00
Bromley	1	0.40	0	0.00
Croydon	9	3.15	5	1.75
Ealing	14	5.17	13	4.80
Enfield	1	0.41	0	0.00
Greenwich	1	0.50	1	0.50
Harrow	1	0.52	1	0.52
Havering	1	0.52	1	0.52
Hillingdon	9	4.13	9	4.13
Hounslow	7	3.45	7	3.45
Kingston-upon-Thames	6	4.62	6	4.62
Merton	1	0.62	0	0.00
Redbridge	1	0.46	0	0.00
Richmond-upon-Thames	3	2.00	2	1.33
Sutton	3	1.96	1	0.65
Waltham Forest	2	0.98	1	0.49
SOUTH EAST				
Bracknell Forest	1	1.11	1	1.11
Brighton and Hove	18	7.89	14	6.14
Buckinghamshire	4	0.99	1	0.25
East Sussex	12	2.75	10	2.29
Hampshire	16	1.49	12	1.12
Isle of Wight	6	5.17	5	4.31
Kent*	21	1.78	21	1.78
Medway towns	0	0.00	0	0.00
Milton Keynes	1	0.52	1	0.52
Oxfordshire	0	0.00	0	0.00
Portsmouth	7	4.19	7	4.19
Reading	1	0.80	4	3.20
Slough	2	1.87	1	0.93
Southampton	7	3.61	8	4.12
Surrey	17	1.85	17	1.85
West Berkshire	0	0.00	0	0.00
West Sussex	7	1.05	7	1.05
Windsor and Maidenhead	4	3.42	4	3.42
Wokingham	0	0.00	0	0.00
SOUTH WEST				
Bath and North East Somerset*	0	0.00	0	0.00
Bournemouth	13	8.39	6	3.87
Bristol*	0	0.00	0	0.00
Cornwall & Isles of Scilly	8	1.79	5	1.12
Devon	10	1.60	10	1.60

Drug and Alcohol Action Team	National and annual death rate per 100,000 population – usual area of residence		National and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
Dorset	7	2.02	3	0.86
Gloucestershire	7	1.43	7	1.43
North Somerset*	1	0.60	0	0.00
Plymouth	1	0.47	1	0.47
Poole	7	5.74	6	4.92
Somerset	6	8.00	7	1.60
South Gloucestershire*	0	0.00	0	0.00
Swindon	13	7.74	12	7.14
Torbay	2	1.82	2	1.82
Wiltshire	6	1.57	6	1.57

Note: In addition there were a number of cases that could not be allocated to specific DAAT areas because they were of no fixed abode and/or the jurisdiction in which the inquest was held covers more than one DAAT. Some cases were usually resident outside the UK. Some DAATs are covered by Coroners' jurisdictions that did not submit information or only partial information) to the *np*-SAD; they are marked thus - *.

Table G: “Drug misuse” cases reported in 2011 by Drug and Alcohol Action Team area (demographics and drugs implicated)

Drug and Alcohol Action Team	No	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated					
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65 & Over	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine
ENGLAND																				
NORTH EAST																				
County Durham	10	7	3	1	3	4	1	1	0	1	0	0	0	9	2	3	3	0	1	1
Darlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gateshead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hartlepool	4	4	0	0	0	1	1	2	0	4	0	0	0	0	1	1	2	0	0	0
Middlesbrough	5	4	1	0	2	2	1	0	0	5	0	0	0	0	2	2	4	2	1	0
Newcastle upon Tyne	2	2	0	0	0	1	1	0	0	2	0	0	0	0	1	1	0	0	0	0
North Tyneside	7	4	3	2	3	0	1	1	0	6	0	0	0	1	0	2	2	0	1	0
Northumberland	7	7	0	1	0	2	3	0	0	6	1	0	0	0	2	2	5	0	0	0
Redcar and Cleveland	3	1	2	0	1	0	0	0	2	3	0	0	0	0	0	1	3	0	0	0
South Tyneside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stockton on Tees	4	2	0	3	1	0	0	0	0	4	0	0	0	0	3	3	3	0	0	1
Sunderland	8	7	0	3	3	0	0	1	1	7	0	0	0	1	2	1	2	0	0	0
NORTH WEST																				
Blackburn with Darwen	12	10	2	0	2	6	2	2	0	11	0	0	0	1	8	3	4	1	1	0
Blackpool	15	11	4	2	5	5	2	1	0	13	0	0	0	2	9	3	3	0	2	1
Bolton	9	8	1	0	1	4	3	1	0	4	0	0	0	5	5	4	2	0	0	0
Bury	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cheshire	8	8	0	0	3	3	0	0	2	8	0	0	0	0	4	2	4	0	0	0
Cumbria	11	7	4	3	5	3	0	0	0	10	0	0	0	1	1	8	6	0	0	0
Halton	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1	1
Knowsley	2	2	0	0	1	1	0	0	0	2	0	0	0	0	2	0	0	1	0	0
Lancashire	55	43	12	2	7	27	13	3	3	19	0	0	0	36	22	19	19	2	5	0
Liverpool	24	15	9	1	1	11	8	2	1	22	0	0	0	2	5	13	1	4	1	2
Manchester	30	15	15	2	3	11	9	3	2	22	0	0	1	7	7	10	2	2	2	0
Oldham	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
Rochdale	3	3	0	1	0	1	1	0	0	2	0	1	0	0	1	1	0	1	1	0
Salford	22	14	8	0	3	11	5	1	2	5	0	0	0	17	6	6	4	0	2	0
Sefton	7	5	2	0	3	2	2	0	0	7	0	0	0	0	5	3	1	1	0	1
St. Helens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stockport	10	9	1	0	2	5	2	0	1	9	0	0	0	1	3	4	4	3	0	0
Tameside	10	7	3	0	3	4	3	0	0	8	0	0	0	2	2	5	0	1	0	2
Trafford	5	4	1	0	0	3	0	1	0	5	0	0	0	0	2	3	0	0	0	0
Warrington	10	7	3	1	3	2	1	2	1	9	0	0	0	1	1	3	3	1	1	1
Wigan	8	6	2	1	3	3	0	1	0	0	0	0	0	8	2	5	2	0	0	0
Wirral	2	2	0	0	1	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0

Drug and Alcohol Action Team	No	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated						
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65 & over	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine	Ecstasy-type
YORKSHIRE AND HUMBER																					
Barnsley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bradford	7	3	4	0	2	4	1	0	0	6	0	1	0	0	0	4	0	1	1	0	0
Calderdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Doncaster	4	4	0	0	1	3	0	0	0	3	0	0	0	1	2	2	2	0	0	0	0
East Riding of Yorkshire	4	4	0	0	2	2	0	0	0	4	0	0	0	0	2	3	2	0	0	0	0
Kingston upon Hull	12	10	2	2	5	5	0	0	0	9	0	0	0	3	7	6	6	1	0	0	0
Kirklees	9	7	2	2	4	2	1	0	0	8	0	0	0	0	5	5	3	2	0	0	0
Leeds	12	8	4	0	3	5	1	3	0	12	0	0	0	0	4	19	4	2	1	0	0
North East Lincolnshire	2	2	0	0	0	2	0	0	0	0	0	0	0	2	0	2	1	0	0	0	0
North Lincolnshire	2	2	0	0	2	0	0	0	0	2	0	0	0	0	2	1	0	1	0	0	0
North Yorkshire	4	4	0	0	2	2	0	0	0	3	0	0	0	1	3	2	2	1	1	0	0
Rotherham	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0
Sheffield	6	3	3	2	1	2	1	0	0	6	0	0	0	0	1	3	2	1	0	0	0
Wakefield	6	5	1	0	2	3	0	1	0	5	0	1	0	0	3	2	1	0	0	0	0
York	2	2	0	1	0	1	0	0	0	2	0	0	0	0	1	0	0	0	1	0	0
EAST MIDLANDS																					
Derby	3	3	0	0	2	0	1	0	0	2	1	0	0	0	1	1	2	0	2	0	0
Derbyshire	20	15	5	1	4	9	5	1	0	18	0	0	0	2	7	6	2	2	2	0	0
Leicester	12	10	2	0	1	7	0	1	3	10	0	0	0	2	5	4	6	0	0	0	0
Leicestershire	14	8	6	1	2	7	2	0	4	0	0	0	1	10	3	5	3	1	0	0	0
Lincolnshire	10	9	1	1	4	3	1	0	1	9	0	1	0	0	6	4	2	0	2	0	0
Northamptonshire	19	11	8	1	5	6	5	2	0	19	0	0	0	0	4	10	5	2	1	0	0
Nottingham	5	3	2	1	0	1	2	0	1	5	0	0	0	0	2	2	2	1	0	0	0
Nottinghamshire	9	7	2	1	2	1	4	1	0	9	0	0	0	0	6	4	2	2	0	0	0
Rutland	1	0	1	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
WEST MIDLANDS																					
Birmingham*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coventry	4	4	0	0	1	2	1	0	0	2	0	0	0	2	1	3	1	0	0	0	0
Dudley	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Herefordshire	1	1	0	0	0	2	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0
Sandwell	1	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0
Shropshire	5	3	2	0	0	4	0	0	1	0	0	0	0	5	3	0	1	0	0	0	0
Solihull*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staffordshire	11	7	4	2	0	4	4	1	0	10	0	0	0	1	3	2	5	3	1	0	0
Stoke-on-Trent	6	6	0	0	4	1	1	0	0	6	0	0	0	0	2	4	2	0	0	0	0
Telford and Wrekin	3	3	0	1	0	1	0	1	0	2	0	0	0	1	1	1	0	0	0	0	0
Walsall*	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Warwickshire*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wolverhampton	2	2	0	0	0	2	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0
Worcestershire	4	4	0	3	0	1	0	0	0	2	0	0	0	2	1	2	0	0	0	0	0

Drug and Alcohol Action Team	No	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated						
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65 & over	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine	Ecstasy-type
EAST																					
Bedfordshire	9	5	4	0	2	3	2	1	1	9	0	0	0	0	3	4	3	1	0	0	0
Cambridgeshire	4	4	0	1	1	1	1	0	0	0	0	0	0	4	1	1	1	1	0	0	0
Essex*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hertfordshire	15	8	7	0	5	4	3	3	0	0	0	0	0	15	8	4	4	0	0	0	0
Luton	3	2	1	0	0	0	2	0	1	3	0	0	0	0	1	0	0	0	0	0	0
Norfolk	9	7	2	1	2	3	1	1	1	2	0	0	0	7	6	3	3	0	0	0	0
Peterborough	7	6	1	1	4	0	1	0	1	6	0	0	0	1	4	1	0	1	0	0	0
Southend-on-Sea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Suffolk	8	6	2	0	2	4	2	0	0	3	0	0	0	5	1	3	1	0	0	0	0
Thurrock*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LONDON																					
Inner London																					
Camden	1	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	0	0	0	0
City of London	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hackney	7	5	2	2	1	3	0	1	0	4	1	1	0	1	5	2	0	3	0	0	0
Hammersmith and Fulham	7	3	4	0	1	1	1	3	1	6	0	0	0	1	2	3	1	2	0	0	0
Haringey	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Islington	6	4	2	0	1	1	4	0	0	4	0	0	0	2	3	1	1	0	0	0	0
Kensington and Chelsea	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Lambeth	3	2	1	0	2	0	0	1	0	1	1	0	0	1	2	2	0	0	0	0	0
Lewisham	5	3	2	0	0	4	1	0	0	2	0	0	0	3	0	2	0	1	2	0	0
Newham	4	4	0	1	0	2	1	0	0	1	0	0	1	2	1	0	0	1	1	1	1
Southwark	6	4	2	0	1	4	1	0	0	5	1	0	0	0	2	3	1	3	0	1	0
Tower Hamlets	2	2	0	1	0	0	1	0	0	2	0	0	0	0	1	1	1	0	0	0	0
Wandsworth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westminster	10	6	4	1	1	4	3	1	0	4	0	0	0	6	2	3	4	5	0	1	0
Outer London																					
Barking and Dagenham	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Barnet	2	2	0	0	0	1	0	1	0	1	0	0	0	1	1	0	1	0	0	0	0
Bexley	2	1	1	0	1	0	1	0	0	0	2	0	0	0	1	0	1	0	0	0	0
Brent	1	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
Bromley	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Croydon	9	8	1	0	4	3	2	0	0	3	0	0	0	6	2	2	0	5	0	0	0
Ealing	14	11	3	1	3	3	5	1	1	7	1	5	1	0	5	7	1	4	0	0	0
Enfield	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
Greenwich	1	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	3	0	0	0	0
Harrow	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Havering	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Hillingdon	9	5	4	1	1	2	4	0	0	6	0	0	0	3	2	5	3	4	1	0	0
Hounslow	7	5	2	1	0	2	3	1	0	6	0	0	0	1	2	3	1	2	0	0	0
Kingston-upon-Thames	6	5	1	0	3	1	1	1	0	6	0	0	0	0	2	1	4	3	0	0	0
Merton	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	1
Redbridge	1	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
Richmond-upon-Thames	3	2	1	0	1	0	2	0	0	3	0	0	0	0	1	0	0	0	0	0	0
Sutton	3	3	0	0	0	2	1	0	0	2	0	0	0	1	2	1	1	1	0	0	0
Waltham Forest	2	1	1	0	0	1	0	1	0	2	0	0	0	0	1	0	0	0	0	0	0

Drug and Alcohol Action Team	No	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated					
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65 & over	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine
SOUTH EAST																				
Bracknell Forest	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0
Brighton and Hove	18	14	4	0	5	5	6	2	0	14	1	0	1	2	6	9	10	0	0	0
Buckinghamshire	4	2	2	1	0	1	2	0	0	3	0	0	0	1	3	2	1	1	0	0
East Sussex	12	7	5	1	4	1	5	1	0	12	0	0	0	0	7	3	5	1	0	0
Hampshire	16	11	5	2	2	3	6	1	2	15	0	0	0	1	3	3	3	4	1	2
Isle of Wight	6	4	2	1	1	2	2	0	0	6	0	0	0	0	2	0	1	0	0	0
Kent	21	13	8	1	4	7	4	4	1	2	0	0	0	19	8	1	7	4	1	0
Medway towns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Milton Keynes	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Oxfordshire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Portsmouth	7	5	2	0	1	3	3	0	0	6	0	0	0	1	5	0	2	1	0	0
Reading	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Slough	2	1	1	1	0	1	0	0	0	1	0	0	0	1	3	0	0	0	0	0
Southampton	7	7	0	1	1	3	2	0	0	7	0	0	0	0	2	3	0	1	0	0
Surrey	17	13	4	1	3	7	4	0	2	3	0	0	0	14	6	3	6	3	0	1
West Berkshire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Sussex	7	4	3	0	1	0	3	1	2	2	0	0	0	5	1	1	1	1	0	0
Windsor and Maidenhead	4	3	1	0	0	4	0	0	0	0	0	0	4	2	2	0	2	0	0	0
Wokingham	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH WEST																				
Bath and North East Somerset*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bournemouth	13	11	2	0	3	4	5	1	0	13	0	0	0	0	5	11	3	1	0	0
Bristol*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cornwall & Isles of Scilly	8	7	1	0	1	2	2	2	1	5	0	0	0	3	0	2	3	0	0	0
Devon	10	9	1	0	3	4	2	1	0	2	0	0	0	8	3	2	3	0	0	0
Dorset	7	6	1	1	3	1	1	1	0	6	0	0	0	1	6	2	2	0	0	0
Gloucestershire	7	2	5	0	1	2	4	0	0	7	0	0	0	0	3	2	3	0	0	0
North Somerset	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0
Plymouth	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Poole	7	5	2	0	3	3	0	0	1	7	0	0	0	0	3	3	1	0	0	0
Somerset	6	5	1	1	2	1	1	0	0	5	0	0	0	1	3	1	1	0	1	0
South Gloucestershire*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Swindon	13	12	1	0	6	3	4	0	0	13	0	0	0	0	5	7	2	2	0	0
Torbay	2	0	2	0	0	1	0	1	0	2	0	0	0	0	2	1	1	0	1	0
Wiltshire	6	2	4	0	0	3	2	1	0	6	0	0	0	0	3	1	0	0	0	0

Note: In addition there were a number of cases that could not be allocated to specific DAAT areas as they were of no fixed abode and/or the jurisdiction in which the inquest was held covers more than one DAAT. Some cases were usually resident outside the UK. Some DAATs are covered by Coroners' jurisdictions that did not submit information (or only partial information) to the *np*-SAD; they are marked thus - *.

Table H: “Drug misuse” cases in 2011 by Primary Care Trust and Strategic Health Authority areas in England (16 years and over)

Area	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
ENGLAND (SHA and PCT)				
NORTH EAST SHA*	50	2.35	44	2.06
County Durham	10	2.35	3	0.71
Darlington	0	0.00	1	1.23
Gateshead	0	0.00	0	0.00
Hartlepool	4	5.48	4	5.48
Middlesbrough	5	4.21	4	3.37
Newcastle	2	0.85	1	0.43
North Tyneside	7	4.10	6	3.52
Northumberland	7	2.71	4	1.55
Redcar and Cleveland	3	2.80	5	4.66
South Tyneside	0	0.00	0	0.00
Stockton-on-Tees Teaching	4	2.61	8	5.21
Sunderland Teaching	8	3.49	8	3.49
NORTH WEST SHA*	247	4.31	218	3.81
Ashton, Leigh and Wigan	8	3.25	8	3.25
Blackburn with Darwen	12	10.36	8	6.90
Blackpool	15	13.30	14	12.41
Bolton	9	4.27	10	4.74
Bury	0	0.00	0	0.00
Central and Eastern Cheshire	7	1.92	6	1.65
Central Lancashire	14	3.84	11	3.01
Cumbria Teaching	11	2.66	9	2.17
East Lancashire Teaching	22	7.48	22	7.48
Halton and St Helens	1	0.41	0	0.00
Heywood, Middleton and Rochdale	3	1.87	3	1.87
Knowsley	2	1.68	1	0.84
Liverpool	24	6.39	27	7.19
Manchester	30	6.97	29	6.74
North Lancashire Teaching	19	7.02	16	5.91
Oldham	1	0.58	0	0.00
Salford	22	11.59	20	10.54
Sefton	7	3.17	2	0.91
Stockport	10	4.31	7	3.01
Tameside and Glossop ¹	12	6.57	10	5.48
Trafford	5	2.91	6	3.49
Warrington	10	6.32	8	5.05
Western Cheshire	1	0.49	1	0.49
Wirral	2	0.80	0	0.00
YORKSHIRE AND HUMBER SHA*	71	1.62	64	1.46
Barnsley	0	0.00	0	0.00
Bradford and Airedale Teaching	7	1.76	5	1.26
Calderdale	0	0.00	0	0.00
Doncaster	4	1.69	3	1.27
East Riding of Yorkshire	4	1.55	4	1.55
Hull Teaching	12	5.09	12	5.09
Kirklees	9	2.83	8	2.51
Leeds	12	1.80	13	1.95

Area	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
North East Lincolnshire	2	1.52	1	0.76
North Lincolnshire	2	1.54	1	0.77
North Yorkshire and York	6	0.93	4	0.62
Rotherham	1	0.51	1	0.51
Sheffield	6	1.30	6	1.30
Wakefield District	6	2.18	6	2.18
EAST MIDLANDS SHA*	91	2.49	68	1.86
Bassetlaw	3	3.43	2	2.28
Derby City	3	1.32	4	1.76
Derbyshire County	18	3.14	14	2.44
Leicester City	12	4.70	5	1.96
Leicestershire County and Rutland	15	2.80	7	1.31
Lincolnshire Teaching ²	10	1.71	8	1.37
Northamptonshire Teaching	19	3.54	18	3.35
Nottingham City	5	1.85	4	1.48
Nottinghamshire County Teaching	6	1.13	6	1.13
WEST MIDLANDS SHA*	41	0.91	36	0.80
Birmingham East and North	0	0.00	0	0.00
Coventry Teaching	4	1.49	2	0.74
Dudley	3	1.22	3	1.22
Heart of Birmingham Teaching	0	0.00	0	0.00
Herefordshire	1	0.69	0	0.00
North Staffordshire	0	0.00	0	0.00
Sandwell	1	0.41	1	0.41
Shropshire County	5	2.13	7	2.98
Solihull	0	0.00	0	0.00
South Birmingham	0	0.00	0	0.00
South Staffordshire	11	2.28	9	1.87
Stoke on Trent	6	2.86	7	3.33
Telford and Wrekin	3	2.33	1	0.78
Walsall Teaching	1	0.51	1	0.51
Warwickshire	0	0.00	0	0.00
Wolverhampton City	2	1.04	1	0.52
Worcestershire	4	0.89	4	0.89
EAST OF ENGLAND SHA	55	1.16	50	1.05
Bedfordshire	9	2.66	8	2.37
Cambridgeshire	4	0.82	1	0.20
Hertfordshire	15	1.66	18	1.99
Great Yarmouth and Waveney	2	1.08	2	1.08
Luton	3	1.98	4	2.64
Mid Essex	0	0.00	0	0.00
Norfolk	8	1.29	6	0.97
North East Essex	0	0.00	0	0.00
Peterborough	7	5.60	7	5.60
South East Essex	0	0.00	0	0.00
South West Essex	0	0.00	0	0.00
Suffolk	7	1.43	4	0.82
West Essex	0	0.00	0	0.00

