Drug Deaths in Forth Valley 2017

A Report of the Findings of the Forth Valley Alcohol and Drug Partnership Drug Death and Critical Incident Review Group

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Executive Summary

This report contains cumulative information about all drug deaths which occurred in the Forth Valley area of Scotland between January and December 2017. Key points include the following:

- There were 38 drug deaths in Forth Valley in 2017.
- The rate of drug deaths in Forth Valley per 1000 of the population was lower in 2017 (0.124) than in the previous year (0.188). The 2017 rate was in line with the 2012-2016 Scottish average of 0.12 drug deaths per 1000 of the population.
- The rate of drug deaths per 1000 of the population was not consistent across the different areas within Forth Valley: most deaths occurred in the Stirling area (0.181 per 1000 population), than in Clackmannanshire (0.117) and Falkirk (0.094).
- The mean age of drug death victims was 40.4 years, with no significant age differences in the drug death victims of the three council areas of Forth Valley.
- 68% of the drug death victims were male; both age and gender of the victims were in line with national trends.
- The majority (82%) of drug death victims were living in their own homes at the time of their deaths; 50% of the victims lived on their own.
- The majority of drug death victims (68%) were not involved in an intimate, romantic relationship at the time of their deaths.
- 79% of drug death victims were unemployed at the time of their deaths.
- 47% of drug death victims had served a prison sentence in the past.
- The majority of the drug deaths victims were suffering from serious physical (86%) and mental (82%) health problems.
- Around 1 in 6 of the drug death victims had been the victim of abuse in the past, and adverse life events in the six months prior to their deaths were common.

- 95% of the drug death victims were known substance misusers and 58% were known injecting drug users.

- 53% of the drug death victims were known to have taken a drug overdose at least once in the past.

- All of the drug death victims were registered with a GP at the time of their deaths.

- Half (50%) of the drug death victims were in contact with services which specialise in the treatment of substance misuse at the time of their deaths.

- 42% of the drug death victims had been prescribed an opioid substitute medication at the time of their deaths.

- There were no reliable patterns in the days of the week or month of the year during which drug deaths occurred in Forth Valley.

- The majority of drug deaths (66%) occurred in the victims own homes.

- Bystanders were present in just over half of the drug deaths (53%). These were in all cases known to the victim and were often partners, family members or friends.

- Take Home Naloxone had been supplied to 24% of the drug deaths victims prior to their deaths, and was administered by bystanders in 8% of the cases.

- The substances most commonly involved in the drug deaths were benzodiazepines (84%), heroin/morphine (58%), anti-depressant medication (58%) and alcohol (also 58%).

- A number of benzodiazepines not frequently seen previously in Forth Valley were involved in the drug deaths in the area in 2017. These were Diclazepam, Lorazepam, Aprazolam, Phenazepam. As in the previous year, the use of Etizolam remains widespread.

- Prevalence of medications that is primarily available by prescription (e.g. anti-depressants, opioid analgesics, pregabalin and gabapentin) was high; as were indications of diversion of prescribed medication.

Introduction

The aim of the Forth Valley Drug Death and Critical Incident Review Group is the reduction and ultimately prevention of drug related harm and critical incidents, including drug deaths and non-fatal overdoses in Forth Valley. This report includes information pertaining to the demographic, geographical, social, criminal offending, substance misuse, physical health, psychiatric/psychological health and service use characteristics of individuals who died as a result of a fatal drug overdose between January and December 2017. The circumstances of these deaths are also considered in detail the present report.

The information collated here is based on the data submitted to the NRS/ISD database, which gathers information regarding all drug deaths in Scotland. Forth Valley has been gathering detailed and systematic information on all drug deaths since 2010. As a result of this information, the group sets forth recommendations to facilitate the reduction of drug deaths in Forth Valley, by informing policy and practice at a local and national level.

Methods Used

The Forth Valley Drug Death and Critical Incident Review Group routinely collects information about all drug deaths in the Clackmannanshire, Falkirk and Stirling council areas (i.e. Forth Valley) and submits this information to the ISD database. The present report is based on an extract of this data.

Any death for which no death certificate can be issued immediately is subject to a police investigation and a Sudden Death Report, which is submitted to the Procurator Fiscal. The group is alerted by the police of any deaths which have the potential to be later confirmed as drug deaths by the post-mortem toxicology results. Specifically, these are either sudden deaths of known substance users or deaths in which illicit drugs were found at the scene or mentioned in witness statements.

The group requests medical records for the potential drug death victims, as well as information from additional treatment services the individual might have been known to.

