Drug Deaths in Tayside, Scotland

2020 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 has an increasing number of drug deaths, with a yearly increase between 2016 and 2019. The number of drug deaths in 2020 remained the same as that seen in 2019.

In 2017 there were 73 drug deaths with 51 being residents of Dundee City. In 2018 there were a total of 78 drug deaths in Tayside with the greatest number of deaths being Dundee City residents (n=53). In 2019 the figure for Tayside increased to 89 drug deaths, with 55 Dundee City residents. The figure remained the same for 2020 - 89 deaths across Tayside, 47 of Dundee City residents.

The mean age of drug death casualties in 2020 was 41.8 years. 67 of those who died (75%) were male.

60 drug deaths in 2020 occurred amongst people who lived in areas of greatest socioeconomic deprivation (SIMD 1 and 2).

68 of the 89 drug death casualties (76%) were identified as having been diagnosed with a mental health condition at some point in their lives.

17 of the 89 individuals (19%) had been in prison or on remand at least once in adulthood. 12 of these individuals had been in prison in the 12 months before their death.

The average number of substances found in toxicology was 7.9 (range 1-16), with Etizolam the most frequently reported substance found.

Recommendations arising from this report build on those detailed in the 2019 Annual Report and are presented in terms of the priority areas of Scotland's Drug Deaths Taskforce:

- Reducing Vulnerability
- Reducing Risk
- Emergency response

The recommendations focus on the factors that most directly influence risk of death from unintentional overdose. 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. 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 of this report.

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1. Introduction

A drug death is 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 2020. It is designed to complement the reporting of drug-related deaths by National Records of Scotland[1], 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); Police Scotland; Third Sector organisations; Community Justice; statutory Children & Families Services; the three Tayside Alcohol and Drug Partnerships (ADPs), the Specialist Substance Misuse 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 system[3] 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 2020 there were a total of 89 confirmed drug deaths in Tayside, which was the same as the number of deaths in 2019 (figure 1).

Local Authority	2016	2017	2018	2019	2020
Angus	10	14	10	19	14
Dundee City	38	51	53	55	47
Perth & Kinross	8	8	15	15	28
Tayside Total	56	73	78	89	89

Figure 1: Drug Deaths by local authority area of residence

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 number of deaths in Perth and Kinross has risen substantially over the past 3 years. This is also reflected in the number of deaths per 1000 people with problematic drug use (figure 3). These figures for Dundee City and Angus have declined for 2020.

Local Authority	2016	2017	2018	2019	2020
Angus	0.09	0.12	0.09	0.16	0.12
Dundee City	0.26	0.34	0.36	0.37	0.32
Perth & Kinross	0.05	0.05	0.10	0.10	0.18
Tayside Total	**0.13**	**0.18**	**0.19**	**0.21**	**0.21**

Figure 2: Drug death rate per 1,000 population[4]

[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	2016	2017	2018	2019	2020
Angus	12.5	17.5	12.5	23.7	17.5
Dundee City	16.5	22.1	23.0	23.9	20.4
Perth & Kinross	5.3	5.3	10.0	10.0	18.7
Tayside Total	**12.1**	**15.8**	**16.5**	**19.3**	**19.3**

Figure 3: Drug death rate per 1,000 people with people with problematic drug use[5]

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 2020 the figure had risen 146% to 1,339.[6]

Since 2013, the number of drug deaths in Tayside has been rising at a considerable rate (figure 4).

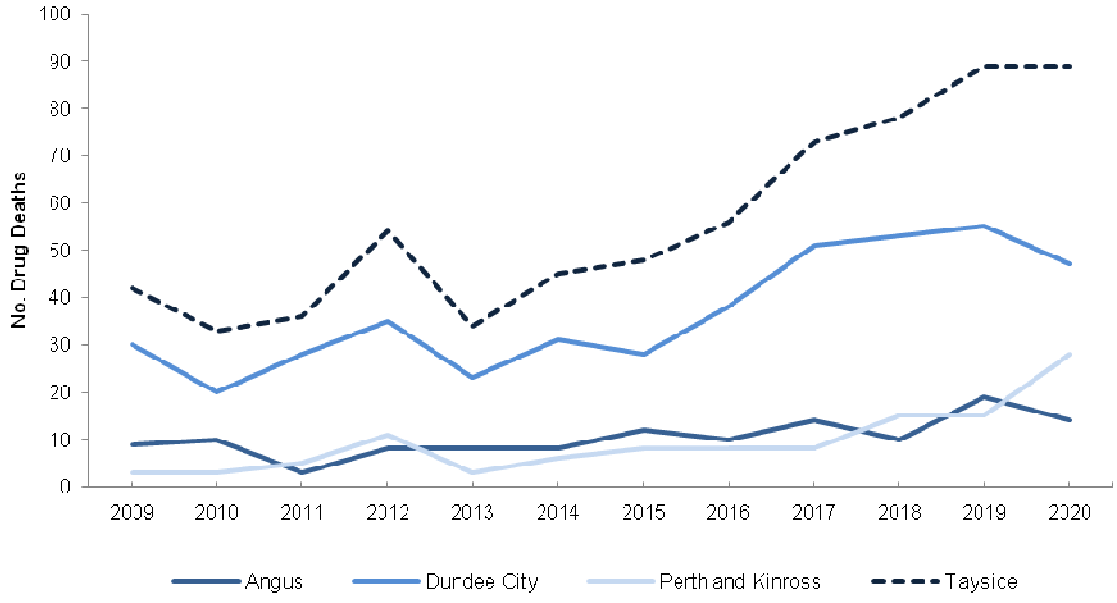


Figure 4: Tayside confirmed drug death numbers by local authority area of residence, 2009-2020