Area	Number and annual death rate per 100,000 population – usual area of residence		Number and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
LONDON SHA	119	1.81	87	1.32
Barking and Dagenham	1	0.75	1	0.75
Barnet	2	0.72	1	0.36
Bexley	2	1.16	1	0.58
Brent Teaching	1	0.47	0	0.00
Bromley	1	0.40	0	0.00
Camden	1	0.48	0	0.00
City and Hackney Teaching	7	3.82	4	2.18
Croydon	9	3.34	5	1.86
Ealing	14	5.18	13	4.81
Enfield	1	0.46	0	0.00
Greenwich Teaching	1	0.54	1	0.54
Hammersmith and Fulham	7	5.14	12	8.81
Haringey Teaching	1	0.52	0	0.00
Harrow	1	0.59	1	0.59
Havering	1	0.50	1	0.50
Hillingdon	9	4.47	9	4.47
Hounslow	7	3.71	7	3.71
Islington	6	3.75	1	0.63
Kensington and Chelsea	1	0.64	2	1.28
Kingston	6	3.99	6	3.99
Lambeth	3	1.20	3	1.20
Lewisham	5	2.36	1	0.47
Newham	4	2.18	1	0.55
Redbridge	1	0.50	0	0.00
Richmond and Twickenham	3	2.03	2	1.36
Southwark	6	2.69	5	2.24
Sutton and Merton	4	1.33	1	0.33
Tower Hamlets	2	1.06	0	0.00
Waltham Forest	2	1.10	1	0.55
Wandsworth	0	0.00	0	0.00
Westminster	10	4.59	8	3.67
SOUTH EAST COAST SHA*	75	2.06	68	1.87
Brighton and Hove City	18	8.15	14	6.34
East Sussex Downs and Weald	4	1.47	4	1.47
Eastern and Coastal Kent*	11	1.85	11	1.85
Hastings and Rother	8	5.58	6	4.18
Medway	0	0.00	0	0.00
Surrey	17	1.92	17	1.92
West Kent*	10	1.84	9	1.65
West Sussex	7	1.07	7	1.07
SOUTH CENTRAL SHA	49	1.45	43	1.28
Berkshire East	7	2.19	6	1.88
Berkshire West	1	0.26	3	0.79
Buckinghamshire	4	1.00	1	0.25
Hampshire	16	1.57	12	1.18
Milton Keynes	1	0.86	1	0.86
NHS Isle of Wight	6	3.14	5	2.62
Oxfordshire	0	0.00	0	0.00
Portsmouth City Teaching	7	4.05	7	4.05
Southampton City	7	3.31	8	3.78

Area	National and annual death rate per 100,000 population – usual area of residence		National and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
SOUTH WEST SHA*	81	1.85	65	1.49
Bath and North East Somerset*	0	0.00	0	0.00
Bournemouth and Poole Teaching	20	7.26	12	4.36
Bristol	0	0.00	0	0.00
Cornwall & Isles of Scilly	8	1.82	5	1.13
Devon	10	1.64	10	1.64
Dorset	7	2.23	3	0.96
Gloucestershire	7	1.45	7	1.45
North Somerset*	1	0.58	0	0.00
Plymouth Teaching	1	0.47	1	0.47
Somerset	6	1.42	7	1.66
South Gloucestershire*	0	0.00	0	0.00
Swindon	13	7.91	12	7.30
Torbay	2	1.72	2	1.72
Wiltshire	6	1.70	6	1.70

Note: In addition there were a number of cases that could not be allocated to specific PCT areas because they were of no fixed abode and/or the jurisdiction in which the inquest was held covers more than one PCT. Some cases were usually resident outside the UK. Some PCTs are covered by Coroners' jurisdictions that did not submit information (or only partial information) to the np-SAD; they are marked thus - *.

Table I : Profile of “drug misuse” deaths in English regions – Northern cluster

Government Office Region	North East*		North West*		Yorkshire & Humber*	
	No	%	No	%	No	%
Demographics						
Population mid-2011 aged 16 years and over	2,131,600		5,728,380		4,387,720	
‘Drug misuse’ deaths reported	50		247		70	
Number of deaths/100,000 population aged 16 and over	2.16		4.31		1.60	
Gender						
Male	38	76.0	179	72.5	53	75.7
Female	12	24.0	68	27.5	17	24.3
Age-group (years)						
15-24	4	8.0	14	5.7	7	10.0
25-34	15	30.0	46	18.6	24	34.3
35-44	14	28.0	106	42.9	31	44.3
45-54	8	16.0	52	21.1	4	5.7
55-64	5	10.0	17	6.9	4	5.7
65 and over	4	8.0	12	4.9	0	0.0
Ethnicity						
White	38	76.0	161	65.2	59	84.3
Black	1	2.0	0	0.0	0	0.0
Asian	0	0.0	1	0.4	2	2.9
Other	0	0.0	1	0.4	1	1.4
Unknown	11	22.0	84	34.0	8	11.4
Drug use/addiction history						
Yes	30	60.0	122	49.4	44	62.9
No	13	26.0	54	21.9	8	11.4
Unknown	7	14.0	71	28.7	18	25.7
Selected main drugs implicated**						
Heroin/morphine	13	26.0	86	34.8	30	42.9
Methadone	16	32.0	94	38.1	34	48.6
Hypnotics/sedatives	24	48.0	57	23.1	23	32.9
Cocaine	3	6.0	19	7.7	10	14.3
Amphetamines	3	6.0	17	6.9	4	5.7
Ecstasy-type drugs	2	4.0	8	3.2	0	0.0
Other opiates/opioid analgesics	15	30.0	74	30.0	11	15.7
Anti-depressants	10	20.0	48	19.4	11	15.7
Anti-psychotics	0	0.0	5	2.0	4	5.7
Manner of death						
Natural	1	2.0	4	1.6	0	0.0
Accidental	36	72.0	194	78.5	62	88.6
Suicidal	9	18.0	29	11.7	4	5.7
Homicidal	0	0.0	0	0.0	0	0.0
Undetermined	4	8.0	20	8.1	4	5.7
Unascertained/unknown	0	0	0	0.0	0	0.0
* Not all Coroners’ jurisdictions submitted data or only partial information						
** Percentages may add to more than 100% because of more than one substance being implicated						

Table J: Profile of “drug misuse” deaths in English regions – Midlands cluster

Government Office Region	East of England*		East Midlands		West Midlands*	
Demographics	No	%	No	%	No	%
Population mid-2011 aged 16 years and over	4,753,320		3,659,880		4,511,860	
'Drug misuse' deaths reported	55		82		41	
Number of deaths/100,000 population aged 16 and over	1.16		2.24		0.91	
Gender						
Male	38	69.1	57	69.5	35	85.4
Female	17	30.9	25	30.5	6	14.6
Age-group (years)						
15-24	3	5.5	5	6.1	3	7.3
25-34	16	29.1	17	20.7	10	24.4
35-44	15	27.3	29	35.4	16	39.0
45-54	12	21.8	19	23.2	8	19.5
55-64	5	9.1	5	6.1	2	4.9
65 and over	4	7.3	7	8.5	2	4.9
Ethnicity						
White	23	41.8	66	80.5	27	65.9
Black	0	0.0	1	1.2	0	0.0
Asian	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0
Unknown	32	58.2	15	18.3	14	34.1
Drug use/addiction history						
Yes	35	63.6	53	64.6	19	46.3
No	12	21.8	18	22.0	7	17.1
Unknown	8	14.5	11	13.4	15	36.6
Selected main drugs implicated**						
Heroin/morphine	24	43.6	29	35.4	13	31.7
Methadone	16	29.1	31	37.8	15	36.6
Hypnotics/sedatives	12	21.8	21	25.6	12	29.3
Cocaine	3	5.5	7	8.5	5	12.2
Amphetamines	0	0.0	5	6.1	1	2.4
Ecstasy-type drugs	0	0.0	0	0.0	0	0.0
Other opiates/opioid analgesics	19	34.5	22	26.8	4	9.8
Anti-depressants	9	16.4	18	22.0	2	4.9
Anti-psychotics	0	0.0	5	6.1	5	12.2
Manner of death						
Natural	0	0.0	0	0.0	0	0.0
Accidental	44	80.0	62	75.6	36	87.8
Suicidal	10	18.2	13	15.9	5	12.2
Homicidal	0	0.0	0	0.0	0	0.0
Undetermined	1	1.8	7	8.5	0	0.0
Unascertained/unknown	0	0.0	0	0.0	0	0.0

* Not all Coroners' jurisdictions submitted data or only partial information
** Percentages may add to more than 100% because of more than one substance being implicated

Table K: Profile of “drug misuse” deaths in English regions – London cluster

Government Office Region	London	
Demographics	No	%
Population mid-2011 aged 16 years and over	6,573,140	
'Drug misuse' deaths reported	118	
Number of deaths/100,000 population aged 16 and over	1.80	
Gender		
Male	86	72.9
Female	32	27.1
Age-group (years)		
15-24	8	6.8
25-34	23	19.5
35-44	37	31.4
45-54	35	29.7
55-64	12	10.2
65 and over	3	2.5
Ethnicity		
White	71	60.2
Black	5	4.2
Asian	7	5.9
Other	2	1.7
Unknown	33	28.0
Drug use/addiction history		
Yes	70	59.3
No	26	22.0
Unknown	22	18.6
Selected main drugs implicated**		
Heroin/morphine	43	36.4
Methadone	39	33.1
Hypnotics/sedatives	24	20.3
Cocaine	36	30.5
Amphetamines	4	3.4
Ecstasy-type drugs	4	3.4
Other opiates/opioid analgesics	39	33.1
Anti-depressants	20	16.9
Anti-psychotics	5	4.2
Manner of death		
Natural	3	2.5
Accidental	94	79.7
Suicidal	8	6.8
Homicidal	0	0.0
Undetermined	13	11.0
Unascertained/unknown	0	0.0
* Not all Coroners' jurisdictions submitted data or only partial information		
** Percentages may add to more than 100% because of more than one substance being implicated		

Table L: Profile of “drug misuse” deaths in English regions – Southern cluster

Government Office Region	South East Coast*		South Central*		South West*	
	No	%	No	%	No	%
Demographics						
Population mid-2011 aged 16 years and over	3,637, 920		3,368,860		4,368,660	
'Drug misuse' deaths reported	75		49		81	
Number of deaths/100,000 population aged 16 and over	2.06		1.45		1.85	
Gender						
Male	51	68.0	36	73.5	61	75.3
Female	24	32.0	13	26.5	20	24.7
Age-group (years)						
15-24	3	4.0	6	12.2	3	3.7
25-34	17	22.7	5	10.2	22	27.2
35-44	20	26.7	18	36.7	25	30.9
45-54	22	29.3	17	34.7	21	25.9
55-64	8	10.7	1	2.0	7	8.6
65 and over	5	6.7	2	4.1	3	3.7
Ethnicity						
White	33	44.0	39	79.6	68	84.0
Black	1	1.3	0	0.0	0	0.0
Asian	0	0.0	0	0.0	0	0.0
Other	1	1.3	0	0.0	0	0.0
Unknown	40	53.3	10	20.4	13	16.0
Drug use/addiction history						
Yes	35	46.7	22	44.9	44	54.3
No	16	21.3	19	38.8	19	23.5
Unknown	24	32.0	8	16.3	18	22.2
Selected main drugs implicated**						
Heroin/morphine	28	37.3	18	36.7	34	42.0
Methadone	17	22.7	9	18.4	32	39.5
Hypnotics/sedatives	29	38.7	10	20.4	20	24.7
Cocaine	9	12.0	7	14.3	3	3.7
Amphetamines	1	1.3	1	2.0	2	2.5
Ecstasy-type drugs	1	1.3	2	4.1	0	0.0
Other opiates/opioid analgesics	20	26.7	15	30.6	18	22.2
Anti-depressants	17	22.7	10	20.4	21	25.9
Anti-psychotics	5	6.7	1	2.0	3	3.7
Manner of death						
Natural	0	0.0	0	0.0	1	1.2
Accidental	47	62.7	32	65.3	61	75.3
Suicidal	14	18.7	10	20.4	12	14.8
Homicidal	0	0.0	0	0.0	0	0.0
Undetermined	14	18.7	7	14.3	7	8.6
Unascertained/unknown	0	0.0	0	0.0	0	0.0

* Not all Coroners' jurisdictions submitted data or only partial information

** Percentages may add to more than 100% because of more than one substance being implicated

Chapter 3: Drug-related deaths in Wales

This chapter describes the pattern of drug-related deaths in Wales reported by Coroners to the np-SAD that meet the Programme's case criteria.

1. Demography

There were 81 notifications of drug-related deaths occurring in 2011 from Coroners in Wales. Furthermore there were some additional notifications for deaths occurring in 2010 (4); 2009 (4); 2008 (2) and one from 2004.

In 2011 there was a rate of 2.83 drug-related deaths per 100,000 population aged 16 years

and over, compared with 3.30 in 2010 and 5.23 in 2009.

The majority (80.2%) of the cases in 2011 were male (Table 3.1). The median age at death was 36 years (interquartile range = 12.6) (Figure 3.1) and 79% of cases were aged under 45 years. Those who were unemployed accounted for 66.7% of cases, and the living arrangements showed 43.2% living with others. Addict status was known in 60 cases, 80% of which had a history of dependence or drug use. Ethnicity was known in 48 cases, 97.9% were White; 2.1% other; and in 33 cases ethnic background was not provided.

Table 3.1: Demographic variables for drug-related deaths reported by Coroners meeting np-SAD criteria, Wales, 2011

Variable	Category	Number (%)
Total		81 (100.0)
Gender	Male	65 (80.2)
	Female	16 (19.8)
Employment status	Employed	19 (23.5)
	Unemployed	54 (66.7)
	Childcare/house person	0 (0.0)
	Student/pupil	0 (0.0)
	Retired/sickness/invalidity	4 (4.9)
	Not known	3 (3.7)
	Other	1 (1.2)
Living Arrangements	Alone	37 (45.7)
	With others	35 (43.2)
	No fixed abode	3 (3.7)
	Other	2 (2.5)
	Not known	4 (4.9)

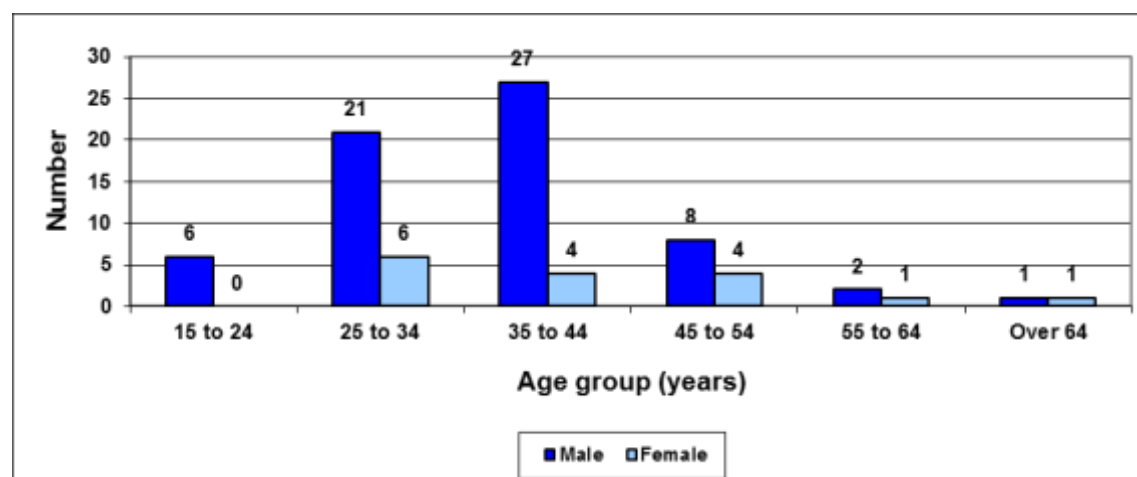
2. Location of death

Most fatalities (93.8%) occurred at a defined residential address (i.e. the deceased's home address or other private residential address). Deaths in hospital accounted for 1.2% and 5% occurred elsewhere.

3. Cause(s) of death

Accidental poisoning accounted for 76.5% of the deaths, with 14.8% from intentional self-poisoning, and in 6.1% of cases the intent was undetermined. The remaining two deaths were related to accidental poisoning by gases and unspecified cirrhosis of the liver.

Figure 3.1: Drug-related deaths reported by Coroners meeting *np*-SAD criteria, by age and gender, Wales, 2011



4. Substances implicated in death

4.1 All substances

Psychoactive drugs were directly implicated in 79/81 (97.5%) cases. The principal substances implicated were: heroin/morphine (43.0%); methadone (39.2%); hypnotics/sedatives (30.4%); other opiates/ opioid analgesics (26.6%); alcohol-in-combination (21.5%); and anti-depressants (17.7) (Table 3.2).

Figure 3.2 takes into account data where one of the following drugs was known to be

implicated: alcohol-in-combination; amphetamines; anti-depressants; anti-epileptics; anti-psychotics; cocaine; heroin/morphine; hypnotics/sedatives; methadone; and other opiates/opioid analgesics.

4.2 Single substances

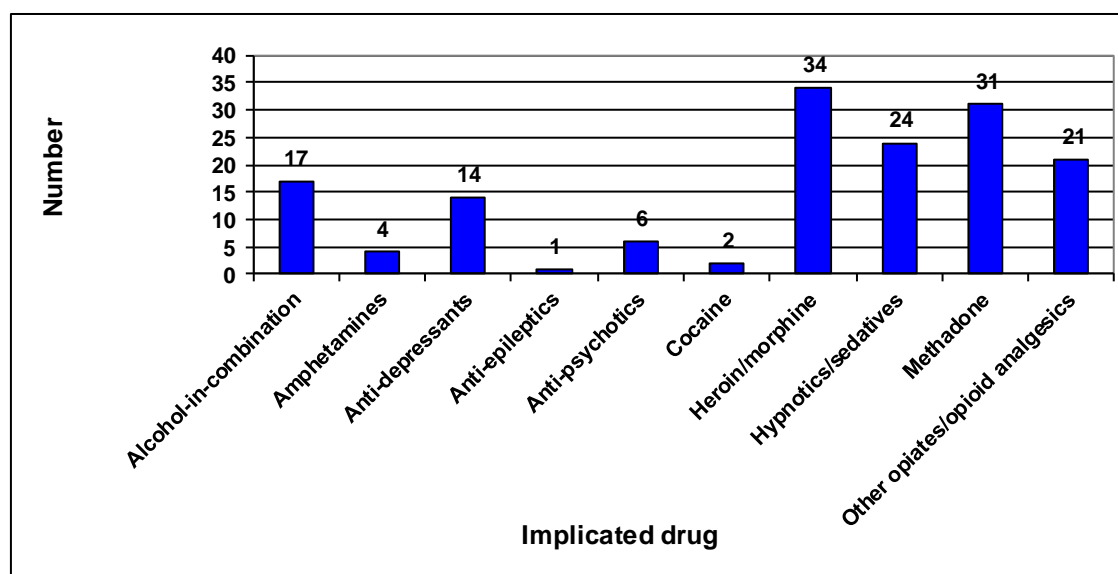
Single substance deaths accounted for 31.6% (25/79) of all fatalities where psychoactive substances were implicated. Heroin/morphine and methadone accounted for 60.0% (15/25) of these deaths when implicated alone (Table 3.2).

Table 3.2: Psychoactive substances implicated in deaths reported by Coroners meeting *np*-SAD criteria, Wales, 2011

Drug category	Number (%) of cases where no other substance was implicated (N = 79)	Number (%) of cases where drug was implicated (N = 79)
Alcohol-in-combination	-	17 (21.5)
Amphetamines	2 (2.5)	4 (5.1)
Anti-depressants	3 (3.8)	14 (17.7)
Anti-epileptics	1 (1.3)	1 (1.3)
Anti-Parkinson's	0 (0.0)	0 (0.0)
Anti-psychotics	0 (0.0)	6 (7.6)
Cannabis	0 (0.0)	0 (0.0)
Cocaine	1 (1.3)	2 (2.5)
Ecstasy-type drugs	1 (1.3)	1 (1.3)
GHB/GBL	0 (0.0)	0 (0.0)
Heroin/morphine	8 (10.1)	34 (43.0)
Hypnotics/sedatives	1 (1.3)	24 (30.4)
Methadone	7 (8.9)	31 (39.2)
Other opiates/opioid analgesics	1 (1.3)	21 (26.6)

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.