Approximately 8 weeks after the death, the police share the post mortem and toxicology reports of the suspected drug deaths with the group, at which point the deaths are either confirmed or rejected as drug deaths. If the death is confirmed, the ISD database is populated with information from a number of sources, including: General Practice electronic and paper records, Psychiatry and Substance Misuse Services case records, Clinical Portal, data collected from other services, information from Social Work, Police Reports, NHS Prisoner Healthcare and Post Mortem and Toxicology reports.

A process of confidential data interchange occurs between the National Records of Scotland and the Forth Valley ADP Coordinator, which can be a further point at which drug deaths may be identified and investigated by the group. The National Records of Scotland produce an annual report on drug deaths – their information is derived from post-mortem and toxicology reports and inclusion weighted towards the pathologists' recorded cause of death.

Findings

Prevalence of Drug Deaths

The Forth Valley Drug Death and Critical Incident Review Group has identified 38 drug deaths which occurred in Forth Valley between January and December of 2017. These were deaths which were directly caused by the consumption of either illicit drugs or illicitly obtained prescribed drugs. This means that these deaths were either attributed to a fatal drug overdose by the post-mortem pathologist (and were not better explained by other underlying health conditions), or deaths for which it was reasonable to assume that illicit drugs played a significant role and such drugs were found in the post-mortem toxicology.

Based on a Forth Valley population of 305,580 individuals in 2017[1], this corresponds to 0.124 drug death per 1000 population. This is in line with the 2012 – 2016 Scottish population average of 0.12 drug deaths per 1000 population[2]. It is noticeably lower than the drug death rate across Forth Valley in 2016, which was 0.188 deaths per 1000 population.

Drug Deaths by Area within Forth Valley

The 38 drug deaths in Forth Valley in 2017 did not occur evenly across the three council areas. The number of drug deaths, population and drug deaths per 1000 population for each of the council areas are displayed in the table below:

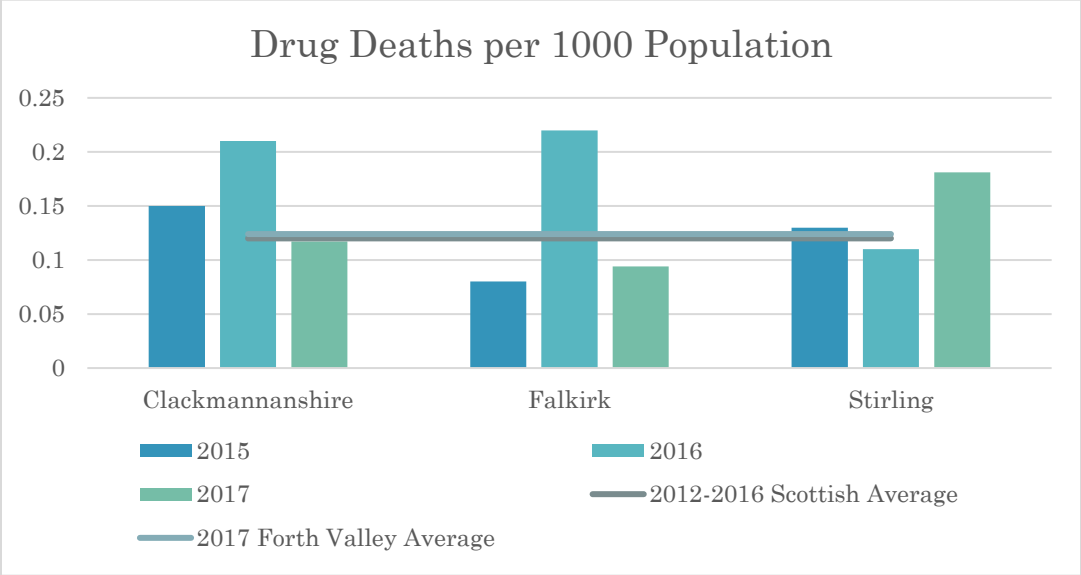
Area	Number of DDs	Population	Drug Deaths per 1000 population
Clackmannanshire	6	51,450	0.117
Falkirk	15	160,130	0.094
Stirling	17	94,000	0.181
Forth Valley	**38**	**305,580**	**0.124**

Although the overall rate of drug deaths has decreased from 2016 (0.188) to 2017 (0.124), this pattern in only reflected in two of the council areas, namely Clackmannanshire and

[1] National Records of Scotland Population Data 2017 (pub. 19th April 2017)
[2] National Records of Scotland Drug-Related Deaths in Scotland 2016 (pub. 15th Aug 2017)

Falkirk. In these areas the rates of drug deaths per 1000 population have decreased from 0.21 to 0.117 and from 0.22 to 0.094 respectively. However, in Stirling, the drug death rate per 1000 population has increased from 0.11 in 2016 to 0.181 in 2017.