[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 2020*. Accessible at https://www.nrscotland.gov.uk/files//statistics/drug-related-deaths/20/drug-related-deaths-20-pub.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 2011 this had risen to 36.4 years, and in 2014 to 38.6 years. The average age of a casualty of a drug death in Tayside in 2020 was 41.8 years and continues an overall trend of increasing age (figure 5).

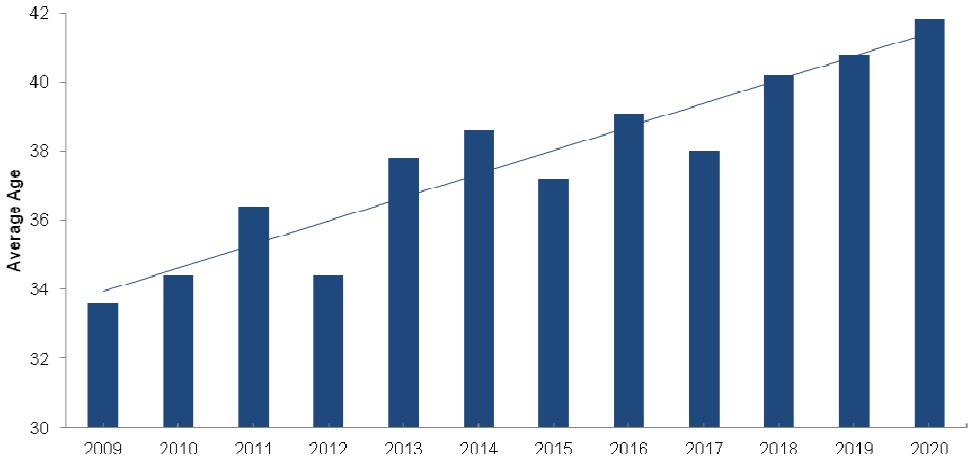


Figure 5: Tayside drug deaths: Mean age at death 2009-2020

Gender

Of the 89 drug deaths, 67 (75%) were male and 22 (25%) were female. The percentage increase in number of drug deaths since 2009-2011 has been greater in males than females (figure 6).

	Yearly Average 2009 – 2011	2017 – 2020				% Change	
		2017	2018	2019	2020	2019 v 2020	2009 – 2011 v 2018 – 2020
Male	27	55	58	64	67	+ 4.7 %	+ 133%
Female	10	18	20	25	22	- 12.0 %	+ 123%
All	**37**	**73**	**78**	**89**	**89**	**0%**	**+ 131%**

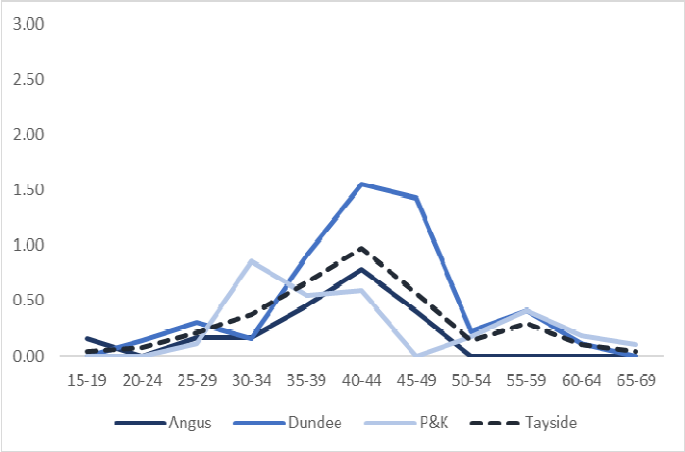
Figure 6: Tayside drug deaths by gender, 2009-2020

