

# Drug-related deaths in Highland

## 2018 Briefing Paper



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### 1. Introduction

In July 2019 National Records of Scotland (NRS) published statistics on drug-related deaths registered in Scotland during 2018. Information is available for each local authority and health board on the overall trend, age at death, underlying cause of death and the type of drugs implicated in, or which potentially contributed to, the death. This paper summarises the main results of deaths for the Highland Alcohol and Drugs Partnership (HADP) area and is based on Highland Council residents.

### 2. Key Points

- 36 drug-related deaths were registered in Highland in 2018, an increase of 12 deaths on 2017;
- The annual average number of deaths for the five-year period 2014-2018 is 24, an increase of 13 (114 per cent) on the 2004-2008 average of 11 deaths;
- Highland has a drug-related death rate of 0.10 per 1,000 population, lower than the national death rate of 0.16 per 1,000 population;
  - Drug-related deaths in Highland have a slightly younger profile compared to those for Scotland as a whole. Mortality rates in the 25-34 age group (0.29 per 1,000 population) compared to those nationally (0.25 per 1,000);
- The drug-related death rate of 13.9 per 1,000 problem drug users in Highland is higher than the national rate of 12.7 per 1,000 although not statistically significantly higher;
- The most common underlying cause of death in 2018 was accidental poisoning (27 deaths, 75 per cent), with 3 deaths (8 per cent) classified as intentional self-poisoning and 6 deaths (17 per cent) undetermined intent;
- In 2018 benzodiazepines were implicated in 26 deaths (72 per cent), methadone in 17 deaths (47%), heroin or morphine in 8 deaths (22 per cent) and dihydrocodeines in 6 deaths (17 per cent);
- Drug-related deaths involving New Psychoactive Substances (NPS) are only reported at a Scotland level, with 575 deaths in 2018 (based on the 1,313 deaths identified from the Office for National Statistics (ONS) 'wide' definition). Of these only eight reported NPS to be the only substance contributing to the death. Nationally there has been an increasing trend in NPS being implicated in deaths since 2011. No Highland information is available.

### 3. Drug-related deaths data

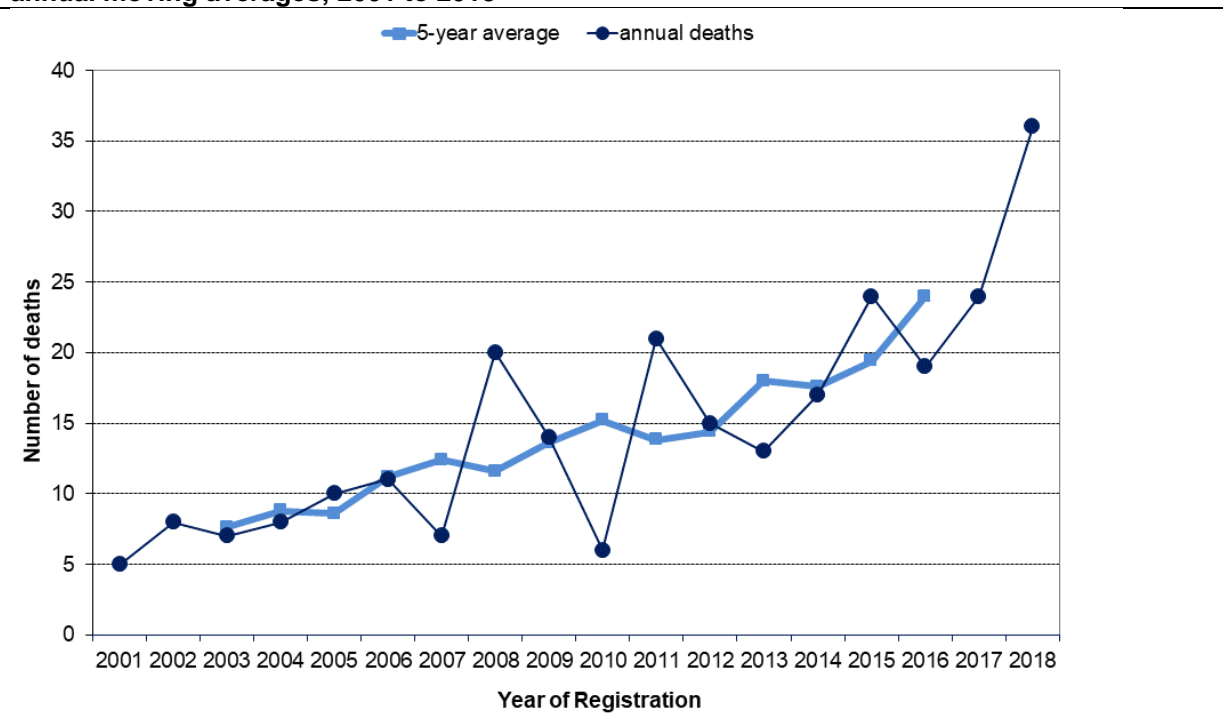
The National Records of Scotland (NRS) produce an annual publication that provides statistics of drug-related deaths which were registered in Scotland. The report uses an established definition of 'drug-related deaths' based upon the cause of death identified on death registrations and information supplied by forensic pathologists. For Highland these data report upon deaths registered during 2018 of either Highland Council area residents or persons of no fixed abode who died in Highland. Full details of the definitions and methods are available in the national report and NRS website.<sup>1,2</sup>

