ITEM No …8……..

REPORT TO: **HEALTH AND SOCIAL CARE INTEGRATION JOINT BOARD – 25 OCTOBER 2016**

REPORT ON: **DRUG DEATHS IN TAYSIDE 2015 – ANNUAL REPORT OF THE TAYSIDE DRUG DEATH REVIEW & WORKING GROUPS (DDRG & DDWG)**

REPORT BY: **CHIEF OFFICER**

REPORT NO: **DIJB48-2016**

1.0 PURPOSE OF REPORT

1.1 This report is for information only.

2.0 RECOMMENDATIONS

It is recommended that the Integration Joint Board (IJB):

2.1 Notes the findings and recommendations of the Drug Deaths in Tayside 2015 report (attached as Appendix 1).

3.0 FINANCIAL IMPLICATIONS

3.1 None.

4.0 MAIN TEXT

4.1 On the 31st August 2016 (International Overdose Awareness Day), the Tayside Drug Death Review & Working Groups (DDRG & DDWG) launched the Drug Deaths in Tayside 2015 annual report at an event held at The Steeple Church, Dundee. In addition to launching the report, interactive zones were available to raise awareness, highlight risks and offer education on the support available for people who use drugs and their families across Tayside. The event was attended by a wide range of partners including NHS, Local Authority and Voluntary Sector colleagues in addition to members of the community. A remembrance ceremony was also held to provide an opportunity for everyone affected by overdose to remember their loved ones. This is anticipated to be the first in a series of annual events.

4.2 Key findings from the 2015 Report:

- Drug deaths in Tayside (and indeed Scotland) continue to rise with 48 recorded in 2015 (28 in Dundee City). Although lower than the number seen in 2012, it remains the case that Tayside and Dundee City in particular, continues to have a poor record in relation to substance use and drug deaths remains a high priority for all Alcohol and Drug Partnership (ADP) partners.

- The majority of drug death victims in Tayside are male, white Scottish and unemployed with a clear association between drug death and high levels of deprivation, trauma and vulnerability throughout life. Despite a slight drop in the average age of the victims in 2015, this cohort continues to be an ageing population.

- As a result of the overall rise in the average age of the drug death victims, individuals face increasingly complicated co-existing conditions alongside their substance misuse. Their high levels of physical ill-health result in less resilience to overdose as age increases. Management of chronic health problems such as pain issues, respiratory related disease or

hepatitis C is impaired by chaotic lifestyles and difficulties accessing generic health services.

- Ninety percent of the 2015 victims were suffering from a psychiatric condition at the time of death. Nearly all of the individuals had also suffered some form of significant life event(s) such as recent deterioration of their health, recent hospital discharge/prison release or a relapse in their substance misuse. In many cases, this may have resulted in reduced tolerance to the drugs that they had used prior to death.

- 21 (44%) individuals were open to a service at the time of death with 16 individuals being in receipt of a methadone prescription. This was a lower proportion than in previous years.

- With an average number of 4.4 drugs being used per person prior to death, there is strong evidence of poly drug use (including prescribed medications, controlled drugs and illicitly obtained medications) in Tayside.

- In 2015, heroin was the most commonly found substance in toxicology. The presence of analgesics, particularly gabapentin and pregabalin rose and given that in approximately half of these cases the medication had not been prescribed, diverted medication continues to be of concern.

- The number of problematic alcohol users occasionally misusing drugs rose in 2015. These individuals may have been known to alcohol services but had not disclosed their occasional drug use resulting in them not receiving overdose awareness training or advice.

- General low levels of recognition by witnesses of the signs of overdose were apparent in some cases in 2015 resulting in delays in calling for help, such that resuscitation was not possible.

- New psychoactive substances (NPS) continued to emerge but tended to be used in addition to controlled drugs. However, it is recognised that these substances present a growing risk.

4.3 A number of recommendations are made in the report. These relate to key themes including early intervention, co-morbidities, prescribing, overdose awareness and naloxone training, criminal justice and offending, new psychoactive substances, alcohol misuse and service contact/retention. A stakeholder event will be held in the near future to create an action plan to allow for the monitoring of actions and progress towards these recommendations.

4.4.1 Current and future work of the DDRG & DDWG:

- Amalgamation of the DDRG and DDWG to ensure that operational issues/actions/recommendations identified from the review of individual cases link to the broader, more strategic recommendations identified from the annual trends/report (and vice versa).

- Development of a rolling action log to record and monitor all actions identified by the review of individual cases.

- Joint working with GPs to examine trends and themes emerging from those drug death victims registered with the cluster 1 GP Practices in Dundee.

5.0 POLICY IMPLICATIONS

This report has been screened for any policy implications in respect of Equality Impact Assessment and Risk Management. There are no major issues.

6.0 CONSULTATIONS

The Chief Finance Officer, the Clerk and the Multi-agency Drug Deaths Review Group were consulted in the preparation of this report.

7.0 BACKGROUND PAPERS

None.

David W Lynch
Chief Officer

DATE: 21 September 2016

DRUG DEATHS IN TAYSIDE, SCOTLAND

2015

A report on the findings of the Tayside Drug Death Review and Working Groups published August 2016

(Angus, Dundee City and Perth & Kinross Alcohol and Drug Partnerships)

Acknowledgements

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Contents

Executive Summary

The histories of drug death victims highlight the day to day experiences of people with substance misuse problems and offer opportunities for preventative interventions at multiple stages in their life course. The aim of the drug death review process is to contribute to the identification of these opportunities and positive interventions which may change the life course of people with substance misuse problems who are still living.

Case Vignette: A Typical Drug Death Victim in Tayside 2015

BIRTH	•Baby boy born in Dundee •Living in a deprived community
CHILDHOOD	•Parents separated/divorced and contact with only one parent •Unstable living and schooling situation •Parent(s) with substance misuse/mental health issues •Physical or sexual abuse
AGE 16 YEARS	•Left school with no qualifications •Gained employment, continued education or apprenticeship/vocational training course •Drinking alcohol at weekends
AGE 20 - 26 YEARS	•Commenced drug use at 20 •Initially cannabis followed by LSD, ecstasy, cocaine and amphetamines shortly after •Smoking heroin •Injecting aged 26 years •Receiving treatment for problematic alcohol use
AGE 27-36 YEARS	•In a volatile and unstable romantic relationship •Would have children but they would not be living with him •Close relationships with family and friends but difficulties in these relationships due to his and/or their substance misuse •Committing crime to fund drug use and in and out of prison •Misusing a cocktail of illicit and prescribed substances including heroin and benzodiazepines alongside problematic alcohol misuse •Known to a GP and several servcies intermittently including mental health services and substance misuse services •Receiving pharmacological treatment for his drug dependency
AGE 37 YEARS (time of death)	•Single, unemployed and living alone with at least one change in his living arrangements in recent months •Known to a GP and at least one specialist drug service •Would have an ongoing physical health issue such as respiratory disease, chronic pain or hepatitis C alongside at least one mental health problem such as depression •Would have suffered from at least one adverse life event such as ill-health or a relapse •He would typically die at his home address and in the presence of others •He is likely to have consumed heroin, benzodiazepines and at least one analgesic medication (either prescribed or non-prescribed) •He is likely to have thought to have been sleeping resulting in any resuscitation being delayed •A post mortem blood sample would reveal a cocktail of 4 drugs

Background

Aims and objectives

The principal aim of this report is to set forth recommendations to facilitate the reduction of drug deaths and inform policy and practice at a local and national level by summarising the results of data collection and analysis pertaining to the demographic, social, criminal offending, substance misuse, physical, psychiatric/psychological and service use characteristics as well as the specific circumstances, of drug deaths in the Tayside area.

Methods

The population of Drug Deaths (DDs) in Tayside consisted of 48 cases in 2015. The definition of a DD in Tayside is detailed in the main report. Information about these deaths was collected via dissemination of the East Central Scotland Drug Deaths Questionnaire and/or case notes held by social care services, specialist addiction services, criminal justice services, general practice, prison and police services. Data relating to the specific cause of death, post mortem and toxicology was obtained from the Procurator Fiscal offices in Tayside.

Summary of results

Incidence and prevalence of drug deaths

- The Tayside Drug Deaths Review Group considered a total of 66 potential drug deaths in 2015 with 48 being confirmed as drug deaths by review and toxicology.
- Of the 48 confirmed cases, over two thirds (n=33) were deaths recorded as being solely due to drug misuse. The remaining deaths had alcohol and/or physical causes recorded as a significant contributory factor.
- There was a small increase in the rate of DDs in Tayside from 0.11 per 1,000 population in 2014 to 0.12 per 1,000 in 2015.
- Fifty eight percent (n=28) of DDs in Tayside occurred in Dundee.
- Fourteen cases had not received a full post mortem due to their history of Hepatitis C.
- There was no pattern in the month of death but the highest number occurred in March and December and there were no deaths in November.
- Almost a third (31%) of deaths were at the weekend (Saturday or Sunday) with a quarter being on a Friday.

Demographic, life context and social functioning

- The majority (98%) of Tayside DD victims were White Scottish, the predominant ethnicity in Tayside.
- The majority (77%, n=37) of the 2015 deaths were male. This is consistent with national figures and local figures from previous years.
- The drug deaths cohort is an ageing population. The mean age of the DD victims was 37.2 years, a slight drop from 2014 but still continuing the overall upward trend since 2009.
- In 2015, the age range of DD victims spanned 40 years from early 20's to late 50's with a median age of death of 36.5 years old.
- A clear inequality gradient exists (albeit not as marked as previous years) with 38% of Tayside DD victims living in the 20% most deprived areas in Scotland.
- Less than half (44%) of the DD victims were living alone at the time of their deaths.
- The living arrangements of 22 victims had changed in the 6 months prior to their deaths. The most common reasons for this were changes in relationship status, incarcerations, homelessness or a hospital inpatient stay.
- Twenty eight (58%) of the victims were single/separated/divorced/widowed at the time of their deaths while 13 were married/co-habiting and 7 were in a romantic relationship.
- The mean age at which 2015 DD victims left school was 15.7 years and 12 (25%) were known to have left with some form of qualifications.

- Seventy nine percent of DD victims had been engaged in some form of employment/education activity after leaving school.
- Although 21% were unemployed after leaving school, this figure was reversed directly before death, at which point 90% of DD victims were unemployed.
- Twenty six (54%) of the DD victims had children, resulting in a total of 56 individuals losing a parent in 2015. Thirty five of those who lost a parent to drug death were aged under 16 years old.
- The majority of DD victims were not socially isolated. Many were known to have a close relationship with a family member (68%) or a close friendship with another person (83%).
- A substantial number of the victims were known to have significant difficulties in these relationships and often the friends of the deceased also misused substances.
- Over half (60%) of DDs occurred in the presence of others and in all cases, the witness was known to the victim.

Significant life events

- Forty seven (98%) of the DD victims were known to have experienced a significant adverse event in their adult lives and 54% (n=26) had experienced adversity in childhood.
- Most common adverse life events included recent ill-health/deterioration/hospital discharge or a relapse.

Criminal justice and offending

- The majority (85%) of DD victims had criminal histories and had been convicted of a crime at some point in their lives.
- Twelve victims (29%) with a criminal history had been arrested in the 6 months prior to their deaths.
- Almost two thirds of the DD victims (n=31) in 2015 had served a prison sentence at some point during their lives with 13 (42%) of these individuals having served their most recent sentence in the year prior to death.
- Recent prison release had previously been identified as a risk factor for a drug death. However this was not so evident in 2015 with 5 individuals dying within 3 months of release.
- Nineteen (46%) of the DD victims had been subject to some form of community restriction order at some point in their lives.

Substance misuse

- Almost all (98%) of the DD victims were known poly-drug users, 85% had injected at some point in their lives and at least 65% were current injectors at the time of death.
- The average age at which drug misuse began was 19.9 years with injecting drug use commencing, on average, at 26.3 years. These averages were older than previously seen.
- By the time of their deaths, the victims had an average drug-using career of 17.3 years.
- Of the 2015 deaths, 63% were known to have overdosed at some point in their lives, often on multiple occasions.
- Benzodiazepines, heroin/morphine and methadone have consistently been the most common substances involved in the DDs in Tayside. However in 2015, analgesics were more commonly detected than methadone.
- For the first time since data collection began in 2009, heroin was the most commonly found substance with it being detected in 39 (81%) cases.
- Benzodiazepines were detected in 73% of cases while analgesics were present in 58% of cases.
- Of the 23 deaths where methadone was detected, 16 (70%) of the individuals had been prescribed the substance.
- The proportion of deaths involving anti-depressants fell from 49% to 44% in 2015.
- A total of 8 different NPS were found in the toxicology of 18 (38%) individuals. The most commonly found substance was etizolam (found in 12 cases). Four individuals had 2 NPS present in their toxicology.

Co-morbidities/co-existing health conditions

- Of the 48 DD victims, 38 (79%) were known to be suffering significant physical difficulties at the time of death with 32 individuals having more than one issue (more than 2014). Pain, respiratory disease and Hepatitis C continued to be the most common physical conditions recorded.
- All but one of the DD victims (98%) had suffered from psychological or psychiatric difficulties with 43 (90%) suffering from at least one mental health issue at the time of death; the most common of which was depression. Thirty four individuals had more than one issue.
- At the time of death, 60% of DD victims (n=29) were experiencing a combination of psychological and physical difficulties as well as adverse life events alongside their substance misuse problems. This was a slightly lower proportion than in 2014.

Alcohol misuse

- There has been a year-on-year increase in the proportion of victims who suffered from problematic alcohol use. In 2015, 63% had suffered from problematic alcohol use at some point in their lives while 14 individuals (29%) were known to misuse alcohol at the time of death.
- Over half of the victims had received treatment for problematic alcohol use at some point in their lives.
- The presence of alcohol decreased from 42% of the drug deaths in 2014 to 31% in 2015.

Poly drug use

- Almost all of the DDs involved a lethal combination of two or more substances with the average number of drugs found being 4.4 per individual.
- Heroin, benzodiazepines and analgesics were the most commonly found substances in toxicology however were typically used in combinations of two or more. Sixty percent of victims had used heroin and benzodiazepines prior to death.
- Five individuals had a combination of heroin, benzodiazepines, analgesics, methadone and anti-depressants detected in their toxicology.

Service use histories

- All 45 drug death victims were registered with a General Practitioner (GP) and the majority (88%) were noted to misuse substances albeit only alcohol in a small number of cases.
- Three quarters of individuals accessed at least one specialist substance misuse service in the five years prior to death.
- Two thirds (n=32) of drug death victims had at least one specialist service contact in the 6 months prior to their deaths.
- Twenty one individuals (42%) were open to at least one specialist addiction service at the time of death. This was a lower proportion than in previous years. The most commonly accessed services was NHS Tayside Substance Misuse Service (n=20).
- Of the 21 individuals open to a service at the time of death, a third (n=7) had been seen by the service in the week prior to death.
- Seven (15%) of the victims were known to mental health services at the time of death.

Overdose awareness and naloxone

- In many cases where others were present, the victim was simply believed to be sleeping at the time of their death, thus delaying any possible interventions.

- CPR was attempted by bystanders in 48% of cases. However, this was partial and had to be instructed by ambulance control over the telephone.
- An ambulance was called in 36 of the cases in 2015 but it was too late to attempt resuscitation in three quarters of these cases.
- Take home naloxone was found at the scene of death in only one case in 2015 and had been administered by the victim's friend.
- Less than two thirds of those that had been in prison or known to a specialist service had received overdose and naloxone training indicating missed opportunities.

Prescribing

- A third (n=16) of the individuals were in receipt of substitute medication (methadone in all cases) at the time of their deaths.
- The majority (81%) of individuals were being prescribed at least one drug at the time of their death. Fifteen percent were being prescribed 5 or more drugs however this was lower than 2014.
- There is an indication that diversion of prescribed anti-depressants and analgesic medication in particular, is high in this population.
- In 2015, there was an increase in the detection of pregabalin in toxicology with 11 victims having used it prior to death. It had only been prescribed in 6 of these cases.
- The proportion of victims being prescribed strong painkillers such as gabapentin, pregabalin and tramadol has continued to rise.

