

Drug Deaths in Tayside, Scotland

2021 Annual Report

Tayside Drug Death Review Group

Executive Summary

The Tayside Drug Death Review Group is a multi-agency forum which reviews all suspected drug deaths to provide intelligence and strategic guidance to the three Alcohol and Drug Partnerships in Tayside – Angus, Dundee City, and Perth and Kinross.

The Tayside Drug Death Review Group classifies a drug death as a death which has occurred as a result of a non-intentional overdose of illicit, or illicitly obtained, controlled substances. Tayside had an increasing number of drug deaths year on year between 2013 and 2020. The number of drug deaths across Tayside in 2021 declined slightly compared to the previous year to a total of 78 (Angus 17, Dundee City 47, Perth and Kinross 14).

The mean age of drug death casualties in 2021 was 43.1 years, a continuation of the trend of mean age at death increasing for more than 10 years. 53 of those who died (68%) were male, but whilst male deaths decreased by 21% between 2020 and 2021, female deaths increased by 14%.

60 (77%) of drug deaths in 2021 occurred amongst people who lived in areas of greatest socioeconomic deprivation (SIMD 1 and 2).

At the time of their death in 2021, 58 (74.4%) individuals were identified as having been diagnosed with a mental health condition at some point in their lives.

39 of the 78 individuals (46.2%) had been in prison or on remand at least once in adulthood. 7 of these individuals (9.0%) had been in prison in the 12 months before their death.

The average number of substances found in toxicology was 6 (range 1-11), with Etizolam the single most frequently reported substance found (detected in 79% of cases).

Opioids remain the class of drug most frequently implicated as a cause of death (90% of cases), with Etizolam contributing in 70% and a continuing rise in cases where Cocaine contributes to death, from 11% in 2017 to 36% of deaths in 2021.

Recommendations arising from this report are identified under the Drug Deaths Taskforce priorities of Reducing Vulnerability, Reducing Risk and the Emergency Response to overdose.

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1. Introduction

For the purposes of this report, a drug death is defined as a death that has occurred as the result of a non-intentional overdose of illicit (or illicitly obtained) controlled substances (Appendix 1 for full definition). The continuing rise in the number of drug deaths over many years, both locally and nationally, is considered a public health emergency. Every drug death is an individual tragedy that ends a life prematurely, but also has devastating, wide-reaching and often inter-generational impacts on families, friends and communities.

This report analyses information gathered from every drug death in Tayside in 2021. It is designed to complement the reporting of drug-related deaths by National Records of Scotland¹, providing more in-depth consideration of some of the wider health, social and immediate risk factors associated with problematic drug use and risk of subsequent drug death.

The work of the Tayside Drug Death Review Group (TDDRG) provides intelligence, learning and strategic guidance to the three Alcohol and Drug Partnerships (ADPs) in Tayside – Angus, Dundee City and Perth and Kinross.

¹ <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/drug-related-deaths-in-scotland/2019>

2. Overview of the Tayside Drug Death Review Group

2.1 Membership and processes

The Tayside Drug Death Review Group (Tayside DDRG) comprises representation from multiple agencies across Tayside including: NHS Tayside (Public Health, Pharmacy, Prisoner & Police Custody Healthcare, Adult Support and Protection); Police Scotland; Third Sector organisations; Community Justice; statutory Children & Families Services; the three Tayside Alcohol and Drug Partnerships (ADPs), the specialist substance use services and three Health & Social Care Partnerships (HSCP). A full list of membership is given in Appendix 2.

Suspected drug deaths are notified to the Health Intelligence team within NHS Tayside Public Health by Police Scotland. Details are then collected from partner agencies, assimilated and subsequently reviewed by the Tayside Drug Death Review Group to determine if the case should be considered a drug death or not, and to identify any emerging trends and key themes to inform improvement activity and strategic work. Specific areas of feedback in relation to a reviewed case are provided directly by the Tayside Drug Death Review Group to the service involved, where appropriate.

Recommendations identified by the Tayside Drug Death Review Group also inform the work of the Tayside Overdose Prevention Group and action plans developed by each of the ADPs in Tayside.

2.2 Definition of a drug death

The methodology of the drug death review process in Tayside relies on case finding and subsequent data collection being initiated by Police Scotland based on Sudden Death Reports (SDR). Deaths directly resulting from the presumed non-intentional overdose of illicit (or illicitly obtained controlled) substances in Tayside are included and considered. It is acknowledged that there are complex cases where the cause of death cannot be explicitly related either to the consumption of a substance(s) or to other health causes. In such cases, the Tayside Drug Death Review Group considers the individual case, including the results of post-mortem toxicology, and comes to a judgment in relation to the contribution of the substance(s) to the death. Where, on review, toxicological findings indicate the presence of a controlled substance, but this substance may not necessarily have been a crucial factor contributing to the individual's death, this would not be considered a drug death and therefore not be included as a confirmed case for the purposes of the Tayside DDRG.

Of note, the use of the definition for a drug death by the Tayside DDRG is subtly different to that of a drug-related death used by the National Records of Scotland for their annual report.² The National Records of Scotland uses the ICD 10 classification system³ to identify cases of drug-related death once a death certificate has been issued. Furthermore, the National Records of Scotland, in their definition, will include deaths that have occurred as a result of intentional self-poisoning where controlled substances are present. In Tayside, these fatalities are considered by the Tayside Multiagency Suicide Prevention Group.

Therefore, because of the slightly different definition used by Tayside DDRG compared with the National Records of Scotland, the numbers reported will not be directly comparable between this report and the national report.

² National Records of Scotland. *Drug-related deaths in Scotland in 2018*. Accessible at <https://www.nrscotland.gov.uk/files//statistics/drug-related-deaths/2018/drug-related-deaths-18-pub.pdf>

³ World Health Organisation's (WHO) International Classification of Diseases, Tenth Revision (ICD-10).

3. General Findings

3.1 Incidence of drug deaths

In 2021 there were a total of 78 confirmed drug deaths in Tayside, a decrease of 12% from the previous year (figure 1). The number of deaths remained steady for Dundee at 47 for both 2020 and 2021. In Angus, there was an increase from 14 in 2020 to 17 in 2021 (21% increase). Perth and Kinross had the biggest year on year variation with a decrease from 28 in 2020 to 14 in 2021 (50% decrease), but there was an unusually high number of drug deaths in Perth and Kinross in 2020.

Local Authority	2017	2018	2019	2020	2021
Angus	14	10	19	14	17
Dundee City	51	53	55	47	47
Perth & Kinross	8	15	15	28	14
Tayside Total	73	78	89	89	78

Figure 1: Drug Deaths by local authority area of residence, 2017 - 2021

Rates of drug deaths in the overall population (figure 2) and in people with problematic drug use (figure 3) are consistently higher in Dundee City compared to Angus and Perth and Kinross. The decrease in deaths in Perth and Kinross in 2021 is also reflected in the number of deaths per 1000 people with problematic drug use (figure 3). These figures for Dundee City remained the same for 2021 in comparison to 2020, and in Angus there was an increase across the two years.

Local Authority	2017	2018	2019	2020	2021
Angus	0.12	0.09	0.16	0.12	0.15
Dundee City	0.34	0.36	0.37	0.32	0.32
Perth & Kinross	0.05	0.10	0.10	0.18	0.09
Tayside Total	0.18	0.19	0.21	0.21	0.19

Figure 2: Drug death rate per 1,000 population⁴, 2017 - 2021

⁴ Mid-year population estimate figures, 2019, NRS. Accessible here: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2020>

Local Authority	2017	2018	2019	2020	2021
Angus	17.5	12.5	23.7	17.5	21.3
Dundee City	22.1	23.0	23.9	20.4	20.4
Perth & Kinross	5.3	10.0	10.0	18.7	11.3
Tayside Total	15.8	16.5	19.3	19.3	17.0

Figure 3: Drug death rate per 1,000 people with people with problematic drug use⁵, 2017 - 2021

3.2 Drug death trends

Nationally, the number of drug-related deaths in Scotland in 2009 was 545, but total deaths have risen steadily and in 2021 the figure had risen to 1,330.⁶ This was a decrease of 1% (9 deaths) compared with 2020. It is the second highest drug deaths figure on record.