### 4. Highland Numbers

Similar to most other areas in Scotland there has been an increase in the number of drug-related deaths in Highland in 2018. There were 36 drug-related deaths registered in 2018 compared to 24 in 2017, an increase of 12 deaths.

It is important not to view a single year's figure in isolation because the numbers of drug related deaths each year are statistically relatively small in Highland. This means they are subject to year on year fluctuations, as shown in Figure 1. A more reliable indication of the longer-term trends is provided by using 5-year annual averages, which 'smooth out' the effects of annual variation.

**Figure 1. Number of drug-related deaths for Highland Council area, annual value and 5 year annual moving averages; 2001 to 2018**



Source: National Records of Scotland

<sup>1</sup> [National Records of Scotland; Drug-related deaths in Scotland in 2018](#)

<sup>2</sup> <http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/drug-related-deaths-in-scotland>

Comparing the annual average for the five-year period 2014-2018 (24 deaths) with that for 2004-2008 (11 deaths) shows that the number of drug-related deaths has increased by 13 (114 percent). The thick solid line in Figure 1 shows that the overall trend in drug related mortality in Highland is increasing but at a slower rate than the individual years suggest.

## 5. Comparison with Scotland

The number of drug-related deaths in Highland can be compared with those nationally by expressing the average number of deaths as a rate per 1,000 population. Using the average annual number of deaths for 2014-18, Highland has a death rate of 0.10 per 1,000 population. This is below the national average of 0.16 per 1,000 population and in the lower third of all council areas in Scotland.

Further indication of drug-related death rates can be made relative to estimates of the number of people age 15-64 that are of increased risk due to problem drug use. Problem drug use is defined as the illicit use of opiates and/or benzodiazepines. It includes illicit and prescribed methadone use but excludes recreational and occasional drug use. Using the average annual number of deaths for 2014-18, Highland has a death rate of 13.9 per 1,000 problem drug users. This is higher although not statistically significantly higher than the rate of 12.7 per 1,000 for Scotland as a whole.

**Table 1: Drug-related deaths, rate per 1,000 population and rate relative to the estimated number of problem drug users**