Comparison of 2015 DDs with previous years

- The number of drug deaths decreased from 54 in 2012 to 34 in 2013 before increasing by 32% to 45 in 2014 and a further 7% increase in 2015 to 48.
- Deaths in Dundee reduced in 2015 while those in Angus and Perth & Kinross increased.
- A smaller proportion of the 2015 victims died at home (52% v. 76% in 2014).
- The proportion of deaths recorded as being solely due to the use of drugs increased in 2015 to 69% from 48%.
- The mean age of death decreased slightly from 38.6 years in 2014 to 37.2 years in 2015. However, there has been an upward trend overall from the mean age of 33.5 years in 2009. This is an indication of an ageing population.
- The average age of commencing drug use increased from 16.3 years in 2013 to 18.4 years in 2014 and 19.9 years in 2015.
- The average age of commencing injecting drug use dropped from 26.2 years in 2013 to 24.7 years in 2014. However the average increased again to 26.3 years in 2015.
- In 2015, the proportion of victims living alone at the time of death decreased to 44% (from 47% in 2013 and 53% in 2014).
- Almost half (46%) of the 2015 DD victims experienced at least one change in their living circumstances in the 6 months prior to death. This was similar to 2014 but higher than the 32% recorded in 2013.
- A larger proportion (42%) of 2015 DD victims were in a relationship at the time of death compared to 36% in 2014 and 15% in 2013.
- Although the number of children losing a parent due to a drug death had dropped in 2015 (56 v. 61), the actual percentage of victims who had children was lower (54% in 2015, 58% in 2014 and 67% in 2013). However, the number of children aged under 16 years losing a parent increased from 26 in 2014 to 35 in 2015.
- A similar proportion of the 2015 victims had a criminal history however a greater proportion (29% v 18%) had been arrested in the 6 months prior to death.
- Recent prison release has been less of a risk factor in drug deaths victims of recent years and this continued to be the case in 2015.

- The proportion of DD victims with mental health issues has increased over time (79% to 82% to 90%), while the percentage with significant life events has remained similar (97%, 96% and 98%).
- Although those with a physical issue at the time of death has remained similar to 2014, (78% v. 79%), the proportion with multiple difficulties has increased from 56% to 67%.
- The prevalence of Hepatitis C in the drug death cohort increased from 18% of cases in 2014 to 29% in 2015.
- The proportion of victims who had ever suffered problematic alcohol use continued to increase in 2015 (54% in 2012 to 63% in 2015). However, the proportion with alcohol issues at the time of death decreased from 40% to 29% between 2014 and 2015 and the proportion of victims with alcohol in their toxicology results also decreased from 42% to 31%.
- The percentage of individuals known to specialist services in the 6 months prior to death had remained the same (67%) however the proportion still in touch with a service at the time of death had decreased (53% to 44%)
- The proportion of victims who were in receipt of a methadone prescription at the time of death has reduced over time from 50% in 2011 to 33% in 2015.
- Although there was an increase in the proportion of deaths involving methadone, the proportion involving illicitly obtained methadone had dropped in 2015 (24% v. 40%).
- Heroin was the most commonly found drug in toxicology in 2015 for the first time since data collection began in 2009. Over four fifths of the 2015 deaths involved heroin compared to 60% in 2014.
- There was an increase in the presence of analgesics in 2015 with 58% of individuals having taken these medicines (whether prescribed or illicitly obtained) prior to death.
- Comparing 2015 data to 2014, the proportion of drug deaths involving heroin/morphine, benzodiazepines and analgesics increased while deaths involving anti-depressants, alcohol and methadone decreased.

Recommendations

The Tayside Drug Death Review and Working groups welcome the continued high priority that is being given by the Scottish Government to the prevention of drug deaths, as reflected in their guidance to Alcohol and Drug Partnerships (ADPs). The recommendations from previous 'Drug Deaths in Tayside' reports remain relevant and the findings from 2015 support these. An update on the progress of these recommendations can be found in Section 5.

Additional recommendations emerging from the report and the work of the Drug Death Review & Working Groups (DDRG & DDWG) during 2015 are:

Key theme	Recommendation	Responsible person(s)
Alcohol misuse	• Alcohol Services should carry out holistic assessments to ensure any occasional drug use is identified and can be incorporated into the care plan of the individual. • Alcohol Services should provide/display information promoting overdose and naloxone training to all service users.	Tayside Drug Death Group
Service contact	• Increase engagement and retention in services. • Ensure individuals with a poor history of engagement have a risk plan and support that encourages engagement, including peer support and networks. • Explore and use assertive outreach models in priority cases. • Encourage services to be trauma focussed and support information sharing where relevant and possible. • Senior strategic groups should conduct regular audits of unplanned and disciplinary discharges.	Tayside Drug Death Group
Information governance	• Create and maintain a live rolling action plan to monitor all recommendations and actions identified during the drug death review process. The action plan should identify a responsible officer and record the	Tayside Drug Death Group

	outcomes/service changes as a result of each action/ recommendation. • Hold a focused action planning workshop with key practitioners/managers to consider the strategic recommendations of this and related reports and formulate an improvement plan. This plan would feed into the ADP Commissioning Strategy.	
Publicising of Tayside Drug Death Report	• Hold an annual event to launch the Tayside Drug Death report and to promote awareness of overdose and its effect on families, friends and communities.	Tayside Drug Death Group
Relevant recommendations from other national and local strategic documents and reports	• Consider the key findings and recommendations from 'Staying Alive in Scotland' published in June 2016 by the Scottish Drugs Forum, Scottish Government and Hepatitis Scotland. • Ensure strong links with the Tayside Sexual Health and BBV Managed Clinical Network around BBV prevention.	Tayside Drug Death Group

Section 1: Introduction

1.1 Background

The National Investigation into Drug Related Deaths (DRD) 2005 commissioned by the then Scottish Executive and conducted by the Centre for Addiction Research and Education Scotland (CARES) examined the social, clinical circumstances and service contacts of those dying as a result of a drug related death in Scotland in 2003. This investigation and subsequent Scottish Advisory Committee on Drug Misuse (SACDM) report and recommendations (2005) identified the need to establish a local standing Drug Deaths Monitoring and Prevention Group involving key agencies to reduce deaths under the auspices of local Alcohol and Drug Partnerships (ADPs). The Tayside Drug Death Review and Working Groups (DDRG & DDWG) were set up in 2008 with the aim of understanding and preventing drug deaths and overdose.

The National Drug Related Deaths Database (NDRDD) was also launched in January 2009, acting on a recommendation that had come from the National Forum for Drug Related Deaths. Data collected for local analysis is also reported to this national database.

1.2 Aim

The aim of the Tayside Drug Death Review Group and Working Group is to work collaboratively to reduce the number of drug deaths across Tayside and also to improve the response to non-fatal overdoses of drugs of misuse.

1.3 Working arrangement

The approach taken is modelled on that established in Fife in 2005 and is now used across East Central Scotland (Fife, Tayside and Forth Valley). A full description of the methodology can be found in Appendix 1. There are three principal functions:

- to determine common demographic, social, criminal offending, substance misuse, physical, psychiatric/psychological, service use characteristics and circumstances of drug deaths. This is accomplished through the dissemination of an in-depth questionnaire to all substance misuse services (health, local authority and voluntary sector), the Prisoner Healthcare and any other agency deemed necessary. All substance misuse services are notified of a suspected drug death and are asked to provide information about those individuals that they have had contact with. Primary Care records for each individual are also obtained, alongside police sudden death reports, social enquiry reports, post mortem and toxicology reports. This information is collated and considered by the Review Group, which aims to draw lessons from each individual case

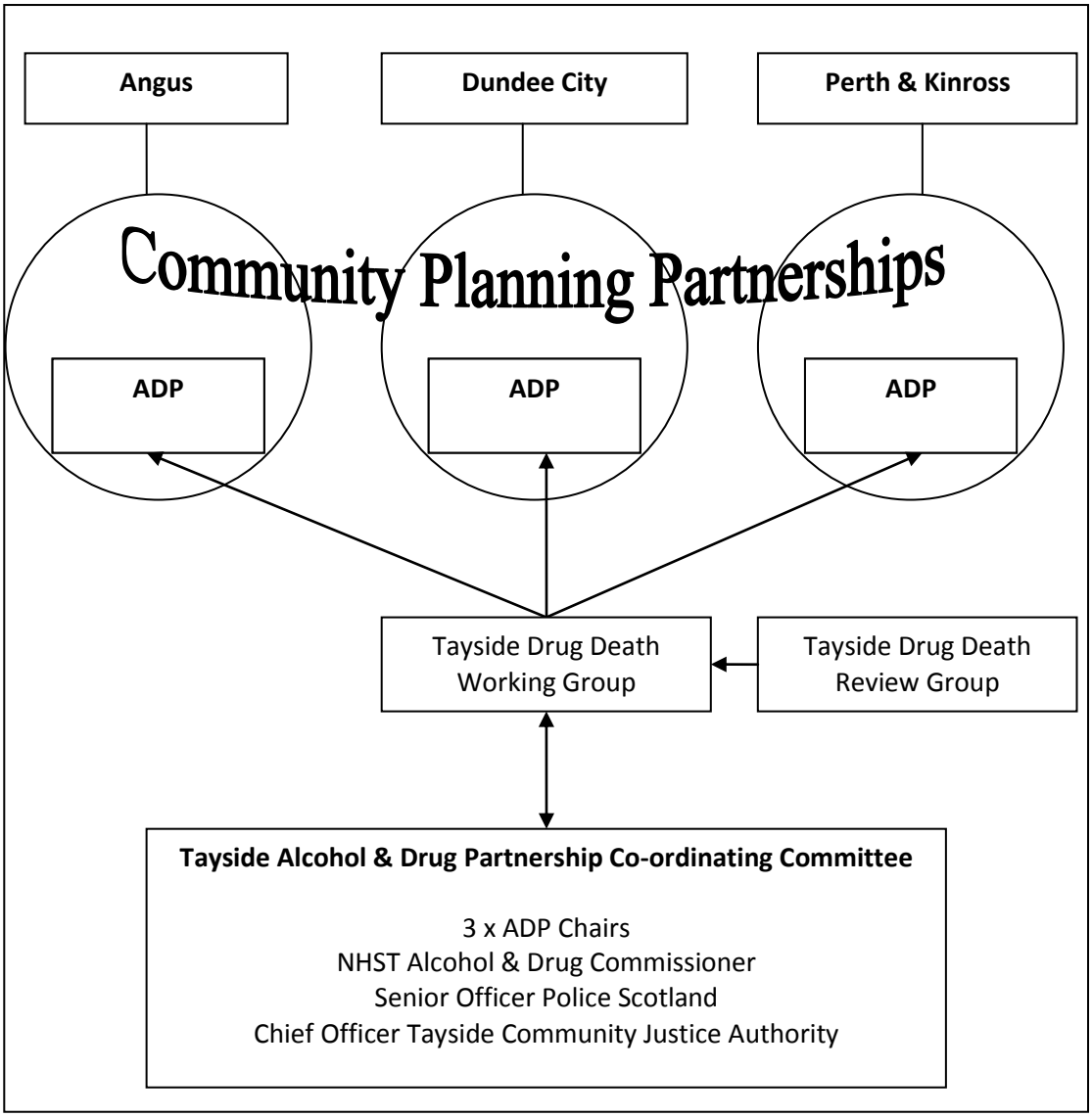
- to use the information gathered, to draw upon trends, similarities, key themes and strategic issues to be formulated. This is the prime role of the Working Group. Thus, in line with national recommendations, the work of these two groups endeavours to inform and disseminate good practice and enhance the provision of care to reduce the number of drug deaths in Tayside. The members of the Review and Working Groups are detailed in the Acknowledgements

- to provide timely feedback on individual cases, where relevant, to NHS Tayside including specialist substance misuse services, mental health teams and general medical specialties in order to support current clinical governance and review structures.

1.4 Governance and structure

The Tayside Drug Death Review and Working Groups operate in an environment where there are three Alcohol and Drugs Partnerships (ADPs) and three Community Planning Partnerships (CPPs), covering Angus, Dundee City, and Perth and Kinross. The ADPs are the key strategic partnership groups for substance misuse within each local area and they have strong links with the wider CPPs. The ADPs have only been in existence since late 2009. Prior to this, their role was undertaken by DAATs (Drug and Alcohol Action Teams). The Drug Death Groups act as expert advisory groups to the three ADPs, making recommendations to the ADPs for them to take forward in conjunction with the wider CPPs. The high level structures are illustrated in the figure below. The Drug Death Working Group meets four times a year and its main responsibility is to analyse the information collated by the Drug Death Review Group over a period of a year and oversee the development and dissemination of the annual report. The three Tayside ADPs are then asked to agree the recommendations and oversee the implementation of actions.

Tayside Drug Death Review and Working Group Governance Structure



Section 2: Drug Death Definition and Cohort of 2015

2.1 Drug death definition

The complexity of providing a suitable DD definition is demonstrated by the differences in definitions incorporated by different organisations. For example, the World Health Organisation (WHO) defines it as 'fatal consequences of the abuse of internationally controlled substances and/or of non medical use of other substances for psychic effects,' (WHO, 1993). This definition allows the incorporation of deaths indirectly associated with drug misuse such as chronic intoxication, suicides, drug related accidents and drug related diseases. This is similar to the definition employed by the National Records of Scotland (NRS) formerly General Register Office for Scotland. The NRS definition includes instances in which toxicological findings indicate the presence of a controlled substance, but where this substance may not necessarily have been a factor contributing to the individual's death.

The Scottish Crime and Drugs Enforcement Agency (SCDEA) define a drug death as: "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."

The methodology of this local report relies on case finding and subsequent data collection being initiated by police sudden death reports. The SCDEA definition therefore provides a consistent basis for characterization of the deaths reviewed. Deaths directly resulting from the presumed non-intentional overdose of illicit (or illicitly obtained) controlled substances in Tayside in 2015 have been included and considered in this report. 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 morbidities. In such cases the Review Group must consider the individual case, including the results of post mortem toxicology, and come 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 be considered a drug related death but not a drug death and would therefore not be included as a confirmed case.

There may be deaths notified to the Group that result from substances that are neither illicit nor controlled e.g. New Psychoactive Substances (NPS) or volatile substances. The Drug Death Review and Working Groups have concluded that such deaths will be included in reviews and drug death numbers, where appropriate.

2.2 Drug death cohort of 2015

This section shows the number of drug death notifications received and the number of confirmed cases that fit under the local definition of a drug death in Tayside.

In 2015, the Tayside Drug Death Review Group were notified of **66** suspected drug deaths. The Group's definition of a drug death is set out in Section 2.1. Drug **related** deaths are not included.

In a similar manner to previous years, cases were discussed and reviewed in clusters to enable the Review Group to focus on the individual circumstances surrounding each death.

Following toxicology (post mortem where available) and review by the DDRG, **18** cases were deemed not to conform to the group's definition of a drug death and these were therefore excluded from further analyses. The majority (89%) of the cases concluded as non-drug deaths in 2015 were deaths due to physical causes where illicit drugs were present in toxicology but not thought to be a significant contributory factor. The remaining two cases had drug use recorded as the main cause of death on the post mortem but following review of the individual's circumstances, the DDRG felt that the individual's physical health would have

played a considerable role in death and therefore the death be recorded as a drug **related** death rather than solely due to the use of drugs.

Table 1 shows the breakdown of the excluded cases in 2015 by the recorded category of death. **It should be noted that these excluded deaths should in no way be taken as an indication of the full number of drug *related* deaths in Tayside in 2015.**

Table 1: Category of death of the suspected drug death notifications excluded from final figures in 2015 (n=18)

Main cause of death (as recorded on the death certificate)	Number of cases
Physical	9
Physical (with drugs listed as contributory factor)	7
Other	2

After consideration of the circumstances surrounding the remaining 48 cases and the drug levels found in post mortem toxicology, the Drug Death Review Group concluded that all of these individuals should be included in the Tayside drug deaths dataset for 2015 (n=48). A breakdown of the category of death for the dataset is shown in Table 2. The table shows that 69% of the deaths in 2015 were recorded as being due to drugs alone.