Figure 3.2: Drug-related deaths reported by Coroners meeting np-SAD criteria, by selected psychoactive drug implicated, Wales, 2011



5. Age and drug implicated in death

Of the 79 drug related deaths where a psychoactive drug was implicated, heroin/morphine and methadone accounted for the same number of deaths in the 25-34 age-group, followed by hypnotics/sedatives. Heroin/morphine accounted for one more death than methadone and two more than hypnotics/sedatives in the 35-44 age-group. Table 3.3 shows where any particular drug

was implicated across the whole range of age-groups. In the 35-44 age-group alcohol-in-combination was reported more than in any other. Looking at 45 through to 64 years as a whole, the most commonly implicated substances were heroin/morphine; methadone; and other opiates/opioid analgesics. Only anti-depressants were implicated in the 65+ age-group.

Table 3.3: Age and drug implicated in deaths reported by Coroners meeting np-SAD criteria, Wales, 2011

Age-group (years)	Drug category (alone or in combination) most frequently implicated in each age-group														
	Heroin/morphine	Methadone	Hypnotics/sedatives	Other opiates/opioid analgesics	Cocaine	Amphetamines	Ecstasy-type	Anti-depressants	Anti-psychotics	Alcohol-in-combination	Anti-epileptics	Cannabis	GHB	Anti-Parkinson's	Barbiturates
15-24	3	2	1	3	0	0	0	0	0	1	0	0	0	0	0
25-34	12	12	10	6	2	2	1	3	3	5	0	0	0	0	0
35-44	13	12	11	7	0	2	0	5	2	9	0	0	0	0	0
45-54	4	5	3	4	0	0	0	3	1	2	1	0	0	0	0
55-64	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0
65+	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
TOTAL	34	31	25	21	2	4	1	14	6	17	1	0	0	0	0

6. Gender and drug implicated in death

The pattern of drugs implicated in mortality was somewhat different in male and female cases. Among males, the most frequently mentioned drugs were: methadone (44.6%); heroin/morphine (43%); hypnotics/sedatives (32.3%); other opiates/opioid analgesics (26.1%); and alcohol-in-combination (24.6%). The differences between male and female deaths for implicated drugs were: heroin/morphine (43% vs. 37.5%); methadone (45.3% vs. 12.5%); hypnotics/sedatives (32.3% vs. 25%); other opiates/opioid analgesics (26.1% vs. 25%); and alcohol-in-combination (25% vs. 6.3%). Among males there were three fatalities involving anti-psychotics, two for both cocaine and amphetamines and one for ecstasy-type drugs.

In female cases, the drugs mentioned were: anti-depressants (43.7%); heroin/morphine (37.5%); hypnotics/sedatives, and other opiates/opioid analgesics (25%); anti-psychotics (18.7%); methadone (12.5%); and alcohol-in-combination (6.3%). Compared to male cases, female cases had higher proportions of fatality associated with anti-depressants (43.7% vs. 10.7%); and anti-

psychotics (18.7% vs. 4.6%). Furthermore, there was one fatality involving anti-epileptics among females.

7. Regional data

This section contains information based on various geographical entities. The number of cases reported in 2010 and 2011 by Coroners' jurisdiction; the number per 100,000 population aged 16 years and over; and the percentage of all inquests accounted for by drug-related deaths are shown in Table 3.4.

Data for Drug and Alcohol Action Team (DAAT) areas are given in Tables 3.5 and 3.6. These provide the number of deaths by population (rate per 100,000 population aged 16 years and over), and show the age-group; gender; ethnicity; and principal psychoactive drugs implicated in death.

From the data available, the highest rates were found in: Swansea; North West Wales; and Neath & Port Talbot Coroners' areas, (Table 3.4). Heroin/morphine and hypnotics/sedatives were implicated the most in deaths occurring in Bro Taf and Iechyd Morgannwg (Table 3.6).

Table 3.4: Deaths reported, rates per 100,000 (aged 16 and over), and proportion of all inquests, Wales, 2010 and 2011

Coroner's Jurisdiction	Additional 2010 deaths reported in 2011/12 ⁽¹⁾	Cumulative total number of deaths 2010	Annual death rate per 100,000 population 2010 ⁽²⁾	Annual % of all inquests held in 2010 ⁽³⁾	Number of deaths 2011	Annual death rate per 100,000 population 2011 ⁽²⁾	Annual % of all inquests held in 2011
Bridgend & Glamorgan Valleys	1	23	6.72	7.14	16	4.56	3.83
Cardiff & the Vale of Glamorgan	0	20	5.26	4.98	14	3.64	4.24
Carmarthenshire	0	3	2.02	4.05	7	4.64	14.2
Central North Wales	-	-	-	-	-	-	-
Ceredigion	1	1	1.54	0.16	2	3.12	8.00
Gwent	0	12	2.65	8.51	3	0.64	2.17
Neath & Port Talbot	1	3	1.78	3.65	6	5.26	7.31
North East Wales	-	2	0.87	0.98	-	-	-
North West Wales	3	11	7.13	8.08	12	7.56	8.82
Pembrokeshire	0	5	1.05	1.35	5	4.97	6.94
Powys	0	4	-	-	-	-	-
Swansea	0	26	13.62	13.27	16	8.11	9.58
<p>Note: (0) refers to either no drug-related deaths or death rates of less than 0.01, whilst (-) indicates that no reports were submitted for the specific period from that jurisdiction or area. In subsequent reports these rates may increase as more inquests on deaths in 2011 are held and/or notified to the np-SAD. These rates should therefore be regarded as minimum rates.</p> <p>(1) Notified after the publication of the np-SAD Annual Report, 2011.</p> <p>(2) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question.</p> <p>(3) Includes updated information submitted in 2011/12.</p>							

Table 3.5: Deaths by Drug and Alcohol Action Team area (16 years and over) – number and rate per 100,000 population, Wales, 2011

Drug and Alcohol Action Team Area	National and annual death rate per 100,000 population – usual area of residence		National and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
Bro Taf	18	2.89	14	2.25
Dyfed Powys	12	2.82	12	2.82
Gwent	2	0.43	0	0.00
Iechyd Morgannwg	34	7.98	34	7.98
North Wales*	12	2.13	12	2.13

Note: There was 1 case that was usually resident outside Wales, and nine deaths that could not be allocated to a specific DAAT.

Table 3.6: Deaths by Drug and Alcohol Action Team area – demographics and drugs implicated, Wales, 2011

Drug and Alcohol Action Team Area	No	Gender		Age-group						Ethnicity					Main Drug Strategy drug implicated					
		Total	Male	Female	15-24	25-34	35-44	45-54	55-64	65+	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine
Bro Taf	18	17	1	0	5	9	4	0	0	12	0	0	1	5	7	10	7	0	0	0
Dyfed Powys*	12	7	5	0	5	4	2	1	0	8	0	0	0	4	4	4	6	0	1	0
Gwent	2	2	0	0	2	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0
Iechyd Morgannwg	34	28	6	4	14	14	2	0	0	23	0	0	0	11	15	13	8	1	3	1
North Wales"	12	8	4	2	1	4	1	2	2	2	0	0	0	10	5	3	1	0	0	0

Note: There was 1 case that was usually resident outside Wales and thus could not be allocated to a specific DAAT. Some DAATs are covered by Coroners' jurisdictions that did not submit information (or only partial information) to the np-SAD; they are marked thus - *.

8. Commentary

There was a higher ratio of male to female (17:1) drug-related deaths in Dyfed Powys compared to other areas in Wales in 2011. Both Iechyd Morgannwg and Dyfed Powys had deaths across four age-groups, with the majority of deaths in Wales being among those aged 25 to 44 years old. Deaths of those aged 15-24 occurred in Iechyd Morgannwg and North Wales.

The profile of psychoactive substances implicated in deaths was broadly similar to other regions. Whilst there was a lesser role played by anti-depressants in Wales, the role of hypnotics/sedatives was higher than in England but lower than that seen in Northern Ireland and Scotland. Methadone was also implicated in a higher proportion of cases in Wales than in England.

Chapter 4: Drug-related deaths in Northern Ireland

This chapter describes the pattern of drug-related deaths in Northern Ireland reported by Coroners and from registrations data supplied by The Northern Ireland Statistics and Research Agency (NISRA) recorded by the General Register Office for Northern Ireland.

1. Demography

Notifications of 70 drug-related deaths occurring in 2011 were received from NISRA and Coroners which meet the *np-SAD* case criteria. The number of such deaths was 71 in 2009 and 72 in 2010 including one 2009 death reported in 2011/12. The number of deaths reported in 2009, 2010 and 2011 has been consistent. In 2011 there was a rate of 4.88 drug-related

deaths per 100,000 population aged 16 years and over, compared with 4.62 in 2009 and 4.94 in 2010.

In 2011, 62.9% of cases were male (Table 4.1), and 37.1% were female. Of these 62.9% were unemployed and 50% lived with others. Ethnicity was known in 61 cases with all decedents being White, and in the remaining nine cases ethnicity was not known. Addict status was known in 29/70 cases, 17 (58.6%) of which had a history of dependence or drug use.

The median age at death was 42.0 years (interquartile range = 24.5) (Figure 4.1).

Over half of the decedents (58.5%) were under the age of 45 years.

Table 4.1: Demographic variables for drug-related deaths reported by NISRA and Coroners meeting *np-SAD* criteria, Northern Ireland, 2011

Variable	Category	Number (%)
Total		70 (100.0)
Gender	Male	44 (62.9)
	Female	26 (37.1)
Employment status	Employed	14 (20.0)
	Unemployed	44 (62.9)
	Childcare/house person	1 (1.4)
	Student/pupil	1 (1.4)
	Retired/sickness/invalidity	6 (8.6)
	Not known	4 (5.7)
Living arrangements	Alone	31 (44.3)
	With others	35 (50.0)
	Other	1 (1.4)
	Not known	3 (4.3)

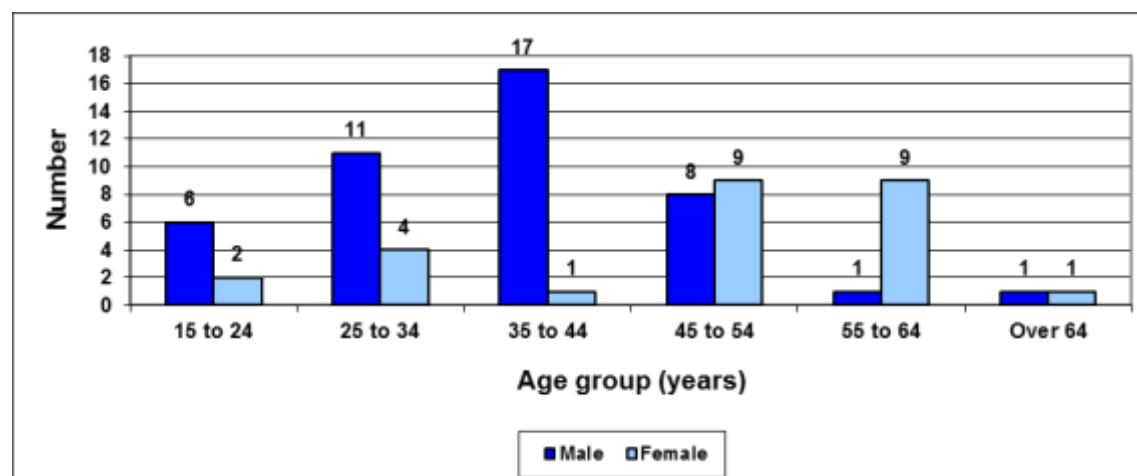
2. Location of death

Most fatalities (80%) occurred at a defined residential address (i.e. the deceased's home address or another private residential address); with 17.1% deaths occurring in hospital and 2.9% elsewhere.

3. Cause(s) of death

Based on the information available from Coroners, 41.4% of cases died from accidental poisoning, 14.2% from intentional self-poisoning, and in 35.7% of cases the intent was undetermined. Of the remaining 6 deaths, 3 were traumatic and 3 were due to other causes.

Figure 4.1: Drug-related deaths reported by NISRA and Coroners meeting np-SAD criteria, by age and gender, Northern Ireland, 2011



4. Substances implicated in death

4.1 All substances

Psychoactive drugs were directly implicated in 67/70 (95.7%) cases. The principal substances implicated were: other opiates/opioid analgesics (55.2%); hypnotics/sedatives (52.2%); anti-depressants (40.3%); alcohol-in-combination (35.8%); anti-psychotics (19.4%); and heroin/morphine (9.0%) (Table 4.2).

4.2 Single substances

Single substance deaths accounted for 23.8% (16/67) of deaths where psychoactive substances were implicated. These substances were: other opiates/opioid analgesics; anti-depressants; heroin/morphine; hypnotics/sedatives; anti-psychotics; and cocaine (Table 4.2).

Table 4.2: Psychoactive substances implicated in deaths reported by NISRA and Coroners meeting np-SAD criteria, Northern Ireland, 2011

Drug category	Number (%) of cases where no other substance was implicated (N = 67)	Number (%) of cases where drug was implicated (N = 67)
Alcohol-in-combination	-	24 (35.8)
Amphetamines	0 (0.0)	1 (1.5)
Anti-depressants	3 (4.5)	27 (40.3)
Anti-epileptics	0 (0.0)	2 (3.0)
Anti-Parkinson's	0 (0.0)	0 (0.0)
Anti-psychotics	1 (1.5)	13 (19.4)
Cannabis	0 (0.0)	1 (1.5)
Cocaine	1 (1.5)	2 (3.0)
Ecstasy-type drugs	0 (0.0)	0 (0.0)
GHB/GBL	0 (0.0)	0 (0.0)
Heroin/morphine	1 (1.5)	6 (9.0)
Hypnotics/sedatives	1 (1.5)	35 (52.2)
Metadone	0 (0.0)	1 (1.5)
Other opiates/opioid analgesics	9 (13.4)	37 (55.2)

Note: Column totals may not sum to 67 since more than one substance may be implicated in a death.

Figure 4.2 takes into account data where one of the following drugs was known to be implicated: alcohol-in-combination; amphetamines; anti-depressants; anti-epileptics; anti-psychotics; cannabis; cocaine; heroin/morphine; hypnotics/sedatives; methadone; and other opiates/opioid analgesics.

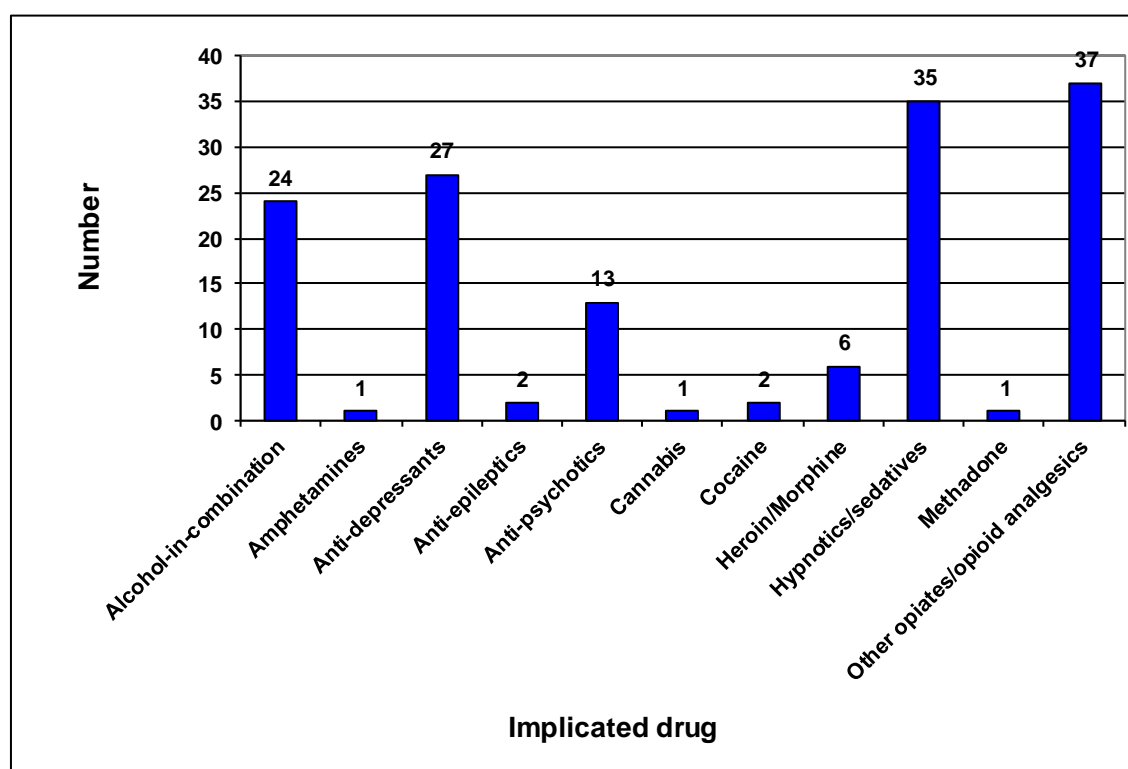
5. Gender and drug implicated in death

The pattern of other drug-specific mortality was somewhat different in male and female cases. Of the 44 male deaths, the most frequently mentioned drugs were: other opiates/opioid analgesics (54.5%); hypnotics/sedatives (40.9%); anti-depressants (36.3%); alcohol-in-combination (31.8%); anti-psychotics (18%); heroin/morphine (13.6%); cocaine (4.4%); with methadone, cannabis and amphetamines all at 2.2%. There were no male or female deaths involving ecstasy-type

drugs, anti-parkinsons, barbiturates or GHB/GBL.

Of the 26 female deaths, the drugs mentioned most commonly were: hypnotics/sedatives (65.3%); other opiates/opioid analgesics (50%); anti-depressants (42%); alcohol-in-combination (38.4%); and anti-psychotics (19.2%). There were no female deaths involving: cocaine; heroin/morphine; methadone; cannabis; or amphetamines. Compared to male cases, female cases had a higher proportion of fatality associated with hypnotics/sedatives (63.5% vs. 40.9%), and anti-depressants (42.3% vs. 36.3%). The proportions of deaths for both males and females from anti-psychotics were similar (19.2% vs. 18%)

Figure 4.2: Drug-related deaths reported by NISRA and Coroners meeting np-SAD criteria, by psychoactive drug implicated, Northern Ireland, 2011



6. Age and drug implicated in death

Overall, other opiates/opioid analgesics (55.2%) were the leading substances implicated; they also accounted for the majority of cases in the 25-54 age-group. Anti-depressants were implicated most

across the age range 25-64 years. Table 4.3 shows where any particular drug was implicated across the whole range of age-groups.

Table 4.3: Age and psychoactive drug implicated in deaths reported to NISRA meeting np-SAD criteria, Northern Ireland, 2011

Age-Group	Drug category (alone or in combination) most frequently implicated in each age-group													
	Other opiates	Hypnotics/sedatives	Anti-depressants	Alcohol-in-combination	Anti-psychootics	Heroin/morphine	Anti-epileptics	Cocaine	Amphetamines	Cannabis	Ecstasy-type	GHB	Anti-Parkinson's	Barbiturates
15-24	5	5	2	3	0	0	1	0	0	1	0	0	0	0
25-34	9	6	6	6	2	3	0	0	1	0	0	0	0	0
35-44	9	7	6	5	6	3	0	2	0	0	0	0	0	0
45-54	9	9	6	6	2	0	1	0	0	0	0	0	0	0
55-64	5	6	6	2	3	0	0	0	0	0	0	0	0	0
65+	0	2	1	2	0	0	0	0	0	0	0	0	0	0
TOTAL	37	35	27	24	13	6	2	2	1	1	0	0	0	0

7. Commentary

The number of deaths notified to the Programme from sources in Northern Ireland showed a small decrease in 2011. The demographic profile of those dying in 2011 showed a decrease in the number of male deaths and an increase in the number of female deaths.

The profile of the psychoactive substances implicated in these cases is broadly similar to previous years. The role of specific types of

drugs in drug-related mortality continues to show differences to those occurring in England and to a lesser extent in Wales. There are proportionately fewer deaths involving heroin/morphine and methadone. However, there is a greater role played by other opiates/opioid analgesics, hypnotics/sedatives and anti-depressants. The relatively higher involvement of hypnotics/sedatives is similar to the pattern in Scotland, and to a lesser extent in Wales.