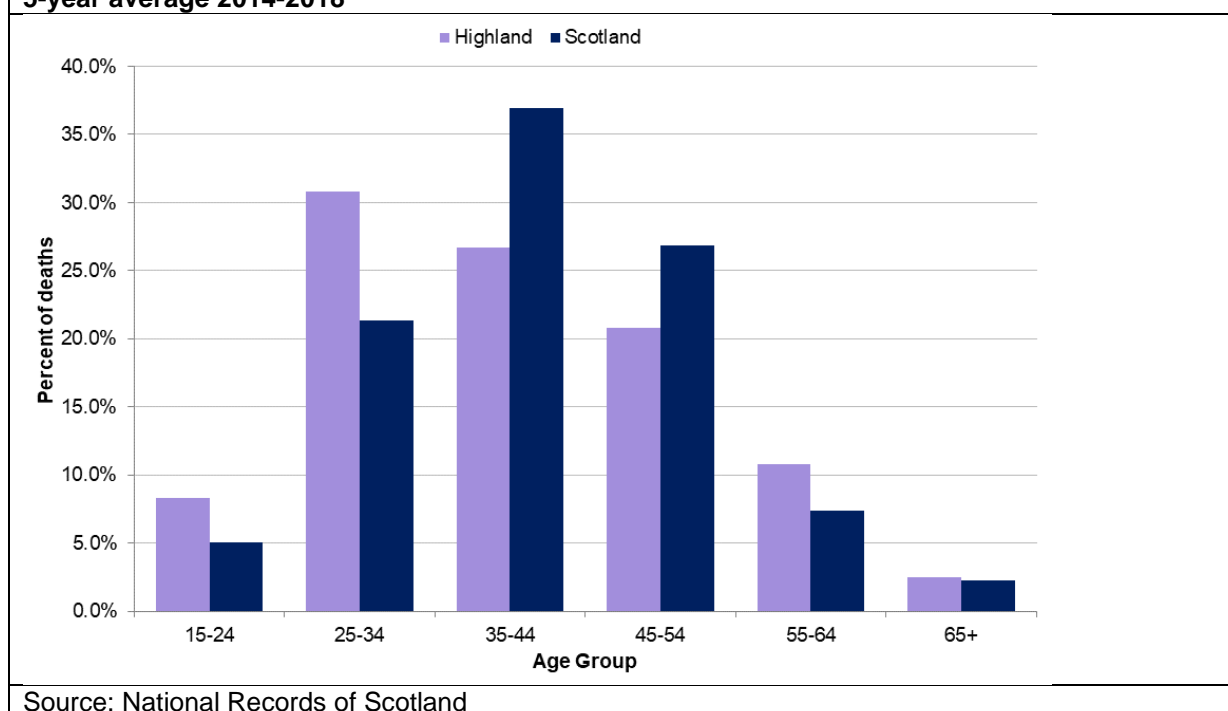
	Average annual deaths 2004-2008	Average annual deaths 2014-2018	2014-2018 rate per 1,000 population	2014-2018 rate per 1,000 problem drug users
Highland	11	24	0.10	13.9
Scotland	428	862	0.16	12.7

Source: National Records of Scotland

## 6. Age at Death

Between 2014 and 2018 there were 10 drug-related deaths of people aged 15-24 (8 per cent of all drug-related deaths), 37 in the 25-34 year age group (31 per cent), 32 in the 35-44 age group (27 per cent) and 41 deaths of people aged 45 and over (34 per cent). Figure 2 shows that while there is a lower rate per 1,000 deaths in Highland compared to the national rate (0.10 and 0.16 respectively) there is a higher proportion of deaths in the 15-24, 25-34, 55-64 and 65 and over age groups in Highland and a lower percentage of deaths in the 35-44 and 45-54 age groups compared to the national profile.

**Figure 2: Drug-related deaths per 1,000 population and age group, Highland and Scotland; 5-year average 2014-2018**



Source: National Records of Scotland

The age-specific rate of drug-related deaths for Highland compared to Scotland is shown in Table 2. This further illustrates that drug-related deaths in Highland have a slightly younger profile compared to those for Scotland as a whole. Highland drug-related mortality in the 35-44 age group is half that of the overall Scotland rate; 0.23 per 1,000 population compared to 0.48 per 1,000 population. Similarly the Highland drug-related mortality in the 45-54 age group is half that of the overall Scotland rate; 0.14 per 1,000 population compared to 0.29 per 1,000 population.