Table 2: Tayside DD victims by category of death 2015

Main cause of death (as recorded on the death certificate)	Number of cases
Total number of deaths	**48**
Drugs	33
Drugs & alcohol	10
Drugs (with physical issues as a contributory factor)	5

2.3 Full post mortem status

The absence of full post mortems on individuals in Tayside known to be BBV positive, unless there was a legal imperative to do so, continued to be an issue in 2015. This stance is not taken in other areas of Scotland. The DDRG continue to express real concern about this given the increasingly complicated physical issues that some of the victims endure alongside their substance misuse. The absence of a full post mortem report makes it very difficult for the Group to reach a conclusion on the actual cause of death in these cases.

In 2015, a post mortem was not carried out on 14 (29%) of the confirmed cases due to the deceased's history of Hepatitis C.

Section 3: Key Results

The results section is a retrospective analysis of trends, similarities and common themes amongst victims of drug deaths in Tayside over the past year (2015). Information has been analysed from a descriptive perspective and does not infer that the data collated necessarily identifies risk factors to which a drug death can be attributed. In order to accomplish such a task one would require a controlled sample of a living, drug taking and general population.

3.1 Incidence of drug deaths

This section describes patterns surrounding the incidence and prevalence of drug deaths based both on the area of residence of the victim and the location of the drug death.

3.1.1 Incidence and prevalence of drug deaths by area of residence of victim

The total of 48 drug deaths in Tayside in 2015 is a slight increase (7%) from the 45 recorded in 2014. Previous figures for 2010, 2011, 2012 and 2013 were 33, 36, 54 and 34 respectively.

Table 1 shows the Tayside DDs broken down by the council area of residence of the victim. As with previous years, the highest proportion (58%) of drug deaths, were residents of Dundee City. However, although the overall Tayside number increased, this was due to an increase in the number seen in Angus and Perth & Kinross while the number of deaths in Dundee City dropped slightly.

Table 1: Tayside DD victims by council area of residence 2015 (compared to 2014)

Council Area	**Number of deaths in 2015**	**(Number of deaths in 2014)**
Tayside	**48**	**(45)**
Angus	12	(8)
Dundee City	28	(31)
Perth & Kinross	8	(6)

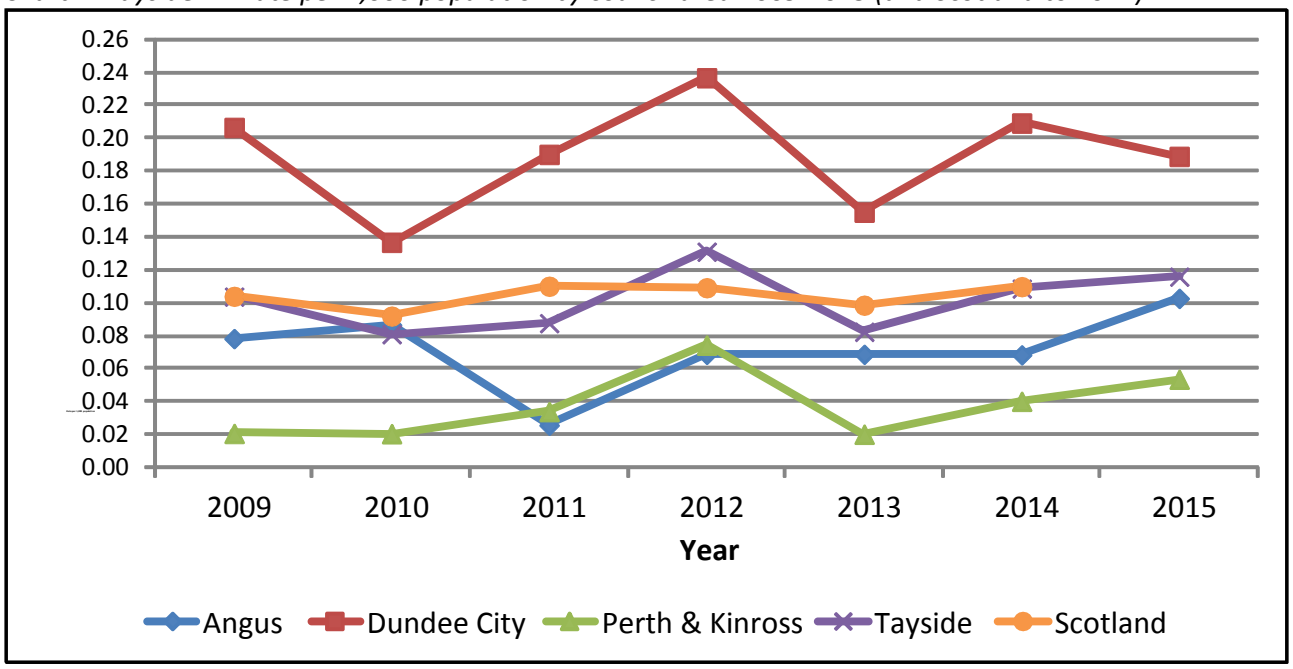
The calculation of the number of drug deaths per 1,000 of the population allows for the comparison of numbers in different geographical areas when their populations are taken into account.

Across the whole of Tayside, the rate[1] of drug deaths confirmed by the Review Group in 2015 was **0.12 per 1,000 population**, a slight increase from the 2014 rate of 0.11 per 1,000 population. The rate of drug death differs substantially within Tayside. The highest rate has consistently occurred in Dundee City and in 2015, was 0.19 per 1,000 population. In Angus and Perth & Kinross, the DD rates were 0.10 and 0.05 respectively. Chart 1 shows the change in the rate of deaths across Tayside since 2009. Despite some fluctuations, the overall drug death rate has increased in Angus and Perth & Kinross in the time period 2009 to 2015 while the Dundee City rate has decreased slightly.

Due to differing drug death definitions used locally and nationally, it is difficult to make comparisons between the Tayside rate and that shown across Scotland. However, Chart 1 shows the national rate for 2009 to 2014 and shows that although Tayside is similar to the national rate, Dundee City has consistently been higher than the national average.

[1] *Calculated using the most recent (2014) NRS midyear populations estimates*

Chart 1: Tayside DD rate per 1,000 population by council area 2009-2015 (and Scotland to 2014)



The estimated prevalence of problem drug use varies widely across the three Tayside council areas[2]. According to the most recent prevalence study (2012/13), it is estimated that 61% of Tayside's drug users reside in Dundee City. Table 2 shows drug deaths in Tayside in 2015 as a percentage of the population at risk i.e. the estimated number of problem drug users. Caution should be taken when interpreting these figures due to the uncertainty around the number of drug users.

Table 2: Drug deaths (2015) as a percentage of the population at risk (2012/13) in Tayside

Area	Estimated number of problem drug users	Number of drug deaths	Drug deaths as a percentage of the population at risk (the estimated number of drug users)
Tayside	**4,720**	**48**	**1.02%**
Angus	700	12	1.71%
Dundee City	2,900	28	0.97%
Perth & Kinross	1,120	8	0.71%

3.1.2 Incidence of drug deaths by location of death

The majority of DDs in 2015 occurred in a dwelling. Of the 48 individuals who died, 25 (52%) died in their own homes with a further 4 (8%) dying in the home in which they had recently been staying. Twelve individuals (25%) died at an address different to their usual place of residence and the remaining 7 (15%) died elsewhere including hospital, hostel, public premises or outdoors. Of those who did not die in their own home, the majority died within their hometown. These results demonstrate that most DD victims die in close proximity to their homes.

3.1.3 Incidence of drug deaths by month and day of death

- As with previous years, there was no pattern in the month of death. There were increases in March and December in 2015 however.

[2] *https://www.isdscotland.org/Health-Topics/Drugs-and-Alcohol-Misuse/Publications/2014-10-28/2014-10-28-Drug-Prevalence-Report.pdf*

- Almost a third (31%) of deaths were at the weekend (Saturday or Sunday) with a quarter being on a Friday.

3.2 Demographics, life context and social functioning

This section summarises the demographics and social circumstances of the drug death victims. The accommodation and living arrangements of the individuals at the time of their death and in the six months prior to their deaths, information relating to employment both upon leaving school and at the time of death, as well as patterns surrounding the individuals' relationships with both friends and family, is shown.

3.2.1 Key points

- In 2015 (similar to previous years), the majority of Tayside DD victims were male (77%), White Scottish (98%), unemployed (90%) and living in rented accommodation (92%).
- A clear inequality gradient exists (albeit not as marked as previous years) with 38% of Tayside DD victims living in the 20% most deprived areas in Scotland.
- The mean age at which 2015 DD victims left school was 15.7 years.
- The majority of DD victims (79%) were engaged in some form of employment/education activity after leaving school.
- Twenty one percent were unemployed after leaving school. However this figure was reversed directly before death, at which point 90% of DD victims were unemployed.
- In 2015, 44% of the DD victims were living alone at the time of their deaths while half were living with others. In some cases, this implied a potentially supportive relationship, although in others it was the result of instability in living arrangements, for example moving out of a shared home because of a dispute with a partner or parent.
- The living arrangements of 22 (46%) victims had changed at least once in the 6 months prior to their death, an indication of the chaotic nature of their lifestyles. The most common reasons were changes in relationship status, incarcerations, homelessness or a hospital inpatient stay.
- Twenty eight (58%) of the victims were single/separated/divorced/widowed at the time of their deaths while 13 were married/co-habiting and 7 were in a romantic relationship.
- Twenty six (54%) of the DD victims had children.
- A total of 56 individuals lost a parent in 2015 with 35 of these being aged under 16 years.
- Six children under 16 years of age were living with a DD victim at the time of death.
- The majority of DD victims were not socially isolated. Many were known to have a close relationship with a family member (63%) or a close friendship with another person (69%). However, a substantial number were also known to have significant difficulties in these relationships.
- In 2015, more than half of the DD victims (n=29 or 60%) died in the company of or in close proximity to others at the point of death. In 19 of these cases, the witness was in the same room as the victim at the time of death.

3.2.2 Summary table

Table 1: Demographics, life context and social functioning of DD victims 2015

		Cases in 2015	
		Number	**Percentage (n=48)**
Gender			
	Male	37	77%
	Female	11	23%
Ethnicity			
	White Scottish	47	98%
	Other	1	2%
Deprivation			

	Quintile 1 (most deprived)	18	37.5%
	Quintile 2	16	33.3%
	Quintile 3	10	20.8%
	Quintile 4	2	4.2%
	Quintile 5 (least deprived)	2	4.2%
Education			
	Mean age of leaving school (available for 33 cases)	15.7 years	
	Number of cases gaining qualifications at school	12	25%
Employment status after leaving school			
	Vocational training/apprenticeship	11	23%
	Employment	6	13%
	Unemployment	6	13%
	Full time education	4	8%
	Other	2	4%
	Unknown	19	40%
Employment status at time of death			
	Unemployed	43	90%
	Employed	5	10%
Housing			
	Rented accommodation	44	92%
	Hostel/supported accommodation	4	8%
Living arrangements			
	Living alone	21	44%
	With spouse/partner	14	29%
	With parents	5	10%
	With friends	3	6%
	With relatives	2	4%
	Other	3	6%
Relationship status			
	Single	25	52%
	Married/Civil Partner/Co-habiting	13	27%
	Single (in a romantic relationship)	7	15%
	Separated/Widowed	3	6%
Children			
	Number of cases with children	26 (56 children)	54%
	Number of cases with children aged under 16 years	20 (35 children)	42%
	Number of cases with children aged under 16 years living with them at the time of death	3 (6 children)	6%
Family and friendships			
	Number of cases with a close relative	30	63%
	of which also had a substance misuse problem	*8*	*27% (of all cases)*
	Number of cases with a close friend	33	69%
	of which also had a substance misuse problem	*20*	*61% (of all cases)*
Person(s) present at scene of death			
	Person died in company of or close proximity to others	29	60%
	Spouse/partner	*13*	-
	Friend(s)	*11*	-
	Relative(s)	*5*	-
	Person died alone	19	40%

3.3 Significant life events

Evidence shows that adversity suffered in childhood can have an impact on future adult behaviour. This section summarises the significant life events that the drug death victims have endured both as a child and adult.

Over half (n=26) of DD victims of 2015 were known to have suffered at least one significant adverse event in their childhood.

Adverse life events in the DD victims' adult lives were also common. In 2015, all but 1 of the DD victims were known to have suffered significant adverse life events as adults with most individuals having suffered multiple life events (n=37 or 77%).

On the whole, the findings are comparable to previous years. However, the higher proportion of victims suffering from ill-health/deterioration in adulthood in 2014 and then again in 2015, reflects the chronic and complex medical conditions this ageing population were facing. There was also an increase in the proportion of individuals who suffered a relapse which shows that a number of the victims had been on the path to recovery but for whatever reason had suffered a setback.

Table 1 shows the most common adverse events suffered by the 2015 DD victims in child and adulthood.

Table 1: Adverse events in childhood recorded for 2015 DDs

	Cases in 2015	
	Number	**Percentage (n=48)**
Adverse Event in Childhood		
Parents separated/divorced	21	51%
Unstable schooling situation	14	36%
Regular contact with only one parent	11	27%
Unstable residential situation	8	21%
Parent(s) with substance misuse/mental health issue(s)	9	19%
Physical abuse	6	13%
Sexual abuse	5	10%
Adverse Event in Adulthood		
Ill-health/deterioration/discharge from hospital	34	71%
Relapse	21	44%
Child custody issues	15	31%
Arrested/charged/witness/awaiting sentence/released from prison	14	29%
Bereavement	14	29%
Breakdown of a significant relationship	9	19%
Homelessness/housing problems	5	10%
Issues in new romantic relationship	5	10%
Financial worries	5	10%
Family circumstances	4	8%
Assault/harassment	2	4%
Job loss	2	4%
Sexual abuse	1	2%

3.4 Criminal justice and offending

This section examines the DD victims' criminal and offending history in more detail. History of

incarcerations is also considered.

3.4.1 History of offending

As was the case in previous years, the drug death victims of 2015 had, on the whole, extensive criminal histories. Analysis of past convictions and arrests showed that

- 41 of the 48 individuals (85%) had been convicted of a crime at some point in their lives.
- In 12 of these cases (29%), it was known that the individual had been arrested, at least once, in the six months prior to their death.

3.4.2 History of incarcerations

Of those who died in 2015, almost two thirds (n=31) were known to have served a prison sentence at some point during their lives. Thirteen of these individuals (42%) had been in prison in the 12 months before their death.

It is highly likely that a high proportion of the individuals were imprisoned for a reason directly or indirectly related to their substance misuse, for example to fund their drug misuse.

For those who had been incarcerated, Table 1 shows the time lapse since their most recent release from prison. These findings are important due to the possibility of reduced tolerance after a spell in prison. One individual died less than a week after release with a further 2 victims dying within a fortnight of release. It is a possibility that recent prison release may have been a risk factor in these deaths.

Table 1: Number of 2015 DDs occurring following prison release (n=31)

Time since most recent prison release	Number of DD victims
Within 7 days	1
8 - 14 days	2
15 - 30 days	0
31 - 90 days	2
4 - 6 months	3
7 - 9 months	4
10 - 12 months	1
More than a year	18

3.4.3 History of court enforced restrictions and interventions

The question of whether DD victims had been subject to any legal interventions prior to their deaths was also considered. Data quality on court-enforced restrictions/interventions varies but of those who had a criminal history (n=41), 19 (46%) were known to have been given a community restriction at some point in their lives. Five individuals had been subject to a Drug Treatment and Testing Order (DTTO) with 1 known to have successfully completed it.

3.5 Substance misuse

The present section examines the substance misuse histories of the DD victims including the age at which they started misusing illegal substances, their lifetime injecting characteristics and overdose histories. It also describes the post mortem toxicology findings of the drug death victims in context of the poly-substance misuse culture in Tayside.