Between 2013 and 2020, the number of drug deaths in Tayside had been rising at a considerable rate (figure 4). In 2021, the number of total deaths was 78. This makes 2021 the first year since 2013 where drug deaths have not increased.

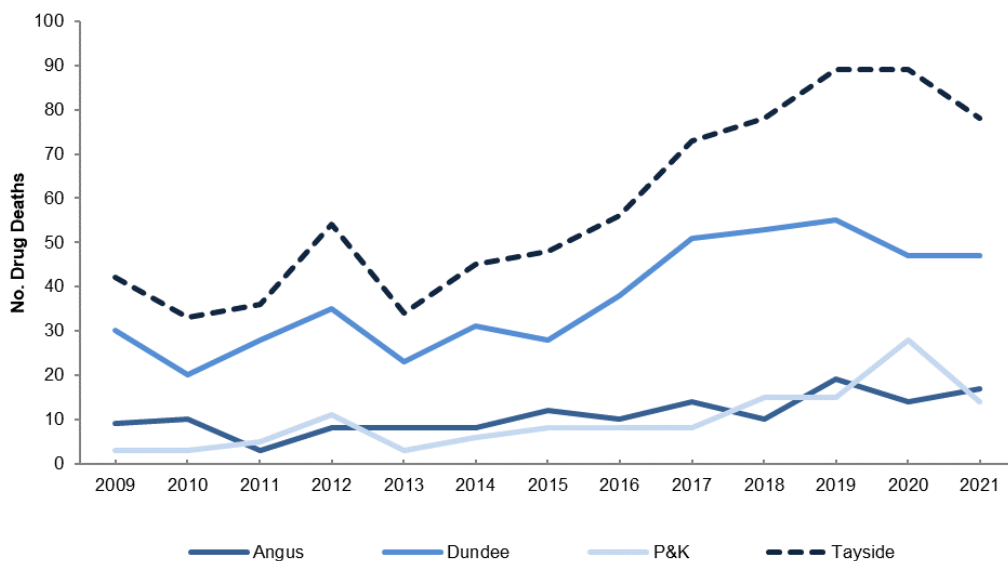


Figure 4: Tayside confirmed drug death numbers by local authority area of residence, 2009-2021

⁵ Prevalence of Problem Drug Use in Scotland, 2015/16 estimates. ISD Scotland. Accessible here: <https://www.isdscotland.org/Health-Topics/Drugs-and-Alcohol-Misuse/Publications/2019-03-05/2019-03-05-Drug-Prevalence-2015-16-Report.pdf>

⁶ National Records of Scotland. *Drug-related deaths in Scotland in 2021*. Accessible at <https://www.nrscotland.gov.uk/files/statistics/drug-related-deaths/21/drug-related-deaths-21-report.pdf>

3.3 Demographics

Age

In 2009 the average age of an individual in Tayside who died from a drug death was 33.6 years. In 2014 this had risen to 38.6 years, and in 2018 to 40.2 years. The average age of a casualty of a drug death in Tayside reached a new peak of 43.1 years in 2021 , continuing an overall trend of increasing mean age (figure 5).

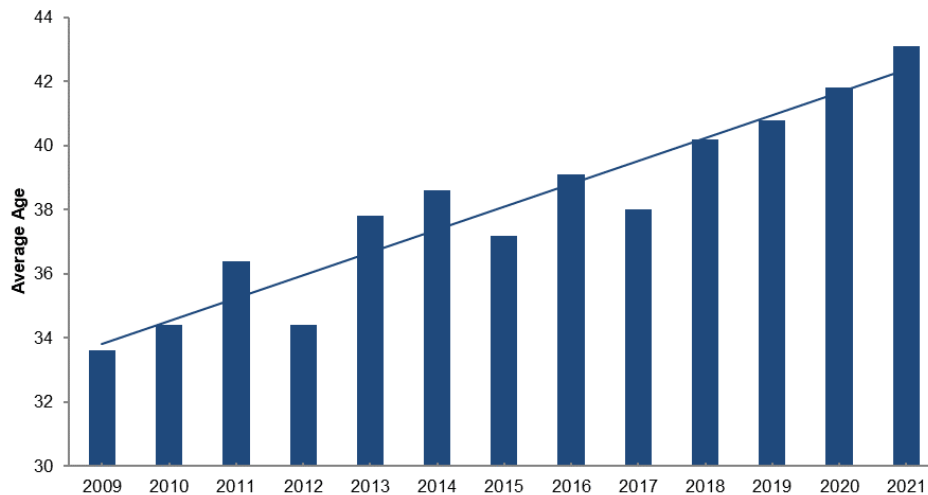


Figure 5: Tayside drug deaths: Mean age at death 2009-2021

Gender

Of the 78 drug deaths in 2021, 53 (68%) were male and 25 (32%) were female, a ratio of 2.1 (two male deaths for every one female). The proportion of male to female deaths has been narrowing over time in Tayside and nationally, the proportion of 68% male deaths for 2021 is the lowest recorded since data collection began in 2009. The actual number of female deaths for 2021 equals the highest number recorded in 2019. Male deaths for 2021 are the lowest recorded since 2016. Between 2020 and 2021 male deaths decreased by 21% whilst female deaths increased by 14%.

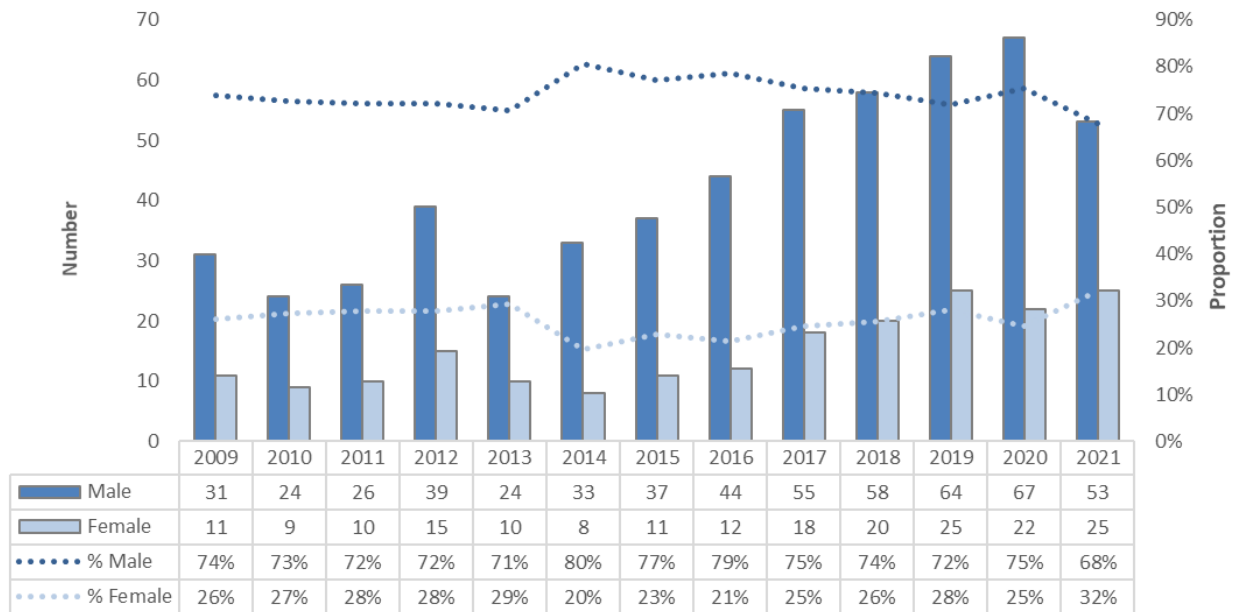
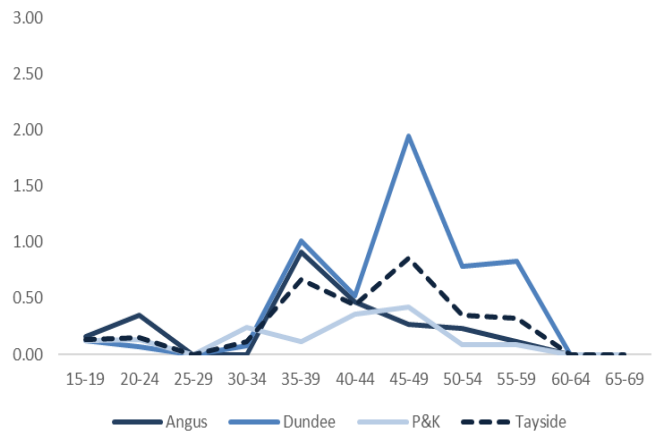