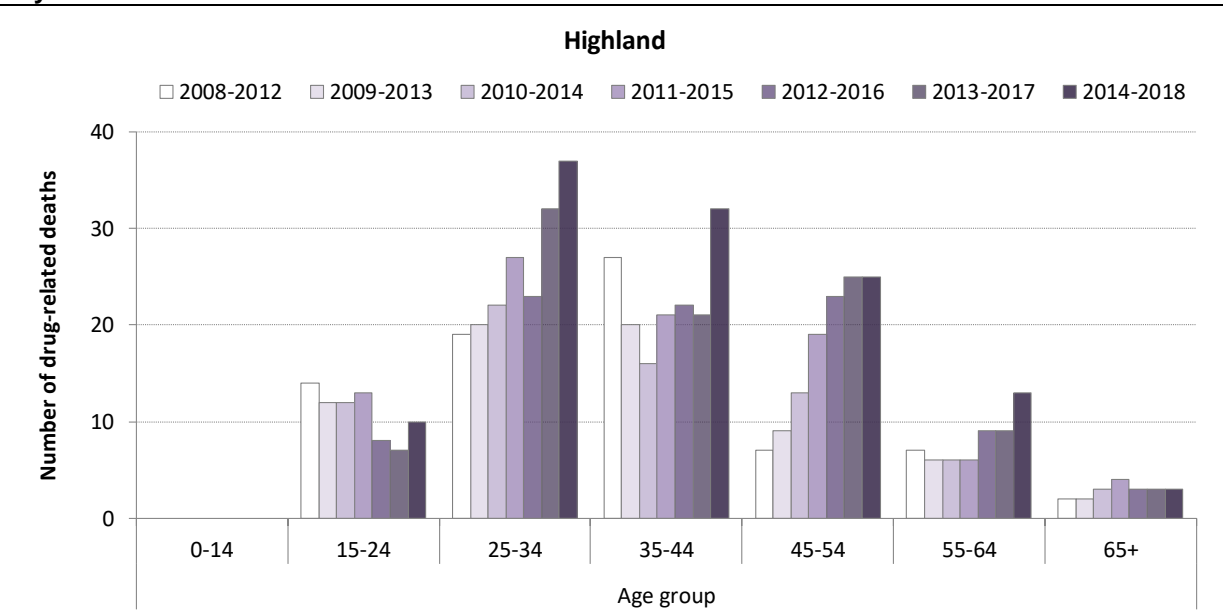
**Table 2: Age specific drug-related deaths and rates per 1,000 population, total for 2014 to 2018**

Age Group	Highland			Scotland		
	Deaths	Percent	rate per 1,000	Deaths	Percent	rate per 1,000
15-24	10	8%	0.08	218	5%	0.07
25-34	37	31%	0.29	921	21%	0.25
35-44	32	27%	0.23	1591	37%	0.48
45-54	25	21%	0.14	1158	27%	0.29
55-64	13	11%	0.08	318	7%	0.09
65 and over	2	3%	0.16	98	2%	0.24
All ages	120	100%	0.10	4309	100%	0.16

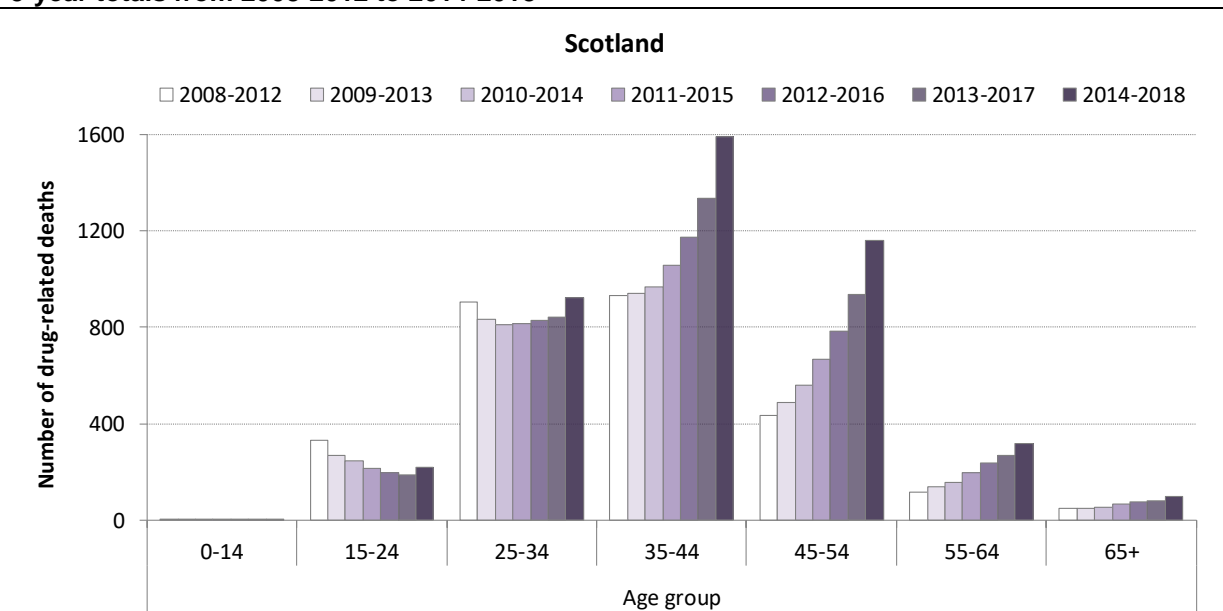
Source: National Records of Scotland

Figures 3a and 3b show trends in the total number of drug-related deaths by age group for 5 year time periods from 2008-2012 to 2014-2018. Comparison of these charts emphasizes the increasing trend in Highland of deaths in the 25-34 age group compared to Scotland and a stepped increase in the 35-44 age group for Highland, where nationally, there has been a continuously increasing trend.