Chapter 5: Drug-related deaths in Scotland

This chapter describes the pattern of drug-related deaths in Scotland. The Scottish Crime and Drug Enforcement Agency (SCDEA) on behalf of the Association of Chief Police Officers in Scotland (ACPOS) collates data on drug-related deaths obtained from Scottish police forces. These data are used to populate a police/SCDEA national database which is maintained by the SCDEA. As such the data supplied to the SCDEA remain the property of the submitting force that is also responsible for its accuracy and submission to the database.

Drug-related death cases are those that meet the definition used by the Association of Chief Police Officers (Scotland) – “where there is prima facie evidence of a fatal overdose of controlled drugs. Such evidence would be recent drug misuse, for example controlled drugs and/or a hypodermic syringe found in close proximity to the body and/or the person is known to the police as a drug misuser although not necessarily a notified addict.” Thus, most suicides in Scotland are excluded. Figures for “drug misuse” deaths registered in 2011 have been published by the National Records of Scotland (NRS, 2012).

1. Demography

Notifications of 336 drug-related deaths occurring in 2011 were received by the SCDEA, covering the following police force areas: Central Scotland (3.3%); Dumfries & Galloway (2.4%); Fife (4.8%); Grampian (14.3%); Lothian & Borders (29.1%); Northern (6.5%); Strathclyde (30.4%); and Tayside (9.2%). This represents a fall of 7.9% compared to 2010 (365 cases).

The majority (79%) of cases were male (Table 5.1). The median age at death was 35.6 years (interquartile range = 12.4) (Figure 4.1). Most cases (86%) were under 45 years. Where ethnicity was known, all were White.

2. Location of death

In line with data protection, the SCDEA database structure does not record information on living arrangements and place of death. Where such information was available (from external sources – 65 cases), 86% died at a defined residential address, and 11% in hospital.

3. Cause(s) of death

Most of the fatalities (94.9%) were considered to be accidental (i.e. clearly non-deliberate) poisoning; this reflects the definition being used by Scottish police. Intentional poisonings accounted for 2.7% and deaths caused by mental disorders due to psychoactive substances (1.5%) accounted for most of the remaining cases.

4. Substances implicated in death

4.1 All substances

Psychoactive drugs were not directly implicated in only 0.9% of cases (n = 3). Of the remaining 333 cases, the principal substances implicated were: methadone (49%); heroin/morphine (41%); hypnotics/sedatives (35%); other opiates/ opioid analgesics (23%); alcohol-in-combination with other substances (21%); and cocaine (8%) (Table 5.2).

Figure 4.2 takes into account data where one of the following drugs was known to be implicated: alcohol-in-combination; amphetamines, anti-depressants; cocaine; ecstasy-type drugs; heroin/morphine; methadone; hypnotics/ sedatives; or other opiates/opioid analgesics.

4.2 Single substances

The following substances, as the sole implicated drug, accounted for 117 (35%) deaths: heroin/morphine (14%); methadone (14%); other opiates/opioid analgesics (3%); ecstasy-type (2%); amphetamines (<1%); cocaine (<1%) and hypnotics/sedatives (<1%) (Table 5.2).

Table 5.1: Demographic variables for drug-related deaths as reported by Scottish police forces to the SCDEA, 2011

Variable	Category	Number (%)
Total		336 (100.0)
Gender	Male	264 (78.6)
	Female	72 (21.4)
Age-group (years)	Under 15	0 (0.0)
	15-24	34 (10.1)
	25-34	126 (37.5)
	35-44	129 (38.4)
	45-54	31 (9.2)
	55-64	12 (3.6)
	65 & over	4 (1.2)

Table 5.2: Psychoactive substances implicated in drug-related deaths as reported by Scottish police forces to the SCDEA, 2011

Drug category	Number (%) of cases where no other substance was implicated	Number (%) of cases where drug was implicated*
Total	333 (100.0)	333 (100.0)
Alcohol-in-combination	-	69 (20.7)
Amphetamines	2 (0.6)	14 (4.2)
Anti-depressants	1 (0.3)	22 (6.6)
Anti-epileptics	1 (0.3)	4 (1.2)
Anti-Parkinson's	0 (0.0)	0 (0.0)
Anti-psychotics	1 (0.3)	2 (0.6)
Cannabis	0 (0.0)	0 (0.0)
Cocaine	2 (0.6)	27 (8.1)
Ecstasy-type drugs	5 (1.5)	6 (1.8)
GHB/GBL	0 (0.0)	0 (0.0)
Heroin/morphine	47 (14.1)	138 (41.4)
Hypnotics/sedatives	3 (0.9)	118 (35.4)
Methadone	45 (13.5)	163 (48.9)
Other opiates/opioid analgesics	10 (3.0)	75 (22.5)

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.

Figure 5.1: Drug-related deaths as reported by Scottish police forces to the SCDEA, by age and gender, 2011

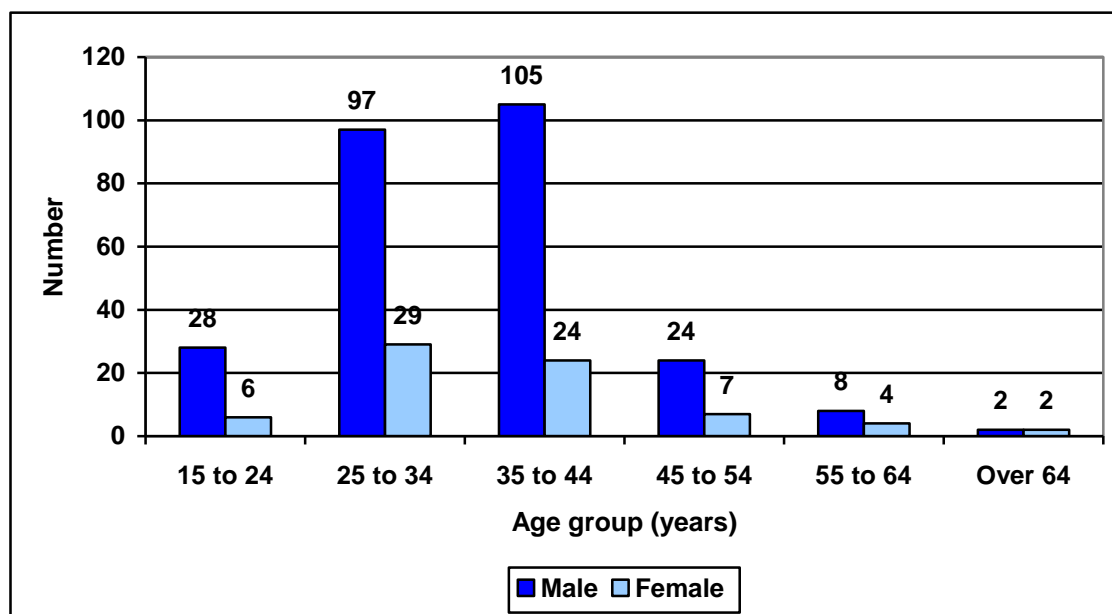
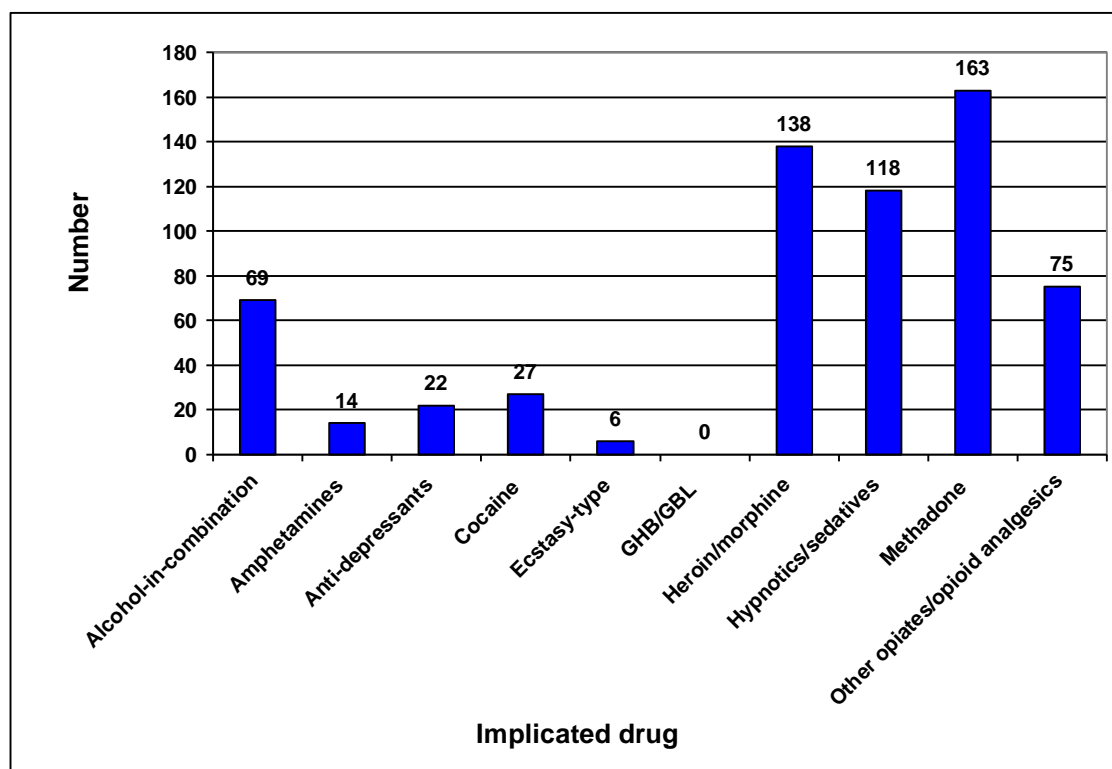


Figure 5.2: Drug-related deaths as reported by Scottish police forces to the SCDEA, by selected psychoactive substance implicated, 2011



5. Age and drug implicated in death

Methadone was the most frequently mentioned drug contributing to fatality for all age-groups from 15-24 to 45-54 years (Table 5.3), occurring in between 46% and 54% of (jointly for 25-34 year-olds) of the individual cases in these groups.

Table 5.3: Age and psychoactive substance implicated in drug-related deaths as reported by Scottish police forces to the SCDEA, 2011

Age-group (years)	Number (%)	Drug category (alone or in combination) most frequently implicated in each age-group
All ages	333 (100.0)	Methadone (48.8)
14 & under	0 (0.0)	-
15-24	33 (9.9)	Heroin/morphine and Methadone (45.5%)
25-34	126 (37.8)	Methadone (46.0%)
35-44	129 (38.7)	Methadone (54.3%)
45-54	29 (8.7)	Methadone (51.7%)
55-64	12 (3.6)	Other opiates/opioid analgesics (50.0%)
65 and over	4 (1.2)	Other opiates/opioid analgesics (50.0%)

6. Gender and drug implicated in death

In males (n = 261) and females (n = 72), the pattern of drug-specific fatality was somewhat different.

Among males, the most frequently mentioned drugs were: heroin/morphine (45%); methadone (45%); hypnotics/sedatives (38%); other opiates/ opioid analgesics (23%); alcohol-in-combination (23%); and cocaine (8%). Furthermore, there appears to be a higher proportion of cases of drug-specific fatality among males compared to females in respect of heroin (45% vs. 28%); hypnotics/sedatives (38% vs. 25%); alcohol-in-combination (23% vs. 14%); and other opiates/opioid analgesics (23% vs. 19%).

Among female cases, the most frequently mentioned drugs were: methadone (63%); heroin/morphine (28%); hypnotics/sedatives (25%); other opiates/opioid analgesics (19%);

anti-depressants (17%); alcohol-in-combination (14%); and cocaine (10%). Compared to male cases, it appears that female cases had a higher proportion of fatality associated with methadone (63% vs. 45%); anti-depressants (17% vs. 4%); and cocaine (10% vs. 8%).

7. Regional data

The number of drug-related deaths reported by police to the SCDEA and meeting the np-SAD case criteria fell from 312 in 2004 to 254 in 2005 and then rose to 374 in 2006. The figure for 2007 was 357, but rose to a new peak of 478 in 2008, remaining stable in 2009. This figure fell in 2010 to 365, and to 336 in 2011 - a decrease of 7.9% (Table 5.4). The rates in the Grampian, Lothian & Borders, Northern and Tayside police force areas are on a par with some of the higher rates reported in England and Wales.

Table 5.4: Deaths meeting *np*-SAD criteria as reported by Scottish police forces to the SCDEA, per 100,000 population by police force area, 2009-11

Police force area	Number of deaths 2009	Annual death rate per 100,000 population 2009 ⁽¹⁾	Number of deaths 2010	Annual death rate per 100,000 population 2010 ⁽¹⁾	Number of deaths 2011	Annual death rate per 100,000 population 2011 ⁽¹⁾
Central Scotland Police	10	4.22	11	4.60	11	4.55
Dumfries & Galloway Constabulary	9	7.27	2	1.62	8	6.46
Fife Constabulary	28	9.39	31	10.33	16	5.29
Grampian Police	43	9.58	38	8.36	48	10.47
Lothian & Borders Police	89	11.47	79	10.03	98	12.26
Northern Constabulary	15	6.33	7	2.92	22	9.16
Strathclyde Police	237	13.02	165	9.02	102	5.55
Tayside Police	48	14.54	32	9.58	31	9.19
Scotland	479	11.19	365	8.47	336	7.74

(1) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question.

8. Commentary

Whilst data received by *np*-SAD from Coroners suggests that the number of drug-related deaths decreased in England but remained stable in Wales and fell slightly in Northern Ireland during 2011, information from the Scottish police indicates a fall in SCDEA cases. However, figures released by the National Archives of Scotland (NRS) show an increase in deaths registered in 2011, using a number of different definitions (NRS, 2012). The fall in notifications to the SCDEA may be due, in part, to reduced compliance.

Where recorded by the SCDEA, the demographic profile of those who died from drug-related causes is similar to those in other parts of the UK e.g. a higher proportion of males to females, aged typically 25-44 years, and White. There was a concentration of cases between 2010 and 2011 in respect of the 25-44 years age-groups (66% vs. 76%).

The overwhelming majority of deaths were accidental drug overdoses. The level in Scotland was much higher than in other

regions reflecting the different case definition used by Scottish police forces. Opiates such as heroin and methadone are implicated in the majority of cases, and play a larger role than in other regions. These drugs in combination with other substances and hypnotics/sedatives (which are mostly diazepam and temazepam) also feature prominently in Scottish deaths.

The most important changes emerging from these data are that for the first time methadone has overtaken heroin/morphine as the principal drug involved in deaths. This echoes the pattern described in deaths registered in Scotland during 2011 (NRS, 2012). This decline was due to a fall in the proportion of heroin/morphine deaths from 59 to 42%, and an increase for methadone from 38 to 49%, as well as in the actual number of methadone-related cases. The proportion of cases in which hypnotics/sedatives (25% vs. 35%) and other opiates/opioid analgesics (10% vs. 23%) also increased between 2010 and 2011, but there was a fall in the proportion of alcohol-in-combination cases.

These changes may be due, in part, to the heroin 'drought' of 2010-11 (Simonson and Daly, 2011; EMCDDA, 2011; Lidell, 2012), which particularly affected Strathclyde where there was a noticeable decline in the number

of deaths notified to the police. The overall purity of heroin available on the streets also generally fell during this period, to record low levels (SCDEA, 2012:11).

Chapter 6: Drug-related deaths in the Islands (Guernsey, Jersey, and the Isle of Man)

This chapter reports on deaths in 2011 and examines the pattern of drug-related deaths in the Islands between 2007 and 2011. Coroners and their equivalents in Guernsey, Jersey and the Isle of Man routinely submit returns on drug-related deaths to the np-SAD that meet the Programme's case criteria.

As there are comparatively few cases in a single year, even when combining data for the Islands together, data for 2007-11 have been aggregated together so that the findings are more statistically robust.

1. Demography

The Programme has been notified of two deaths on Jersey, two on the Isle of Man, and three on Guernsey during 2011. A total of 49 drug-related deaths occurred between 2007 and 2011: 11 in 2007; 9 in 2008; 14 in 2009; 8 in 2010; and 7 in 2011. This shows a relatively stable situation in drug-related deaths in the three Islands between

2007 and 2011, with some year to year fluctuations. The number of deaths in this 5-year period was 6 in Guernsey; 25 in Jersey; and 18 in the Isle of Man. In 2011 the number of deaths per 100,000 population aged 16 years and over was 3.80 for Guernsey; 2.44 for Jersey; and 4.31 for the Isle of Man, 4.45 (Tables 6.1 and 6.2).

During the 5-year period 69% of deaths were male, and 31% female (Table 6.3). The median age at death was 37 years (interquartile range = 15.6). 81% of the cases were under 45 years (Figure 6.1). The overwhelming majority (98%) of decedents were White. 46% were employed with 32% unemployed. Living arrangements - 44% were living alone and 42% with others. Addict status was known in 41/49 cases, 46% of which had a history of dependence or drug use. Key demographics and the principal drugs implicated in death during 2011 are given for the individual Islands in Table 6.4.

Table 6.1: Changes in annual death rate per 100,000 population for np-SAD cases (16 years old and over), and annual percentage of all inquests held, by Island, 2009 and 2011

Island	Annual death rate per 100,000 population 2009 ⁽¹⁾	Annual % of all inquests held in 2009 ⁽²⁾	Annual death rate per 100,000 population 2010 ⁽¹⁾	Annual % of all inquests held in 2010 ⁽²⁾	Annual death rate per 100,000 population 2011 ⁽¹⁾	Annual % of all inquests held in 2011 ⁽²⁾
Guernsey	0.00	0.00	1.91	6.67	3.80	8.70
Jersey	8.72	14.00	4.45	9.09	2.44	5.71
Isle of Man	7.38	12.82	2.91	8.70	4.31	10.71

Note: (0) refers to either no drug-related deaths or death rates of less than 0.01, whilst (-) indicates that no reports were submitted for the specific period from that jurisdiction or area. In subsequent reports these rates may increase as more inquests on deaths in 2011 are held and/or notified to the np-SAD. These rates should therefore be regarded as minimum rates.

(1) Notified after the publication of the np-SAD Annual Report, 2011.

(2) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question.

(3) Includes updated information submitted in 2011/12.

np-SAD

Table 6.2: Number and rate per 100,000 population (16 years and over) for *np*-SAD cases, by place of residence and death, by Island, 2011

Island	National and annual death rate per 100,000 population – usual area of residence		National and annual death rate per 100,000 population – place of death	
	No	Rate	No	Rate
Guernsey	2	3.80	2	3.80
Jersey	2	2.44	2	2.44
Isle of Man	3	4.31	3	4.31

Table 6.3: Demographic variables for drug-related deaths meeting *np*-SAD criteria, the Islands, 2007-2011

Variable	Category	Number (%)
Total		49 (100.0)
Gender	Male	34 (69.4)
	Female	15 (30.6)
Employment status	Employed	24 (46.9)
	Unemployed	16 (32.7)
	Childcare/house person	2 (4.1)
	Student/pupil	1 (2.0)
	Retired/sickness/invalidity	6 (12.2)
	Not known	1 (2.0)
Living arrangements	Alone	22 (44.8)
	With others	21 (42.8)
	No fixed abode	1 (2.0)
	Other	3 (6.1)
	Not known	2 (4.1)

Table 6.4: Key demographics and principal drugs implicated in death for *np*-SAD cases, by Island, 2011

Island	N o	Gender		Age-group						Ethnicity					Principal drug implicated					
		Male	Female	15-24	25-34	35-44	45-54	55-64	>64	White	Black	Asian	Other	Not known	Heroin/ morphine	Methadone	Hypnotics/ sedatives	Cocaine	Amphetamine	Ecstasy-type
Guernsey	2	0	2	0	0	1	1	0	0	2	0	0	0	0	0	0	2	0	0	0
Jersey	2	1	1	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0
Isle of Man	3	1	2	1	2	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0

Note: Some cases were usually resident outside the Islands.