The following graph shows the drug death rates for the three areas of Forth Valley per 1000 population over the last three years, as well as the Scottish population average for 2012-2016 for comparison. Note that across all three areas, the 2017 drug death rates were generally more aligned with those of 2015 rather than 2016. This is especially true for Falkirk, where the drug death rates were especially high in 2016.



Age, Gender and Ethnicity of Drug Death Victims

The mean age of drug deaths victims in Forth Valley was 40.4 years, with ages ranging from 22 to 60 years of age. This is broadly in line with the median ages of drug death victims in Scotland in 2016, which was 41 years[2]. When broken down into the separate council areas, the average age of drug death victims in Falkirk was 42.5 years, which is slightly higher than the Forth Valley average. In comparison, the average ages of drug death victims in Stirling (38.7 years) and Clackmannanshire (39.8 years) was slightly lower than the average age of drug deaths victims across Forth Valley. However, these small age differences are likely due to random variability in the data and unlikely to constitute a meaningful pattern.

In terms of gender, 26 of the drug death victims were male and 12 were female, giving a male:female gender ratio of 2.17 male victims to every female victim (i.e. 68% of drug

death victims were male). This is broadly in line with national figures and patterns previously observed in the drug deaths occurring in Forth Valley and across Scotland, where 68.3% of drug death victims were male in 2016[2].

All drug death victims were white, with the vast majority being described as White Scottish, which corresponds with the predominant ethnicity in Forth Valley.

Living Situation of Drug Death Victims

The majority of drug death victims were living in their own homes (n = 31 or 82%) at the times of their deaths, with some living in the homes of their relatives (n = 4 or 11%), or living in other accommodation arrangements (n = 3 or 8%). Three individuals (8%) were homeless, either having no fixed abode at all or staying in homeless accommodation at the time of death. This indicates that while compared to the general population the rate of homelessness is high in this particular group, the majority of individuals appear to have been in stable and settled living arrangements.

Following on from this, half of the drug deaths victims were living on their own at the time of death (n = 19 or 50%). The remaining 19 individuals (50%) were living with others, either with their spouse or partner (n = 9), with their parents or other relatives (n = 4) or with other individuals (n = 6), for example their friends.

Families of the Drug Death Victims

The relationship status was known for 36 of the 38 drug death victims. Ten individuals (or 26%) were married or living with a civil partner. The majority of drug death victims however were not in long term relationships and were either classified as single (n = 24 or 63%), or otherwise separated, divorced or widowed (n = 2 or 5%).

Whether or not the drug deaths victims had children under the age of 16 was known for 30 individuals (or 79% of the cohort). Seven of these individuals (3 each in Falkirk and Stirling, and one in Clackmannanshire) had children under the age of 16, in some cases these children were living with the drug death victim at the time of death.

Employment Status

The majority of drug death victims were unemployed at the time of their deaths (n = 30 or 79%) and a further three individuals (or 8%) were registered as long term sick or disabled. It is likely that a number of these individuals were in receipt of state benefits. Only five drug death victims (or 13%) were employed at the time of their deaths, in only two of these cases was the employment stable and long term.

Criminal Justice Histories

Two individuals (5%) were known to have been in police custody, with 32 individuals (84%) confirmed to have not been in police custody in the 6 months prior to their deaths. This data was unknown for the remaining 4 (11%) of drug death victims (and it is thus assumed that they had no criminal histories). Eighteen drug death victims (or 47%) were known to have served a prison sentence in the past, with the last known prison stay of these individuals lasting in duration from 14 days to 6 years. One individual had been released from prison in the two weeks prior to death, which is a known risk factor for suffering both fatal and non-fatal overdoses. A further five victims had been released from prison between 2 weeks and 6 months prior to their deaths, and the remaining 12 victims were released from prison more than 6 months prior to their deaths.