**Figure 3a: Number of Drug-related deaths by age group, Highland; 5-year totals from 2008-2012 to 2014-2018**



**Figure 3b: Number of Drug-related deaths by age group, Scotland; 5-year totals from 2008-2012 to 2014-2018**

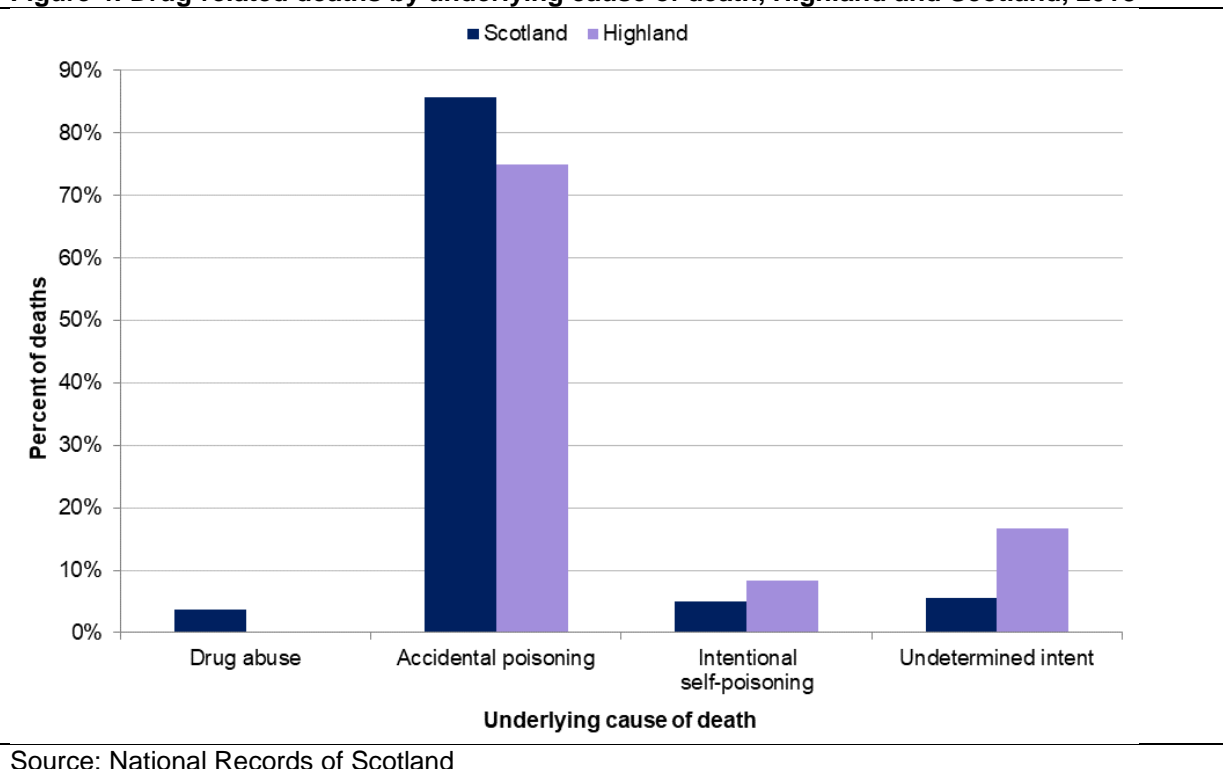


Source: National Records of Scotland

## 7. Underlying cause of death

The underlying cause of death is reported by a standard set of diagnostic groupings based upon International Classification of Diseases Tenth Revision (ICD-10) codes. Figure 4 shows that during 2018 three quarters of deaths in Highland (27, 75 per cent) were attributed to accidental poisoning. These are deaths where a drug listed under the Misuse of Drugs Act (1971) was found to be present in the body at the time of death, even if it did not directly contribute to the outcome. There were 3 deaths (8 per cent) classified as intentional self-poisoning and 6 deaths (17 per cent) where intent could not be determined. Drug-related deaths classified as intentional self-poisoning may also be reported nationally as suicides. These deaths may not be considered by the local prevention and review group that identifies lessons to be learned from individual deaths.