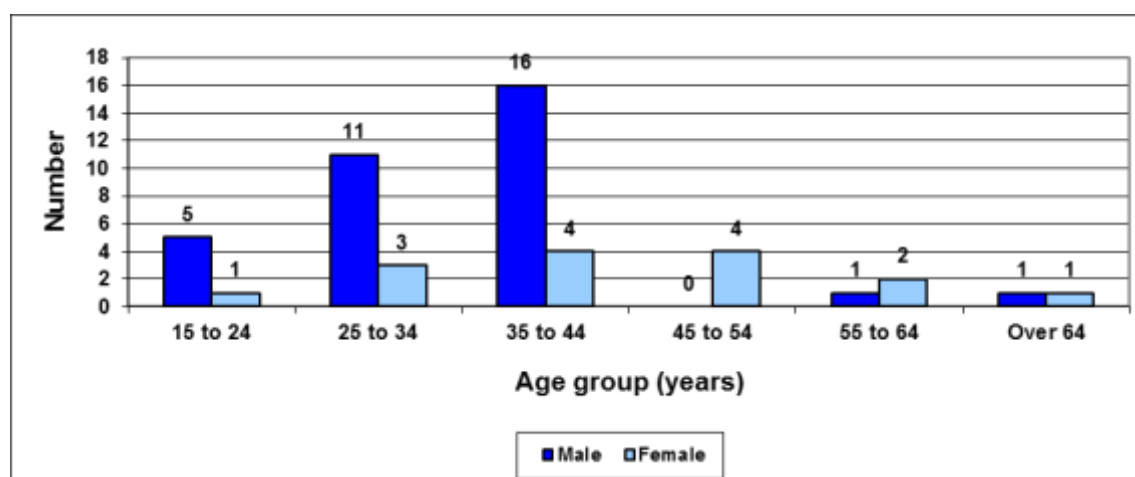
2. Location of death

Most fatalities (79.6%) occurred at a defined residential address (i.e. the deceased's home address or other private residential address). 12.2% of the deaths occurred in hospital with 8.2% elsewhere.

3. Cause(s) of death

Based on the information available from Coroners, 57% of cases died from accidental poisoning, 28% from intentional self-poisoning, and in 6% of cases the intent with regard to poisoning was undetermined. Other causes accounted for the remaining 8% of cases.

Figure 6.1: Drug-related deaths meeting np-SAD criteria, by age and gender, the Islands, 2007-2011



4. Substances implicated in death

4.1 All substances

Psychoactive drugs were directly implicated in all 49 cases. The principal substances implicated were: other opiates/opioid analgesics (17); heroin/morphine (19); alcohol-in-combination (14); hypnotics/sedatives (11) anti-depressants (11); methadone (6); and anti-psychotics (2) (Figure 6.2).

Figure 6.2 shows the number of cases where the following drugs were known to be

implicated: alcohol-in-combination; anti-depressants; anti-psychotics; cannabis; ecstasy-type drugs; heroin/morphine; hypnotics/sedatives; methadone; and other opiates/opioid analgesics.

4.2 Single substances

The following substances, as the sole implicated drug, accounted for 20/49 (40.8%) deaths: anti-depressants; heroin/morphine; hypnotic/sedatives; methadone; and other opiates/opioid analgesics (Table 6.5).

Table 6.5: Psychoactive substances implicated in deaths meeting np-SAD criteria, the Islands, 2007-2011

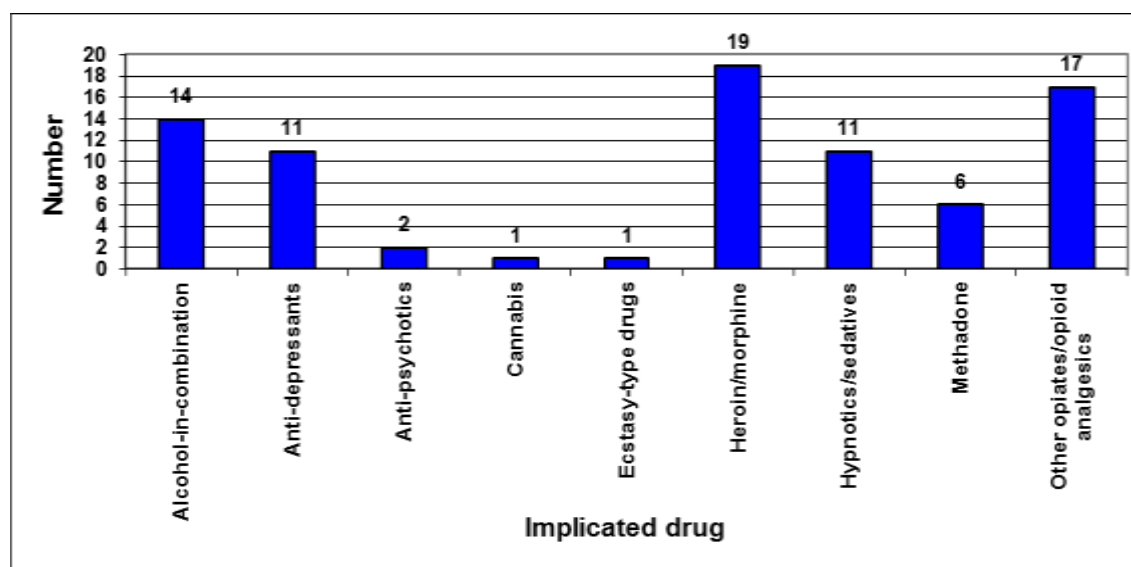
Drug category	Number of cases where no other substance was implicated (N = 49)	Number of cases where drug was implicated (N = 49)
Alcohol-in-combination	-	14
Anti-depressants	3	11
Anti-psychotics	0	2
Cannabis	0	1
Ecstasy-type drugs	0	1
Heroin/morphine	11	19
Hypnotics/sedatives	1	11
Methadone	1	6
Other opiates/opioid analgesics	4	17

5. Age and drug implicated in death

In all age-groups, heroin/morphine (19) was the leading substances implicated, followed by other opiates/opioid analgesics (17). For individual age-groups, heroin/morphine was the leading implicated drug among younger age-groups (44 years and below). In the age-

group of 45 years and above, the most frequently mentioned substances contributing to fatality were other opiates/opioid analgesics; hypnotics/sedatives; and anti-depressants (Table 6.6).

Figure 6.2: Drug-related deaths np-SAD criteria, by psychoactive drug implicated, the Islands, 2007-2011



6. Gender and drug implicated in death

The pattern of other drug-specific fatality was somewhat different in male and female cases. Among males, the most frequently mentioned drugs were: heroin/morphine (17); other opiates/opioid analgesics (11); hypnotics/sedatives (8); alcohol-in-combination (9); anti-depressants (3); methadone (6); cannabis (1); and anti-psychotics and ecstasy-type were mentioned in one fatality.

Among female cases, the drugs mentioned most commonly were: anti-depressants (8); other opiates/opioid analgesics (6); alcohol-in-combination (5); heroin/morphine (2); hypnotics/ sedatives (3); and anti-psychotics (1). There were no fatalities due to methadone, cannabis and ecstasy-types among females. Female deaths when compared to males had a higher proportion associated with anti-depressants (53% vs. 8.8%); other opiates/opioid analgesics (40% vs. 32.4%); and anti-psychotics (7% vs. 2.9%).

Table 6.6: Age and psychoactive drug implicated in deaths reported by Guernsey, Isle of Man and Jersey Coroners meeting np-SAD criteria, 2007-2011

Age-group (years)	Number where substance implicated	Drug category (alone or in combination) most frequently implicated in each age-group
All ages	49	Other opiates/opioid analgesics (17) Heroin/morphine (19) Hypnotics/sedatives (11) Alcohol in combination (14) Anti-depressants (11) Methadone (6) Anti-psychotics (2) Cannabis (1) Ecstasy-type drugs (1)
15-24	6	Heroin/morphine (4) Other opiates/opioid analgesics (1) Anti-depressants (2) Hypnotics/sedatives (1) Alcohol-in-combination (1)
25-34	14	Heroin/morphine (9) Other opiates/opioid analgesics (4) Alcohol-in-combination (4) Hypnotics/sedatives (2) Methadone (2) Cannabis (1) Anti-depressants (1)
35-44	20	Heroin/morphine (5) Alcohol in combination (6) Other opiates/opioid analgesics (6) Hypnotics/sedatives (6) Methadone (3) Anti-depressants (4) Anti-psychotics (1) Ecstasy-type (1)
45-54	4	Other opiates/opioid analgesics (3) Alcohol-in-combination (2) Anti-depressants (2) Anti-psychotics (1) Heroin/morphine (1) Hypnotics/sedatives (1)
55-64	3	Anti-depressants (2) Other opiates/opioid analgesics (2) Alcohol-in-combination (1)
65 & over	2	Hypnotics/sedatives (1) Other opiates/opioid analgesics (1)

7. Commentary

The number of deaths notified to the Programme from the Islands showed an increase for the Isle of Man and Guernsey, with a decrease for Jersey in 2011. The general demographic profile of cases in the Islands is in line with the pattern in the UK as a whole, although far fewer appear to have

had a known history of drug dependence or use.

When data for the three Islands are combined together, the profile of the psychoactive substances implicated in these cases is broadly similar across the period 2007-11. The role of specific types of drugs in drug-related mortality continues to show differences to those occurring in England and

to a lesser extent in Wales. There are proportionately fewer deaths involving methadone and stimulants. However, there is a greater role played by other opiate/opioid analgesics; heroin/morphine; and anti-depressants.

Chapter 7: Drug-related deaths in the United Kingdom

1. Numbers of deaths reported

The total number of deaths that occurred during 2011 in the UK reported to the National Programme on Substance Abuse Deaths (np-SAD) was 1,757. This number compares to 1,883 cases reported by the same sources during the equivalent period in 2010. This change represents a decrease of 6.7% for the UK in the number of notifications to the Programme, but not necessarily in drug-related mortality during this period.

Of the 1,757 drug-related deaths reported for 2011, England had 1,263; Scotland 336; Wales 81; Northern Ireland 70; and the Islands 7. In 2010 out of the 1,883 England had 1,358; Scotland 365; Wales 81; Northern Ireland 72; and the Islands 7.

As in the previous Annual Reports, those inquests which have not been completed will be added to next year's figure.

The number of cases reported from England represents a decrease of 7.0% over the number reported during the equivalent period last year. In Wales and the Islands numbers remained stable, and Northern Ireland exhibited a fall of 2.8%. Drug-related cases in Scotland recorded by the Scottish Crime and Drug Enforcement Agency (SCDEA) fell by 7.9%.

There was a decrease in the number of drug-related deaths reported to np-SAD generally across the UK and Islands, particularly in England and Scotland, although this varied from region to region. This overall fall echoes the drop in the overall number of UK death registrations in 2011 using all three definitions of drug-related deaths reported to the

European Monitoring Centre for Drugs & Drug Addiction (Davies *et al.*, 2012). This decrease may be attributable, in part, to the declines in the number and proportion of deaths where heroin/morphine was implicated – as demonstrated in the present report, and elsewhere (ONS, 2012; NRS, 2012).

2. Demography

The majority (72%) of cases were male (Table 7.1 and Figure 7.1). This proportion varied from 63% in Northern Ireland to 80% in Wales. Where ethnicity was known, the majority were White (97%). The proportion of individuals living with others ranged from 45% in England to 65% in Scotland. About two-fifths (42%) of decedents were known to be unemployed, ranging from 29% in the Islands to 69% in Wales. Where known, 65% of cases had a history of drug use, dependence or addiction.

The median age at death was 40.1 years (interquartile range = 15.6 years) for all sources combined; the medians ranged from 35.6 years in Scotland to 42.4 years in Northern Ireland. There were also differences in the median ages broken down by gender: 38.7 years (interquartile range = 14.6 years) for males compared to 44.6 years (interquartile range = 18.8 years) for females. Figures 7.2 and 7.3 give breakdowns by age-group, and by gender and age-group respectively.

The above differences reflect distinctions in the nature and purpose of the data sources; the types of cases covered; and the volumes of cases dealt with by them. These variations also illustrate the limitations on making comparisons between them.

Table 7.1: Demographic variables for drug-related deaths, UK, 2011

Variable	Category	Number (%)
Total		1,757 (100.0)
Gender	Male	1,265 (72.0)
	Female	492 (28.0)
Age-group (years)	Under 15	0 (0.0)
	15-24	136 (7.7)
	25-34	447 (25.4)
	35-44	585 (33.3)
	45-54	366 (20.8)
	55-64	144 (8.2)
	Over 64	79 (4.5)
Living arrangements	With others	623 (35.5)
	No fixed abode	29 (1.7)
	Alone	633 (36.0)
	Other	61 (3.5)
	Not known	411 (23.4)
Employment status	Unemployed	739 (42.1)
	Employed	392 (22.3)
	Childcare/house person	31 (1.8)
	Student/pupil	24 (1.4)
	Retired/invalidity/sickness	127 (7.2)
	Other	12 (0.7)
	Not known	432 (24.6)
History of drug use/addiction	Yes	694 (39.5)
	No	367 (20.9)
	Not known	696 (39.6)
Location of death	Defined residential address	1,078 (61.4)
	Hospital	163 (9.3)
	Other	148 (8.4)
	Not known	368 (20.9)

Figure 7.1: Drug-related deaths by gender, UK, 2011

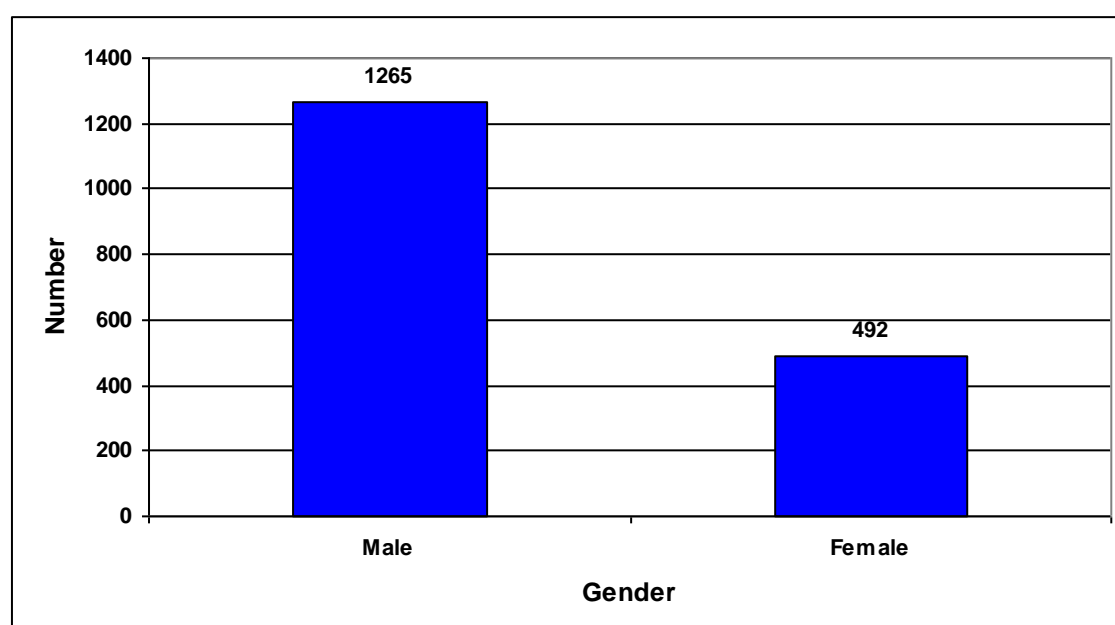


Figure 7.2: Drug-related deaths by age, UK, 2011

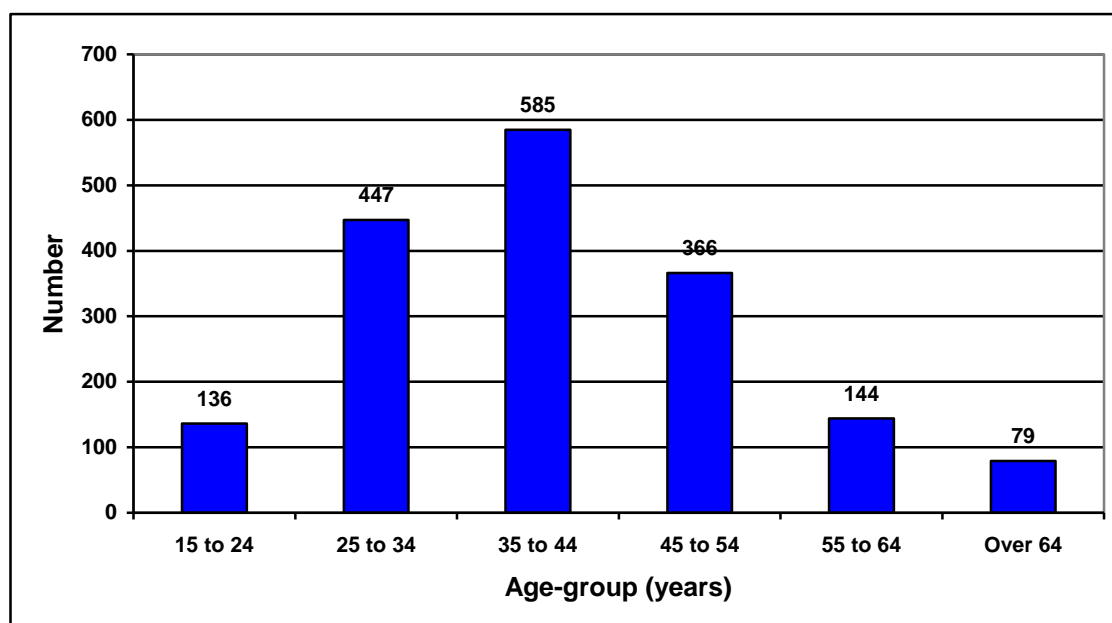
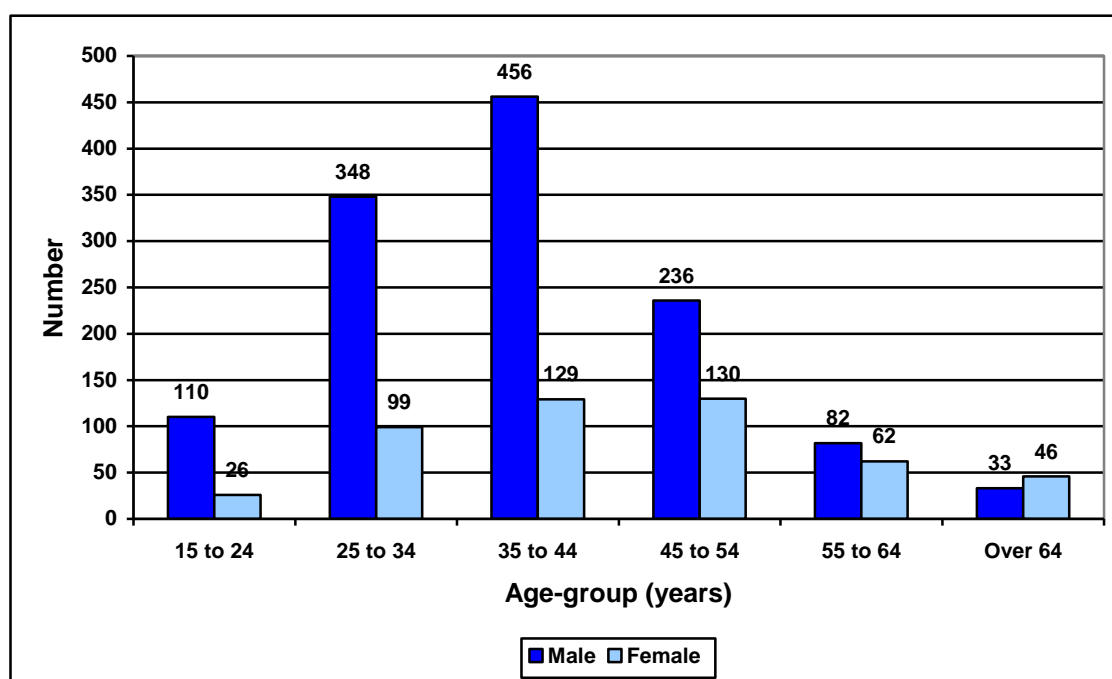


Figure 7.3: Drug-related deaths by age and gender, UK, 2011



3. Location of death

Where place of death was reported, about 77% died at a defined residential address (i.e. the deceased's home address or other private residential address), 12% died in hospital and 11% died elsewhere (e.g. in a public place). The proportion dying at a defined residential address ranged from 71% in the Islands to 96% in Wales. The corresponding proportions for deaths in hospital ranged from 1% in Wales to 29% in the Islands. Such information was available in only 63 Scottish cases; of these, 86% died at home and 11% in hospital. In line with data protection, the SCDEA database structure does not record information on living arrangements and place of death.

4. Cause(s) of death

The majority of fatalities (69.9%) were considered to be accidental (i.e. clearly non-deliberate) poisoning, 12.9% from intentional self-poisoning, and 8.9% for poisonings of undetermined intent. The remaining cases (8.4%) were related to other causes of death. There are differences between different parts of the UK and Islands in the proportions of deaths accounted for by these main groupings of underlying cause(s) of death (Table 7.2). These reflect, in part, differences between the SCDEA and np-SAD case definitions. A detailed breakdown for all cases covered by this report is given in Table 7.3.