Physical and Mental Health Indicators

The medical histories were known for all drug death victims. Of the 38 drug death victims, 33 (or 86%) were known to have serious physical health problems. The most common conditions suffered and their prevalence are summarised in the following table:

Medical Condition	Number of DD victims	Percentage
Respiratory Disease	15	39%
Hepatitis C	14	37%
Cardiac Disease	6	16%
Chronic Pain	5	13%
Musculoskeletal Problems	4	11%
DVT	3	8%
Other Liver Disease	2	5%
Diabetes	2	5%
Other (e.g. Epilepsy)	10	26%

Similarity, the psychiatric and mental health difficulties of the drug death victims were known and 31 out of the 38 eventual drug death victims (or 82%) experienced mental health difficulties. The most common conditions are summarised in the table below:

Psychiatric Condition	Number of DD victims	Percentage
Depression	25	66%
Anxiety	15	39%
Posttraumatic Stress	5	13%
Personality Disorder	3	8%
Psychotic Episode	3	8%
Other (e.g. Bipolar)	2	5%

In addition, 8 (or 21%) of the drug death victims had a known history of self-harm, and three victims (8%) were known to have self-harmed in the 6 months prior to their death. Seven victims (18%) had previously attempted suicide and three individuals (8%) had attempted suicide in the 6 months prior to their deaths.

It is recognised that substance users experience high levels of comorbidity. In reality, many drug death victims experience a complex combination of physical and mental health difficulties and this is also the case in Forth Valley.

Life Events

Substance misusers are known as a particularly vulnerable population, which is reflected in the fact that 6 (or 16%) of the drug death victims were known to have experienced sexual and/or physical abuse in their lives. Two individuals (or 5%) were known perpetrators of physical abuse.

Recent life events were also prevalent amongst the victims, and those life events which were experienced in the 6 months prior to death are recorded in the following table:

Life Event	Number of DD victims	Percentage
Criminal Justice Problems	8	21%
Recent Ill Health	7	18%
Relapse	6	16%
Homelessness	4	11%
Bereavement	4	11%
Relationship Breakdown	3	8%
Child Custody Problems	2	5%
Other	8	21%

It should be noted that the data sources used to collect this information (i.e. service records) have limitations in terms of recording this information. As such, the actual prevalence of life events experienced by the drug deaths victims may be considerably higher.

Substance Misuse Histories

Thirty-six of the 38 drug death victims (95%) were known substance misusers and 22 individuals (or 58%) were injecting drug users. The length of time of their drug use and injecting drug use is summarised in the following table:

Length of Time	Drug Use (n = 36)	Injecting Drug Use (n = 22)
Less than 6 months	1 (3%)	1 (5%)
6 months – 1 year	0 (0%)	0 (0%)
1 – 5 years	3 (8%)	0 (0%)
6 – 10 years	6 (17%)	5 (23%)
11 – 19 years	10 (28%)	8 (36%)
20 years or more	7 (19%)	3 (17%)
Unknown	9 (25%)	4 (18%)

Twenty (or 53%) of the drug death victims were known to have overdosed at least once in the past. The number of previous overdoses of these individuals ranged from one to six, with an average of 2.3.

Although this is not the focus of this report, it should be noted that many of the drug death victims also had experienced problematic alcohol use. Fourteen individuals (37%) had a history of alcohol abuse and for 11 individuals (29%) the alcohol misuse had occurred in the six months prior to death.

GP Contact

All of the drug deaths victims were registered with and had known contact with a GP at one point. The length since last contact with the GP was known for 34 individuals (89%) and is summarised in the following table:

Length of Time since last GP Contact	Number of DD victims	Percentage
Longer than 2 years	6	16%
1 – 2 years	5	13%
6 months – 1 year	8	21%
1 – 6 months	7	18%
2 weeks – 1 month	4	11%
Less than 2 weeks	4	11%

This information indicates that most drug death victims were known to their GPs and many had been in contact with their GPs not long before their deaths.

Hospital Contact

In the 365 days prior to date of death, 24 of the 38 drug death victims (63%) had attended the Emergency Department (ED) of Forth Valley Hospitals. There were a total of 58 ED attendances by these 24 individuals, with the number of attendances by each individual ranging between 1 and 7.

In the year prior to their deaths, 9 of the 38 drug death victims (24%) had been admitted to Clinical Assessment Units.

20 drug death victims (53%) had been admitted to hospital in the year prior to their deaths, occupying 63 bed days in total. There were 41 hospital admissions for these 20 victims, with the most admissions being 6 for one individual.

Service Contact

Apart from contact with their general practitioners, the drug death victims were also often known to other, non-drug related treatment services at the time of their deaths. Two individuals (or 5%) received specific treatment for alcohol misuse at the time of their deaths. A further two individuals (or 5%) were in contact with Housing Services at the time of their deaths. Of the 38 drug death victims, 24 (63%) were known to Social Work Services at some point in their lives; 10 individuals (26%) were in active contact with these services at their time of death.