Age & Gender

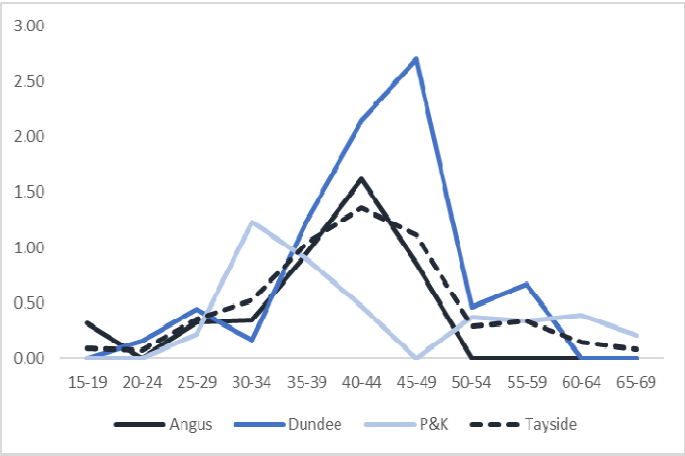
When factoring age and gender into drug deaths in the overall population, there are significant regional differences across Tayside. In 2020, males aged between 45-49 residing Dundee had a rate of 2.70 drug deaths per 1,000 in comparison to the overall Tayside figure of 0.21 and overall Tayside figure for males of 0.33. Females had a lower rate overall of 0.10 however for those aged between 40-44 the rate increased to 0.61 for Tayside (1.00 for Dundee and 0.71 for P&K).

Figure 7 highlights these differences across the age groups, gender and regions 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	0.00	0.00	0.04
20-24	0.00	0.15	0.00	0.07
25-29	0.17	0.30	0.12	0.22
30-34	0.16	0.16	0.86	0.38
35-39	0.46	0.91	0.55	0.66
40-44	0.78	1.55	0.59	0.98
45-49	0.41	1.43	0.00	0.57
50-54	0.00	0.22	0.17	0.14
55-59	0.00	0.41	0.42	0.29
60-64	0.00	0.11	0.19	0.11
65-69	0.00	0.00	0.10	0.04
Overall	**0.12**	**0.32**	**0.18**	**0.21**



Age - Male	Angus	Dundee	P&K	Tayside
15-19	0.32	0.00	0.00	0.09
20-24	0.00	0.16	0.00	0.07
25-29	0.33	0.44	0.22	0.35
30-34	0.34	0.16	1.23	0.53
35-39	0.95	1.24	0.89	1.04
40-44	1.62	2.14	0.47	1.36
45-49	0.86	2.70	0.00	1.12
50-54	0.00	0.46	0.37	0.29
55-59	0.00	0.67	0.34	0.34
60-64	0.00	0.00	0.39	0.15
65-69	0.00	0.00	0.21	0.08
Overall	**0.25**	**0.47**	**0.25**	**0.33**



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	0.15	0.00	0.07
30-34	0.00	0.17	0.49	0.23
35-39	0.00	0.59	0.22	0.30
40-44	0.00	1.00	0.71	0.61
45-49	0.00	0.25	0.00	0.08
50-54	0.00	0.00	0.00	0.00
55-59	0.00	0.19	0.49	0.25
60-64	0.00	0.22	0.00	0.07
65-69	0.00	0.00	0.00	0.00
Overall	**0.00**	**0.17**	**0.12**	**0.10**

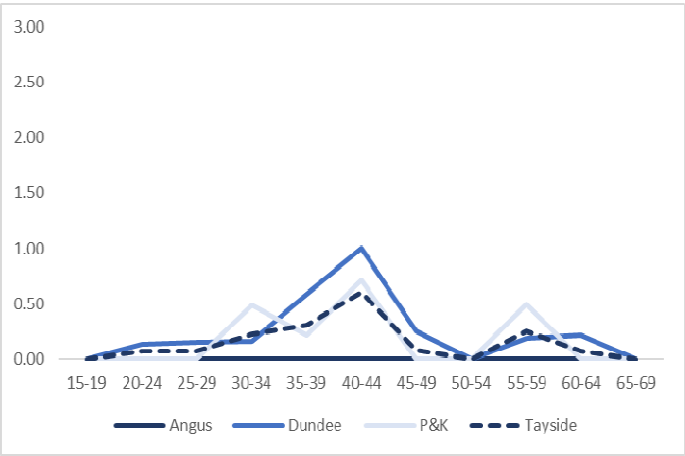
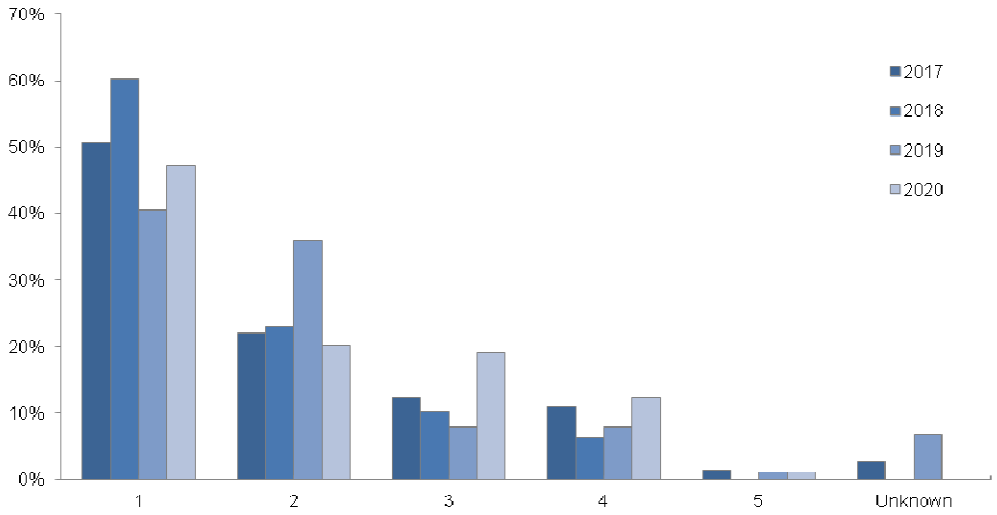


Figure 7: Drug death rate per 1,000 population by Region, Age & Gender

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.