In 2015, all of the DD victims were known to misuse prescribed and/or non-prescribed drugs. It is known that 14 (29%) individuals had a period of at least 6 months in their adult lives in which they did not misuse

illicit drugs (excluding time spent in prison) and for half of these (n=7), this was because they were predominantly known to misuse alcohol.
All but one of the victims were known to misuse illicit drugs in combinations of 2 or more with the remaining individual being known to primarily suffer from problematic alcohol use but occasionally inject heroin. In all but one case, the drugs misused included at least one of the following: heroin, benzodiazepines and/or methadone (prescribed and non-prescribed). This shows that almost all of the DD victims were poly-drug users. This poly-drug use is examined in detail later (see section 4.4).

3.5.1 Drug misuse and injecting history

Analysis of the substance misuse histories of the individuals in 2015 showed that:

- The average age at which drug misuse began was 19.9 years which is older than previous years and possibly due to a proportion of the 2015 victims not commencing their drug use until later in life (they had predominantly misused alcohol).
- Of the 48 drug deaths in 2015, 41 (85%) had used heroin at some point in their lives while 39 (or 81% of all deaths) were known to have used it in the months immediately prior to death.
- By the time of their deaths, the victims had an average drug-using career of 17.3 years.
- 85% of the victims were known to have injected drugs at some point in their lives with 65% of the victims being injectors at the time of their death.
- The average age at which the 2015 individuals first injected was 26.3 years while the median age was 23 years. The injecting rates are higher than 2014 but similar to previous years and the average age of commencing intravenous use is higher than previously seen.

3.5.2 Overdose histories

A non-fatal overdose episode provides an opportunity to engage with substance misusers, families and networks in order to provide information and raise awareness of particular risks. It may provide an opportunity to engage people in harm reduction and treatment. People who suffer an overdose may interact with ambulance staff, police, accident and emergency staff and all of these professionals could provide valuable information, advice and signposting. With the widening distribution of take home naloxone, **it is increasingly important that individual substance misusers, their families and friends are aware of risks, responses and of the services available to support and help them.** This is discussed further in section 4.6.

Thirty (63%) of the 48 drug death victims of 2015 were known to have experienced at least one drug overdose at some point in their lives. This is higher than 2014 but similar to the proportions recorded in previous years. Although no overdose had been recorded in the other 18 cases, it does not necessarily imply that they had never actually experienced an overdose.

For the 2015 drug death victims who were known to have overdosed in the past, the number of recorded overdoses per individual ranged from 1 to 5 with an average 2.0 overdoses per victim. Fourteen individuals were known to have overdosed on multiple occasions.

Furthermore, 3 DD victims were known to have overdosed in the month prior to their deaths with 1 individual dying just 1 day after a non-fatal overdose.

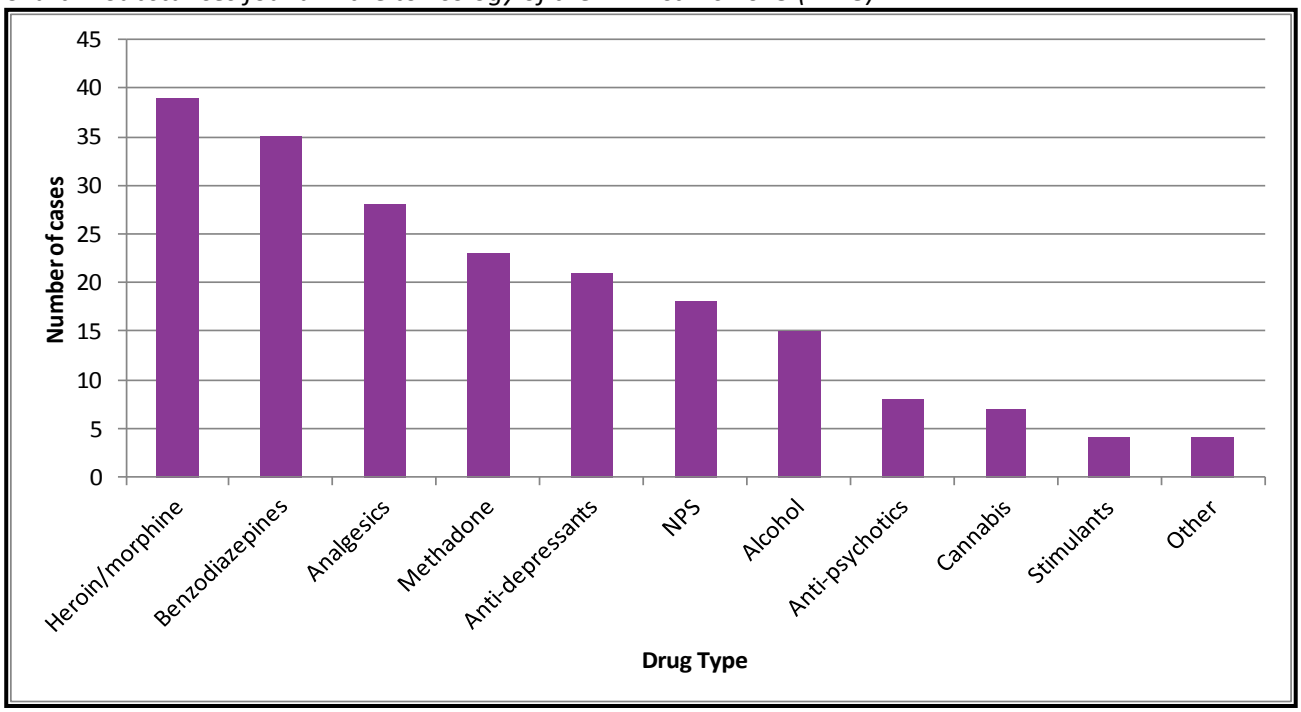
3.5.3 Substance misuse prior to death

Post mortem toxicology reports of the DD victims were analysed to gain a greater insight into the types of substances that led to the fatal overdoses. Only those substances tested for are likely to be detected in the toxicology, potentially biasing the outcome of toxicology findings. With the rapid development of New

Psychoactive Substances, the list of drugs being tested for is continuously expanding however there is a time lag for toxicologists to become aware of and be able to test for these substances.

Chart 1 shows the substances which were found in the toxicology results of the DD victims in Tayside in 2015. For each of the main categories of substances found in toxicology, Chart 2 shows how the presence of these has changed over time.

Chart 1: Substances found in the toxicology of the DD victims 2015 (n=48)



Note 1) Metabolites are not counted unless only the metabolite was detected 2) If an individual had more than one drug present in their toxicology from a group of drugs e.g. 'anti depressants', it was only counted once

Heroin/morphine

Over four fifths (n=39) of deaths in 2015 involved heroin/morphine, the highest proportion seen since data collection began in 2009. Heroin/morphine was present in two thirds of drug deaths in 2012, 59% of deaths in 2013 and in 2014 was present in the toxicology of 27 individuals (60%).

Benzodiazepines

In previous years, benzodiazepines were most commonly found. In 2015, for the first time in the period examined, benzodiazepines became the second most commonly found drug. Despite this, there was still an increase in the proportion of deaths where benzodiazepines were present (64% in 2014 to 73% in 2015). In all but one of the cases, the benzodiazepine found was diazepam. In the remaining case, it was phenazepam. It should be noted that New Psychoactive Substances (NPS) which have similar properties to benzodiazepines continued to be misused in 2015 (see page 20).

Analgesics

Previous data suggested that the presence of strong analgesics such as gabapentin, pregabalin and dihydrocodeine had been increasing. This was confirmed in 2015 with the proportion being the highest seen and rising from 49% in 2014 to 58% in 2015. Eleven individuals had more than one analgesic found in their toxicology, while 1 individual had 3 different analgesics detected (albeit all 3 substances had been prescribed to the individual). The diversion of prescribed substances is analysed further in section 4.7.3.

Methadone

In 2015, methadone was involved in 48% of deaths, the lowest proportion since data collection began. The methadone was being prescribed to the individual in 16 of the 23 cases (70%). This was a lower proportion than in 2014.

Anti-depressants

The presence of anti-depressants has fluctuated over time but dropped in 2015 to 44%, the lowest proportion seen since 2010. As with previous years, mirtazapine was the anti-depressant most commonly found and was detected in the toxicology of 13 individuals in 2015. Five individuals had more than one anti-depressant found in their toxicology.

Alcohol

The presence of alcohol had been increasing since 2010 reaching a peak of 42% of drug deaths in 2014. This proportion dropped in 2015 to 31%. In 1 of the deaths in 2015 where alcohol was present, the victim had consumed NPS only alongside their alcohol. While in one further case, in addition to alcohol, the individual had 6 other drugs present in their toxicology (not including metabolites).

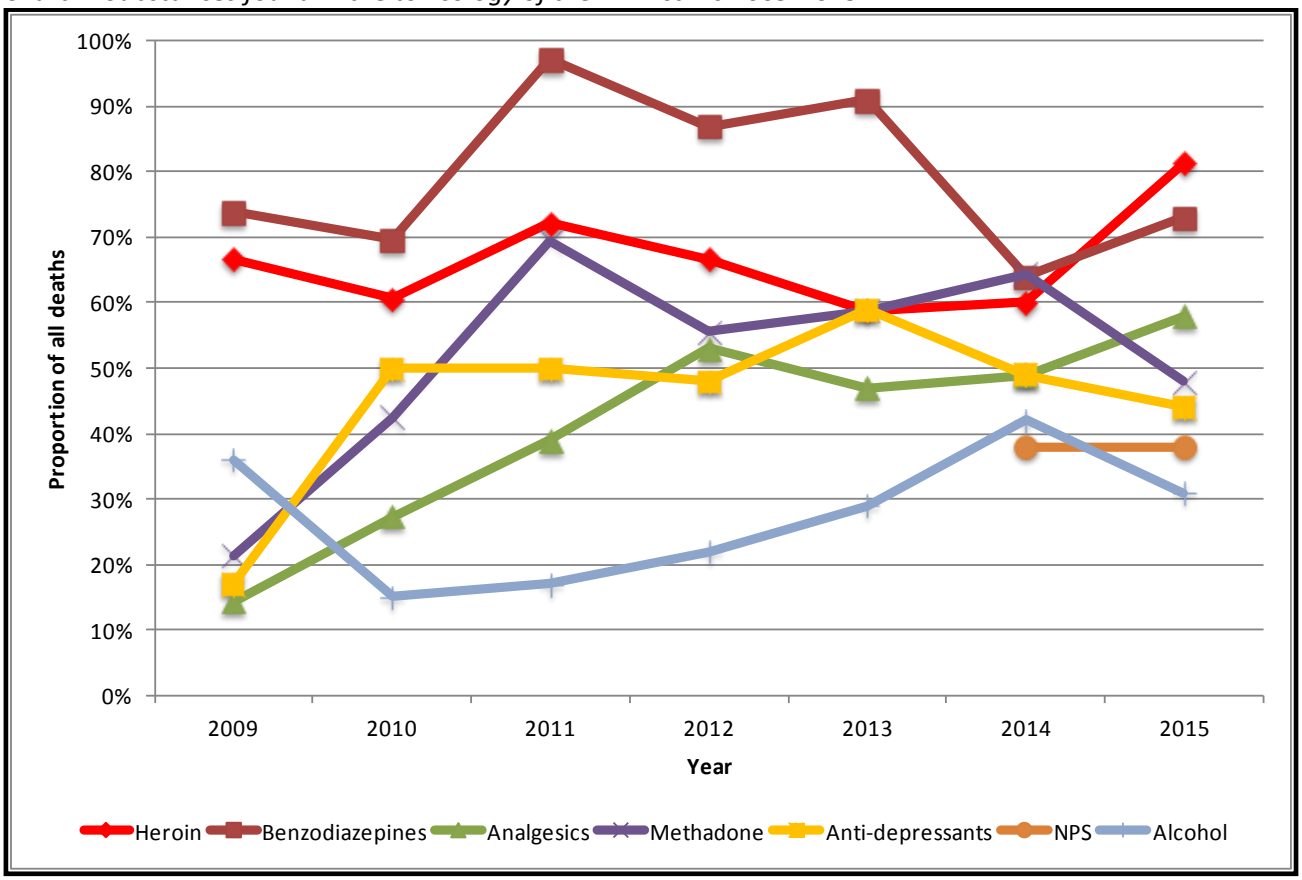
NPS

A total of 8 different NPS were found in the toxicology of 18 (38%) individuals. The most commonly found substance was etizolam (found in 12 cases). Four individuals had 2 NPS present in their toxicology.

Other

Other drugs commonly found in toxicology in 2015 were anti-psychotics (n=8, 17%) cannabis (n=7, 15%), and stimulants (n=4, 8%). A number of substances were involved in a small number of drug deaths. These are included in the "other" category in Chart 1 and include cyclizine, zopiclone, lamotrigine and carbamazepine.

Chart 2: Substances found in the toxicology of the DD victims 2009-2015



3.5.4 Substances implicated in death

Interpretation of the post mortem toxicology is complex. The presence of a drug does not necessarily mean that the drug contributed to the death of the victim. The decision as to whether a drug has caused or

contributed to a death lies with the Pathologist and is based not only on toxicological findings but also on pathological and circumstantial evidence and the Pathologist's own experiences. These results are also discussed on an individual basis by the DDRG.

So far, this section has detailed all drugs **found** in toxicology but to allow some analysis of the drugs **implicated** in the Tayside deaths of 2015, it has been assumed that all drugs mentioned in the cause of death on the death certificate were implicated in death.

Heroin/morphine (n=35, 73%) and diazepam (n=22, 46%) were most frequently implicated in the 2015 DDs followed by methadone (n=18, 38%), alcohol (n=10, 21%), etizolam (n=8, 17%), gabapentin (n=7, 15%), and pregabalin (n=6, 13%).

Section 4: Key Themes

This section highlights the key themes emerging from the cases and reviews of the drug deaths in 2015 and previous years. It considers:

- The ageing drug death population with individuals having increasingly complicated co-existing conditions alongside their substance misuse.
- High levels of physical ill-health resulting in increasingly less resilience to overdose and poor management of chronic health problems with difficulties accessing generic health services.
- Co-existing mental health problems and adverse life events and their impact on often chaotic lifestyles.
- Poly-drug use including prescribed medications, controlled drugs and illicitly obtained medications.
- Individuals who predominantly suffered from problematic alcohol use but who would occasionally misuse drugs including heroin.
- Poly pharmacy and contacts with specialist substance misuse services.
- A continued emergence of NPS.
- Overdose awareness and opportunities for interventions.

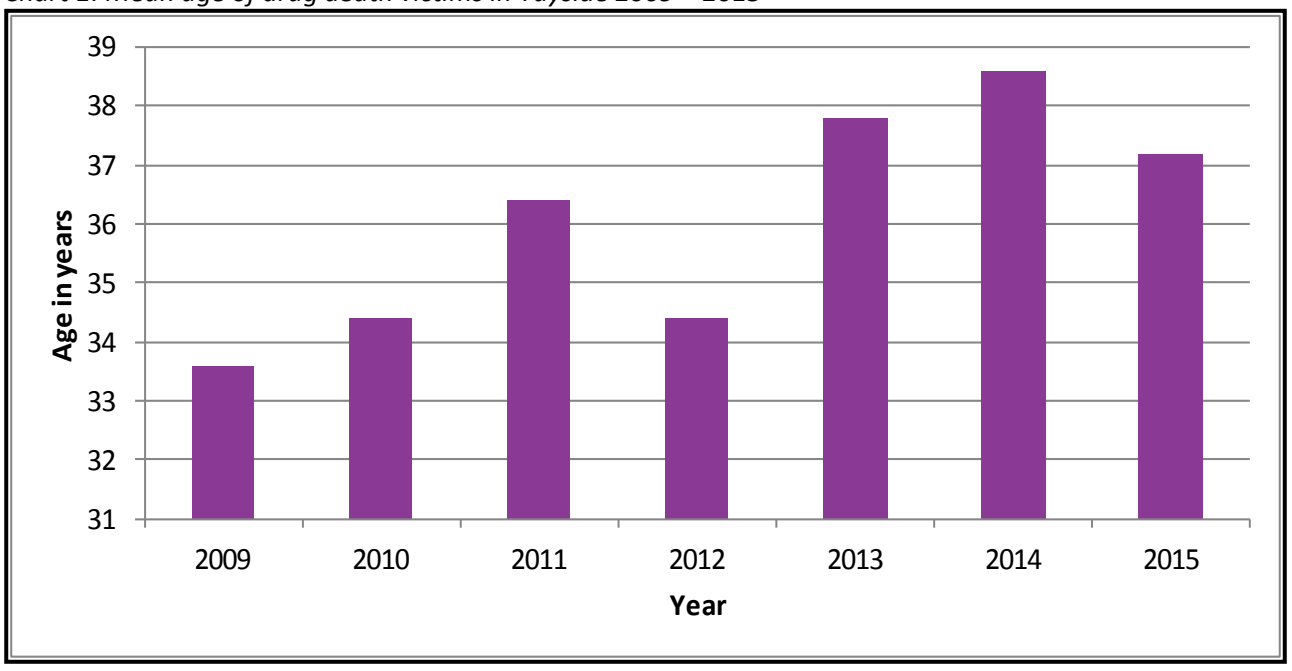
4.1 The ageing population

The increase in age and long drug using careers of the drug death victims results in individuals being less resilient to overdose and more likely to poorly manage their physical conditions.