In terms of contact with services specific to the treatment of drug misuse, the drug deaths victims attended a range of services including specialist and third sector support

for drug and alcohol problems, such as NHS prison healthcare, addiction psychology and psychiatric services in the 5 years prior to their deaths.

At the time of their deaths, 19 of the drug death victims (50%) were in contact with specialist services. These are summarised in the following table:

	Clack'shire (n=6)	Falkirk (n=15)	Stirling (n=17)	Total (n=38)
Community Alcohol and Drug Service	0 (0%)	4 (11%)	6 (16%)	**10 (26%)**
Addiction Recovery Service	0 (0%)	2 (5%)	1 (3%)	**3 (8%)**
Forth Valley Substance Treatment Service	2 (5%)	1 (3%)	0 (0%)	**3 (8%)**
General Practitioner Prescribing	0 (0%)	0 (0%)	1 (3%)	**1 (3%)**
Statutory Mental Health Service	0 (0%)	1 (3%)	1 (3%)	**2 (5%)**
Signpost Recovery	1 (3%)	0 (0%)	0 (0%)	**1 (3%)**

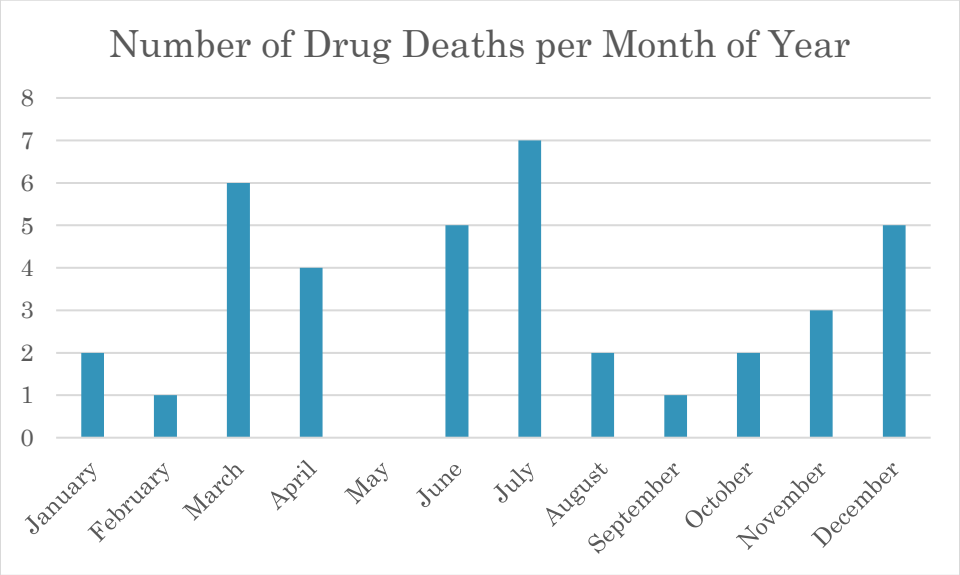
Ten drug death victims were patients of the NHS Community Alcohol and Drug Service (CADS) at the time of their deaths; these were distributed relatively evenly across the three council areas in Forth Valley. Two drug deaths victims were under the care of statutory NHS Forth Valley mental health service at the times of their deaths (but not by specialist addiction services).

Sixteen (42%) of the drug death victims had been prescribed opiate substitute medication (all methadone) at the time of their deaths. One individual had only started taking the methadone in the month prior to death, and another individual in the three months prior to death. All others had been prescribed the opiate substitute medication for more than one year. The doses ranged from 40 – 90 mg and 13 of the 16 individuals received their substitute by supervised consumption; the remaining three individuals were allowed to take their medication home.

When considering this separately across the three council areas, 6 of the drug death victims (or 40%) in Falkirk had been prescribed an opioid substitute, compared with 2 drug death victims (or 33%) of the drug deaths victims in Clackmannanshire and 9 (53%) drug death victim in Stirling, which indicates that between a third and one half of the drug death victims in each area were in treatment at the time of death. None of those who died were being supported by the Addictions Psychology Service.