Figure 6: Tayside drug deaths by gender, 2009-2021

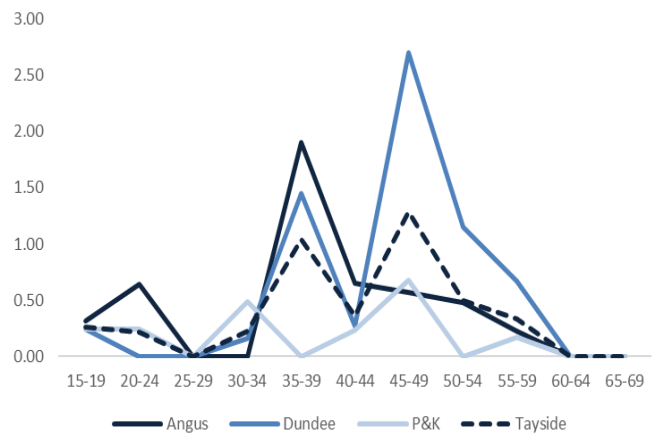
Age & Gender

When factoring age and gender into drug deaths in the overall population, there are significant regional differences across Tayside. In 2021, males aged between 45-49 residing in Dundee had a rate of 2.7 drug deaths per 1,000 in comparison to the overall Tayside figure of 0.15 and overall Tayside figure for males of 0.26. Females had a lower rate overall of 0.12 however for those aged between 45-49 the rate increased to 0.47 for Tayside (1.25 for Dundee). Figure 7 highlights these differences across the age groups, gender and regions for 2021, displaying the significant peaks in 30-50-year old's age groups, in males and in the Dundee region.

Age - All	Angus	Dundee	P&K	Tayside
15-19	0.16	0.12	0.13	0.13
20-24	0.35	0.07	0.13	0.15
25-29	0.00	0.00	0.00	0.00
30-34	0.00	0.08	0.24	0.11
35-39	0.91	1.01	0.11	0.66
40-44	0.47	0.52	0.36	0.44
45-49	0.27	1.95	0.42	0.86
50-54	0.23	0.78	0.09	0.35
55-59	0.11	0.83	0.08	0.33
60-64	0.00	0.00	0.00	0.00
65-69	0.00	0.00	0.00	0.00
Overall	0.15	0.32	0.09	0.19



Age - Male	Angus	Dundee	P&K	Tayside
15-19	0.32	0.25	0.24	0.27
20-24	0.64	0.00	0.25	0.22
25-29	0.00	0.00	0.00	0.00
30-34	0.00	0.16	0.49	0.23
35-39	1.90	1.45	0.00	1.04
40-44	0.65	0.27	0.24	0.36
45-49	0.57	2.70	0.68	1.29
50-54	0.48	1.15	0.00	0.50
55-59	0.22	0.67	0.17	0.34
60-64	0.00	0.00	0.00	0.00
65-69	0.00	0.00	0.00	0.00
Overall	0.28	0.39	0.12	0.26



Age - Female	Angus	Dundee	P&K	Tayside
15-19	0.00	0.00	0.00	0.00
20-24	0.00	0.14	0.00	0.07
25-29	0.00	0.00	0.00	0.00
30-34	0.00	0.00	0.00	0.00
35-39	0.00	0.59	0.22	0.30
40-44	0.30	0.75	0.47	0.52
45-49	0.00	1.25	0.20	0.47
50-54	0.00	0.44	0.17	0.20
55-59	0.00	0.97	0.00	0.32
60-64	0.00	0.00	0.00	0.00
65-69	0.00	0.00	0.00	0.00
Overall	0.02	0.25	0.06	0.12

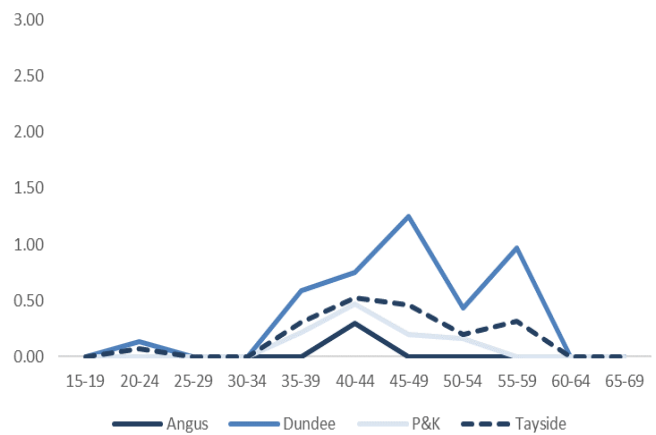


Figure 7: Drug death rate per 1,000 population by Region, Age & Gender, 2021

Socioeconomic deprivation

There is a clear inequality gradient associated with drug deaths with more than half of drug deaths occurring in areas of greatest socioeconomic deprivation. This trend can also be seen in the figures for previous years where the highest number of drug deaths occurred in SIMD 1 (figure 8). Overall, for the past four years, 75% of all deaths have occurred where the deceased was a resident in a SIMD 1 or 2 area.

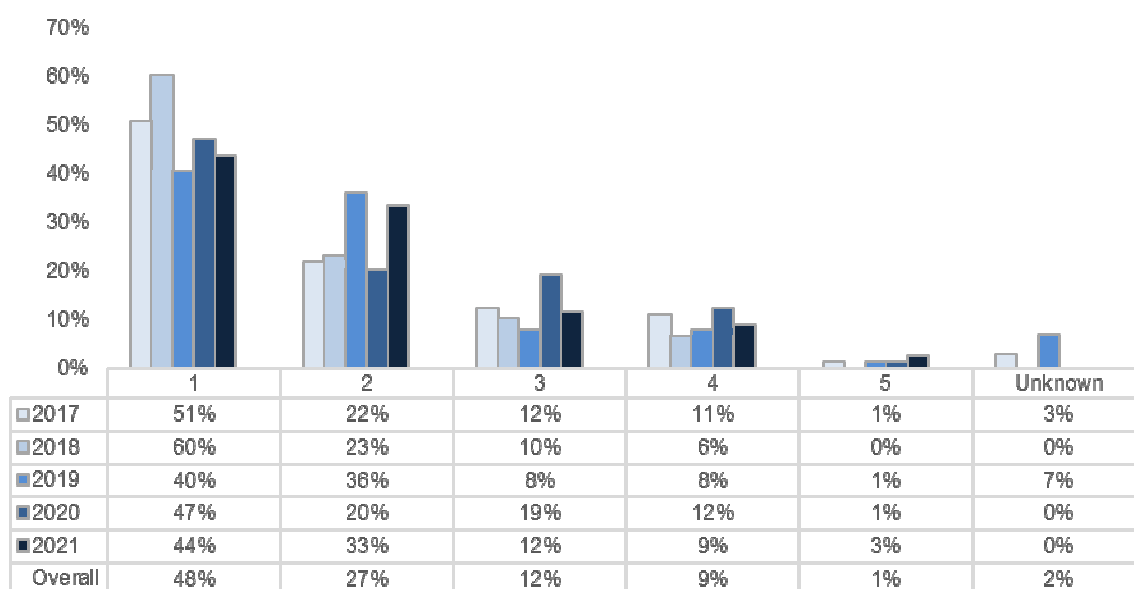


Figure 8: Tayside drug deaths by deprivation, 2021 (using Scottish Index of Multiple Deprivation 2021)

3.4 Location of death

The majority of drug deaths in 2021 occurred in the individual's own home (figure 9). Of the 78 individuals who died, 53 (68%) died in their own homes while 15 (19%) died at an address different to their usual residence. Six (8%) individuals died elsewhere, including outdoors, prison and in hospital.