SIMD	2017	2018	2019	2020	Overall
1	51%	60%	40%	47%	49%
2	22%	23%	36%	20%	26%
3	12%	10%	8%	19%	12%
4	11%	6%	8%	12%	9%
5	1%	0%	1%	1%	1%
Unknown	3%	0%	7%	0%	2%

Figure 8: Tayside drug deaths by deprivation using Scottish Index of Multiple Deprivation 2016, Scottish Government

3.4 Location of death

The majority of drug deaths in 2020 occurred in the individual's own home (figure 9). Of the 89 individuals who died, 64 (72%) died in their own homes while 18 (20%) died at an address different to their usual residence. Six (7%) individuals died elsewhere, including outdoors and in hospital.

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

Figure 9: Place of death

3.5 Scene of death

In 38 (43%) drug death cases in 2020 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 (57.3%) in 2020 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, 22 (25%) were in the same room, while 15 (17%) 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	7	6	9	22
		%	50.0%	12.8%	32.1%	24.7%
	Not in the same room	Number	0	12	3	15
		%	0.0%	25.5%	10.7%	16.9%
	Present – unknown location	Number	0	0	1	1
		%	0.0%	0.0%	3.6%	1.1%
	None / Unknown	Number	7	29	15	51
		%	50.0%	61.7%	53.6%	57.3%

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

3.6 Adverse experiences

Evidence shows that adversity suffered in childhood can have a significant impact on future adult health and health harming behaviours[7]. Over the past three years, 37 (15%) individuals 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.

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

Adverse experiences in adulthood are recorded less commonly in the dataset than childhood ones with 30 (12%) individuals reported having experienced sexual and/or physical abuse as an adult over the past three 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.

Adverse experience	2018		2019		2020	
	Number	%	Number	%	Number	%
Childhood	10	13.0%	12	13.5%	15	16.9%
Physical abuse	6	7.8%	7	7.9%	9	10.1%
Sexual abuse	6	7.8%	6	6.7%	10	11.2%
Adulthood	7	9.1%	13	14.6%	10	11.2%
Physical abuse	4	5.2%	12	13.5%	9	10.1%
Sexual abuse	4	5.2%	2	3.4%	3	2.2%

Figure 11: Adverse experiences by type

3.7 Concurrent mental health conditions

Mental health conditions commonly co-exist with problem substance use. At the time of their death in 2020, 68 (76.4%) 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 12. 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.

Condition	2018		2019		2020	
	Number	%	Number	%	Number	%
Depression	30	38.5%	38	42.7%	47	52.8%
Anxiety	15	19.2%	17	19.1%	34	38.2%
PTSD	1	1.3%	3	3.4%	9	10.1%
Psychosis*	5	6.4%	5	5.6%	8	9.0%
Low mood	9	11.5%	9	10.1%	5	5.6%
Schizophrenia	5	6.4%	5	5.6%	3	3.4%
Personality disorder	5	6.4%	2	2.2%	3	3.4%

Includes 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 12: Mental health conditions by type as diagnosed by Primary Care or Mental Health Services

3.8 Criminal justice and offending

Approximately 20% of all drug death casualties in 2020 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:

- 17 of the 89 individuals (19.1%) had been in prison or on remand at least once in adulthood.
- 12 of these individuals (13.5%) had been in prison in the 12 months before their death.

3.9 Contact with services

At the time of death, over half (n=49, 55%) of those who died from a drug death in 2020 were engaged with Specialist Substance Misuse Services. 7 (7.9%) of the 49 individuals who were engaged with a Specialist Substance Misuse Services had been contact with a substance misuse service within 30 days prior to death.

3.10 Employment

At the time of their death, fewer than 5 casualties of drug death were known to be in regular employment and the remainder were known to be unemployed.

4. Substance-specific findings

4.1 Substances found in toxicology

The mean number of substances reported in toxicology was 8 (range 1-16). The most frequently reported substances reported in toxicology at post-mortem were Etizolam, Methadone and Morphine/Heroin. In comparison, in 2017, the three most common substances found in toxicology were Morphine (79.5%), the heroin metabolite 6-MAM (60.3%) and Codeine (58.9%). Etizolam is now the most common substance found in toxicology (80% of all deaths), although, taken as a group, opioids of some type are most frequently reported. In 2018 the percentage of deaths where Etizolam was found in toxicology was 62.8% which had then increased to 75.3% in 2019 and now 80% in 2020.