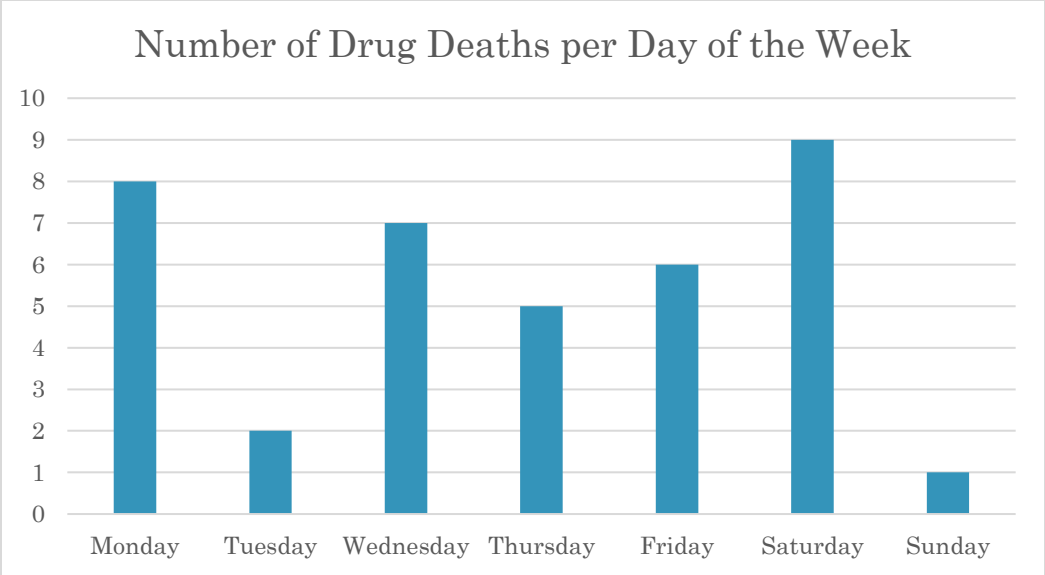
Timings of the Drug Deaths

The months of the year in which the drug death victims died are presented in the following graph:



Although the number of drug deaths vary between 0 and 7 by calendar month, this does not suggest a particular pattern of drug deaths being any more or less likely to occur at different times of the year.

Similarly, the days of the week on which the drug deaths occurred are summarized in the following graph:



This data suggests that in 2017, there was great variability in the number of drug deaths on any given day of the week, ranging from 1 on Sundays to 9 on Saturdays. However, an overall pattern is not apparent.

Circumstances of the Drug Deaths

The location of the drug deaths were known for all cases. The majority of drug deaths occurred in the victims' own homes (n = 25 or 66%), with a number of deaths occurring in someone else's home (n = 8 or 21%), often the homes of friends, partners or family members. Three deaths (8%) occurred in hospital; these victims had consumed the fatal overdose usually at a residential property and were transported to hospital by ambulance before being declared dead there. A further two deaths (5%) occurred at other locations, e.g. homeless accommodation.

Bystanders were present in 20, or over under half of the drug deaths (53%). Most commonly bystanders were friends of the drug death victims (n=10), family members (n=6) or their spouse (n=5).

Bystanders attempted resuscitation in less than half of the total number of drug deaths (n = 16 or 42%), but in the majority of cases where bystanders were present (16 out of 20, or 80%). In 22 cases (58%) resuscitation was not attempted, generally because no bystanders were present, but equally there were a number of cases (11%) where bystanders were present and no resuscitation was attempted. One recommendation here is that the Forth Valley Recovery Community should provide CPR training to the drug using community.

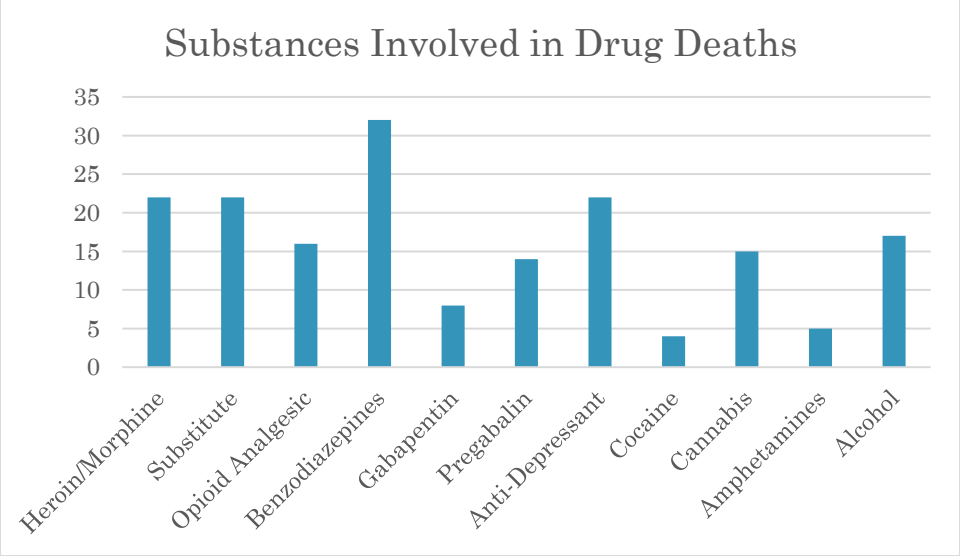
However, ambulances attended 34 of the eventual drug deaths (89%). It is unknown, however, in how many of these cases the victim was still alive by the time the ambulance arrived.