The age of the Tayside DD victims in 2015 ranged from early 20's to late 50's with a median age of death of 36.5 years. The mean age of the DD victims was 37.2 years, a slight drop from 2014 but still continuing the overall upward trend since 2009. Chart 1 shows the ageing drug death population in Tayside from 2009 to 2015.

This ageing population is mirrored nationally. Existing national data published by National Records of Scotland (NRS) show that the median age of the DD victims in 1996 was 28 years old but by 2015, this had risen to 41 years of age.

Chart 1: Mean age of drug death victims in Tayside 2009 – 2015



4.2 Co-morbidities/co-existing health conditions

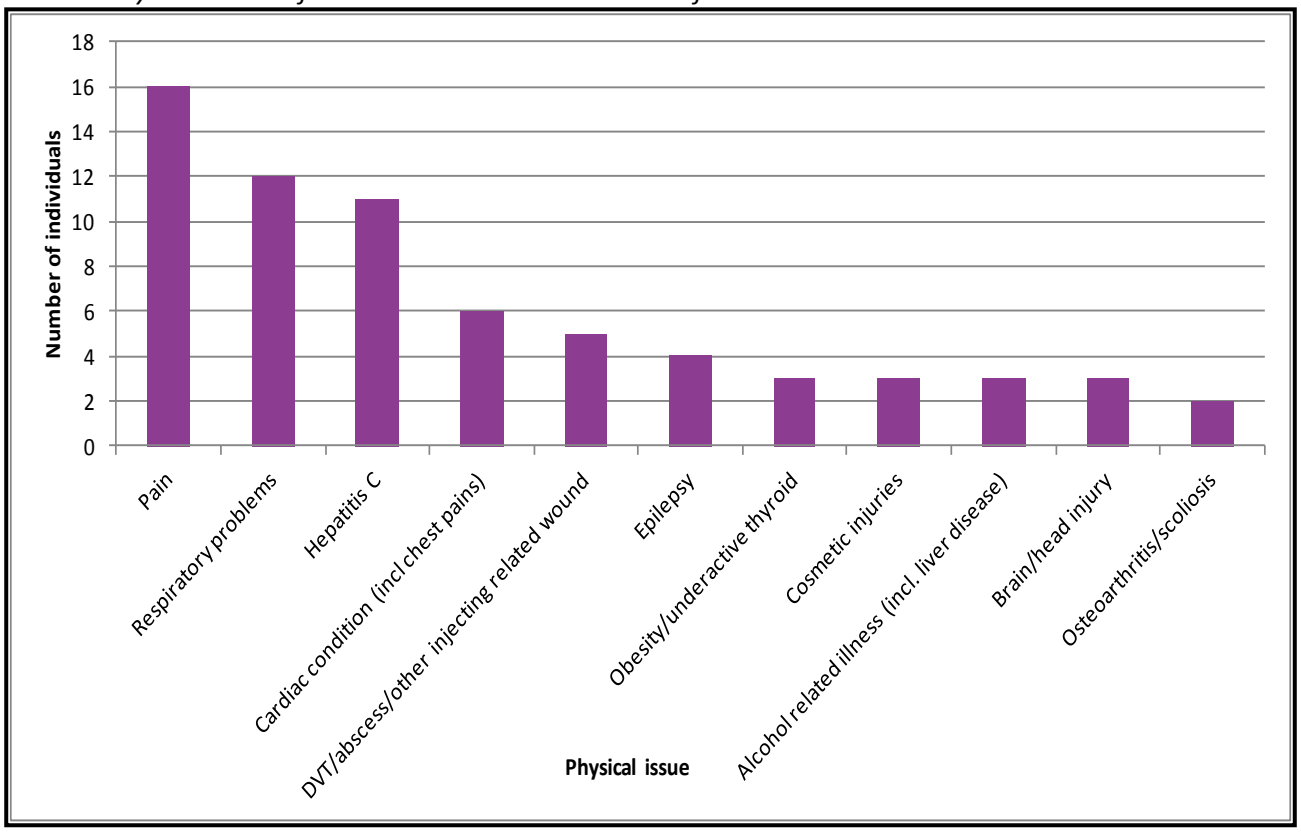
The drug death victims face increasingly complicated co-existing conditions alongside their substance misuse. Data gathered on physical & mental health in isolation, and alongside other significant life events, are examined to show the chaotic lifestyles that the individuals are often living.

4.2.1 Physical health problems

Increasingly chronic and complex physical health issues are identified within the ageing drug deaths cohort. In 2015, 38 of the 48 DD victims had some form of physical difficulty at the time of death. This proportion (79%) is similar to 2014. However two thirds (n=32) of the victims in 2015 had more than one current medical condition. This was a higher proportion than 2014 and could be a reflection of the chronic and complex conditions that this ageing population were facing.

Chart 1 shows the most common physical problems of the drug death victims of 2015 at the time of death. Of those who had physical conditions, pain was an issue in 42% of the victims, 32% of individuals suffered from some form of respiratory problem and 29% of the cases had Hepatitis C. These three physical issues were also found to be the most commonly found issues in previous years.

Chart 1: Physical issues of DD victims in 2015 at the time of death



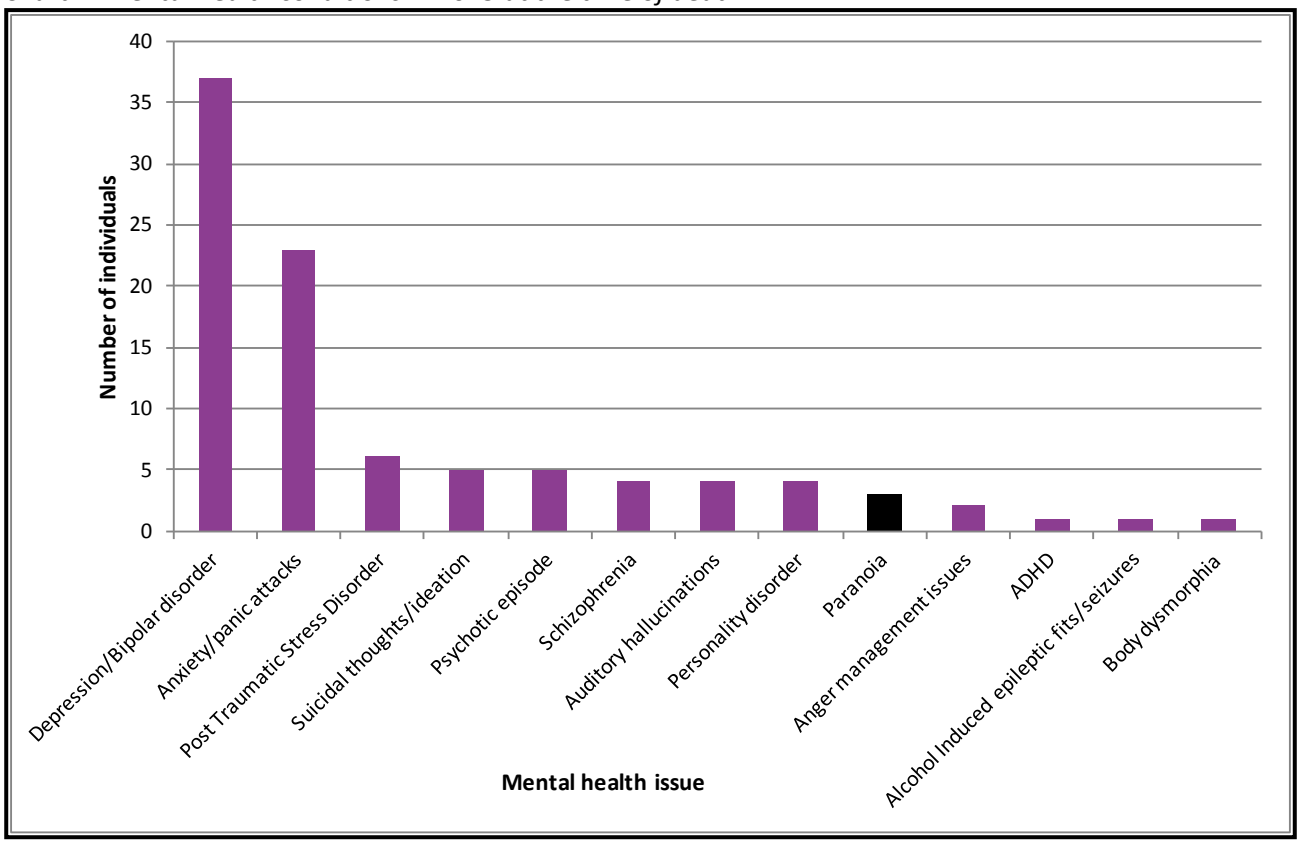
4.2.2 Mental health problems

Mental health issues are common amongst people who misuse substances. Individuals can, and do, suffer from multiple psychiatric difficulties and may have multiple diagnoses. Chart 2 shows a breakdown of the psychiatric difficulties that the 2015 victims were experiencing at the time of death. In 2015:

- Forty seven of the 48 DD victims had suffered from a mental health issue at some point in their lives with 9 out of 10 individuals known to have an existing mental health condition. This was a higher proportion than seen in previous years.

- Of those with psychiatric/psychological issues at the time of death (n=43), over three quarters (n=34) were suffering from more than one issue.
- By far the most common mental health problem was depression or bipolar disorder with 37 individuals (86%) suffering from this condition. Twenty one of these (57%) were prescribed anti-depressant medication[3].

Chart 2: Mental health conditions in 2015 at the time of death



4.2.3 Co-existing conditions

Until now, the psychiatric problems, physical problems and life events of these individuals have been examined in isolation. In reality however, individuals often suffered from a combination of these factors. Table 1 summarises the combinations of physical and mental health issues, as well as life events experienced by the 2015 DD victims at the time of death alongside their substance misuse. Three fifths (n=29) were suffering from all three difficulties at the time of death. This was lower than the proportion (71%) seen in 2014.

Table 1: Co-existing conditions with substance misuse experienced by DD victims at time of death (n=48)

Combinations	Number of individuals	Percentage of Individuals
No issues	0	0%
Physical difficulties alone	0	0%
Psychological difficulties alone	0	0%
Life Event alone	3	6%
Physical & Psychological	1	2%
Physical & Life Events	3	6%
Psychological & Life Events	12	25%
Physical & Psychological & Life Events	29	60%

[3] *See Section 4.7*

4.3 Alcohol misuse

While the focus of this report is on drug deaths occurring as a result of illicit substances, the drug-using population often suffer from problematic alcohol use alongside their drug use. This section explores this further.

In 2011/12, 15% of individuals known to specialist drug services reported drinking at least 5 days per week. Of the 27 deaths in 2015 that occurred on a Friday, Saturday or Sunday, 8 (30%) involved alcohol. The proportion of deaths that involved alcohol on the other days of the week (Monday-Thursday) was similar at 33%. This shows that weekend deaths were not any more likely to involve alcohol that those occurring during the week.

Figures reported in the 2012 DD report suggested that there had been an increase in problematic alcohol use in the drug death victims of that year with further increases reported in 2013 and 2014. Considering this year's findings together with information from the toxicology results (Section 3.5.3), it appears that there has been a drop from last year in the proportion of individuals suffering from current problematic alcohol use and therefore a fewer number of cases had alcohol found in their toxicology. However, the percentage of victims who had ever suffered from their alcohol use and who had received treatment at some point had risen in 2015 (see Table 1).

Of the 48 deaths in 2015, alcohol was detected in the toxicology of 15 victims. Changes to the liver were detected by post mortem in the body in an additional 4 individuals. This could also be an indication of excessive alcohol use.

Table 1: Problematic use, treatment and detection of alcohol in the Tayside DD victims of 2012 - 2015

	2012 (n=54)	**2013 (n=34)**	**2014 (n=45)**	**2015 (n=48)**
Ever suffered problematic alcohol use	54%	56%	56%	63%
Current problematic alcohol use	30%	24%	40%	29%
Ever received treatment for their alcohol use	Not available	32%	24%	53%
Alcohol detected in toxicology	22%	29%	42%	31%

4.4 Poly drug use

This section shows the combinations of drugs found in the toxicology of the DD victims in 2015.

As mentioned previously, nearly all DD victims died as a result of the consumption of a combination of drugs. This finding is consistent with previous reports and despite a slight drop in the average number of substances discovered in the toxicology of a Tayside DD victim from 5.0 in 2014 to 4.4 in 2015, there has still been an increase over time (the average in 2009 was 2.72 substances).

Heroin/morphine, benzodiazepines and analgesics were the most common substances to be found in toxicology in 2015, followed by methadone and anti-depressants. However, these drugs were typically found in combinations of two or more.

Table 1 shows the various combinations in which these drugs were present in toxicology. Most commonly found in combination were heroin & benzodiazepines (60%) followed by benzodiazepines & analgesics (52%) then heroin & analgesics (50%). Five individuals had a combination of heroin, benzodiazepines, analgesics, methadone and anti-depressants found in their toxicology.

Table 1: Combinations of the most commonly found substances in toxicology in 2015

Drug of misuse	-	& methadone	& anti-depressants	& methadone & anti-depressants
Heroin & Benzodiazepines	29	13	13	7
Heroin & analgesics	24	12	13	7
Benzodiazepines & analgesics	25	12	14	7
Heroin, benzodiazepines & analgesics	21	10	11	5

As was the case in previous years, the actual amounts of the drugs observed in DD victims in Tayside in 2015 were often lower than the published fatal and even therapeutic ranges of any given drug. This highlights the importance of the cocktail effect of the drugs misused by the individuals.

4.5 Service use histories

This section outlines the GP and service use histories and frequency of contact with services of the DD victims both within and outwith the 6 months prior to death.

During the review process, it was noted that there were some deficiencies in terms of communication, information sharing, and co-ordinated, co-operative care between specialist and generic services for those with substance misuse issues. It is recognised that being engaged in a process of care and treatment has a positive impact on outcomes, including reducing the number of drug deaths. In order to co-ordinate and integrate the care that is provided to individuals, it is important to determine the extent of contacts made with services and the agencies most involved in providing a service to DD victims.

4.5.1 Contacts with General Practitioners

All 48 individuals who died as a result of a DD in 2015 were registered with a General Practitioner (GP). Of those registered, 45 had been in contact with their GP within the year prior to their death and 20 individuals (41%) had attended their GP surgery within a month of death (Table 1). However, the majority (94%) of recent contacts were **not** in relation to the victim's drug use.

Two thirds of individuals (n=32) in 2015 were known to have received support from their GP for their drug use at some point.