Table 7.2: Main underlying causes of death, by country and territory, 2011

		Country or territory							
		England	Wales	Scotland	Northern Ireland	Guernsey	Jersey	Isle of Man	UK & Islands
	Number of deaths	1263	81	336	70	2	2	3	1757
Underlying cause of death (%)	Accidental poisoning	64.4	77.8	94.9	41.4	50.0	0.0	66.7	69.9
	Intentional poisoning	15.4	14.8	2.7	14.3	0.0	50.0	0.0	12.9
	Poisoning of undetermined intent	9.9	6.2	0.0	35.7	50.0	0.0	0.0	8.9
	Other causes	10.3	1.2	2.4	8.6	0.0	50.0	33.3	8.4
	Rate of drug-related deaths/100,000 population aged 16+	2.94	3.23	7.74	4.89	3.79	2.45	4.32	3.42

Table 7.3: Drug-related deaths by underlying cause(s) of death, UK and Islands, 2011

ICD-10	No. of cases (n = 1,757)	%	Description
X40	29	1.7	<i>Accidental poisoning</i> Non-opioid analgesics, antipyretics and anti-rheumatics
X41	150	8.5	Anti-epileptic, sedative-hypnotic, Anti-parkinsonism and psychotropic drugs, not elsewhere classified
X42	979	55.7	Narcotics and psychodysleptics (hallucinogens), not elsewhere classified
X43	2	0.1	Other drugs acting on the autonomic nervous system
X44	45	2.6	Other and unspecified drugs, medicaments and biological substances
X45	15	0.8	Alcohol
X47	7	0.4	Gases
X60	22	1.3	<i>Intentional self-poisoning</i> Non-opioid analgesics, antipyretics and anti-rheumatics
X61	98	5.6	Anti-epileptic, sedative-hypnotic, Anti-parkinsonism and psychotropic drugs, not elsewhere classified
X62	96	5.5	Narcotics and psychodysleptics (hallucinogens), not elsewhere classified
X63	5	0.3	Other drugs acting on the autonomic nervous system
X64	6	0.3	Other and unspecified drugs, medicaments and biological substances
Y10	26	1.5	<i>Poisoning of undetermined intent</i> Non-opioid analgesics
Y11	48	2.7	Anti-Parkinsonism drugs
Y12	75	4.3	Other drugs acting on autonomic nervous system
Y14	7	0.4	Other/unspecified drugs
F10.2	3	0.2	<i>Mental & behavioural disorders due to psychoactive substance use</i> Chronic alcoholism
F11.0	1	0.1	Intoxication – opiates
F11.2	1	0.1	Dependence – opioids
F15.0	2	0.1	Intoxication – stimulants
F15.1	1	0.1	Abuse - stimulants
F15.2	1	0.1	Dependence – stimulants
F16.0	1	0.1	Intoxication - hallucinogens
F18.0	1	0.1	Intoxication – volatile substances
F19.0	2	0.1	Intoxication – unspecified substances
Z72.2	13	0.7	Drug abuse, personal history
G40.9	1	0.1	<i>Brain</i> Epileptic seizures
G96.9	1	0.1	Other depression of the Central Nervous System
I10	1	0.1	<i>Cardiovascular system – diseases, defects or conditions affecting</i> Essential (primary) hypertension
I20-I25	3	0.2	Ischaemic heart diseases
I25.1	6	0.3	Atherosclerotic heart disease
I26.9	1	0.1	Pulmonary embolism
I33	1	0.1	Acute endocarditis
I46.9	1	0.1	Cardiac arrest, unspecified
I60	1	0.1	Subarachnoid haemorrhage
I61.9	2	0.1	Intracerebral haemorrhage
I70	1	0.1	Aneurysm of artery of lower extremity
I72.4	1	0.1	Arterial embolism/thrombosis
J18.0	5	0.3	<i>Diseases of the respiratory system</i> Bronchopneumonia
J69.0	1	0.1	Aspiration pneumonia
K70	3	0.2	<i>Diseases of the liver</i> Alcoholic liver disease
K74.6	1	0.1	Other & unspecified liver cirrhosis

ICD-10	No. of cases (n = 1,757)	%	Description
V43.5	2	0.1	<i>Road traffic incidents</i>
V47.5	1	0.1	Car driver injured in collision with car, etc
V49.9	2	0.1	Driver injured in collision with fixed/stationary object
V89.2	2	0.1	Vehicle occupant injured in RTA, unspecified Person injured in unspecified motor vehicle accident - traffic
W76	1	0.1	<i>Hanging</i>
X70	19	1.1	Other accidental hanging and strangulation
Y20	5	0.3	Intentional hanging Hanging, undetermined intent
R09.0	2	0.1	<i>Asphyxia</i>
T71	2	0.1	Asphyxia general
W78	4	0.2	Asphyxiation
W83	3	0.2	Aspiration of gastric contents Suffocation by plastic bag
T75.1	1	0.1	<i>Drowning & submersion</i>
W69	2	0.1	Immersion in water
W70	3	0.2	Whilst in natural water
X71	3	0.2	Following fall into natural water
Y21	1	0.1	Intentional self-harm by drowning Unspecified intent
A40.0	1	0.1	<i>Other</i>
A41.9	1	0.1	Septicaemia due to streptococcus, group A
A86	1	0.1	Septicaemia unspecified
B18.2	1	0.1	Unspecified viral encephalitis
D65	1	0.1	Chronic viral hepatitis C
E10	1	0.1	Disseminated intravascular coagulation
F33	1	0.1	Diabetic ketoacidosis
E87.2	1	0.1	Recurrent depressive disorder
L02.2	1	0.1	Metabolic acidosis, exc. diabetic acidosis
N17	1	0.1	Groin abscess
S02.9	1	0.1	Acute renal failure
S06.8	1	0.1	Fracture of skull & facial bones, part unspecified
S09.9	3	0.2	Haemorrhagic skull (intracranial injuries)
S22.4	2	0.1	Head injuries, unspecified
S51	1	0.1	Multiple fractures of ribs
T07	6	0.3	Open wound of forearm
T14.5	1	0.1	Multiple injuries, unspecified
W17	2	0.1	Injury of blood vessel(s) of unspecified body region
X09	2	0.1	Fall from one level to another
R99	9	0.5	Inhalation of smoke and fumes Unascertained

Where possible, causes of death have been grouped together in terms of the mechanisms of death. At present, although all causes of death on the death certificate (together with other information if available) are taken into consideration in classifying underlying cause of death, the principal cause of death is used here by np-SAD to allocate the ICD-10 code. In order to achieve a greater level of consistency, a hierarchical system was introduced for classifying the underlying cause of death using ICD-10 criteria for deaths involving multiple substances. Deaths that involve a combination of narcotics and other psychoactive drugs are coded as narcotic deaths. Where possible a code which specifies intentionality is used.

5. Substances implicated in death

Psychoactive substances were not directly implicated in about 5.6% of cases (n = 99). Of the remaining 1,658 cases, the principal substances implicated were: heroin/morphine (32%); methadone (31%); hypnotics/sedatives (28%); other opiates/opioid analgesics (28%); alcohol-in-combination with other substances (27%); anti-depressants (21%); and cocaine (9%).

Table 7.4 shows that whilst there are commonalities across the various parts of the UK and Islands in terms of the main psychoactive substances given above being implicated in death, there are noticeable regional differences. For example, hypnotics/

sedatives play a proportionately greater role in Northern Ireland, Scotland and Wales than in England. Heroin/morphine and methadone play lesser roles in Northern Ireland when compared to the rest of the UK, whereas other opiates/opioid analgesics play a greater role. The lesser role played by methadone can be explained, in part, by the fact that methadone is not prescribed as widely in Northern Ireland as in other areas. Anti-depressants also play a greater role in Northern Irish deaths. By contrast they hardly feature in SCDEA cases; however, this reflects the fact that the definition used by the SCDEA does not cover the general population or suicides but accidental overdoses involving controlled drugs.

Table 7.4: Psychoactive substances (%) implicated in drug-related deaths, by country and territory, 2011

	Country or territory							
	England	Wales	Scotland	Northern Ireland	Guernsey	Jersey	Isle of Man	UK & Islands
Total	1,172	79	333	67	2	2	3	1,658
Drug category (%)								
Alcohol-in-combination	27.7	21.5	20.7	35.8	50.0	50.0	66.7	26.5
Amphetamines	3.7	3.8	4.2	1.50	0.0	0.0	0.0	3.7
Anti-depressants	24.5	19.0	6.9	40.3	100.0	50.0	0.0	21.4
Anti-epileptics	2.9	1.3	1.2	3.0	0.0	0.0	0.0	2.5
Anti-Parkinson's	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Anti-psychotics	5.6	7.6	0.6	17.9	0.0	0.0	0.0	5.2
Cannabis	2.0	0.0	0.0	1.5	0.0	0.0	0.0	1.4
Cocaine	10.4	2.5	8.1	3.0	0.0	0.0	0.0	9.2
Ecstasy-type drugs	1.7	1.3	1.8	0.0	0.0	0.0	33.3	1.7
GHB/GBL	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Heroin/morphine	30.3	39.2	41.4	9.0	0.0	0.0	33.3	32.1
Hypnotics/sedatives	24.4	31.6	35.3	50.7	100.0	0.0	0.0	28.0
Methadone	27.9	38.0	48.9	1.5	0.0	0.0	0.0	31.4
Other opiates/opioid analgesics	28.0	30.4	22.5	55.2	50.0	50.0	0.0	28.1

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.

6. Commentary

Whilst data received by *np-SAD* from Coroners suggest that the number of drug-related deaths fell in England, they remained stable in Wales and Northern Ireland during 2011. Information from the SCDEA police indicates a fall in Scottish police cases. However, figures released by the National Records of Scotland show an increase in deaths between 2010 and 2011 (NRS, 2012).

Overall, demographic profiles of those who died from drug-related causes are similar across the various countries within the UK e.g. a higher proportion of males to females, aged typically 25-44 years, White, and the majority of cases living with others, there are differences within this general pattern.

Most deaths were accidental drug overdoses, occurring at a private residential address (typically at home or the home of a friend).

Opiates such as heroin, methadone and opioid analgesics are implicated in the majority of cases. Other substances playing major roles in deaths include alcohol-in-combination with substances; hypnotics/sedatives; anti-depressants; and cocaine. However, there are also regional variations in these patterns.

Whilst there appears to have been a decrease in the proportion of cases involving heroin; alcohol-in-combination; and anti-depressants, the proportions involving methadone; other opiates/opioid analgesics; and hypnotics/sedatives all increased. The stabilisation noted in the previous report regarding the role of stimulants (cocaine; amphetamines; and ecstasy-type drugs) in death appears to have ended, with slight increases in such deaths. The patterns observed in different parts of the UK, and possible reasons for the continuing changes in recreational drug use, are examined in the following chapter.

Chapter 8: Commentary and emerging themes

Introduction

This chapter provides up-to-date information on emerging trends and issues to those who investigate drug-related deaths (DRDs) and those who are trying to prevent such fatalities. The main trends and issues

highlighted here emerge from the submitted forms, communications from Coroners, and other relevant data such as published papers and intelligence from forensic toxicological agencies.

General patterns

The total number of deaths that occurred during 2011 in the UK reported to the National Programme on Substance Abuse Deaths (*np-SAD*) was 1,757. This number compares to 1,883 cases reported by the same sources during the equivalent period in 2010. This change represents a decrease in the number of notifications to the Programme, but not necessarily in drug-related mortality during this period. Similarly, the decreased number of cases reported by Coroners in England and by the Scottish Crime and Drug Enforcement Agency (SCDEA) for Scotland, does not necessarily mean a decrease in deaths related to drug use.

The demographic profile of fatalities reported to the *np-SAD* remains consistent with previous reports. There was an increase in the proportion of UK deaths where the underlying cause of death was accidental poisoning (up from 64% to 70%) and for deaths of intentional self-poisoning (from 11 to 13%) with corresponding decreases in the proportions recorded as poisoning of undetermined intent and other causes.

Opiates/opioids (i.e. heroin/morphine; methadone; other opiates/opioid analgesics), alone or in combination with other drugs continue to account for the majority of all cases. Heroin/morphine alone or in combination with other drugs, accounted for

the highest proportion (32%) of 'drug misuse' fatalities in 2011, a decrease over the 2010 level of 41% (53% in 2009). There was a slight fall in the proportion of cases involving alcohol-in-combination (30% to 27%). There were modest increases in the proportion of deaths due to methadone (27% to 31%), other opiates/opioid analgesics (22% to 28%), and anti-depressants (18% to 21%). For stimulants, there was a slight increase in the proportion of cases involving cocaine (from 8.7% to 9.2%); amphetamines (from 2.9% to 3.7%); and ecstasy-type drugs (from 0.6% to 1.7%). These patterns are also generally reflected at country level. Over recent years there has been a trend towards multiple substances, including alcohol, being implicated in deaths. In 2011, there was a stabilisation in the proportion of monovalent deaths, at around 34%.

Prescribed heroin/morphine and methadone are most commonly involved in deaths where these substances are directly implicated in death. Other opiates/opioid analgesics; hypnotics/sedatives; and anti-depressants prescribed to individuals are less likely to be involved in their deaths.

The median age at death of individuals notified to the *np-SAD* with a known history of drug use or dependence was 40.1 years (interquartile range = 15.6 years) in 2011.

Emerging issues

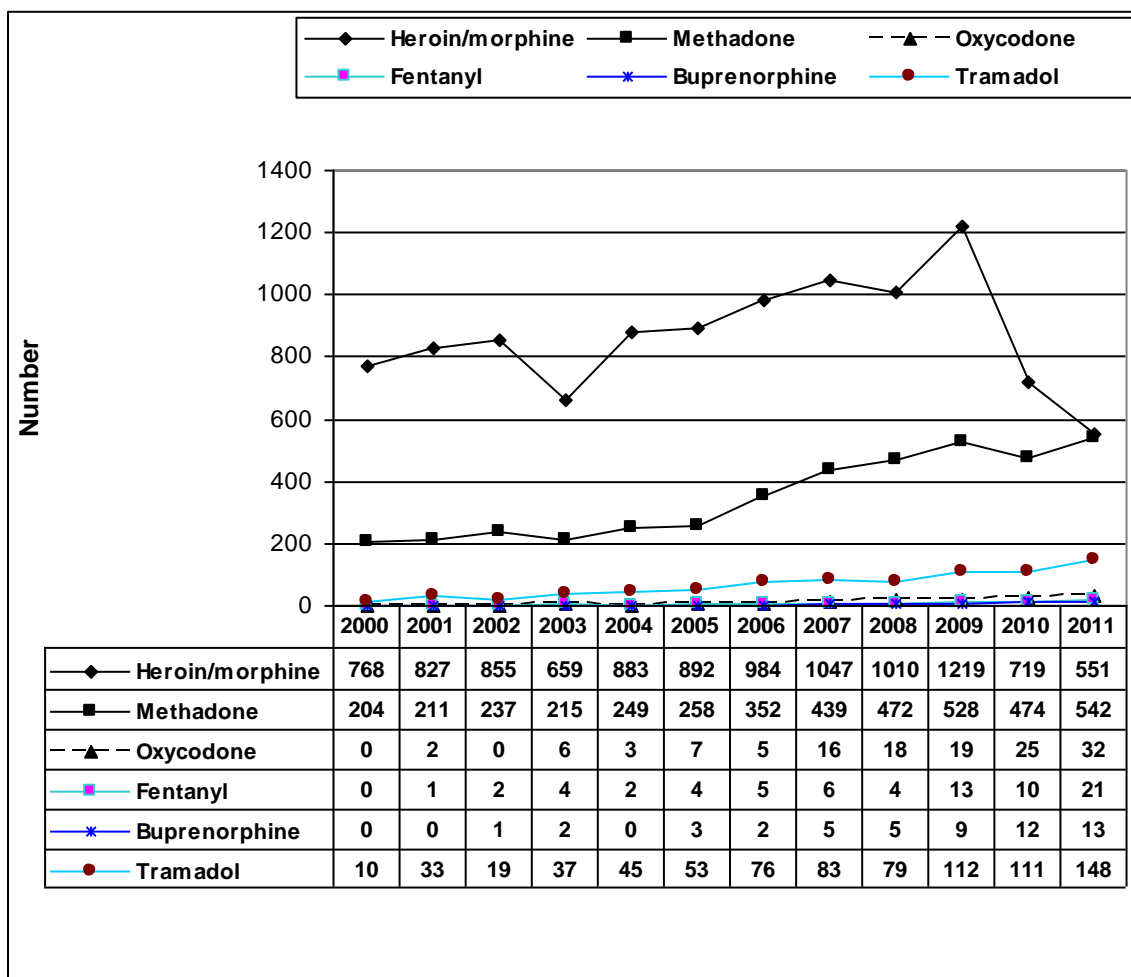
Opioid-related deaths

Over recent years there has been growing concern in North America, Australia, and the European Union about increasing recreational use and abuse of prescription drugs and fatalities resulting from such use, especially those involving synthetic opioid pain-killers (Fischer *et al.*, 2013; Darke *et al.*, 2011; Häkkinen *et al.*, 2012; Rintoul *et al.*, 2011). Interest in these developments has been expressed in the UK (NTA, 2011; ACMD, 2013). Specific substances of interest are oxycodone and fentanyl (Mounteney *et al.*, 2012). The former has featured in fatalities in the USA and Australia and the latter in deaths in the Baltic states. At the same time, there has been interest in the evolution of deaths involving buprenorphine and tramadol. The patterns in UK deaths involving these substances over the period 2000-11 are examined below against the background of the noticeable

changes involving heroin/morphine and methadone noted above.

Figure 8.1 shows that deaths involving buprenorphine; fentanyl; and oxycodone have steadily increased over the last 12 years, particularly since 2007 but are still at relatively low levels. As noted in previous np-SAD reports, there was a steady increase in deaths involving tramadol following the tightening up of prescribing of the pain-killer co-proxamol. There was an increase in such deaths between 2008 and 2009 followed by stabilisation in 2010; however, there was a further jump in 2011 – deaths nearly tripling between 2005 and 2011 (from 53 to 148). During the period 2000-11, heroin/morphine deaths rose from 768 to peak at 1219 in 2009 before falling by more than 50% to 551 in 2011. By contrast methadone-related deaths more than doubled, from 204 to 542.

Figure 8.1: Trends in UK deaths involving opiate/opioid analgesics, np-SAD data, 2000-2011



Novel Psychoactive Substances

The UK Advisory Council on the Misuse of Drugs (ACMD) uses the following definition:

“psychoactive drugs which are not prohibited by the United Nations Single Convention on Narcotic Drugs or by the Misuse of Drugs Act 1971, and which people in the UK are seeking for intoxicant use” (ACMD, 2011:10).

This report considers substances brought under control by legislation after being examined by the ACMD, being considered for control/regulation, or still legal. However, changes in legal status may affect availability – and thus use.

As reported in the previous *np-SAD* report (Ghodse *et al.*, 2012), recent years saw decreases in the number of deaths involving ‘traditional’ stimulants such as cocaine, amphetamines, and ecstasy-type substances. Reasons for these decreases, also seen in death registration statistics from the General Mortality Registers, may include a decline in cocaine purity and/or a shift to using alternative stimulants, including ‘legal highs’. For example, the mean purity of powder cocaine seized by the police in England & Wales fell from 33% in 2007 to 24% in 2010; the purity of ‘crack’ cocaine is reported to have fallen during the same period from 52% to 31% (Davies *et al.*, 2012). Last year the use of powder cocaine amongst 16–59 year-olds in England & Wales fell from 3% in 2008/9 to 2% in 2010/11 (Home Office, 2012). It has been proposed that the fall in ecstasy and cocaine-related deaths in the United Kingdom since 2008 may be as a result of users switching to ‘legal highs’ with the suggestion that this may have had an unintended harm reduction effect (Bird, 2010).

Whilst the use of amphetamine, ecstasy-type drugs and cocaine appears to have continued to fall between 2009 and 2011 (Home Office, 2012), the street purity of these substances, including the MDMA content of ecstasy tablets rose in 2011 (Davies *et al.*, 2012:123). The proportion of stimulant deaths reported to the *np-SAD* that occurred in 2011 increased marginally compared to 2010. This is in line with the rises in the average street purity of the stimulants mentioned above. UK deaths registered in 2011 involving ecstasy-type

substances and amphetamine showed increases whereas cocaine related fatalities fell (Davies *et al.*, 2012:183).

As part of its surveillance function, in recent years the *np-SAD* Annual Report has reported on new substances which are appearing on the drug scene and which have either been noted in post mortem toxicological reports and/or implicated in deaths reported to the Programme.