Place of death	2018		2019		2020		2021	
	Number	%	Number	%	Number	%	Number	%
Own Home	51	65%	56	63%	64	72%	53	68%
Other's Home	15	19%	20	22%	18	20%	15	19%
Supported Acc.	6	8%	5	6%	1	1%	4	5%
Other	6	8%	8	9%	6	7%	6	8%

Figure 9: Place of death, 2018 – 2021

3.5 Scene of death

In 36 (46.2%) drug death cases in 2021 it was reported that another person was present at the time of death, either in the same room or in the same location as the deceased. Over half of drug deaths (53.8%) in 2021 occurred where there were no other persons present, or that information was not known/available (figure 10). Where a person was present at the scene of the fatal overdose, 15 (19%) were in the same room, while 18 (23%) were elsewhere in the property/location. Regional differences are shown in figure 10.

			Angus	Dundee	P&K	Tayside
Where were persons present at scene of overdose?	In the same room	Number	3	9	3	15
		%	17.6%	19.1%	21.4%	19.2%
	Not in the same room	Number	3	11	4	18
		%	17.6%	23.4%	28.6%	23.1%
	Present – unknown location	Number	0	1	2	3
		%	0.0%	2.1%	14.3%	3.8%
	None present / Unknown	Number	11	26	5	42
		%	64.7%	55.3%	35.7%	53.8%

Figure 10: Number & % of drug deaths with persons present at scene of fatal overdose, 2021

3.6 Adverse experiences

Evidence shows that adversity suffered in childhood can have a significant impact on future adult health and health risk behaviours⁷. Over the past four years, 53 (16%) individuals who died from drug death had previously reported having experienced sexual and/or physical abuse as a child. Given that these figures are contingent on reporting mechanisms - and not all adverse childhood experiences for all casualties of a drug death will be recorded - these figures will inevitably be an underestimation of the true exposure to adverse childhood events experienced by casualties of drug deaths.

Adverse experiences in adulthood are recorded less commonly in the dataset than childhood ones, with 41 (12%) individuals over the past 4 years reporting having experienced sexual and/or physical abuse as an adult over the past four years (this includes cases of reported domestic violence). Some individuals experienced multiple adverse events and it is likely that these numbers are an underestimation of the true impact of adverse life events in adulthood for casualties of a drug death.

⁷ Scottish Public Health Network (ScotPHN) 'Polishing the Diamonds'. Addressing Adverse Childhood Experiences in Scotland (Sarah Couper and Phil Mackie), May 2016

Adverse experience	2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%
Childhood	10	13.0%	12	13.5%	15	16.9%	16	20.3%
Physical abuse	6	7.8%	7	7.9%	9	10.1%	14	17.7%
Sexual abuse	6	7.8%	6	6.7%	10	11.2%	10	12.7%
Adulthood	7	9.1%	13	14.6%	10	11.2%	11	13.9%
Physical abuse	4	5.2%	12	13.5%	9	10.1%	10	12.7%
Sexual abuse	4	5.2%	2	3.4%	3	2.2%	6	7.6%

Figure 11: Adverse experiences by type, 2018 - 2021

3.7 Physical health conditions

Certain physical health conditions have been found to be more common in those with problematic substance use. Whilst it is difficult to collate this data effectively, some conditions can be categorised for reporting purposes. The most common physical health conditions recorded in the histories of drug death casualties are listed in figure 12. An individual may have experienced more than one physical condition. Other conditions that are not listed were reported.

Many conditions, such as Pain, Pneumonia, Asthma, COPD and Emphysema, were proportionally more commonly reported in females in comparison to males.

Condition	Female		Male		Total	
	Number	%	Number	%	Number	%
Abscess / DVT	7	28%	15	28%	22	28%
BBV (Past or Current) ¹	6	24%	16	30%	22	28%
Epilepsy / Seizures	6	24%	14	26%	20	26%
Pain	9	36%	10	19%	19	24%
Pneumonia	5	20%	7	13%	12	15%
Asthma	6	24%	6	11%	12	15%
COPD / Emphysema	5	20%	5	9%	10	13%
Cardiac Conditions	3	12%	7	13%	10	13%
Unspecified respiratory Conditions	6	24%	3	6%	9	12%
Renal Conditions	3	12%	1	2%	4	5%
Diabetes	0	0%	3	6%	3	4%

¹ Blood-borne viruses-HIV, Hepatitis B, Hepatitis C

Figure 12: Physical health conditions by type, 2021

3.8 Mental health conditions

Mental health conditions commonly co-exist with problem substance use. At the time of their death in 2021, 58 (74.4%) individuals were identified as having been diagnosed with a mental health condition at some point in their lives.

The most common mental health conditions recorded in the histories of drug death casualties are listed in figure 13. If more than one condition is recorded for an individual, all are shown in the numbers below. Other conditions that are not listed but were reported (numbers less than 5) are bipolar disorder and suicidal ideations. To note, nomenclature and clinical coding differs between primary care and acute mental health services.

In 2021, the proportion of casualties with Schizophrenia increased to 12.8%. Although representing a small number of actual cases, this is more than double the average reported proportion of 5.1% for 2018 to 2020. The number of casualties with no known mental health conditions has decreased for 2020 and 2021.

Condition	2018		2019		2020		2021	
	Number	%	Number	%	Number	%	Number	%
Depression	30	38.5%	38	42.7%	47	52.8%	37	47.4%
Anxiety	15	19.2%	17	19.1%	34	38.2%	28	35.9%
PTSD	1	1.3%	3	3.4%	9	10.1%	2	2.6%
Psychosis ¹	5	6.4%	5	5.6%	8	9.0%	7	9.0%
Low mood	9	11.5%	9	10.1%	5	5.6%	4	5.1%
Schizophrenia	5	6.4%	5	5.6%	3	3.4%	10	12.8%
Personality disorder	5	6.4%	2	2.2%	3	3.4%	5	6.4%
No Known conditions	25	32.1%	30	33.7%	21	23.6%	20	25.6%

¹Includes documented psychotic episodes, determined to be drug induced and not, and undifferentiated psychosis as may be recorded in a GP record before a more formal diagnosis is made.

Figure 13: Mental health conditions by type as diagnosed by Primary Care or Mental Health Services, 2018 - 2021

3.9 Criminal justice and offending

Approximately 46% of all drug death casualties in 2021 had been in prison at some point during their lifetime. Information gathering around criminal justice and offending can be difficult as at times it is reliant on individuals volunteering past arrests or convictions. It is therefore likely that the reported figures are lower than the actual numbers of those having spent time in prison.

Analysis of reported past convictions, arrests and incarcerations of available evidence showed that:

- 39 of the 78 individuals (46.2%) had been in prison or on remand at least once in adulthood.
- 7 of these individuals (9.0%) had been in prison in the 12 months before their death.
- 2 individuals (2.6%) died whilst in prison

3.10 Impact on Children

Losing a parent to a drug death represents a significant adverse life event for a child and can place them at increased vulnerability themselves for poor wellbeing and risk taking behaviours. In 2021:

- 17 (22%) of drug death casualties were known to have children under the age of 16, whether living with them or living elsewhere
- 25 children aged 16 or under lost a parent to a drug death.

3.11 Employment

At the time of their death, 11 (14.1%) casualties of drug death were known to be in regular employment, on furlough or full-time education. 34 (43.6%) were known to be unemployed, and the employment status of the remaining casualties were unknown.

4. Substance-specific findings

4.1 Substances found in toxicology

The mean number of substances reported in toxicology was 6 (range 2-11). The most frequently reported substances reported in toxicology at post-mortem were Etizolam (79%), Methadone (55%) and Morphine (54%). The top 10 most common substances reported in toxicology for 2021 are displayed in figure 14 alongside the trend data for these substances over the past five years.