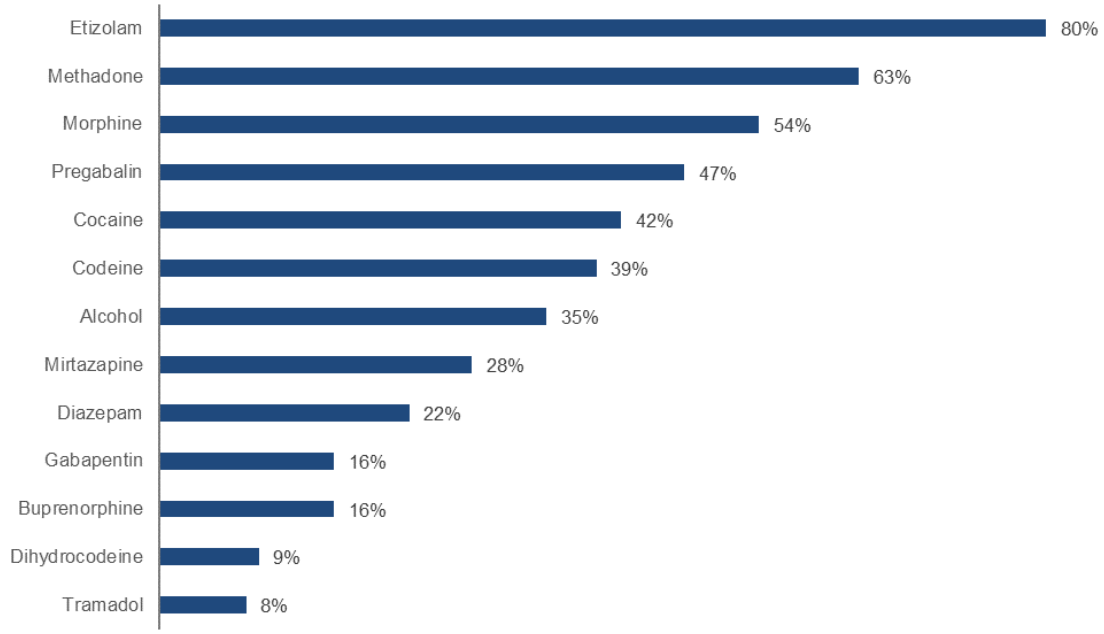


Figure 13: Substances found in toxicology, as percentage of deaths

Opioids, Gabapentinoids and Benzodiazepines

In 2020, a combination of an Opioid plus a Gabapentinoid plus a Benzodiazepine was detected in 47 (53%) of deaths. In 2019 this combination was found in 23 (26%), in 2018 in 39 (49%) deaths and in 2017 in 56% of deaths.

In almost all deaths for 2020 (97%), an Opioid was reported in the toxicology report. This figure includes both prescribed and illicitly obtained substances.

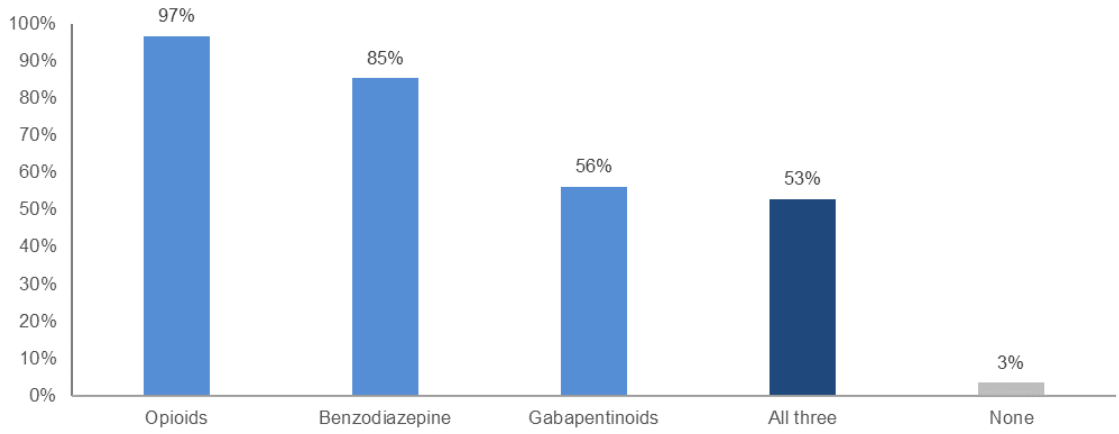
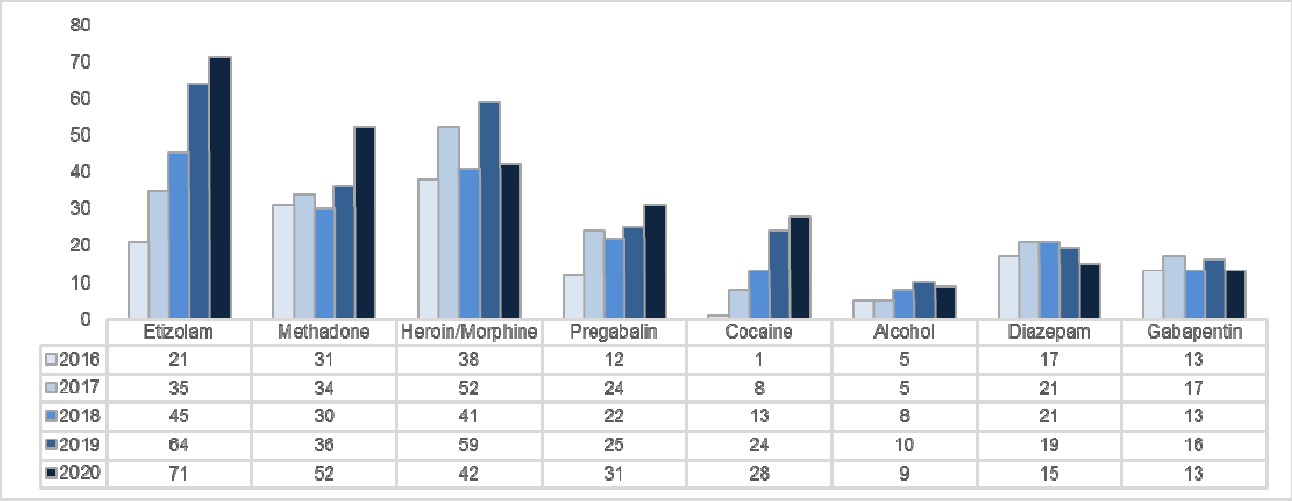