**Figure 4: Drug-related deaths by underlying cause of death, Highland and Scotland, 2018**



## 8. Drugs reported in deaths

The type of drug either implicated in, or potentially contributing to, drug-related deaths in Highland between 2014 and 2018 is shown in Table 3. In 2018 benzodiazepines were implicated in 26 deaths (72 per cent), methadone in 17 deaths (47 per cent), heroin or morphine in 8 deaths (22 per cent) and dihydrocodeines in 6 deaths (17 per cent).

**Table 3: Number of Drug-related deaths by selected drugs reported, Highland, 2014 to 2018**

	2014	2015	2016	2017	2018
All drug-related deaths	17	24	19	24	36
Any opiate or opioid	16	19	14	22	31
- Heroin and/or morphine	11	7	4	10	8
- Methadone	2	8	3	10	17
- Heroin / morphine, Methadone or Buprenorphine	13	13	7	17	25
- Codeine or a codeine-containing compound	3	0	0	0	0
- Dihydrocodeine or d.h.c-containing compound	1	4	2	7	6
Benzodiazepines	4	10	6	17	26
- any "Prescribable" benzodiazepine	n/a	n/a	n/a	n/a	22
- Diazepam	3	5	4	10	16
- any "Street" benzodiazepine	n/a	n/a	n/a	n/a	11
- Etizolam	n/a	n/a	n/a	n/a	2
Gabapentin and/or Pregabalin	n/a	n/a	n/a	n/a	11
Cocaine	0	2	2	3	10
Ecstasy-type	0	1	1	1	1
Amphetamines	0	0	0	1	3
Alcohol	3	1	2	1	4

Source: National Records of Scotland

Notes:

1. More than one drug may be reported per death.
2. The format of the published NRS Table C3: Drug-related deaths by selected drugs reported and Council area changed in 2018. Data for years preceding 2018 are not available in some categories.

A comparison of both years shows that one or more opiates or opioids were present in the majority of cases; 22 out of 24 deaths in 2017 and 31 out of 36 deaths in 2018. The number of deaths associated with methadone, benzodiazepines and dihydrocodeine compounds have shown a generally increasing trend since 2015.

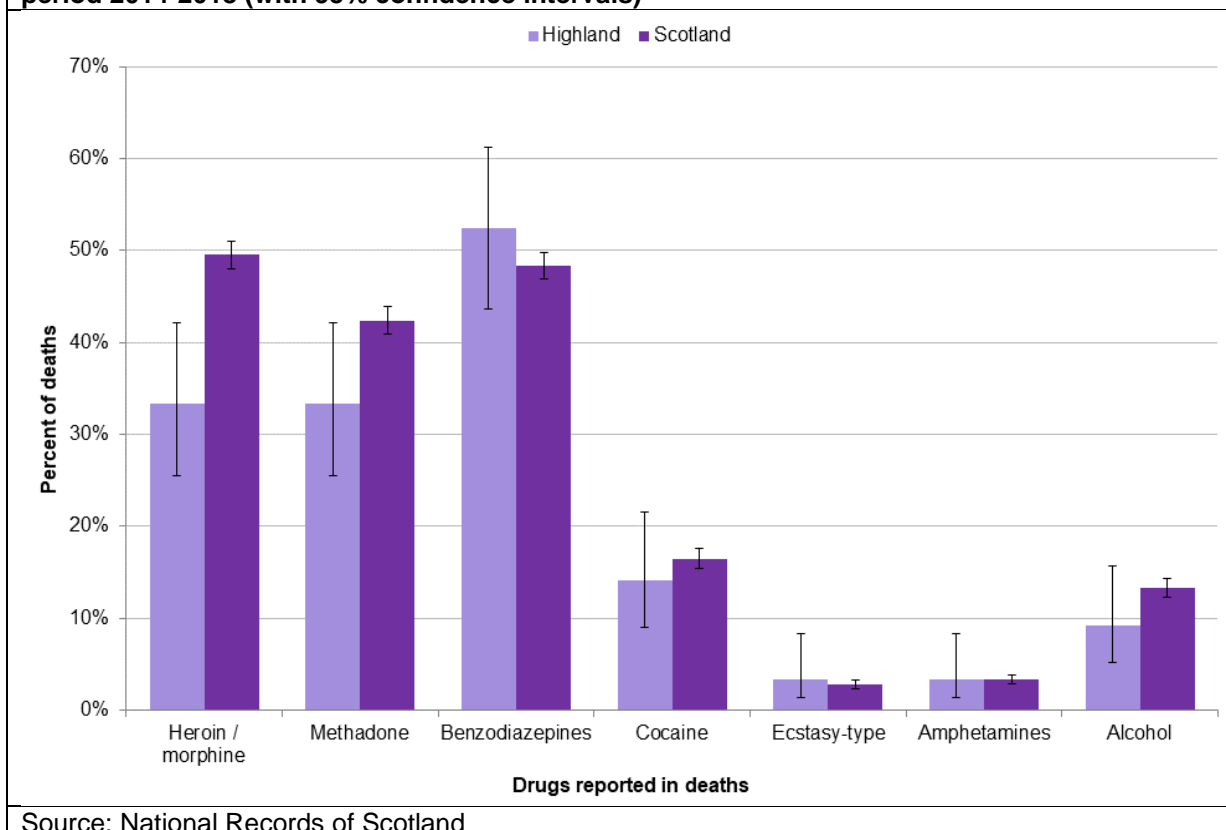
Figures newly available for 2018 have shown Gabapentin and/or Pregabalin to be present in 11 cases. In 2018, Gabapentin and/or Pregabalin were implicated in 31 per cent of deaths for both Highland and Scotland.