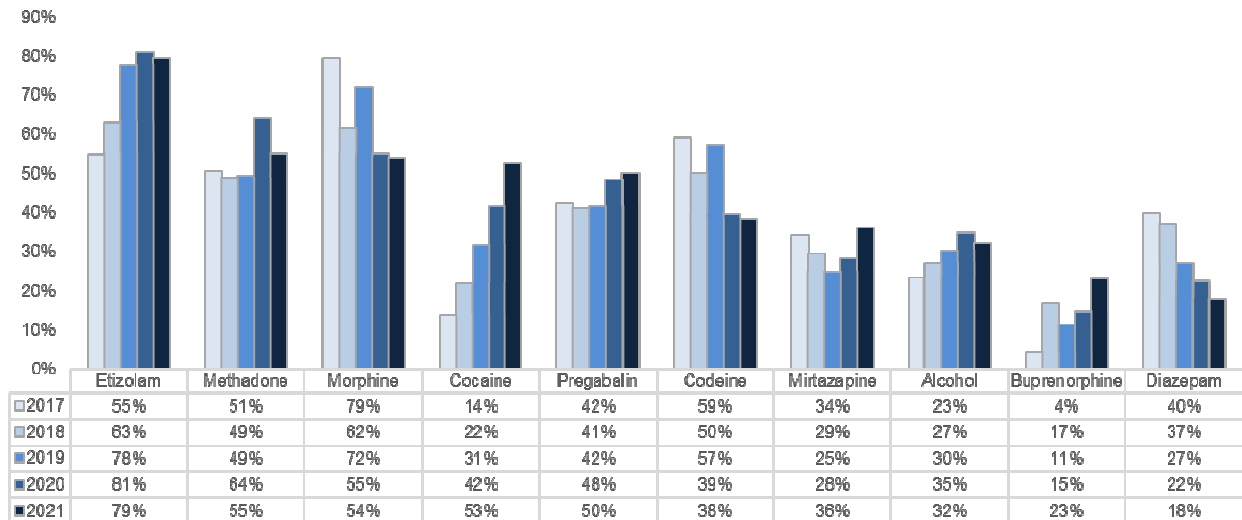


Figure 14: Substances found in toxicology, as percentage of deaths, 2017 – 2021

There have been substantial declines in the proportional number of deaths with Morphine (-32%), Codeine (-35%) and Diazepam (-55%) in toxicology reports. Small increases have been seen over the five-year period with cases involving Methadone (+9%), Mirtazapine (+5%) and Alcohol (+38%). Those substances with the greatest increases in toxicological reporting- Etizolam, Cocaine, Pregabalin and Buprenorphine- are displayed in figure 15 and previous years data has been provided.

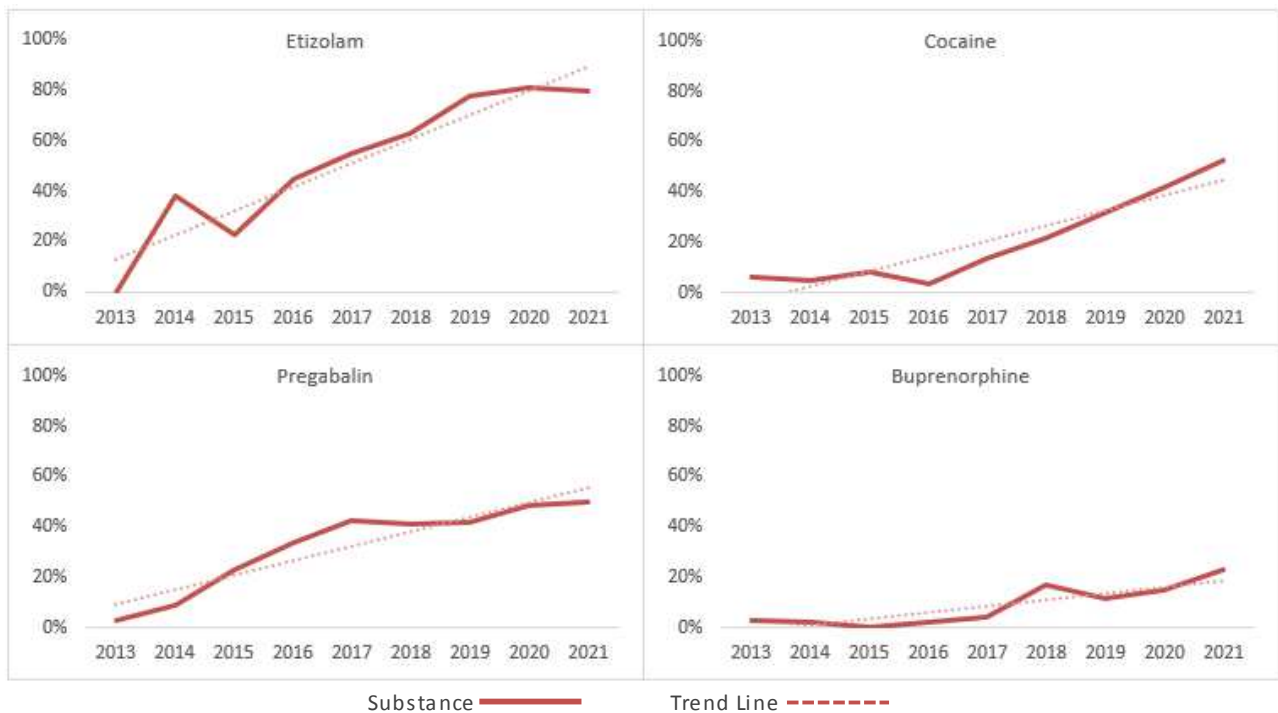


Figure 15: Substances found in toxicology with increasing prevalence, as percentage of deaths, 2013 – 2021

Etizolam was the most common substance found in toxicology, found in 79% of all deaths for 2021. The increase in the substance since 2015 has been significant and it has been the most common reported substance found in toxicology since 2019.

Deaths where Pregabalin was recorded in toxicology have been steadily increasing since 2013 and were present in half of all deaths in 2021.

Deaths involving Cocaine in toxicology reports have seen one of the largest changes with numbers consistently increasing since 2016. For 2021, Cocaine was found in 53% of all toxicology reports and was the fourth most common substance found behind Etizolam (79%), Methadone (55%) and Morphine (54%). This is far greater than the national picture where Cocaine was present in 30% of all drug related death⁸

The number of deaths where Buprenorphine was found in the toxicology has been increasing since 2019 and was present in 23% (n=18) of all deaths for 2021. Of these deaths, 44% (n=8) were prescribed Buprenorphine as OST, 11% (n=2) were prescribed Suboxone and the remaining 44% (n=8) were not on an OST prescription.

⁸ National Records of Scotland. *Drug-related deaths in Scotland in 2021*. Accessible at <https://www.nrscotland.gov.uk/files/statistics/drug-related-deaths/21/drug-related-deaths-21-report.pdf>

There are variations across the region in substances found in toxicology reports in 2021. Whilst Etizolam is the leading substance found in all three regions, it is more dominant in deaths occurring in Dundee (85%) compared to Angus (65%) and Perth and Kinross (79%). Methadone and Mirtazapine are also more commonly found in toxicology for Dundee deaths in comparison to the other regions. Morphine was present in 71% of all Perth and Kinross deaths for 2021, well above the average of 54% across Tayside. Cocaine, Pregabalin and Alcohol were also found more commonly in Perth cases in comparisons to the other regions and Tayside's overall average for 2021. Codeine was present in over half of all deaths for both Angus and Perth and Kinross, well above the number for Dundee (30%). Angus also had slightly elevated numbers of Buprenorphine, and Diazepam in comparison to the other regions. These figures are detailed in figure 16.