Figure 14: Opioids, Gabapentinoids and Benzodiazepines in toxicology, as percentage of deaths

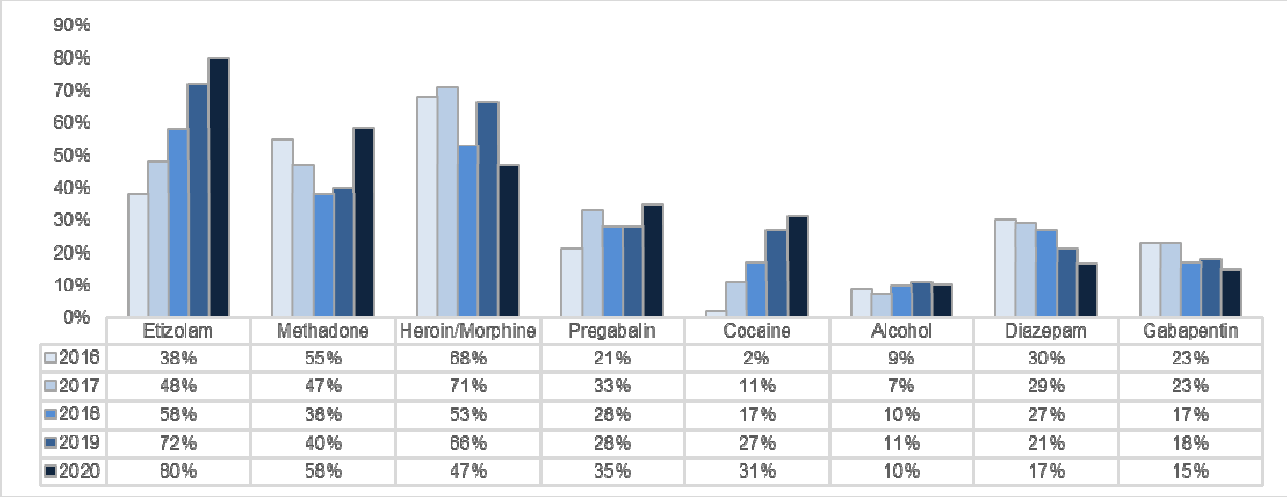
4.2 Trends in substances implicated in drug deaths

Following the trend seen in the 2018 and 2019 annual reports, the number of deaths where Etizolam and Cocaine were listed as a cause of death continued to increase in 2020 (figures 15 & 16). In 2020, Methadone also increased substantially being reported on 52 (58%) toxicology reports as implicated in the cause of death. Cases involving Pregabalin also increased. Trends in Heroin/Morphine, Alcohol, Diazepam and Gabapentin being implicated in the cause of death decreased.



	Etizolam	Methadone	Heroin/Morphine	Pregabalin	Cocaine	Alcohol	Diazepam	Gabapentin
2016	21	31	38	12	1	5	17	13
2017	35	34	52	24	8	5	21	17
2018	45	30	41	22	13	8	21	13
2019	64	36	59	25	24	10	19	16
2020	71	52	42	31	28	9	15	13

Figure 15: Drugs stated in post mortem cause of death by number of drug deaths 2016-2020.



	Etizolam	Methadone	Heroin/Morphine	Pregabalin	Cocaine	Alcohol	Diazepam	Gabapentin
2016	38%	55%	68%	21%	2%	9%	30%	23%
2017	48%	47%	71%	33%	11%	7%	29%	23%
2018	58%	38%	53%	28%	17%	10%	27%	17%
2019	72%	40%	66%	28%	27%	11%	21%	18%
2020	80%	58%	47%	35%	31%	10%	17%	15%

Figure 16: Drugs stated in post mortem cause of death as a percentage of deaths per year 2016-2020.