There has been an increase in 2018 in Cocaine which was implicated in 10 deaths (28 per cent) which also reflects the national trend.

Whilst some caution must be made in interpreting figures for a single year they do provide important intelligence for local drug trends.

The type of drugs implicated in, or potentially contributing to, drug-related deaths in Highland can be compared with those nationally using the average annual deaths for 2014-2018 (Figure 5). Over the five-year period there have been more drug-related deaths in Highland where benzodiazepines were implicated, and fewer deaths where methadone and heroin or morphine was reported.

**Figure 5: Drug-related deaths by selected drugs reported, Highland and Scotland, 5-year period 2014-2018 (with 95% confidence intervals)**



The number of deaths involving New Psychoactive Substances (NPS) is only reported at a national level. In 2018 Scotland had 575 drug-related deaths where NPS were implicated (based on the 1,313 deaths identified from the Office for National Statistics (ONS) 'wide' definition).

Based on the Drug Strategy 'baseline' definition of drug related deaths as implemented by National Records of Scotland and which has been used throughout this report, NPS were implicated in 572 drug-related deaths. Of these, only eight reported NPS to be the *only* substance contributing to the death. Table 4 shows that nationally there has been a stepped increase in the proportion of deaths where NPS were implicated rising from 4 per cent in 2011 to 10 per cent in 2015. In 2016 and 2017, NPS were reported in approximately a third of cases increasing to 48 per cent of deaths by 2018.



**Table 4: Drug-related deaths which involved New Psychoactive Substances (NPSs) registered in Scotland, 2008 to 2018**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Drug-related deaths registered in year <sup>1</sup>	545	485	584	581	527	614	706	868	934	1187
Deaths which involved 'New Psychoactive Substances' <sup>2</sup>	2	6	26	30	58	56	72	281	335	572
<i>Percentage of deaths which involved NPS</i>	0%	1%	4%	5%	11%	9%	10%	32%	36%	48%
NPS the only substance(s)* implicated in the death <sup>3</sup>	0	4	0	3	4	3	2	2	4	8
Other substance(s)** also implicated in the death <sup>4</sup>	2	2	26	27	54	53	70	279	331	564
NPS present but not considered to have contributed to the death	1	2	19	15	52	51	36	58	25	13

**Footnotes**

- 1) Within the Drug Strategy 'baseline' definition, as implemented by National Records of Scotland
- 2) The substances which are counted as NPS are described in Annex E of NRS National Report, 2018.
- 3) For example, the death was after 15 April 2010, the cause of death was certified as 'mephedrone intoxication', and no other substance was said to have been found.
- 4) For example, the cause of death was certified as 'adverse effects of methadone and mephedrone'.

Source: National Records of Scotland

Further detail is provided in the National Records of Scotland Report.

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