Against this background, *np-SAD* has observed an increase in the number and range of Novel Psychoactive Substances (NPS) in the post mortem toxicology results and/or cause of death of cases notified to the Programme (see Figure 8.2). Chemical groups represented by these NPS include: aminoindanes (MDAI); amphetamine-type substances (Fluoroamphetamine, PMA, PMMA); benzofurans (APB); tryptamines (AMT, 5-MeO-DALT); natural products (ibogaine, khat (*Catha edulis*), *Salvia divinorum*); and, most prominently, the methcathinones.

Methcathinones

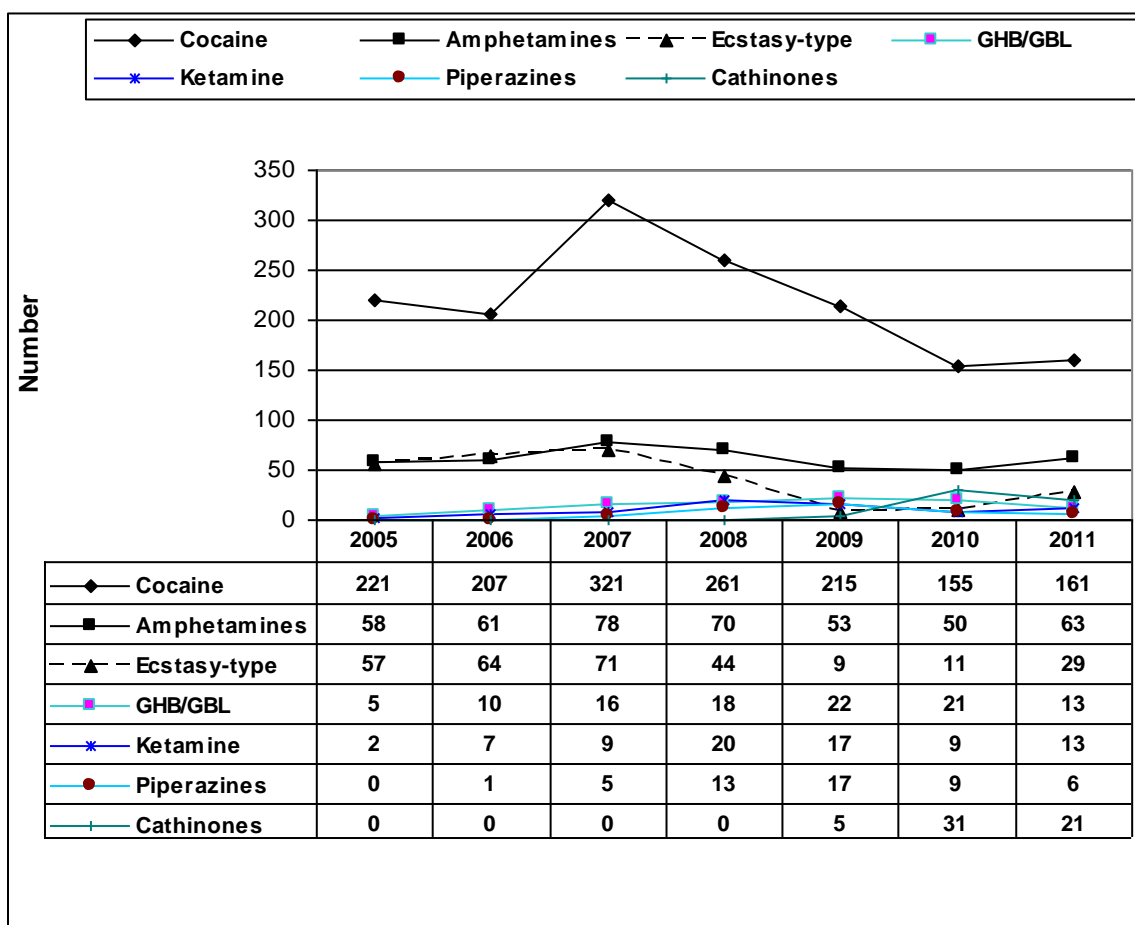
The last two Annual Reports from the Programme specifically mentioned Mephedrone (Methylmethcathinone), MDPV (Methylenedioxypropylvalerone) and NRG-1 (Naphyrone). As can be seen from Table 8.1, the number of cases where Mephedrone and MDPV were mentioned increased significantly in 2010, falling away in 2011. Other methcathinones also emerged onto the scene; in many instances, several such chemicals were involved in individual cases.

During 2011 and 2012, forensic toxicologists continued to report increased seizures of ‘legal highs’ derived from methcathinone, particularly mephedrone commonly known as “bubbles” and “meow-meow”. Many of these cases have now gone to inquest or through similar formal investigations by Procurators Fiscal in Scotland, and are being reported to *np-SAD*. This class of chemical is still very much present in the UK recreational drug scene, and its use may be developing into one of a problematic nature in respect of injecting and dependence. It is important, therefore, to be aware of this fact in terms of information and service provision, and prevention initiatives.

Table 8.1: Deaths involving Novel Psychoactive Substances, np-SAD data, 2009-11

Substance	Post mortem toxicology			Cause of Death		
	2009	2010	2011	2009	2010	2011
Aminoindanes						
MDAI	0	0	2	0	0	2
ATS						
2,5-Dimethoxy-4-chloroamphetamine	0	0	1	0	0	1
Fluoroamphetamine	1	0	0	0	0	0
PMA	0	1	3	0	0	4
PMMA	0	0	2	0	0	2
Benzofurans						
APB	0	0	1	0	0	1
Benzodiazepines						
Phenazepam	0	0	14	0	0	7
Ketamine derivatives						
Methoxetamine	0	0	1	0	0	1
Natural products						
Cathinone (khat)	0	0	1	0	0	1
Datura products	1	0	0	1	0	0
Ibogaine	1	0	0	1	0	0
Noribogaine	1	0	0	0	0	0
Salvia	0	0	0	0	0	1
Piperidines						
Desoxypradrol	0	3	0	0	3	0
Methcathinones						
4-MEC	0	0	5	0	0	4
Flephedrone	0	2	2	0	2	2
MDPBP	0	0	1	0	0	1
MDPV	0	9	3	0	6	2
Mephedrone	8	46	20	5	29	13
Methedrone	0	2	3	0	1	2
Methylone	0	2	0	0	2	0
N-desakyl-4-methylmethcathinone	0	1	0	0	0	0
Naphyrone	0	2	0	0	2	0
Pentylone	0	0	1	0	0	1
Pyrovalerone	0	1	0	0	1	0
Tryptamines						
5-MeO-DALT	0	1	0	0	1	0
AMT	0	0	2	0	0	2
Tryptamine	1	0	0	1	0	0

Figure 8.2: Trends in UK 'traditional' and Novel Psychoactive Substances, np-SAD data, 2005-11



Other NPS substances

A number of new chemical classes were represented in deaths occurring in 2011 (see Table 8.1). New molecules of particular interest are the following: the aminoindane MDAI (5,6-Methylenedioxy-2-aminoindane) (Corkery *et al.*, in press; Gallagher *et al.*, 2012); the amphetamine-type substances PMA (para-Methoxyamphetamine) and PMMA (para-Methoxy-N-methylamphetamine); the benzofuran APB; the synthetic ketamine derivative methoxetamine (Corazza *et al.*, 2012); and AMT (α -Methyltryptamine). Furthermore, several deaths involving the benzodiazepine phenazepam were reported. This medication is not licensed for use in the UK but is used legally in Eastern Europe and the Russian republics (Corkery *et al.*, 2012).

Other chemical classes that appear to be emerging as substances that require monitoring in respect of their potential

contribution to causing fatalities include synthetic cannabinoids (e.g. AM-2201) and indoles (e.g. 5-IT). A select bibliography reflecting recent work by np-SAD can be found at the end of this chapter.

Heroin contaminated with anthrax

In the annual report for 2010 it was noted that since late 2008 there have been substantiated and authoritative reports of heroin (or its cutting agents) contaminated with anthrax, confirmed by laboratory investigations. During the period December 2009 to 30 July 2010 a total of 119 cases were reported: 47 of which were classed as confirmed; 35 as probable; and 37 as possible cases based on the strength of the microbiological evidence. Thirteen fatalities (and one probable) were reported in Scotland; 6 of these cases have been notified to np-SAD. There were 5 cases in England; four of these were fatal. One of these cases has been reported to np-SAD.

The Scottish cases were the first documented outbreak associated with heroin use anywhere in the world. It proved to be the largest single common source outbreak of anthrax in humans in the UK in over 50 years. The outbreak was declared over in Scotland on 23 December 2010 (HPS, 2011). Factors associated with an increased risk of infection included longer injecting history, receiving opioid substitution therapy, and alcohol consumption. Smoking heroin was associated with lower risk of infection

(Palmateer *et al.*, 2012).

Between June and December 2012 six further cases were reported in the UK: 4 (including 3 fatal) cases in England (Blackpool, Medway and Oxford), one in Lanarkshire (Scotland) and one in Gwynedd (Wales) (HPA, 2012). It is unclear whether the British cases are linked to the European outbreak, which has affected drug users in Denmark, Germany and France.

Conclusions

Opiates, mainly heroin/morphine and methadone, still account for the majority of drug-related deaths in the UK. There is evidence both from np-SAD data and other authoritative sources that the role of heroin/morphine decreased in 2010 and 2011. However, deaths involving methadone and other opiates/opioid analgesics rose slightly during this period.

The marginal increase in cases involving stimulants (such as cocaine, amphetamines, and ecstasy-type drugs) following a decline in 2009 and stabilisation in 2010 may well be due to the growing use in recent years of so-called 'legal highs' such as ketamine; the piperazines; GHB/GBL; and more recently the methcathinones such as mephedrone. Whilst these are still available their popularity has declined slightly, in part as a consequence of them having been brought under the control of the Misuse of Drugs Act 1971. However, these substances are still popular on the UK recreational drug scene and may be causing problems in terms of dependency. Indeed, there appears to have been a slight increase in deaths involving amphetamines and ecstasy-type substances. At the same time, other novel substances – principally other methcathinones and related chemicals – have emerged on the recreational drug scene in Western Europe but especially the British Isles.

The rapidity with which these new substances are emerging appears to be increasing. It is now difficult to gauge with any certainty what will capture the attention of the experimenter or regular recreational drug user. The range of drug classes now on offer, both diverted pharmaceutical products such as phenazepam, and synthetic substances is also growing. Several new classes were present in the post mortem

toxicology and cause of death in 2011 cases. These trends appear to have continued into 2012.

Furthermore, there is a lack of information provided to the potential consumer by the retailer as to the true nature of the ingredients in the substance being purchased. Therefore, it is important that the np-SAD, in collaboration with other surveillance systems, continues to monitor reports from the treatment and forensic toxicology fields as well as Coroners' records so as to be able to alert health professionals about emerging issues, and to suggest to Coroners and pathologists what they might look out for. The Programme feeds into the formal scientific evidence-gathering activities of the Advisory Council on the Misuse of Drugs (see Select Bibliography for examples), and the formal risk assessments of Novel Psychoactive Substances conducted by the European Monitoring Centre for Drugs and Drug Addiction.

However, it is important not to overlook the fact that opiates/opioids still account for the majority of drug-related deaths in England and other parts of the UK. Together with hypnotics/sedatives (chiefly benzodiazepines such as diazepam and temazepam) the involvement of methadone in deaths has increased over the past year.

As reported last year, the injection of heroin contaminated with anthrax or botulism is, at present, a continuing and serious risk factor for adverse health consequences and death. As heroin can be stockpiled for several years before being released onto the market it is important that vigilance is maintained by heroin users and those who treat them for any tell-tale signs of infection, thereby preventing premature death.

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Appendices

Appendix 1: The *national programme on Substance Abuse Deaths (np-SAD)*

Aims and objectives

The Programme's principal aim 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 death. The Programme offers a comprehensive prevention package to Drug (and Alcohol) Action Teams (DAATs), Primary Care Trusts (PCTs) and Strategic Health Authorities (SHAs) with a mission to tackle the problem of drug-related deaths.

The Programme's objectives are to:

- Collect and collate drug-related mortality data
- Develop and maintain a computerised surveillance system
- Identify substances implicated in drug-related deaths – including new drugs and new combinations
- 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
- Use data as an indicator to estimate the prevalence of substance-related problems and assess the hazards associated with substance abuse
- 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 np-SAD 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, procurators fiscal and other agencies.

Data collection

All coroners in the UK (see Appendix 3) are issued with copies of the standard data collection form (see Appendix 4). They are invited to complete the forms on all deaths that meet the criteria described in this report (see Appendix 2) and return them to the np-SAD at the ICDP office at St. George's, University of London for coding and entry onto the database.

Data submission is mostly directly on paper by coroners or their staff. There is also manual completion of the np-SAD data collection form or print-out of completed computer-generated forms using bespoke software. Forms are submitted when inquests are complete – either singly or in batches. Manual extraction of data by team members is undertaken at some coroners' courts – mostly in London.

A monitoring process is undertaken to ascertain the quality of the information received from coroners, as well as the extent to which all relevant cases are being identified and submitted. This assists in further improving the quality of the various outputs that the Programme seeks to provide.

Data entry and coding

To enable comparison with various national and international datasets all causes of death have been coded according to the International Classification of Diseases (ICD-10). This is an international standard for the classification of diseases and health-related problems published by the World Health Organisation (1992). The online version (ICD-10 2010) has been employed for coding all substances implicated in death separately according to its therapeutic drug category, i.e. hypnotics/sedatives, anti-depressants, opiates, etc.

The 'intentionality' of deaths based on the Coroner's verdict and/or other additional information employing ICD-10 codes is inadequate for informing interested parties as to whether certain categories of drug-related deaths can be prevented.

Whilst the 'cause' of death (as given in the preceding section) is concerned with the disease or injury responsible for the lethal sequence of events, the 'manner' of death explains how the cause of death arose, i.e. a natural or violent death. The categories for 'manner of death' have been adopted from the UK practice (Explore Forensics <http://www.exploreforensics.co.uk/the-four-manners-of-death.html>) with the additional categories for those where intentionality is unclear or manner of death is impossible to determine: natural, accidental, suicidal, homicidal, undetermined, and unclassified/not specified. Verdicts of 'dependence on drugs' or 'non-dependent abuse of drugs' are regarded as 'accidental'. The 'manner of death' is derived from information such as the verdict or 'finding', history of drug misuse or dependence, post mortem drugs, and other information; and is based on the interpretation of the death by np-SAD and clinical presentation/profile of the individual case.

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 and ratios. Where the data include proportions of incidence for particular groups of interest, the ratio of the proportions forms a measure of the relative risk in one group compared with that of another. These scales of measurement are generally known as point estimates. Although point estimates can be calculated they do not represent the 'true' values. Each point estimate is subject to random variation. Confidence intervals (CI) provide an indication of the range in the true values for the population as a whole, which would be expected in future investigations. The methods used for quantitative data relied mainly on complex assumptions of distributional form. It may be the case that the assumptions are not always satisfied. In such cases, methods known as distribution-free methods can be applied, also known as non-parametric tests (e.g. Mann-Whitney). The use of decimal places varies in some contexts so as to provide greater granularity to bring out distinctions between apparently similar populations or groups. The data were analysed using IBM © SPSS™ Statistics for Windows version 19.

Data Storage

The anonymised data-set for Coroners is held on a SPSS database for analysis. All data held, whether electronic or paper, is stored securely and treated as confidential. Access is restricted to Programme staff; only aggregated and anonymised data are released to third parties.

Other activities and resources

The Programme provides information to public consultations, Parliamentary questions, Ministerial briefings, as well as contributing to the UK's Drugs Early Warning System. As part of the early warning function, emerging trends and potential issues are brought to the attention of policy-makers and Coroners in a special briefing.

Analysis of data for specific Drug and Alcohol Action Teams (DAATs), Primary Care Trusts (PCTs) and (Special Health Authorities) SHAs is undertaken on request.

Findings from the Programme's annual report and research articles is used in national and international research. For example, the key findings from the np-SAD are included in the annual report from the UK Focal Point to the EMCDDA, and in various annual United Nations publications

In addition to the above activities, the Programme

- Is the official custodian of the national UK Addicts Index Access database and digitised files covering the period 1968-1997 Holds a copy of the official Dead Addicts datafile
- Is located in an academic centre with input from relevant disciplines
- Brings to a broad range of expertise from different professional backgrounds – psychiatry, psychology, social science, pharmacology, epidemiology, addictive behavioural science, database, project management, etc.
- Has national and international experience, collaborating in research and training with bodies such as the World Health Organisation, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), and the European Collaborating Centres for Addiction Studies.

National Steering Group

The *np*-SAD has a National Steering Group to provide additional expertise to the Programme through involvement and participation. Its

principal role is in giving advice on the full range of its activities, including the national surveillance of Coroners and production of the annual report.

Appendix 2: Definitions of drug-related death

Introduction

There are a number of issues and problems associated with defining drug-related deaths and drug-related mortality. For a full

discussion see Corkery (2008) and Office for National Statistics (2012).

np-SAD definition

An np-SAD 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.

Deaths where solvents and other volatile substances are implicated alone are also included. However, we do collect information on these cases separately; further information can be seen at <http://www.vsareport.org>. Alcohol is included only when implicated in combination with other qualifying drugs.

* '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.

Who is a drug abuser/dependent?

A drug abuser/dependent case is defined as one with a history of substance abuse where one or more of the following criteria are met:

- Reported as a known illicit drug user by the coroner, based on evidence obtained at inquest;
- Prescribed substitute medication for drug dependence;
- Presence of an illicit drug at post mortem, where not prescribed; or
- Presence of any additional information on the Coroner's report suggestive of a history of drug abuse, and where such a history fulfils ICD-10 criteria: (F11-F16 and F19, using the 4-code subdivisions of .0 (acute intoxication), .1 (harmful use), and .2 (dependence syndrome).

"Drug misuse" definition

Cause of death categories included in the headline indicator of 'drug misuse' deaths used to monitor progress against the Government's drug strategy are defined in terms of ICD-10 codes and Controlled Drug Status. The relevant codes from ICD-10 are given in brackets.

The definition comprises two types of deaths:

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 solvents):

- (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 (Y10–14);
- (iv) Assault by drugs, medicaments and biological substances (X85); and
- (v) Mental and behavioural disorders due to use of volatile solvents (F18)

Notes:

1. 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 England and Wales, these deaths cannot be readily identified. In practice, in England and Wales, 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 on the ONS database of drug-related poisonings and not to an infection code.

2. 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 *co-proxamol*, *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 taken by both the Office for National Statistics and the General Register Office for Scotland.

3. Drugs controlled under the Misuse of Drugs Act 1971 include class A, B and C drugs.

Definition used by SCDEA

Deaths reported to the SCDEA by Scottish police forces are those which meet the definition used by the Association of Chief Police Officers (Scotland) – “where there is prima facie evidence of a fatal overdose of controlled drugs. Such evidence would be recent drug misuse, for example controlled

drugs and/or a hypodermic syringe found in close proximity to the body and/or the person is known to the police as a drug misuser although not necessarily a notified addict.” Thus, most suicides in Scotland will be excluded.

Appendix 3: Coroners' jurisdictions/police force areas reporting drug-related deaths, United Kingdom & Islands

Administrative county/area	Jurisdiction	Description
	(The) Queen's Household	"The Coroner of the Queen's Household has exclusive jurisdiction in respect of inquests and, semple, inquiries which do not lead to inquests, on persons whose bodies are lying within the limits of any of the Queen's palaces or within the limits of any other house where Her Majesty is then demurrant and abiding in her own royal person, notwithstanding the subsequent removal of Her Majesty from such palace or house. The limits of the palace or house are deemed to extend to any courts, gardens or other places within the curtilage of the palace or house but not further. Where a body is lying dead beyond these limits, the coroner of the Queen's Household has no jurisdiction."
ENGLAND		
Avon	Avon	The city of Bristol and the districts of Bath & North East Somerset, North West Somerset & South Gloucestershire
Bedfordshire	Bedfordshire & Luton	The whole county of Bedfordshire and the county of Luton
Berkshire	Berkshire	The whole county of Berkshire
Buckinghamshire	Buckinghamshire	The whole county of Buckinghamshire (excl. Milton Keynes)
	Milton Keynes	The whole county of Milton Keynes
Cambridgeshire	North & East Cambridgeshire	The districts of Fenland & East Cambridgeshire
	Peterborough	The district of Peterborough
	South & West Cambridgeshire	The City of Cambridge, the districts of Huntingdon and South Cambridgeshire
Cheshire	Cheshire	The whole county of Cheshire
Cornwall	Cornwall	The whole county of Cornwall (exc. Isles of Scilly)
	Isles of Scilly	The Isles of Scilly
Cumbria	North and West Cumbria	The districts of Allerdale, Carlisle and Copeland.
	South and East Cumbria	The districts of Barrow-in-Furness, Eden, and South Lakeland.
Derbyshire	Derby & South Derbyshire	The county of Derby and the districts of Erewash & South Derbyshire. The district of Amber Valley (except the parts in the Coroner's Jurisdictions of North Derbyshire). In the district of West Derbyshire, the parishes of Alkmonton, Ashbourne, Atlow, Biggin, Boylestone, Bradbourne, Bradley, Brailsford, Clifton & Compton, Cubley, Doveridge, Edlaston & Wyaston, Fenny Bentley, Hognaston, Hollington, Hulland, Hulland Ward, Hungry Bentley, Kirk Ireton, Kniveton, Lea Hall, Longford, Mapleton, Marston Montgomery, Mercaston, Norbury & Roston, Offcote & Underwood, Osmaston, Rodsley, Shirley, Snelston, Somersal Herbert, Sudbury, Thorpe, Tissington, Yeaveley and Yeldersley
	North Derbyshire	The District of Bolsover and North East Derbyshire. The Boroughs of Chesterfield and High Peak. In the Borough of Amber Valley the parishes of Denthick, Lea and Holloway, South Wingfield and Alfreton. The District of Derbyshire Dales except the parishes in the Derby and South Derbyshire Coroner's District.