5. Naloxone, Opiate Substitution Therapy (OST) and prior non-fatal overdoses

5.1 Naloxone

In 2020, it was reported that Naloxone was administered by either paramedics or a witness in 16 drug death cases. 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 89 individuals who died in 2020, 16 (18.0%) were known to have been supplied with a Naloxone kit. Those percentage figures are higher for Dundee cases in comparison to other regions.

			Angus	Dundee	P&K	Tayside
Supplied with take home Naloxone	Yes	Number	1	12	3	16
		%	7.1%	25.0%	11.1%	18.0%
	No	Number	3	7	2	12
		%	21.4%	14.6%	7.4%	13.5%
	Unknown	Number	10	28	23	61
		%	71.4%	58.3%	85.2%	68.5%

Figure 17: Number & % of drug deaths where person had been supplied with take home naloxone prior to death

5.2 Opioid Substitution Therapy

Of the 89 individuals who died in 2020, 44 (49.4%) were known to have been prescribed OST at time of death. Those percentage figures are higher for Dundee cases in comparison to other regions (figure 18) with 53.5% compared to 35.7% in Angus.

			Angus	Dundee	P&K	Tayside
Prescribed a substitute drug at time of death?	Yes	Number	5	25	14	44
		%	35.7%	53.5%	50.0%	49.4%
	No	Number	9	22	14	45
		%	64.3%	45.8%	50.0%	50.6%

Figure 18: Number & % of drug deaths prescribed OST at time of death

Of those prescribed OST at time of death, 37 (84.1%) had been prescribed Methadone, with the others prescribed either Suboxone, Buprenorphine or Naltrexone (figure 19).

			Angus	Dundee	P&K	Tayside
Current prescription - Type of drug prescribed	Methadone	Number	3	20	14	37
		%	60.0%	80.0%	100.0%	84.1%
	*Other	Number	2	5	0	7
		%	40.0%	20.0%	0.0%	15.9%

*Buprenorphine, Naltrexone, Suboxone

Figure 19: Number & % of drug deaths prescribed Methadone and Other OST at time of death

5.3 Non-fatal overdoses[8]

Of the 89 individuals who died in 2020, 50 were known to have had at least one prior non-fatal overdose. In 4 individuals this had occurred in the month before death.

In total, 26 individuals had experienced non-fatal overdoses in the twelve months prior to death. Of these, 19 had experienced more than one documented non-fatal overdose within this time period.

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

6. Conclusions

- Drug deaths remain a public health emergency for Tayside.
- There is evidence from reviews that those who die of unintentional overdose are often using multiple substances around the time of death-prescribed, illicit, and diverted. In response, there is a need to ensure access to testing in clinical settings for the range of substances being used, and also a range of responses in place to address diverse needs related to opiate, stimulant, benzodiazepine, analgesic and prescribed drugs.
- There is evidence of a continuing rise in the proportion of deaths in which benzodiazepines, specifically etizolam, and cocaine are implicated in the cause of death.
- The pre-eminent role of opiates in causes of death reinforces the imperative to increase access to and use of naloxone. Data also shows that there is a need to improve recording of who is supplied with naloxone because this is unknown for between 60% and 82% of cases, depending on geography. Although specialist services record naloxone prescribing on clinical portal and controlled drugs systems, which enables reports to be run by specialist pharmacists, this is not the case across all settings where naloxone may be provided.
- The use of Naloxone will, however, have limitations when data shows that around 45% of people who die of drug death across Tayside are alone at the time of overdose. Therefore other initiatives are required that increase the safety of people at the time they are using drugs.
- There is a continuing trend of increasing age at death and evidence that a wide range of long-term co-morbidities are likely to be adding to risk of death by overdose due to the impact of other physical illness on respiratory function, drug metabolism and other functions.
- Co-occurring mental health issues continue to be identified at a high prevalence in the cohort. This carries increased risks of overdose in relation to concurrent use of prescribed psychoactive medicines, and use of illicit and/or diverted drugs and alcohol as part of mental health coping strategies.
- Overwhelmingly, those who die of drug death are living in poor social and economic circumstances, and have histories of significant child and adult trauma.
- 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.

7. Recommendations

These recommendations have emerged from the data published in this report and the qualitative reviews of fatalities in 2020, and many of them build on the recommendations of the 2018 and 2019 Annual 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 Taskforce[9]. 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. Actions to reduce socio-economic inequalities in health and wellbeing overall, which are especially marked in relation to drug harms, are central to the commitments of 'Rights, Respect and Recovery'[10], alongside actions to develop comprehensive early preventive programmes for those at risk of harmful drug use. 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 2020 recommendations are highlighted in bold: 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. Many of the recommendations also relate directly to implementation of the MAT standards for Scotland[11], which ADPs are already working to deliver.

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	Continue to support innovation and research to reduce risk of drug deaths in future.