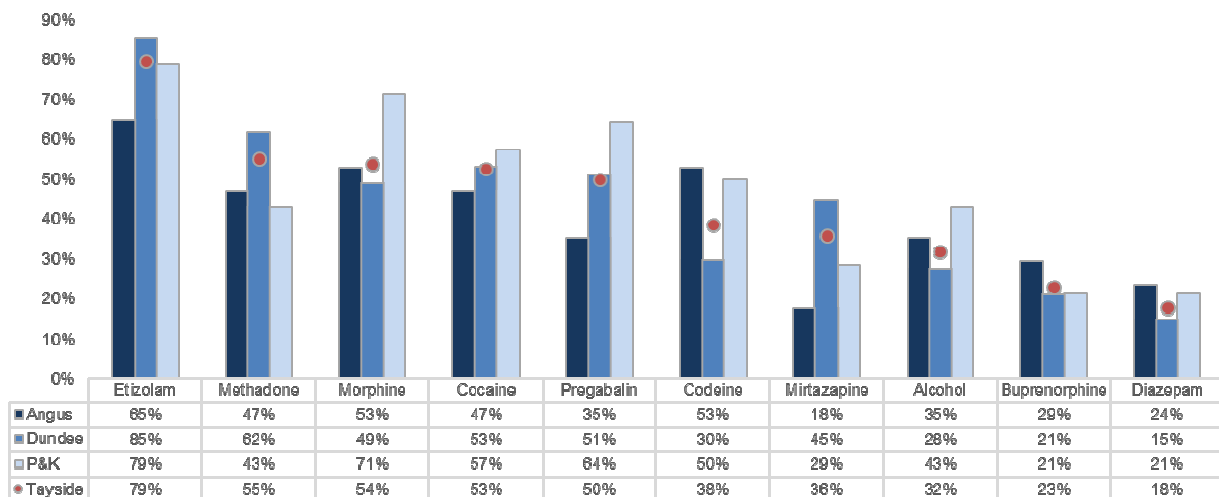


Figure 16: Substances found in toxicology as percentage of deaths by Region and Tayside, 2021

Opioids, Gabapentinoids and Benzodiazepines

In 2021, a combination of an Opioid plus a Gabapentinoid plus a Benzodiazepine was detected in 47 (60%) of deaths. Over the past five-year period, this combination has been in an average of 55% of all drug related deaths and has been increasing since 2019 (figure 16).

In almost all deaths for 2021 (96%), an Opioid was reported in the toxicology report. This figure includes both prescribed and illicitly obtained substances. This figure has been consistently high across the reporting period.

Benzodiazepines were found in 88% of all toxicology reports in 2021. As reported, Etizolam is the most common Benzodiazepine however others include Diazepam, Clonazepam, Flubromazepam, and Alprazolam. Diazepam and Alprazolam detection have been decreasing since 2018 however Clonazepam and Flubromazepam have only ever been reported for 2021 deaths.

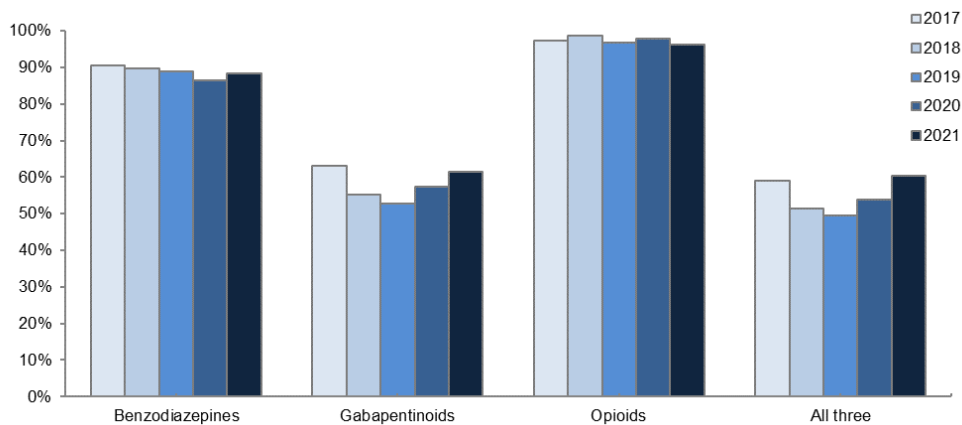


Figure 16: Opioids, Gabapentinoids and Benzodiazepines in toxicology, as percentage of deaths, 2017 – 2021

4.2 Trends in substances implicated in drug deaths

Following the trends noted in previous annual reports, the number of deaths where Cocaine is listed as a cause of death continued to increase in 2021 (figure 17). A substantial increase was also seen in cases involving Buprenorphine. Methadone and Etizolam had slight decreases with the most significant decreases being seen in cases involving Heroin/Morphine, Diazepam and Gabapentin.

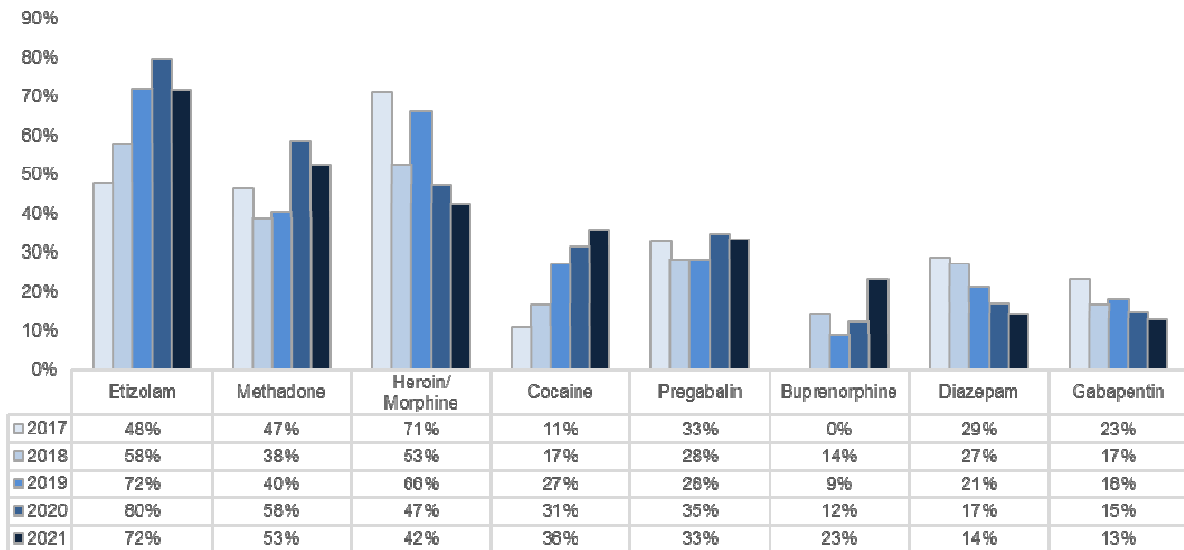


Figure 17: Drugs stated in post mortem cause of death as a percentage of deaths per year 2017-2021.

As a group, the most common drug types stated in the post mortem cause of death were Opioid drugs (mainly Heroin/Morphine and Methadone but also Buprenorphine, Codeine, Fentanyl, Oxycodone and Tramadol). In Tayside, these were listed in 90% of all cases with a higher level seen in Dundee in comparison to the other regions (figure 18). Benzodiazepines were the second largest drug group present as the cause of death, listed in 70% of all cases for 2021. Regionally these were significantly lower in Perth and Kinross in comparison to Dundee and Angus. Gabapentinoid substances were found in similar levels across the region, however Cocaine was listed as a cause of death more frequently in Perth and Kinross. Alcohol was far more prevalent in Angus (24% of all cases) in comparison to the regional average and other areas.