Table 1: Time since last GP Contact of 2015 DD victims (n=48)

Time since last GP contact	Number of victims	Percentage
Within a week	11	23%
8-14 days	5	10%
15-21 days	2	4%
22-28 days	2	4%
1-3 months	13	27%
3-6 months	8	17%
6+ months	7	15%

4.5.2 Specialist Drug Services accessed outwith the 6 months prior to death

Forty of the DD victims had accessed a specialist drug service at some point in their lives with three quarters (n=36) of victims having done so within 5 years of death. Of those who hadn't been in touch with a specialist service (n=8), only 2 had been in contact with their GP in the month prior to death albeit not in relation to drug use and 1 individual was known to a non-drug service at the time of death.

4.5.3 Specialist Drug Services accessed within the 6 months prior to death

Two thirds (n=32) of the 2015 drug death victims were known to have had at least one specialist drug service contact in the 6 months prior to their deaths. The most commonly accessed specialist service within the 6 months prior to death was Needle Exchange/Harm Reduction services with 17 individuals in touch with these services.

Twenty two individuals were receiving some form of substance misuse support from their GP in the 6 months prior to death.

4.5.4 Contact with Specialist Services at the time of death

At the time of death, 21 individuals (44%) were open to a specialist drug service with 6 of these having current contact with more than one service. Of the 21 victims receiving support from a drug service at the time of death, 20 were known to Tayside Substance Misuse Services and 4 had recent contact with Harm Reduction services.

Table 2 shows all of the statutory and/or non-statutory agencies that were being accessed by the 21 victims at the time of death.

Table 2: Contact with specialist services of 2015 DD victims at the time of death

Service	**Number and percentage of all individuals who had contact**
Tayside Substance Misuse Service	20 (42%)
Harm Reduction services	4 (8%)
Local Authority Drug, Alcohol & BBV Teams	2 (4%)
Addaction	2 (4%)
Eclips/Eclips Lite	2 (4%)
Tayside Council on Alcohol (for drug use)	1 (2%)

Table 3 shows when the individuals who were known to a service at the time of death had last been seen. Seven victims had attended an appointment in the 7 days prior to death. One individual had not attended an appointment with a specialist service in almost a year.

Table 3: Time since last contact with a specialist service (n=21)

Time since last seen by specialist service	**Number of individuals**
Within a week	7
8-14 days	2
15-28 days	6
1-3 months	5
Over 3 months	1

4.5.5 Other services accessed by victims

Information on any other services that the individuals were engaging with was more readily available for the 2015 victims. Over half (n=25) of the individuals were accessing a non-specialist service at the time of death. Table 4 shows the services that the 25 victims were engaging with at the time of death. This information is important as it gives a measure of the additional support that the victims were receiving and could tap in to.

Mental Health Services were most commonly attended with 7 individuals being open to these services at the time of death. Housing/Homeless Services were the second most commonly accessed service while 4 individuals were open to Children's Services and Criminal Justice Services.

Table 4: Contact with other services of 2015 DD victims at the time of death

Service	Number of individuals who had contact	Percentage of all victims
Mental Health services	7	15%
Housing/Homeless services/Hostels	5	10%
Children's Services	4	8%
Criminal Justice Services	4	8%
Alcohol services	3	6%
BBV services	2	4%
Other medical services (e.g. Neurology)	2	4%
Other support services (e.g. Positive Steps)	3	6%

4.6 Overdose awareness and naloxone

This section examines whether the drug death victims had received some form of training, whether bystanders recognised common signs of overdose and what, if any, interventions were employed. It also considers the role of naloxone in reducing drug deaths.

4.6.1 Interventions attempted by bystanders

As mentioned previously, 29 individuals died in the presence of others. Of these cases, some form of cardio-pulmonary resuscitation (CPR) was attempted by bystanders in almost half of the cases (n=14, 48%) prior to ambulance arrival. This is consistent with findings from previous years. In most cases however, the CPR had to be instructed to those present over the telephone by the ambulance crew. Often the nature of CPR conducted was partial, e.g. checking the airways or putting the DD victim in the recovery position. Other interventions were also attempted in a bid to revive the DD victim. These included shaking and pinching the DD victim, calling out to the DD victim and splashing water on the victim's face.

It has been noted that individuals are often observed to be snoring prior to a visible adverse reaction to the drugs they have consumed. In 2015, in 5 (17%) deaths that occurred in the presence of others, the victim was noted to have been snoring prior to death. In many cases the victim was simply thought to be asleep and this may have inhibited further intervention. Individuals present were known to have checked on the DD victims, sometimes on several occasions.

It was a common scenario that the victim was found to be dead in the morning (after merely being thought to have been asleep the night before). An ambulance was called in 36 of the 48 DD cases but in three quarters of these cases, the victim was already dead.

4.6.2 Overdose training

From the information recorded, 25 (52%) of the DD victims in 2015 were known to have received some form of overdose training by a specialist service in the community while 13 individuals had received overdose training while in prison and attended at least one National Harm Reduction Session. Given the number of victims that had been in touch with at least one service in the five years prior to death (n=36) or had ever been in prison (n=31), these proportions are fairly low (69% and 42% respectively) and could be missed opportunities. Overdose training in prisons is not mandatory and although it is routinely offered to prisoners, it can be declined.

4.6.3 Naloxone

Nine (19%) of the victims in 2015 were noted to have engaged in naloxone training while a further 6 individuals were recorded as having refused the training. This is a low proportion of the individuals that were known to services but may be an underestimate due to poor data recording.

A take home naloxone injection was available at the scene of death in only 1 of the cases in 2015 and was administered by a friend of the victim in this case.

When considering the potential scope for naloxone to prevent fatal overdoses, it is important to consider the number of deaths which included opiates and where bystanders were present. In the drug deaths which occurred in Tayside in 2015, this was the case for 23 (48%) drug death victims.

Although it is probably unrealistic to assume that naloxone could have made a difference in all of these cases, improved awareness of signs of overdose, life-saving techniques and use of naloxone by drug users, friends, families and the general public could have a huge impact. The potential for naloxone to save lives depends entirely on the ability of bystanders to intervene and on their ability to correctly recognise the signs of an overdose. Anecdotal evidence from the police reports suggests that the latter in particular, is a substantial issue. In many of the deaths in 2015, the bystanders (who were not infrequently drug users themselves) were aware that the individual had consumed substances (even opiates), but only realised that something was wrong when the individual did not wake up the next morning and were found cold to the touch – at which point any intervention was far too late.

4.7 Prescribing

This section examines pharmacological interventions and other prescribed medications being received at the time of death. It also considers the compliance of the individuals with their treatment and the increasing diversion of certain prescribed substances.

4.7.1 Opiate substitute medication at the time of death

Of interest is the proportion of DD victims receiving pharmacological treatment for their drug dependency problem prior to their death. In 2015:

- Sixteen (33%) were in receipt of an opiate substitute medication (methadone) at the time of their deaths (Chart 1).
- Despite an increase in 2014, the methadone prescribing rate in DD victims has decreased overall.
- The daily dosages ranged from 10mg-150mg, with a mean dose of 72mg.
- All 16 individuals collected their dosage from the pharmacy for supervised consumption on the premises with 13 doing so on six days every week (collecting their Sunday doses on Saturday to consume at home) while 3 were supervised on the premises seven days out of seven.
- Of the 15 individuals who died at the weekend, 5 (33%) were on a supervised prescription of methadone 6 days a week (given Sunday methadone dose on the Saturday).
- The length of time that the individuals had been receiving their opiate substitute prescription ranged from 4 days to almost 20 years. The majority had been on their current prescription between 4 and 6 years (see Chart 2).
- A further 7 individuals had been known to have been on methadone in the past with five of these having stopped their prescription within a year of their death.

Chart 1: Percentage of DD victims receiving a methadone prescription at the time of death 2011-2015

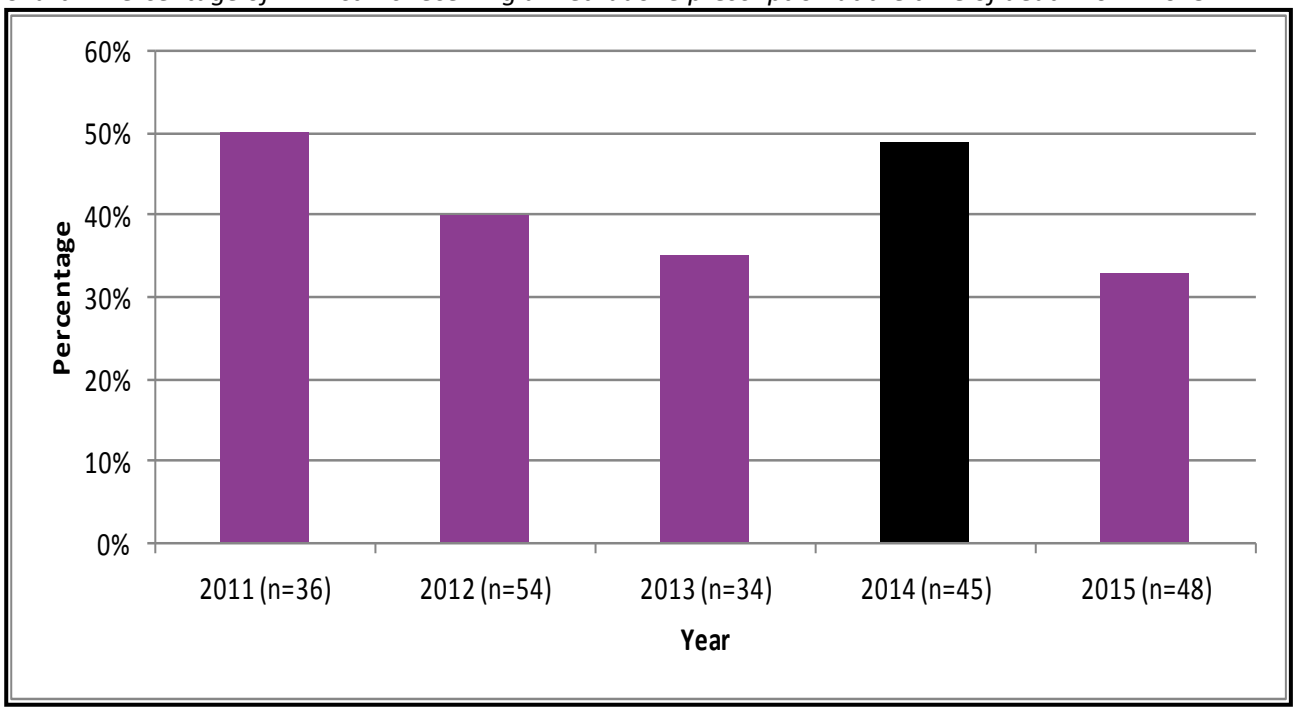
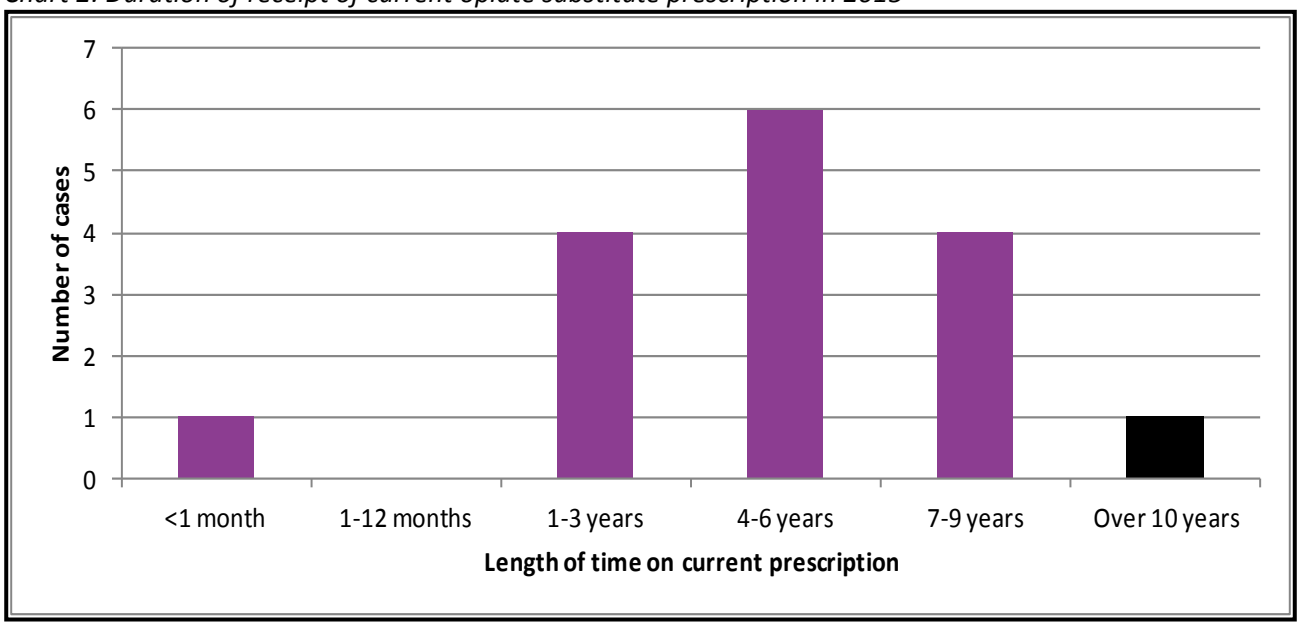


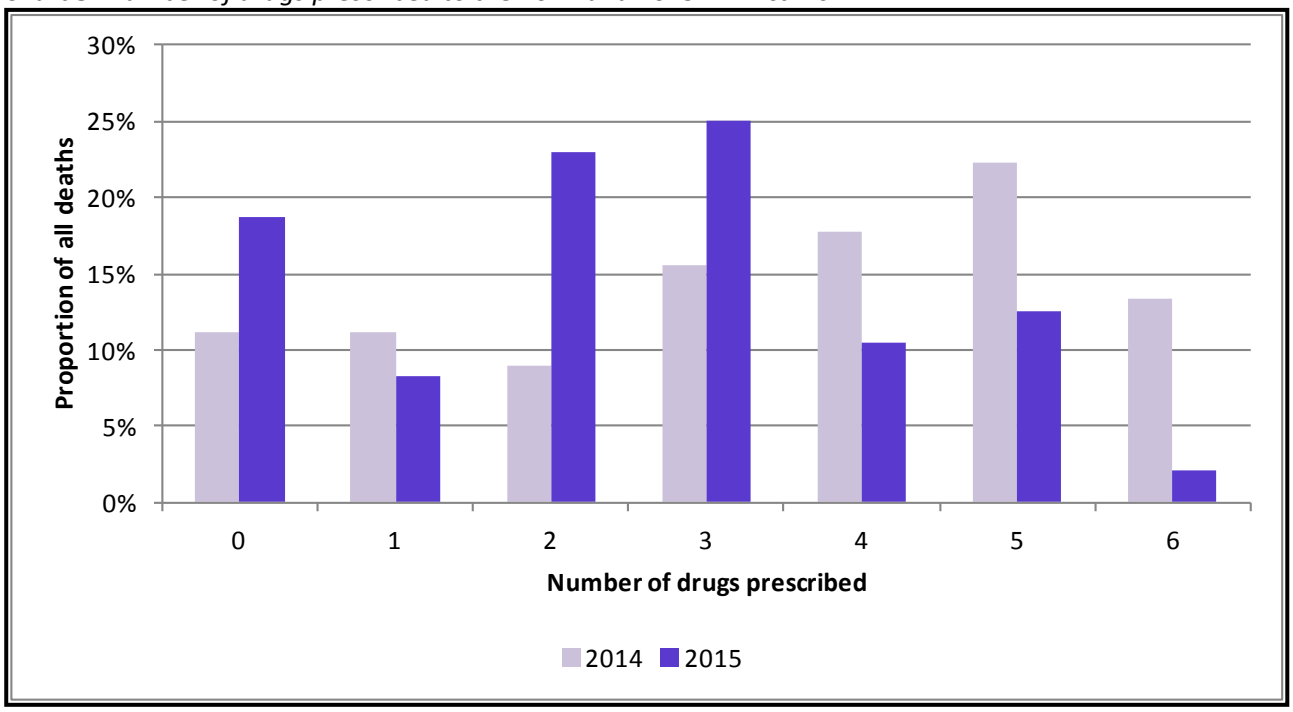
Chart 2: Duration of receipt of current opiate substitute prescription in 2015



4.7.2 Other prescribed medication

The majority (81%) of the DD victims of 2015 were being prescribed at least one drug at the time of their death. Chart 3 compares the number of drugs being prescribed (including any opiate substitute) to the individuals in 2014 and 2015. The average number of drugs being prescribed to the DD victims has dropped from 3.4 in 2014 to 2.5 in 2015. A higher proportion of individuals in 2015 were on no prescriptions compared to 2014. In addition, while over a third (36%) of the victims of 2014 were being prescribed 5 or more drugs, this dropped to 15% in the 2015 cases.