[9] https://drugdeathstaskforce.scot/
[10] https://www.gov.scot/publications/rights-respect-recovery/
[11] https://www.gov.scot/publications/medication-assisted-treatment-mat-standards-scotland-access-choice-support/

REDUCE RISK	
Meeting complex needs	**Ensure that there are services available to provide therapeutic interventions for past trauma, in addition to being trauma-informed** Continue to ensure specialist substance misuse 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 Continue to support services to work in an integrated structure to assess and manage complex needs and risks 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. **Ensure full implementation of MAT standards 6, 9 and 10, which will enhance the overall support for mental health, provision of trauma informed care, psychologically informed treatment and psychosocial interventions.**
Treatment choices	**Ensure support and recovery oriented care is available to people who identify their main needs to be in relation to benzodiazepine and/or cocaine use. The existing benzodiazepine pathway for Tayside is not fully implemented due to resource requirements and there is also a need for provision of tier 4 stabilisation services for benzodiazepine users. The forthcoming benzodiazepine needs assessment will provide further intelligence to inform decision making in this area.** Ensure there is sufficient staff with relevant competence to prescribe opioid substitution therapy (OST). This will facilitate timely access to and quality of OST provision.
Person centred holistic care	**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. MAT standard 7 requires that shared care with Primary Care is made available, but even for those not engaged**

	with MAT or for whom MAT is not appropriate, supporting increased engagement with general healthcare provision would improve overall health. **Ensure that any attendance at an acute setting is viewed as an opportunity to provide harm reduction interventions.** **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.** **Progress implementation of MAT standard 8 to offer independent advocacy and support for housing, welfare and income needs.** 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 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 Misuse Services and also individuals identified as being under the influence of substances who wish to take up support. '**Rights, Respect and Recovery' includes a commitment to ensure that people who come into contact with criminal justice agencies are provided with the right support. Implementation of MAT standard 4 within custody settings, and pathways to identify and respond to the needs of those at highest risk in prison settings will be important in responding to this recommendation.**
Prescribing	Continue to support best practice in prescribing of psychoactive drugs, especially analgesics, GABA agonists and benzodiazepines in order to reduce risks associated with overdose and diversion of prescribed medicines.
Identification of risks and awareness	**Support development of drug checking initiatives in Tayside** **Establish access to oral fluid testing across Tayside to support clinical**

raising	**decision making and monitoring**. Maintain 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	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. **Support Primary Care in undertaking learning reviews when there has been recent contact with someone who dies as a result of illicit drug use, especially within the context of extended shared care.**

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. MAT standard 4 requires that evidence based harm reduction, including overdose awareness and the offer of naloxone, is available to all at the point of MAT delivery and delivery of this standard will increase access to naloxone.**
Non-fatal overdoses	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. **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. MAT standard 3 requires proactive identification of people at high risk of drug-related harm and the offer of support to commence or continue MAT. The identification of the highest risk groups will start with those who experience NFOD and Tayside NFOD pathways will need to be extended and enhanced to reach a wider proportion of these individuals and offer a broad range of supports.

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 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.”

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

Dr Kirsty Licence, Consultant in Public Health Medicine (Substance Use), NHS Tayside (Chair)

Sergeant Elise Wilson, Preventions, Interventions and Partnerships, Police Scotland

Dr Seonaid Anderson, Consultant, Tayside Substance Misuse Service

Mr David Barrie, Formerly Service Manager, We Are With You, Dundee

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

Dr Roberto Cotroneo, Consultant Psychiatrist, Integrated Substance Misuse Service

Dr Fiona Cowden, Consultant Psychiatrist, Tayside Substance Misuse Service

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

Jackie Daly, Adult Protection Advisor, NHS Tayside

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

Mrs Laura Dunkerley, Drug Death Analyst, NHS Tayside

Mrs Anne Fleming, Clinical Lead, Integrated Substance Misuse Service

Ms Louise Glover, Assistant Team Leader, Drug and Alcohol Team, Perth & Kinross Council

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

Ms Bobbie Lawson, Acting Service Manager, We Are With You, Dundee

Ms Julie McCartney, Clinical Effectiveness Lead - Drug Harm Reduction (East Region), Scottish Ambulance Service

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

Ms Karen Melville, Principal Pharmacist, Integrated Substance Misuse Service

Ms Gael Murphy, Senior Charge Nurse/Clinical Improvement, Dundee Substance Misuse 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 Misuse & Mental Health Teams, Prison Healthcare, NHS Tayside
Dr Sumaira Randhawa, Consultant Psychiatrist, Integrated Substance Misuse Service
Mr Graeme Shand, Senior Charge Nurse – Clinical Improvement, Angus Integrated Drug and Alcohol Recovery Service
Dr David Shaw, General Practitioner, Erskine Practice, Dundee
Mr Brian Stephens, Outreach Nurse Specialist in Hepatitis, NHS Tayside
Ms Susan Torrance, Adult Protection Adviser, NHS Tayside
Claire Wilson, Children Services Manager, Tayside, Barnardo's Scotland