Take Home Naloxone had been supplied to 9 (24%) of the drug death victims at some point prior to their deaths. Take Home Naloxone was available at the scene of 6 of the drug deaths (16%) and administered by bystanders in 3 cases (8%). Across Forth Valley there were 561 Take Home Naloxone kits provided to substance misusers: 50 in Clackmannanshire, 225 in Falkirk, 67 in Stirling and the remaining 219 from prisons across the area.

To put this in context, there were 244 known non-fatal overdoses in Forth Valley in 2017 (39 in Clackmannanshire, 118 in Falkirk and 67 in Stirling).

Substances Involved in the Drug Deaths

The substances involved in the drug deaths of Forth Valley in 2017 are summarised in the following graph:



The substances most commonly involved in all drug deaths were benzodiazepines (84%), heroin/morphine (58%), opioid substitutes (58%) and anti-depressant medications (58%).

The following table considers the prevalence of drugs in the deaths by council area; the first column gives the number and percentages of all drug deaths which involved each substance. The subsequent three columns break this down into the different council areas in Forth Valley. In these columns, the percentages are based on the number of drug deaths that occurred in this particular council area.

Substance	All Drug Deaths (n=38)	Falkirk (n=15)	Clackmannan-shire (n=6)	Stirling (n=17)
Morphine	22 (58%)	10 (67%)	3 (50%)	9 (53%)
Opiate Substitute	22 (58%)	9 (60%)	4 (67%)	9 (53%)
Opioid Analgesic	16 (42%)	7 (47%)	1 (17%)	8 (47%)
Benzodiazepines	32 (84%)	12 (80%)	5 (83%)	15 (88%)
Gabapentin	8 (21%)	5 (33%)	0 (0%)	3 (17%)
Pregabalin	14 (37%)	5 (33%)	3 (50%)	6 (35%)
Anti-Depressant	22 (58%)	6 (40%)	4 (67%)	12 (71%)
Cocaine	4 (11%)	3 (20%)	0 (0%)	1 (6%)
Cannabis	15 (39%)	6 (40%)	2 (33%)	7 (41%)
Amphetamines	5 (13%)	1 (7%)	2 (33%)	2 (12%)
Alcohol	17 (45%)	8 (53%)	3 (50%)	6 (35%)

Notable in the breakdown of the substances per area is that gabapentin appears to be most common in the Falkirk area and that Amphetamines were most common in Clackmannanshire.

Types of Benzodiazepines

Benzodiazepines were the most common substances involved in the drug deaths in Forth Valley in 2017, which is consistent with patterns from previous years. This section considers the types of benzodiazepines which were involved in these deaths.

Diazepam:

After death, diazepam metabolises into temazepam and oxazepam; therefore, while these can be consumed as individual substances, when any of these three substances is detected in the post-mortem toxicology analysis, it is most likely that the individual only consumed one substance. Any combination of diazepam, oxazepam and/or temazepam were involved in a total of 21 (55%) of the drug deaths. Of these, 12 occurred in Stirling and 9 in Falkirk. However, no deaths in Clackmannanshire involved Diazepam.

Etizolam:

Etizolam was involved in 14 of the drug deaths (or 37%). Of these, 8 occurred in Stirling, 5 in Falkirk and 1 in Clackmannanshire.

Lorazepam:

Lorazepam was involved in a total of 7 of the drug deaths (or 18%). Of these, the majority (n = 5) occurred in Falkirk, with one death each in Stirling and Clackmannanshire involving Lorazepam.

Phenazepam:

Phenazepam was found in the post-mortem toxicologies of 6 (or 16%) of the drug death victims. Of these, 4 occurred in Clackmannanshire, and one each in Stirling and Falkirk. This means that 66% of the deaths in Clackmannanshire involved Phenazepam.