Administrative county/area	Jurisdiction	Description
Devon	Exeter & Greater Devon	The districts of East Devon, Exeter, Mid Devon, North Devon, Torridge, West Devon. That part of the district of Teignbridge comprising the parishes of Alphington, Ashton, Bovey Tracey, Bridford, Christow, Chudleigh, Doddiscombsleigh, Dunchideock, Dunsford, Exminster, Hennock, Holcombe Burnell, Ide, Kenn, Lustleigh, Manaton, Moretonhampstead, North Bovey, Shillingford St George, Tedburn St Mary, Trusham & Whitestone.
	Plymouth & South West Devon	The district of Plymouth. The district of South Hams except the parishes in the Torbay and South Devon Coroner's district.
	Torbay & South Devon	The district of Torbay. The district of Teignbridge except the parishes in the Coroner's Jurisdiction of Exeter and Greater Devon. That part of the district of South Hams comprising the parishes of Ashprington, Berry Pomeroy, Blackawton, Cornworthy, Dartington, Dartmouth, Dean Prior, Dittisham, Halwell, Harberton, Holne, Kingswear, Littlehampton, Marldon, Rattery, Slapton, Staverton, Stoke Fleming, Stoke Gabriel, Strete, Totnes and West Buckfastleigh
Dorset	Bournemouth, Poole & Eastern Dorset	The counties of Bournemouth & Poole, Christchurch, Purbeck and Wimbourne
	Western Dorset	The districts of West Dorset, North Dorset and Weymouth & Portland
Durham	Darlington & South Durham	The county of Darlington and the districts of Sedgefield and Teesdale {Wear Valley also included}
	North Durham	The districts of Chester-Le-Street, Derwentside, Durham and Easington
East Sussex	Brighton & Hove	The county of Brighton & Hove
	East Sussex	The whole county of East Sussex
Essex	Essex & Thurrock (Essex No 1)	The districts of Basildon, Braintree, Brentwood, Chelmsford, Colchester, Epping Forest, Harlow, Maldon, Tendring, Thurrock and Uttlesford
	Southend & South East Essex (Essex No 2)	The districts of Southend, Rochford and Castle Point
Gloucestershire	Gloucestershire	The county of Gloucestershire
Greater Manchester	Manchester	The district of Manchester
	North Manchester	The districts of Bury, Rochdale & Oldham
	South Manchester	The districts of Stockport, Tameside and Trafford
	West Manchester	The districts of Wigan, Bolton and Salford
Hampshire	Central Hampshire	The districts of Winchester, Test Valley and Eastleigh
	North East Hampshire	The districts of Basingstoke, Hart & Rushmoor and that part of the district of East Hampshire not contained in the Portsmouth & South East Hampshire Coroner's district
	Portsmouth & South East Hants	The county of Portsmouth and the districts of Fareham, Gosport and Havant and, in the district of East Hampshire, the parishes of Buriton, Clanfield, Colemore and Priors Dean, East Meon, Froxfield, Hawkley, Horndean, Langrish, Liss, Petersfield, Rowlands Castle and Steep
	Southampton & New Forest	The county of Southampton and the district of New Forest
Herefordshire	Herefordshire	The whole county of Herefordshire
Hertfordshire	Hertfordshire	The whole county of Hertfordshire

Administrative county/area	Jurisdiction	Description
Humberside	East Riding & Hull	The counties of the East Riding of Yorkshire and the city of Kingston-upon-Hull
Isle of Wight	Isle of Wight	The whole county of the Isle of Wight
Kent	Central & South East Kent	The district of Shepway. The borough of Ashford. The district of Dover except those parishes with the North East Kent Coroner's district. In the district of Swale, the parishes of Boughton under Bleab, Doddington, Dunkirk, Eastling, Faversham, Graveney & Goodnestone, Hernhill, Luddenham, Lynsted, Newnham, Norton & Buckland, Oare, Ospringe, Selling, Sheldwich Badlesmere & Leaveland, Stalisfield, Stone, Teynham, Throwley
	Mid Kent & Medway	The City of Rochester upon Medway, the districts of Gillingham and Maidstone. The district of Swale, with the exception of Faversham and the parishes in the Coroner's Jurisdiction of East Kent. In the district of Tonbridge and Malling, the parishes of Addington, Aylesford, Birling, Burham, Ditton, East Malling & Larkfield, King's Hill, Leybourne, Mereworth, Offham, Ryarsh, Snodland, Trottiscliffe, Wateringbury & East Peckham, Wouldham.
	North East Kent	The district of Thanet. The City of Canterbury. In the district of Dover, the parishes of Ash, Aylesham, Deal, Eastry, Eythorpe, Goodnestone, Great Mongeham, Nonington, Northbourne, Preston, Ringwould & Kingsdown, Ripple, Sandwich, Sholden, Staple, Stourmouth, Sutton by Dover, Tilmanstone, Walmer, Wingham, Woodnesborough, Worth.
	North West Kent	The districts of Dartford, Gravesham, Sevenoaks and Tunbridge Wells. The district of Tonbridge and Malling, except the parishes in the Mid-Kent and Medway Coroner's district.
Lancashire	Blackburn, Hyndburn & Ribble Valley	The districts of Blackburn, Hyndburn & Ribble Valley
	Blackpool & the Fylde	The districts of Blackpool and Fylde
	East Lancashire	The districts of Burnley, Pendle and Rossendale
	Preston & West Lancashire	The districts of Lancaster, Wyre, Chorley, Preston, South Ribble and West Lancashire
Leicestershire	Leicester City & South Leicestershire	The county of Leicester and the districts of Blaby, Harborough, Oadby, Wigston
	Rutland & North Leicestershire	The county of Rutland and the districts of Charnwood, Hinckley & Bosworth, Melton and North West Leicestershire
Lincolnshire	Boston & Spalding	The districts of Boston and South Holland
	North Lincolnshire & Grimsby	The counties of North Lincolnshire and North East Lincolnshire
	Spilsby & Louth	The district of East Lindsey, except the parishes in the West Lincolnshire Coroners' district. In the district of West Lindsey, the parishes of Bigby, Brocklesbury, Cabourne, Caistor, Claxby, Grasby, Great Limber, Holton Le Moor, Keelby, Kirmond le Mire, Legsby Linwood, Market Rasen, Middle Rasen, Nettleton, Normanby le Wold, North Kelsey, North Willingham, Osgodby, Owersby, Riby, Rothwell, Searby cum Owmbly, Sixhills, Somerby, South Kelsey, Stainton le Vale, Swallow, Swinhope, Tealby, Thoresway, Thorganby and Walesby.

Administrative county/area	Jurisdiction	Description
	Stamford	In the district of South Kesteven, the parishes of Aslackby & Laughton, Barholm & Stowe, Baston, Billingborough, Bourne, Braceborough & Wilsthorpe, Careby Aunby & Holywell, Carlby, Castle Bytham, Corby Glen, Couthorpe & Creeton, Deeping St James, Dowsby, Dunsby, Edenham, Folkingham, Greatford, Haconby, Horbling, Irnham, Kirkby Underwood, Langtoft, Little Bytham, Market Deeping, Morton, Pointon & Sempringham, Ripplingale, Stamford, Swayfield, Swinstead, Tallington, Thurlby, Toft with Lound & Manthorpe, Uffington, West Deeping and Witham on the Hill
	West Lincolnshire	The district of Lincoln. The district of North Kesteven. The district of South Kesteven, except the parishes in the Coroner's Jurisdiction of Stamford. The district of West Lindsey, except the parishes in the Coroner's jurisdiction of Spilsby & Louth. In the district of East Lindsey, the parishes of East & West Barkwith, Hatton, Langton by Wragby, Panton, West Torrington, Wragby.
London	City of London	City of London
	Eastern London	The London boroughs of Barking, Havering, Newham, Redbridge & Waltham Forest
	Inner North London	The London boroughs of Camden, Hackney, Islington & Tower Hamlets
	Inner South London	The London boroughs of Greenwich, Lambeth, Lewisham & Southwark
	Inner West London	The London boroughs of Wandsworth & Merton, the Royal Borough of Kensington & Chelsea, and the City of Westminster
	Northern London	The London boroughs of Barnet, Brent, Enfield, Haringey & Harrow
	Southern London	The London boroughs of Bexley, Bromley, Croydon and Sutton
	Western London	The London boroughs of Ealing, Hammersmith, Hillingdon, Hounslow and Richmond-upon-Thames, and the Royal Borough of Kingston-upon-Thames
Merseyside	Knowsley, St Helens & Sefton	The districts of Knowsley, St Helens and Sefton
	Liverpool	The district of Liverpool
	Wirral	The district of Wirral
Norfolk	Norfolk	The whole county of Norfolk
Northamptonshire	Northamptonshire	The whole county of Northamptonshire
Northumberland	North Northumberland	The districts of Alnwick and Berwick-upon-Tweed and so much of the districts of Castle Morpeth and Wansbeck as lies north of the line for the time being of the centre of the River Wansbeck
	South Northumberland	The districts of Blyth Valley & Tynedale, and so much of the districts of Castle Morpeth & Wansbeck as lie south of the line for the time being of the centre of the River Wansbeck
North Yorkshire	North Yorkshire Eastern	The districts of Hambleton, Ryedale and Scarborough
	North Yorkshire Western	The districts of Richmondshire, Craven, Harrogate and Selby

Administrative county/area	Jurisdiction	Description
	York	The county of York. In the district of Harrogate, the parishes of Nether and Upper Poppleton. In the district of Ryedale, the parishes of Clifton (without), Earswick, Haxby, Heworth (without), Holtby, Huntington, Murton, New Earswick, Osbaldwick, Rawcliffe, Skelton, Stockton-on-the-Forest, Strensall, Towthorpe, Wigginton. In the district of Selby, the parishes of Dunnington, Elvington, Fulford, Heslington, Kexby, Naburn & Deighton, Wheldrake.
Nottinghamshire	Nottinghamshire	The whole county of Nottinghamshire and the City of Nottingham
Oxfordshire	Oxfordshire	The whole of the county of Oxfordshire
Shropshire	Mid & North Shropshire	The districts of Oswestry, North Shropshire, Shrewsbury & Atcham
	South Shropshire	The districts of South Shropshire and Bridgnorth
	The Wrekin	The whole county of the Wrekin
Somerset	Eastern Somerset	The districts of Mendip and South Somerset
	Western Somerset	The districts of Sedgemoor, Taunton Deane and West Somerset
South Yorkshire	South Yorkshire East	The district of Doncaster and Rotherham
	South Yorkshire West	The districts of Barnsley and Sheffield
Staffordshire	South Staffordshire	The districts of Cannock Chase, East Staffordshire, Lichfield, South Staffordshire, Stafford and Tamworth.
	Stoke-on-Trent & North Staffordshire	The county of Stoke-on-Trent, and the districts of Newcastle-under-Lyme and Staffordshire Moorlands.
Suffolk	Suffolk	The county of Suffolk.
Surrey	Surrey	The whole county of Surrey
Teesside	Hartlepool	The county of Hartlepool
	Teesside	The counties of Middlesbrough, Redcar & Cleveland and Stockton-on-Tees.
Tyne & Wear	Gateshead & South Tyneside	The districts of Gateshead and South Tyneside
	Newcastle-upon-Tyne	The City of Newcastle-upon-Tyne
	North Tyneside	The district of North Tyneside
	Sunderland	The district of Sunderland
Warwickshire	Warwickshire	The whole county of Warwickshire
West Midlands	Birmingham	The districts of Birmingham & Solihull
	Black Country	The districts of Dudley, Sandwell, and Walsall
	Coventry	The district of Coventry
	Wolverhampton	The district of Wolverhampton
West Sussex	West Sussex	The whole county of West Sussex
West Yorkshire	West Yorkshire Eastern	The metropolitan district of Leeds and Wakefield
	West Yorkshire Western	The metropolitan districts of Bradford, Calderdale and Kirklees
Wiltshire	Wiltshire & Swindon	The counties of Wiltshire and Swindon
Worcestershire	Worcestershire	The whole county of Worcestershire
WALES		
	Bridgend & Glamorgan Valleys	The county boroughs of Bridgend, Merthyr Tydfil & Rhondda, Cynon & Taff
	Cardiff & the Vale of Glamorgan	The county of Cardiff and the county borough of the Vale of Glamorgan
	Carmarthenshire	The districts of Carmarthen, Llanelli and Dinefwr
	Central North Wales	The county of Denbighshire, the county borough of Aberconwy & Colwyn.
	Ceredigion	The district of Ceredigion
	Gwent	The county of Monmouthshire, the county borough of Blaenau Gwent, Caerphilly, Newport and Torfaen

Administrative county/area	Jurisdiction	Description
	Neath & Port Talbot	The districts of Neath & Port Talbot. In the borough of Lliw Valley, the communities of Cilybebyll, Clydach, Cwmlinfell, Gwam-Cae-Gurwen, Mawr, Pontardawe & Ystalyfera
	North East Wales	The boroughs of Flintshire and Wrexham. In the district of Glyndwr, the communities of Ceiriog Ucha, Chirk, Glyntraian, Llangedwyn, Llangollen, Llangollen Rural, Llanrhaeadr-ym-Mochnant, Llansantffraid Glyn Ceiriog, Llansilin & Llantysilio.
	North West Wales	The counties of Anglesey, Caernarfonshire, Merionethshire
	Pembrokeshire	The district of Preseli and South Pembrokeshire (including Caldey Island and St Margaret's Island)
	Powys	The whole county of Powys
	Swansea	The district of Swansea. In the borough of Lliw Valley, the communities of Gorseinon, Gowerton, Grovesend, Llangyfelach, Llchwyr, Penllergaer, Pontarsulais, Pont-Lliw.
NORTHERN IRELAND		
NORTHERN IRELAND		Whole of Northern Ireland
THE ISLANDS		
	Guernsey	Alderney, Brecqhou, Guernsey, Herm, Jethou, Lihou, Little Sark, Sark
	Jersey	Jersey
	Isle of Man	Isle of Man
SCOTLAND		
Argyll & Clyde	Dumbarton	Fiscal area (but figures included in Strathclyde Police figures)
Central Scotland Police		Clackmannanshire, Falkirk, and Stirling Council areas
Dumfries & Galloway Constabulary		Dumfries & Galloway Council area
Fife Constabulary		Fife Council area
Grampian Police		City of Aberdeen, Aberdeenshire, and Moray Council areas
Lothian & Borders Police		East Lothian, City of Edinburgh, Midlothian, West Lothian, and the Borders Council areas
Northern Constabulary		Highland, Orkney Islands, Shetlands Islands, and Western Isles Council areas, and parts of Argyllshire (Ardnamuchan and Glencoe) and Morayshire (Grantown-on-Spey and Cromdale)
Strathclyde Police		Argyll and Bute, East Dumbartonshire, Dumbarton and Clydebank, South Lanarkshire, North Lanarkshire, East Ayrshire, North Ayrshire, East Renfrewshire, City of Glasgow, Inverclyde, South Ayrshire, and Renfrewshire Council areas
Tayside Police		Angus, City of Dundee, and Perthshire and Kinross Council areas

Since the start of 2004, the following amalgamations of Coroners' jurisdictions in England have occurred: East Berkshire, Reading and West Berkshire to form one for the whole county of Berkshire (1 April 2004); East and West Cornwall to form one for the whole county of Cornwall, but excluding the Isles of Scilly (1 February 2004); in Cumbria, Furness and Southern Cumbria to form South Cumbria & Furness (1 April 2004); Hertford and West & North Hertfordshire to form one for the whole county of Hertfordshire (1 October 2004); in Lincolnshire, Louth and Spilsby to form Spilsby & Louth (1 December 2003); in the West Midlands, Dudley, Sandwell, and Walsall to form Black Country (1 August 2004); in Derbyshire, High Peak and Scarsdale to form North Derbyshire (1 February 2006); in Gloucestershire, Gloucester and Cheltenham to form Gloucestershire (1 April 2006); in Suffolk, Greater Suffolk and Lowestoft to form Suffolk (1 August 2006). Further amalgamations took place in 2007. Great Yarmouth merged with Greater Norfolk to form Norfolk on 1 April 2010.

The retirement of several Coroners has resulted in some Coroners taking on responsibility for additional jurisdictions. The Isles of Scilly (regarded as part of Cornwall) are currently being looked after by the Coroner for Plymouth & South West Devon. Data for Herefordshire are also submitted now together with those for Worcestershire. The two jurisdictions in Durham are now being looked after by the same Coroner, but have not been formally amalgamated. The Coroner for Suffolk is also Coroner for Southend & South East Essex.

In Northern Ireland there has been a single Coroner's area covering the whole of the Province since 1 April 2006. It is centred on the Greater Belfast office and served by three full-time Coroners, overseen by a High Court judge.

Appendix 4: np-SAD data collection form

The National Programme on Substance Abuse Deaths (np-SAD)

NOTIFICATION OF DRUG-RELATED DEATHS

Section I Demographic information

Deceased forename(s): _____ Gender: Male Female

Family name: _____ Other names known by: _____

Date of birth: ____/____/____ Place of birth: _____

Usual address: _____

Postcode: _____

Ethnicity (tick one only)

- White Pakistani Black African Other, specify _____
 Chinese Bangladeshi Black Caribbean Not known
 Indian Black other, specify _____

Occupational status (tick one only)

- Employed (manual) Unemployed Retired
 Employed (non-manual) Childcare/houseperson Student/pupil
 Self employed Invalidity/sickness Other, specify _____
 Not known

Living arrangements (tick one only)

- Alone Self and children No fixed abode
 With partner With parent(s) Other, specify _____
 With partner & children With friend(s) Not known

Section II Details of death

Date of death: ____/____/____

Place of death: (tick one only)

- Home Residential premises (.e. hotel) In custody
 Place of work Street or highway Place of recreation/sport
 Treatment centre Educational establishment Hospital
 Other place, specify _____

Cause(s) of death (as given on the death certificate)

- 1(a) _____
 (b) _____
 (c) _____
 2 _____

The National Programme on Substance Abuse Deaths (np-SAD)

Toxicology

Please list drugs and alcohol present at post mortem (in order of importance, if known)

	Drug/alcohol	Level				Drug/alcohol	Level		
		B	T	U			B	T	U
1					4				
2					5				
3					6				

B = Blood; T = Tissues; U = Urine

Section III Coroner's verdict

Section IV Background information

Recent history of drug use and other relevant information: e.g. evidence of injecting drug use; evidence of 'crack' use; recently released from prison or discharged from treatment programme; psychiatric history; known to alcohol/drug services; length of use; poly-substance user; known health problems associated with substance misuse; last 24 hours of life (if known), time police summoned, any drugs paraphernalia, etc.:

Was the deceased on prescribed psychoactive medication? Yes No Not known

If yes, please list drugs:

1 _____	2 _____
3 _____	4 _____
5 _____	6 _____

Was the deceased a drug addict or known drug abuser? Yes No Not known

Section V Coroner's details

Coroner's name: _____ Date inquest completed: ____/____/____

Jurisdiction: _____ Office: _____

Signature: _____ Date: ____/____/____

Please send completed form to:

National Programme on Substance Abuse Deaths (np-SAD)
International Centre for Drug Policy
St George's, University of London
FREEPOST LON 10141,
London SW17 0BR

For general enquiries: Tel 020 8725 5522 or Fax 020 8725 3538

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National Programme on Substance Abuse Deaths (*np*-SAD)
International Centre for Drug Policy (ICDP)
St George's, University of London
Cranmer Terrace
London
SW17 0RE

Tel: +44 (0)20 8725 5522

Fax: +44 (0)20 8725 3538

E-mail: icdp@sgul.ac.uk

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