Chart 3: Number of drugs prescribed to the 2014 and 2015 DD victims



4.7.3 Diversion of prescribed substances

A comparison of medication which was prescribed to the drug death victim at the time of their death to that which was found in the post mortem toxicology is of interest. It gives an estimation of concordance with treatment and also an indication of the illicit acquisition of prescription drugs.

Table 1 summarises the findings from the 2015 data and shows some of the most frequently found substances in toxicology (particularly opiate substitute medications, benzodiazepines, anti-depressants and analgesics). Note that the table does not give an exhaustive list of substances.

Analysis shows that

- in all but one case where an opiate substitute or benzodiazepines were prescribed, the individuals appear to have been consuming these medicines
- concordance with prescribed treatment in 2015 was slightly better than previous years although for a small number of drugs was still poor. A number of individuals were being prescribed a substance but apparently not consuming it (at least not in the period prior to death). This was the case for olanzapine in 5 individuals, gabapentin and pregabalin in 3 individuals each and citalopram in 2 individuals

There are many possible reasons why someone may not take prescribed medicines and poor concordance with medication is not uncommon amongst the general population. In this population of people with substance misuse problems however, it is especially important to consider the risk of people selling or passing on prescription drugs under coercion or in order to fund other substance use.

The last column in table 1 shows that

- diazepam, perhaps unsurprisingly, continued to be the most commonly obtained illicitly in 2015 with 27 individuals not being prescribed the diazepam that was found in their toxicology
- illicit access to opiate substitute drugs is also clear (this was methadone in all 8 cases)

- certain analgesics and anti-depressants were also prominent. Illicitly obtained gabapentin was found in 8 cases, dihydrocodeine in 6 cases while amitriptyline and pregabalin were both found in 5 cases and mirtazapine in 3 cases.

Understanding these data better requires further detailed investigation, preferably with a much larger dataset.

Table 2: Prescribed and non-prescribed medication found in post mortem toxicology of 2015 DDs

Drug		**Concordance with treatment**		**Not prescribed & present in toxicology**
		Prescribed & present in toxicology	**Prescribed & not present in toxicology**	
Opiate substitutes	Methadone	15	1	8
Benzodiazepines	Diazepam	7	0	27
Anti-depressants	Mirtazapine	10	1	3
	Citalopram	0	2	0
	Amitriptyline	2	1	5
	Trazadone	2	1	0
	Sertraline	1	0	0
	Fluoxetine	1	0	0
	Dothiepin	0	0	1
	Diclofenac	0	1	0
	Clomipramine	0	0	1
Analgesics	Gabapentin	5	3	8
	Tramadol	3	1	1
	Dihydrocodeine	2	0	6
	Pregabalin	6	3	5
Other drugs commonly present	Quetiapine	3	1	1
	Olanzapine	4	5	0
	Chlorpheniramine	0	0	1
	Zopiclone	0	0	1

4.7.4 Trends in drugs being prescribed to and found in the DD victims 2011-2015

As mentioned previously, anecdotal evidence suggests there has been an increase in the misuse of pharmacological substances which are often prescribed. Charts 1 & 2 consider some of the medications that were most frequently prescribed to and found in the post mortem toxicology of the DD victims between 2011 and 2015. The proportions in the charts are a percentage of the total number of deaths for that particular year.

Chart 1 compares the proportion of victims who were being prescribed certain medications at the time of their death. Methadone has consistently been the most commonly prescribed substance in the DD victims and this continued in to 2015 despite a drop in the prescribing rate. Despite fluctuations in the five year period 2011-2015, the proportion of individuals being prescribed diazepam, mirtazapine, trazadone, gabapentin, pregabalin, tramadol and dihydrocodeine has increased while there has been a decrease in methadone, amitriptyline and citalopram.

For the same medications, Chart 2 shows the change over time in the proportion of cases where these substances were detected in post mortem toxicology. Although methadone and diazepam have continued to be the substances most commonly detected, the proportions have decreased overall. Although there has been a decrease between 2012 and 2015, gabapentin continues to appear frequently in toxicology. Most notable however in 2015, is the increase in the presence of pregabalin with it being detected in almost a quarter (n=11, 23%) of deaths.

Chart 1: Trends in medications being prescribed to DD victims 2011-2015

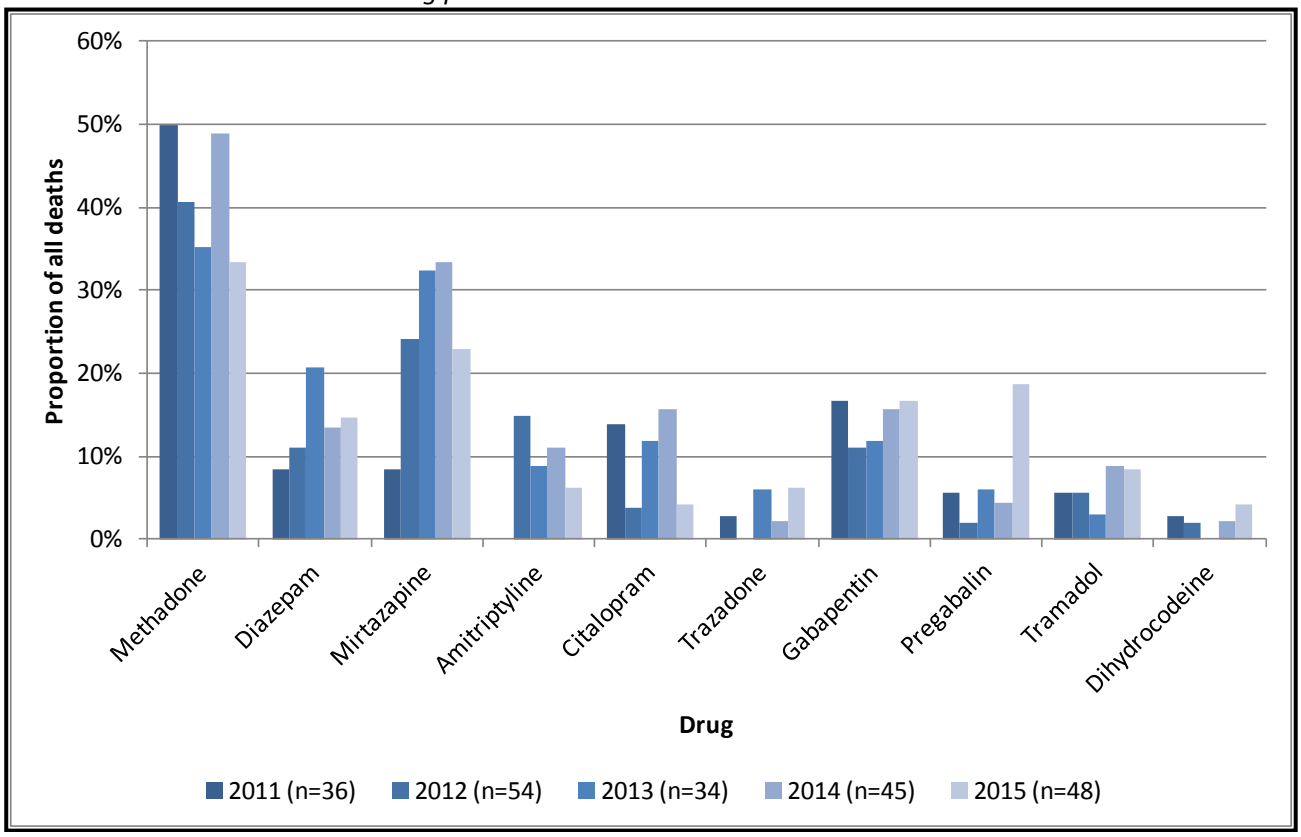
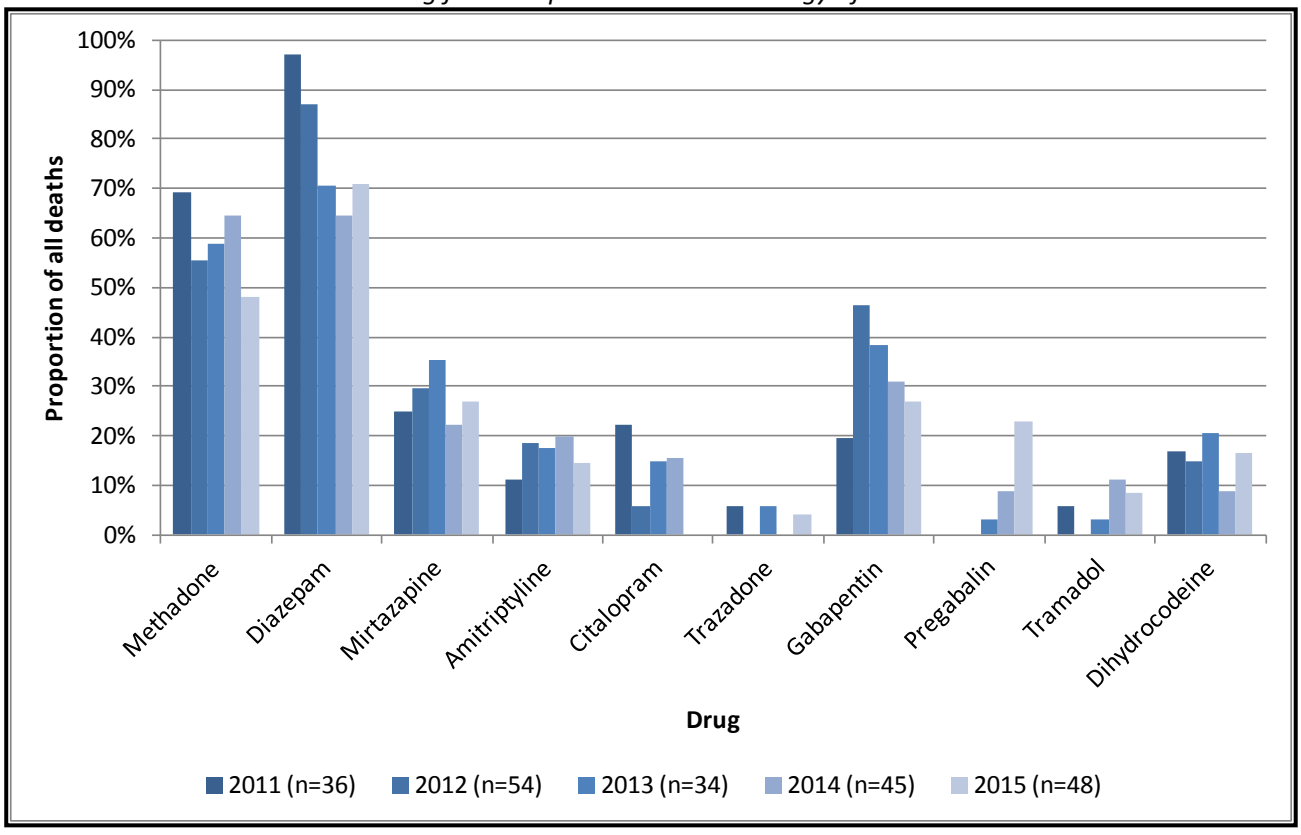


Chart 2: Trends in medications being found in post mortem toxicology of the DD victims 2011-2015



Section 5: Conclusion and Recommendations

5.1 Conclusion

The current upward trend in the number of drug deaths in Tayside has continued with the Drug Death Review Group (DDRG) concluding there were 48 drug deaths in 2015. Although still lower than the number seen in 2012, it remains the case that Tayside and Dundee City in particular, continues to have a poor record in relation to substance use and drug deaths should remain a high priority for all ADP partners.

The demographic of a drug death in Tayside has changed very little over time with the majority being male, white Scottish and unemployed. There continues to be a clear association between drug death and high levels of deprivation, trauma and vulnerability throughout life. However, despite a slight drop in the average age of the victims in 2015, this cohort continues to be an ageing population.

As a result of the overall rise in the average age of the drug death victims, individuals face increasingly complicated co-existing conditions alongside their substance misuse. Their high levels of physical ill-health result in less resilience to overdose as age increases. Management of chronic health problems such as pain issues, respiratory related disease or hepatitis C is impaired by chaotic lifestyles and difficulties accessing generic health services. Responsibility for the delivery of general medical care for this population needs to be clear and that there are mechanisms in place to improve access to general medical care for substance users and to improve the assessment of risk.

In addition to physical difficulties, mental health issues continue to be highly prevalent in the victims of 2015 with 90% suffering from a psychiatric condition at the time of death. Nearly all of the individuals had also suffered some form of significant life event(s) such as recent deterioration of their health, recent hospital discharge or prison release or a relapse in their substance misuse. In many cases, this may have resulted in reduced tolerance to the drugs that they had used prior to death. Holistic care of individuals is now an emerging priority for local services with communication imperative between all parties responsible for the care of any individual.

As mentioned, recent prison release is a risk factor to drug death and every opportunity should be taken to intervene to minimise risk prior to release. This includes promoting engagement in substance misuse services and ensuring a wide range of treatment options are available to patients. There has been an overall increase in the number of victims who had been subject to court enforced restrictions. This may indicate courts are increasingly likely to consider alternatives to incarceration and may provide additional opportunity for intervention to prevent overdose that is not as yet being fully utilised.

Although three quarters of the victims in 2015 had been known to a specialist substance misuse service at some point in the five years prior to death, only 21 (44%) were open to a service at the time of death with 16 individuals being in receipt of a methadone prescription. These were lower proportions than in previous years. It is vital to increase engagement and improve service retention within substance misuse services to encourage and support the recovery of those misusing substances.

The average number of drugs being used prior to death dropped slightly this year however at 4.4 drugs per person, there is still strong evidence of poly drug use (including prescribed medications, controlled drugs and illicitly obtained medications) in Tayside. For the first time since data collection began in 2009, heroin was the most commonly found substance in toxicology in 2015 with it being detected in 81% of cases. The presence of analgesics, particularly gabapentin and pregabalin also rose and given that in less than half of these cases the medication had not been prescribed, diverted medication continues to be of concern. Previously published research into drug deaths in methadone patients in Tayside has shown that anti-depressant and benzodiazepine co-prescribing represents a risk factor for death. As previously mentioned this indicates a clear need for holistic care with clear responsibilities and good joint-working and communication.

As seen in 2014, problematic alcohol use rose in 2015 as had the small number of individuals who predominantly suffered from problematic alcohol use but who would occasionally misuse drugs including heroin. These individuals may have been known to alcohol services but had not disclosed their occasional drug use. This resulted in them not receiving overdose awareness training or advice.

General low levels of recognition by witnesses of the signs of overdose were apparent in some cases in 2015 (and in previous years). This resulted in delays in calling for help, such that resuscitation was not possible. Given that many deaths are in the presence of others, there is a need to deliver overdose awareness/prevention and take home naloxone training as widely as possible.

New psychoactive substances (NPS) continued to emerge in 2015 but tended to be used in addition to controlled drugs. As with 2014, etizolam (a benzodiazepine-type drug) was most frequently detected. Currently the contribution of NPS to drug deaths, both in Tayside and at national level, remains small. However, it is recognised that these substances present a growing risk. It is also acknowledged that understanding and monitoring emerging trends of these substances is challenging as are the attitudes and behaviours linked to them.

The Drug Death Review Group believes that the review of drug deaths, including autopsy and toxicology reports, is a very valuable learning process for all involved. In Tayside, it is practice for autopsy not to be undertaken if there is any perceived risk of the body being infected with a blood-borne virus, in particular Hepatitis C. The DDRG would like to see fewer autopsies being declined to bring Tayside in line with the approach taken across the rest of Scotland.