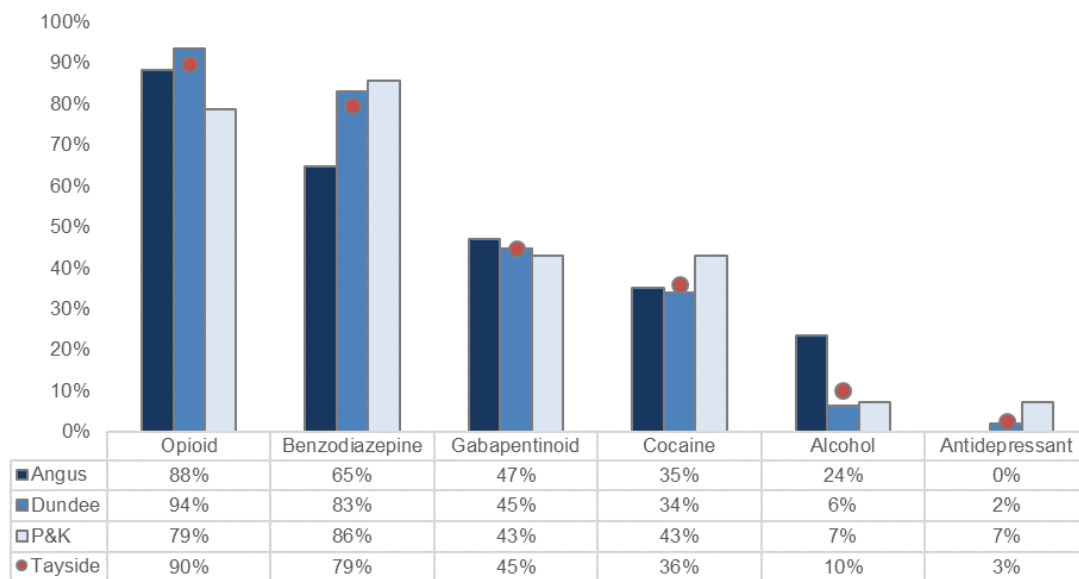


Figure 18: Drug groups stated in post mortem cause of death as a percentage of deaths, 2021

5. Naloxone, Contact with Specialist Services and prior non-fatal overdoses

5.1 Naloxone

In 2021, it was reported that Naloxone was administered by either paramedics or a witness in 10 drug death cases (12.8%). Information on take home Naloxone remains partial due to the high number of cases where it is not known if a take home Naloxone kit has been issued prior to death. Of the 78 individuals who died in 2021, 25 (32.1%) were known to have been supplied with a Naloxone kit. Those percentage figures are higher for Dundee and Perth & Kinross cases in comparison to Angus. Information is not available on whether take home naloxone was accessible at the place the deaths occurred.

			Angus	Dundee	P&K	Tayside
Supplied with take home Naloxone	Yes	Number	4	16	5	25
		%	23.5%	34.0%	35.7%	32.1%
	No	Number	4	13	4	21
		%	23.5%	27.7%	28.6%	26.9%
	Unknown	Number	9	18	5	32
		%	52.9%	38.3%	35.7%	41.0%

Figure 19: Number & % of drug deaths where person had been supplied with take home naloxone prior to death, 2021

5.2 Contact with services

At the time of death, 51 (65%) of those who died from a drug death in 2021 were engaged with Specialist Substance use Services. 14 (18%) individuals had been contact with a substance use service within 30 days prior to death although as this data is difficult to obtain it is likely this reported figure is lower than the actual numbers.

The number of female casualties engaged with services at time of death have been proportionally greater than males for all reporting years with 92% of females being in contact with services compared to 53% of males in 2021. These gender differences are provided in figure 20.

Region	2018		2019		2020		2021	
	Number	%	Number	%	Number	%	Number	%
Female	12	60%	13	52%	16	73%	23	92%
Male	25	43%	31	48%	33	49%	28	53%
Total	37	47%	44	49%	49	55%	51	65%

Figure 20: Number & % of drug deaths where person was in contact with specialist services by gender, 2018 - 2021

The number of casualties who are engaged with Specialist Substance use Services at time of death has been increasing over time from 47% in 2018 to 65% in 2021. A greater proportion of casualties from Dundee (68%) were engaged with services in comparison to Angus (59%) and Perth and Kinross (64%). A regional breakdown is provided in figure 21

Region	2018		2019		2020		2021	
	Number	%	Number	%	Number	%	Number	%
Angus	4	40%	14	74%	6	43%	10	59%
Dundee	28	53%	23	42%	27	57%	32	68%
P&K	5	33%	7	47%	16	57%	9	64%
Total	37	47%	44	49%	49	55%	51	65%

Figure 21: Number & % of drug deaths where person was in contact with specialist services by local authority area, 2018 - 2021

5.3 Opioid Substitution Therapy

Of the 78 individuals who died in 2021, 46 (59.0%) were known to have been prescribed OST at time of death. Those percentage figures are higher for Dundee cases in comparison to other local authority areas (figure 22) with 63.8% compared to 47.1% in Angus.

			Angus	Dundee	P&K	Tayside
Prescribed a substitute drug at time of death?	Yes	Number	8	30	8	46
		%	47.1%	63.8%	57.1%	59.0%
	No	Number	9	17	6	32
		%	52.9%	36.2%	42.9%	41.0%

Figure 22: Number & % of drug deaths prescribed OST at time of death, 2021

Of those prescribed OST at time of death, 34 (73.9%) had been prescribed Methadone, with the others prescribed either Suboxone or Buprenorphine (figure 23).

			Angus	Dundee	P&K	Tayside
Current prescription - Type of drug prescribed	Methadone	Number	5	24	5	34
		%	62.5%	80.0%	62.5%	73.9%
	Buprenorphine	Number	3	2	3	8
		%	37.5%	6.7%	37.5%	17.4%
	Suboxone	Number	0	4	0	4
		%	0.0%	13.3%	0.0%	8.7%

Figure 23: Number & % of drug deaths prescribed Methadone and Other OST at time of death, 2021

5.4 Non-fatal overdoses⁹

Of the 78 individuals who died in 2021, 46 (59%) were known to have had at least one prior non-fatal overdose. In total, 16 individuals had experienced non-fatal overdoses in the twelve months prior to death. Of these, 10 individuals had suffered a non-fatal overdose in the month before death.

⁹ Intoxication due to illicit or illicitly acquired substance that has resulted in emergency medical help being sought.

6. Conclusions

The conclusions presented in this section reflect both the quantitative findings presented in this report and the learning points discussed at the review group.

- Whilst the small reduction in drug deaths between 2020 and 2021 is to be welcomed, drug deaths remain a public health emergency for Tayside.
- Overwhelmingly, those who die of drug death are living in poor social and economic circumstances, and have histories of significant child and adult trauma. Services are committed to ensuring all staff can deliver trauma informed care, but in many cases people who had suffered substantial and multiple trauma had not received therapeutic interventions to help manage the psychological impacts of this.
- The continuing rise in drug deaths for women contrasts sharply with the reduction seen in men in 2021. The Drug Deaths Taskforce Force made a number of recommendations in relation to tackling drug deaths amongst women and partners should review and consider what gaps may exist. There are also marked differences in the level of engagement with specialist services between men and women who suffer drug death, and this merits further exploration to identify reasons behind this.
- Poly-drug use remains a significant risk factor for unintentional overdose, and the trend of increased detection of alcohol is continuing which adds further to risk, especially where cocaine use is rising rapidly. Referrals to alcohol services have been rising across Tayside in recent years and there can be significant waits for access which may increase risks for those who use drugs and alcohol concurrently.
- Overall, a somewhat changing pattern of drug use is emerging, with more need for supports and services for non-opioid substances, including cocaine and benzodiazepines. Services for people wanting to reduce benzodiazepine and cocaine use are limited across Tayside.
- The pre-eminent role of opiates in causes of death reinforces the imperative to increase access to and use of naloxone. Further improvement is needed in recording who is supplied with naloxone. The number of incident where naloxone is administered by a witness will continue to be limited as there has been an increase in the number of people who suffer drug related death whilst alone. This data further demonstrates the potential value of overdose prevention facilities.
- There are well developed near-fatal overdose (NFOD) assertive outreach pathways across Tayside. These could, however, be further developed to gather reports from additional sources including A&E departments, and to respond to other situations that may present increased risk of drug death.

- There are many opportunities to improve the physical health of people who use drugs and potentially reduce susceptibility to overdose, and to increase access to comprehensive harm reduction when people come into contact with secondary care services. People who use drugs require better support to remain in hospital when they need to, and they need enhanced services that effectively connect hospital and community in order to manage chronic illness.
- Co-occurring mental health issues continue to be identified at a high prevalence in the cohort and improved joint working between substance use and mental health services remains a priority, including timely joint learning reviews of significant events, including drug death and suicide. In 2021 there was a rise in the proportion of people who had a diagnosis of schizophrenia, although numbers remain relatively small in absolute terms so it is hard to draw conclusions from this. The drug deaths review group will maintain awareness and monitoring.
- The data reinforces the potential for inter-generational harm due to the impacts on children of loss of significant family members through drug death, and the need to develop more robust responses to these circumstances.
- There is potential to enhance the strength and reach of the learning from drug deaths reviews through better connections with other similar processes across Tayside, including suicide reviews, service reviews, including in mental health, and Adult Support and Protection reviews.