5.2 Recommendations

The Drug Death Review and Working Groups are constituted as expert advisory groups to the ADPs. Implementation of the recommendations that emerge from this and previous years' reports require the committed and concerted effort of all ADP partners, with strategic drive and oversight given by the ADPs themselves. The Tayside Drug Deaths Review Group and Working Group welcome the emphasis that has been given to tackling drug deaths by Scottish Government in its guidance to ADPs.

The recommendations set out in previous years remain crucial and have been brought forward into this year's report with an update of progress in 2015 noted for each (see section 5.2.1). In addition, a number of additional recommendations have been identified and are outlined in Section 5.2.2.

5.2.1 Update on previous recommendations

Clearly, the recommendations cannot be delivered by a single service or agency, but require the organised efforts of community planning and other partnership groups, in particular the ADPs. Tayside ADPs should ensure that outcomes relating to the recommendations in this report are clearly reflected and prioritised in their strategic plans and outcomes reporting.

Table 1: Ongoing recommendations - update on progress during 2015

Key theme	Recommendation	Update on progress during 2015	Responsible person(s)
Early intervention	• Continue to improve identification, assessment and intervention for vulnerable children and young people affected by parental or own substance misuse to prevent problems from escalating to the point where risks of overdose are increased. • Emphasise early years interventions within the wider context of service improvements to develop recovery orientated systems of care. • Implement the findings and recommendations of the CAPSM needs assessment.	• The Child Concern Pathway created in 2014 continues to be followed with locality leads ensuring that services are notified of any child or young person affected by a drug death and appropriate support being made available if not already in place. • Children's services are embedded in the recovery process with ADPs working closely with their local Children & Young Persons Groups. • The ADPs have commissioned services to support children and young people impacted by parental substance misuse.	ADP Lead Officers
Co-morbidities/ co-existing health conditions	• NHS Tayside should continue to work with primary care and other services in the community to ensure that this high risk group is not excluded from mainstream services or other existing services.	• NHS Tayside Sexual Health Service and Hepatology Services provide outreach clinics in specialist substance misuse services. Medical treatments for Hepatitis C are being dispensed alongside opiate replacement treatment in community pharmacies. • The Keep Well service provides general health checks and smoking cessation interventions to specialist substance misuse services. • NHS Tayside Substance Misuse Service and Pain service deliver joint clinics for individuals with pain and addition issues. • NHS Tayside Substance Misuse Service provides psychiatric and psychological interventions, and also works with Community Mental Health Teams for those with dual diagnosis substance misuse and severe and enduring mental health issues.	NHS Tayside Substance Misuse Services
Prescribing	• Continue to highlight and monitor cases of poly prescribing ensuring good communication between services around prescribing and sharing of information about the diversion of prescribed and misused medications.	• NHS Tayside Substance Misuse Service audits diazepam prescribing annually evidencing a reduction in numbers of individuals prescribed diazepam.	Principal Pharmacist - NHS Tayside Substance Misuse Services

Overdose awareness/naloxone	• Continue to deliver overdose awareness/prevention and take home naloxone training as widely as possible.	• The Overdose and Naloxone Sub Group continue to target training and take home naloxone provision with service users and carers. This work is Tayside-wide. • Examination of pathways to support intervention in a situation in which there has been a non-fatal overdose continues to be developed within each locality to best fit locality need and resource.	Chair of Overdose and Naloxone Sub Group
Criminal justice and offending	• Continue to promote engagement in substance misuse services and ensure a wide range of treatment options is available to prisoners. • NHS Tayside should continue to improve prison addiction treatment and through care into the community • Links between court enforced restrictions and treatment services should be strengthened where possible to ensure patients are encouraged to engage in interventions that reduce risk of overdose. • The work streams of the Community Justice Authority and the ADP action plans should be complementary to achieve positive outcomes for offenders with substance misuse issues.	• The Scottish Prison Service has representation at each of the ADP meetings to ensure a strategic link with the alcohol and drug agenda. • Prisoner healthcare continue to improve their links with the community services providing through care support as much as possible. • HMP Perth has been proactive in promoting recovery and mutual aid support within the prison setting. • Criminal Justice Services are providing drug and alcohol interventions as part of the Community Payback Orders. • The ADPs work closely with the Community Safety Partnerships (CSP) and are supporting the new role of the CSP as local lead for Criminal Justice Services with the ending of the Community Justice Authority.	Police Scotland/Prisoner Healthcare/NHS Tayside Substance Misuse Services/ADP Lead Officers
New Psychoactive Substances (NPS)	• Continue to monitor emerging trends and understanding about the access to and use of these substances and the knowledge, attitudes and behaviours linked to them.	The three Tayside ADPs work collectively with substance misuse services and communities to ensure that they stay abreast of the ever changing substances and the issues relating to them. Emerging information is shared with partners and any trends are monitored in the local annual Substance Misuse Profiles.	ADP Lead Officers

5.2.2 Additional recommendations identified in 2015

Key theme	Recommendation	Responsible person(s)
Alcohol misuse	• Alcohol Services should carry out holistic assessments to ensure any occasional drug use is identified and can be incorporated into the care plan of the individual. • Alcohol Services should provide/display information promoting overdose and naloxone	Tayside Drug Death Group

	training to all service users.	
Service contact	• Increase engagement and retention in services. • Ensure individuals with a poor history of engagement have a risk plan and support that encourages engagement, including peer support and networks. • Explore and use assertive outreach models in priority cases. • Encourage services to be trauma focused and support information sharing where relevant and possible. • Senior strategic groups should conduct regular audits of unplanned and disciplinary discharges.	Tayside Drug Death Group
Information governance	• Create and maintain a live rolling action plan to monitor all recommendations and actions identified during the drug death review process. The action plan should identify a responsible officer and record the outcomes/service changes as a result of each action/ recommendation. • Hold a focused action planning workshop with key practitioners/managers to consider the strategic recommendations of this and related reports and formulate an improvement plan. This plan would feed into the ADP Commissioning Strategy.	Tayside Drug Death Group
Publicising of Tayside Drug Death Report	• Hold an annual event to launch the Tayside Drug Death report and to promote awareness of overdose and its effect on families, friends and communities.	Tayside Drug Death Group
Relevant recommendations from other national and local strategic documents and reports	• Consider the key findings and recommendations from 'Staying Alive in Scotland' published in June 2016 by the Scottish Drugs Forum, Scottish Government and Hepatitis Scotland. • Ensure strong links with the Tayside Sexual Health and BBV Managed Clinical Network around BBV prevention.	Tayside Drug Death Group

Appendix 1: Methodology

A1.1 Introduction

The Tayside Drug Death Working Group (DDWG) is a Tayside-wide multi-agency group that acts as an expert advisory group to the three Tayside Alcohol and Drugs Partnerships (ADPs) on issues of overdose and drug death prevention. In order to inform its recommendations and activities, a sub-group of the DDWG, namely the Tayside Drug Death Review Group (DDRG), collates, analyses and triangulates information on drug death cases from a variety of agencies. Information relating to each drug death is reviewed on a regular basis throughout the year by the DDRG to determine any lessons to be learned and to advise on both operational and strategic responses. The process adopted to enable this function is described here.

A1.2 Step-by-step Guide to Data Collection

The steps and the flowchart detail the data collection process.

Step 1
A suspected drugs death occurs in Tayside and police attend and carry out investigation into the circumstances surrounding the death. The length of the investigation depends upon the individual circumstances and can vary from a few days to a number of months.

Step 2
Police inform the NHS Tayside Drug Deaths Co-ordinator, who in turn disseminates the East Central Scotland Drug Death Questionnaire to all relevant agencies for completion. At this point, Police Scotland also request toxicology from the Procurator Fiscal.

Step 3
Agencies check records to see if the individual has accessed their respective services. If the individual is known to a particular agency, the Drug Death Questionnaire is completed by that agency and returned to the Drug Deaths Co-ordinator/Researcher at NHS Tayside for the attention of the Drug Death Review Group.

Step 4
NHS Tayside (Health Intelligence Team) informs the Drug Death Administrator of the victim's GP details and the GP notes are requested on behalf of the Drug Deaths Review Group.

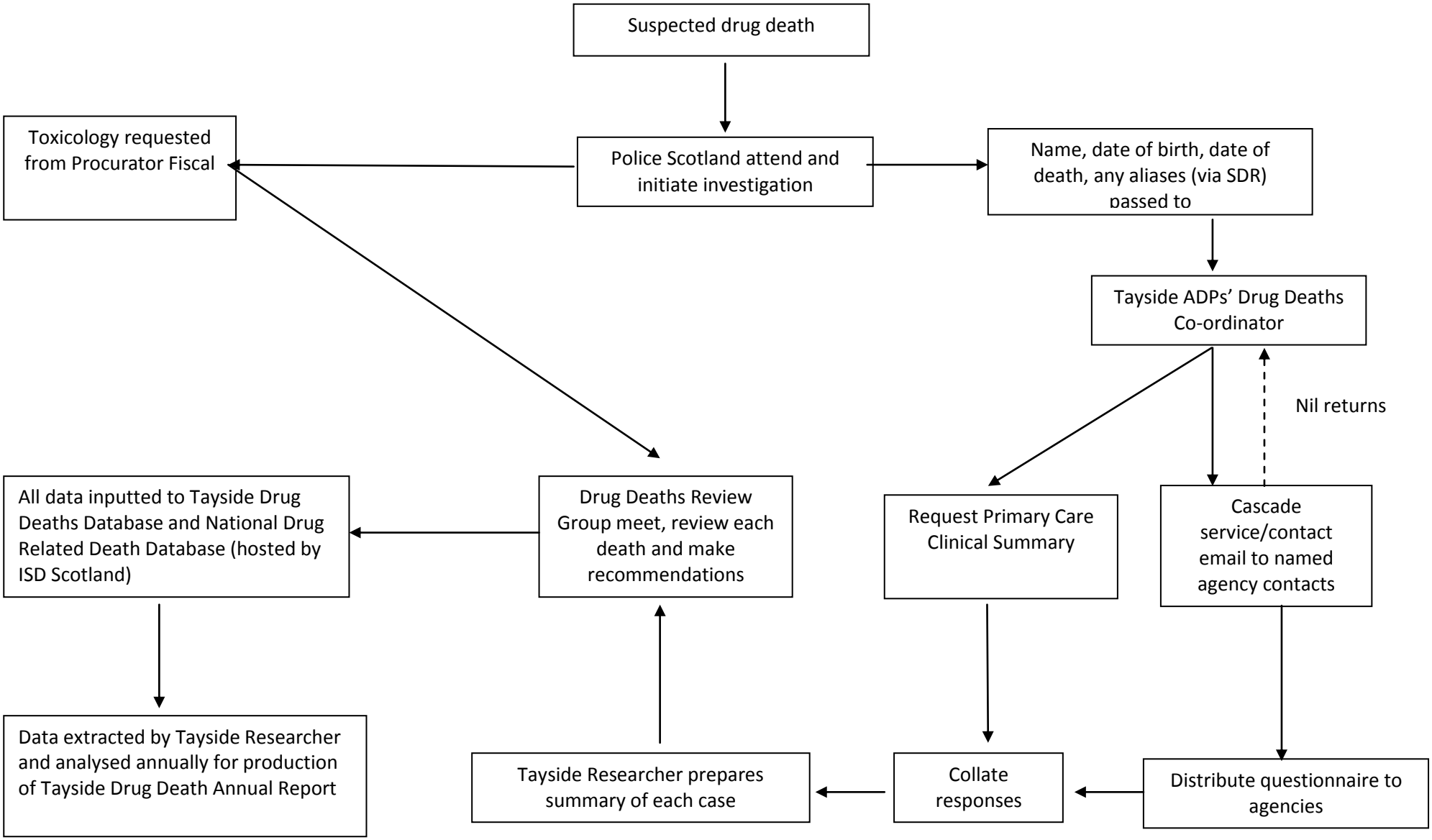
Step 5
GP notes and questionnaires are collated and the Researcher produces a summary for each case for discussion at the Review Group.

Step 6
The Tayside Drug Death Review Group meets to discuss each death and make recommendations. The group meet every six to eight weeks.

Step 7
All questionnaires, case notes and post mortem/toxicology reports are entered into both the local and national DD Database by the Drug Deaths Researcher.

Step 8
Data is extracted and analysed annually by the Drug Death Researcher for the purpose of producing an Annual Report.

A1.3 Flowchart –Tayside Data Collection Response to Suspected Drug Deaths



A1.4 Protocol and Creation of the East Central Scotland Drug Deaths Questionnaire

The templates utilised in creating the East Central Scotland Drug Death Questionnaire (used in Fife, Tayside and Forth Valley) and Drugs Deaths Database were formed from a combination of the Centre for Addiction Research and Education Scotland (CARES) questionnaire used in the Scottish Executives National Investigation into Drug Related Deaths in Scotland in 2003 (2005) and extracts from the Scottish Criminal Drug Enforcement Agency (SCDEA) questionnaire. The questionnaire and database contain the following domains:

1. Demographic Characteristics
2. Life Context and Social Functioning
3. Criminal Justice and Offending History
4. Substance Use History
5. Physical and Psychological Health
6. Service Contact
7. Additional Information

The questionnaire is updated when required and in 2014, a new version of the questionnaire was adapted. This questionnaire is disseminated to all relevant agencies concerned in the provision of care or services to the drug death victim (e.g. CJS, TSMS). Upon completion, the questionnaire(s) are returned to the Drug Death Review Group via the Drug Death Co-ordinator and information pertaining to the domains outlined above is entered into the database. In order to adhere to data protection principles, data are anonymised where possible and coded accordingly. The database is securely held in a restricted access folder within the NHS Tayside electronic filing system. This folder is subject to all the protection, firewalls and automatic back-ups of other electronic clinical systems run by NHS Tayside. All governance and data-sharing procedures between the statutory and non-statutory agencies in Tayside for the population of the database have been formalised and approved.

A1.5 Drug Death Database

The main source of information for the current report is the Tayside Drug Death Database (EXCEL), which holds all data on drugs deaths that have occurred within the Tayside area since January 2009.

A1.6 Data Analysis

For the purposes of the present report, data contained within the Drug Death Database was collated by one researcher. The data analysis presented in the current report is limited to descriptive statistics. The researcher is supervised by the Chairperson of the DD group. The process of data collection and analysis broadly involved the following stages:

1. Maintenance of the database on a regular basis, entering of new information and regular cleansing of existing data
2. Background research on past/current government directives and relevant literature
3. Extraction of relevant data pertaining to the seven domains of the questionnaire outlined above
4. Data analysis (via Excel) and interpretation/synthesis
5. Presentation of results

A1.7 Data Collection Sources

Outlined below are lifestyle domains and sources used in data collection:

Domain	**Sources Used**
1. Demographic Characteristics	- Sudden Death Report
	- Drug Death Questionnaires
2. Life Context and Social Functioning	- Sudden Death Report
	- Social Enquiry Reports
	- GP Notes and Correspondences
	- Drug Death Questionnaires
3. Criminal Justice and Offending	- Sudden Death Report
	- Post mortem/Toxicology Reports
	- Drug Death Questionnaires
4. Substance Use History	- Sudden Death Report
and	- GP Notes and Correspondences
5. Physical and Psychological Health	- TSMS Notes
	- Social Enquiry Reports
	- Drug Death Questionnaires
6. Service Use History	All of the above sources
7. Additional Information	All of the above sources

A1.8 Missing Data

The availability/lack of information for all cases is stated clearly throughout the content of this report and it is noted that use of multiple sources may reflect variations in the data obtained. However, the availability of additional sources such as the East Central Scotland Drug Death Questionnaire and access to GP notes has enabled the DD group to maximise the insight into the established life domains of the DD victims of 2015. Indeed, the DD group acknowledge this as part of an ongoing aim, rather than a limitation, whereby the aim is to continue to synthesise information from multiple sources and develop a systematic approach in identifying the lifestyle patterns of DD victims.