7. Recommendations

These recommendations have emerged from the data published in this report and the qualitative reviews of fatalities in 2021. Many of them build on the recommendations of previous reports of the TDDRG. These recommendations focus on the factors that most directly influence risk of death from unintentional overdose and are presented under the areas of response defined by the Scottish Drug Deaths Taskforce¹⁰. There are many more ‘upstream’ preventive actions that will reduce the risk of initiation of the use of illicit drugs, and have a positive impact on the wider harms that can be related to drug use. These actions include reducing poverty and socioeconomic deprivation, improving population mental health, reducing the risks from adverse childhood experiences, and building resilient supportive communities. ADPs and individual organisations will need to build these into their action plans to prevent the ultimate harm of death by unintentional overdose, as well as addressing the more proximal risk factors identified in the recommendations below.

The additional 2021 recommendations are highlighted in bold text¹¹: The Tayside DDRG recommends that each ADP reviews their strategic action plan to ensure these recommendations are incorporated, with clear mechanisms in place to monitor progress.

REDUCE VULNERABILITY	
Families and communities	Ensure all people closely affected by a drug death are offered the opportunity to engage with and be provided with appropriate psychosocial support. Of particular concern is the impact of a drug death on any children in the family and every effort should be made to support children affected at this time to reduce the trauma incurred and the risk of the inter-generational problematic substance use occurring.
Innovation and research	Consider approaches to better understanding the needs of women, including those engaged with and not using specialist services, and the situations that may present highest risk of overdose and drug death to women. Continue to support innovation and research to reduce risk of drug deaths in future.

¹⁰ <https://drugdeathstaskforce.scot/>

REDUCE RISK	
Meeting complex needs	<p>Extend assertive outreach pathways to respond to a range of high risk situations including housing problems, family break-up, child custody/contact changes. This recommendation also reflects the aspirations of MAT standard 3.</p> <p>Ensure that there are services available to provide therapeutic interventions for past trauma, in addition to being trauma-informed.</p> <p>Continue to ensure specialist substance use services, and those beyond, are resourced and have staff with the relevant competencies to assess patients with problematic drug use holistically and manage complex needs and risks.</p> <p>Continue to support services to work in an integrated structure to assess and manage complex needs and risks.</p> <p>Continue to ensure people with coexisting severe mental health and substance use are provided with appropriate mental health support and not excluded from treatment because of concomitant substance use.</p>
Treatment choices	<p>Harm reduction services should consider measures that can be taken in relation to substances other than opioids.</p> <p>Ensure support and recovery-oriented care is available to people who identify their main needs to be in relation to use of substances other than opioids, especially benzodiazepine and/or cocaine use.</p> <p>The MAT standards for benzodiazepine services should be considered to guide development of services.</p>
Person centred holistic care	<p>Develop improved shared care with primary and community care partners to more effectively improve the general health of people who use drugs, and ensure access to high quality routine care especially for long term health conditions.</p> <p>Ensure that any attendance at an acute or community healthcare setting is viewed as an opportunity to provide harm reduction interventions.</p> <p>Ensure that anyone who uses substances and requires care in an acute setting is fully supported to complete the care required whilst having their needs in relation to substance use met with compassion and relevant expertise.</p> <p>Support the wider health and social care workforce to enquire proactively and routinely about people's substance use in a non-judgemental way and know where to direct people for support if required. Other agencies and services should be alert to increasing assertive outreach when service users are at a</p>

	critical point due to other life circumstances which they may respond to through use of substances.
Prison and police custody	Continue to support prison and police custody services to provide safe patient-centred care for both those already known to Specialist Substance use Services and also individuals identified as being under the influence of substances who wish to take up support.
Prescribing	Continue to support best practice in prescribing of psychoactive drugs, especially analgesics, GABA agonists, anti-depressants and benzodiazepines in order to reduce risks associated with overdose and diversion of prescribed medicines.
Identification of risks and awareness raising	Support development of drug checking initiatives in Tayside Increase use of oral fluid testing and urine drug screening for surveillance and early trends monitoring. Continue to roll out harm reduction messaging to raise awareness of emerging drug death trends.
Continuous improvement	Build on opportunities presented by the recent review of learning event processes to increase the impact and reach of findings from drug deaths reviews. Continue to ensure all services and partner agencies that have had recent contact with an individual who subsequently dies as a result of illicit drug use reflect on care provided (ideally in collaboration with other agencies involved) and share learning with the Tayside Drug Death Review Group to enable strategic change and improvements in processes to be advocated for where required.
EMERGENCY RESPONSE	
Naloxone	Improved surveillance and data recording are needed on Naloxone training completed – dates, locations – and Take Home Naloxone (THN) kits being issued to service users, family and their associates. Ensure that the availability of naloxone continues to be widened, with all professionals who work with people with problem drug use supported to be able to carry, administer and issue naloxone, as appropriate, in addition to their carers and significant others.

Near-fatal overdoses	<p>Near fatal overdose pathways should consider mechanisms to capture overdoses where substances other than opiates have been taken and what range of responses might be needed.</p> <p>Continue to ensure that all people in contact with services have an overdose risk assessment and management plan and be offered overdose awareness training and naloxone annually.</p> <p>Continue to progress work to develop consistent and comprehensive non-fatal overdose response pathways, particularly where a person is not already known to services, and other opportunities for targeted early intervention to reduce risk of future drug deaths.</p>
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8. Appendix

8.1 Appendix 1 – Definition of drug death used by Tayside Drug Death Review Group

For the purpose of this report, the definition of a drug death has been that originally adopted by the Scottish Crime and Drugs Enforcement Agency (SCDEA):

“Where there is prima facie evidence of a fatal overdose of controlled drugs. Such evidence may be recent drug use, 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 user although not necessarily a notified addict.”

This definition would exclude, for example, death due to the effects of chronic intoxication, suicide, accidents associated with drug use and infectious diseases associated with use of drugs.

8.2 Appendix 2 – Tayside Drug Death Review Group members 2021

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Ms Angie Ballantyne, Development Officer, Protecting People Team, Dundee City Council

Dr Roberto Cotroneo, Consultant Psychiatrist, Angus Integrated Drug and Alcohol Recovery Service

Dr Fiona Cowden, Consultant Psychiatrist, Dundee Drug and Alcohol Recovery Service

Mr Charlie Crammer, Alcohol and Drug Partnership (ADP), Perth & Kinross Council

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Mr Martin Dey, Senior Manager, Criminal Justice Service, Dundee City Council

Mrs Laura Dunkerley, Drug Death Analyst, NHS Tayside

Mrs Anne Fleming, Clinical Lead, Angus Integrated Drug and Alcohol Recovery Service

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Ms Lorraine Hastie, DDARS Social Work, Dundee City Council

Ms Vered Hopkins, Lead Officer, Protecting People, Dundee City Council

Mr Daniel Kelly, Manager, Hillcrest Futures

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Ms Niki McNamee, Lead Officer, Angus Alcohol and Drugs Partnership

Ms Karen Melville, Lead Pharmacist, Controlled Drugs, Substance Use, Justice Healthcare and
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Ms Gael Murphy, Senior Charge Nurse/Clinical Improvement, Dundee Drug and Alcohol
Recovery Service

Ms Laura Ogilvie, Development Officer, Angus Alcohol and Drugs Partnership

Mr Colin Paton, Team Leader, Drug and Alcohol Team, Perth & Kinross Council

Mr Stuart Payne, Area Service Manager - Dundee, Scottish Ambulance Service.

Ms Sheena Petrie, Senior Charge Nurse - Substance use & Mental Health Teams, Prison
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Claire Wilson, Children Services Manager, Tayside, Barnardo's Scotland