Aprazolam:

Aprazolam was involved in 6 of the drug deaths (or 16%). Of these, three each occurred in Stirling and Falkirk.

Diclazepam:

Diclazepam was involved in two of the drug deaths (5%); one death each in Stirling and Falkirk.

Role of Prescribed Medication

A number of the substances which have been commonly found in the drug deaths of Forth Valley can also be prescribed to individuals. As an indication of potential diversion of prescribed medication, this section considers the presence or absence of prescribed medications in the drug deaths of Forth Valley in 2017.

a) Opioid Substitute

Opioid substitutes were involved in 22 of the drug deaths (58%). These were methadone in all cases, however, one individual had taken buprenorphine together with methadone. 17 of the drug death victims (45%) had been prescribed the mediation. Of these, the majority (n=16) had consumed the substance prior to their deaths as evidenced by the toxicology report, and one individual had been prescribed methadone but this was not detected post-mortem, indicating that they had not taken it as prescribed. The remaining 4 (11%) individuals must have sourced the opiate substitute that contributed to their deaths illicitly as it had not been prescribed to them.

b) Benzodiazepines

Benzodiazepines were involved in 32 (or 84%) of the drug deaths. However, only seven individuals (18%) had been prescribed a benzodiazepine, which was almost always diazepam (Lorazepam and Temazepam had been prescribed once each). All of the individuals who had been prescribed a benzodiazepine had the substance in their bodies as revealed by post-mortem analysis. However, the majority of drug death victims (25 individuals or 66% of all drug deaths) had consumed benzodiazepines prior to their deaths which were not prescribed to them and are thus assumed to have sourced these drugs illicitly.

c) Gabapentin

Gabapentin was involved in 8 (21%) of all drug deaths. Conversely, it was only prescribed to 4 individuals (or 11%). Of these, only 3 had taken the medication prior to their deaths, as evidenced by the post-mortem toxicology, meaning that one individual who had received prescribed gabapentin had not taken it. Similarly, half of the individuals who had taken gabapentin prior to their deaths (n =4 or 11% of all drug deaths) had taken gabapentin which was not prescribed to them. Note that gabapentin was only prescribed to individuals in Falkirk and Clackmannanshire.

d) Pregabalin

Pregabalin was involved in 14 (or 37%) of the drug deaths in Forth Valley. It had been prescribed to 10 individuals (26%); however, of these only seven had taken the medication prior to their deaths, meaning that the remaining three individuals who had received prescribed pregabalin had not taken it in accordance with their prescription. Furthermore, seven individuals who had taken pregabalin prior to their deaths had not been prescribed the medication (18% of all drug deaths). Pregabalin had been prescribed to individuals from all three council areas within Forth Valley (n = 4 each in Falkirk and Stirling, and n = 2 in Clackmannashire).

e) Anti-depressants

Anti-depressant medication was involved in 22 (58%) of the drug deaths. Anti-depressant medication had been prescribed to 19 individuals (50%). The specific prescribed substances included mirtazapine (n = 6), sertaline (n = 5), fluoxetine (n = 5), amitriptyline (n = 3), dosulepin (n = 2) and trazadone (n = 1). Thirteen individuals (34%) had been prescribed anti-depressants and had also taken this substance at the time of their deaths, indicating compliance with prescribing regimens.

Eleven drug death victims had taken anti-depressant medication which was not prescribed to them; in most cases this was mirtazapine (n = 8), but also amitriptyline (n = 2),fluoxetine (n = 2), and sertraline (n = 1).

It should be noted that four individuals also appeared to have “swapped” their prescribed anti-depressant for another one (e.g. had been prescribed fluoxetine but were found with amitriptyline in their body at post mortem). Four individuals had taken their prescribed anti-depressant, as well as another anti-depressant medication which was not prescribed to them (amitriptyline or fluoxetine).

f) Opioid Analgesics

Opioid Analgesics were involved in 16 (42%) of all drug deaths. These included dihydrocodeine (n = 14), tramadol (n = 3); one individual had consumed both tramadol

and DHC. Six individuals (16%) had been prescribed analgesic medication; in five cases this was dihydrocodeine and one individual had been prescribed tramadol. Four of these individuals had taken their prescribed opioid analgesic prior to death and two had not. Twelve drug deaths (32%) involved opioid analgesic mediation that had not been prescribed to the individuals.

Of those who had been prescribed opiate analgesics, 4 were in Stirling and one individual each in Falkirk and Clackmannanshire.

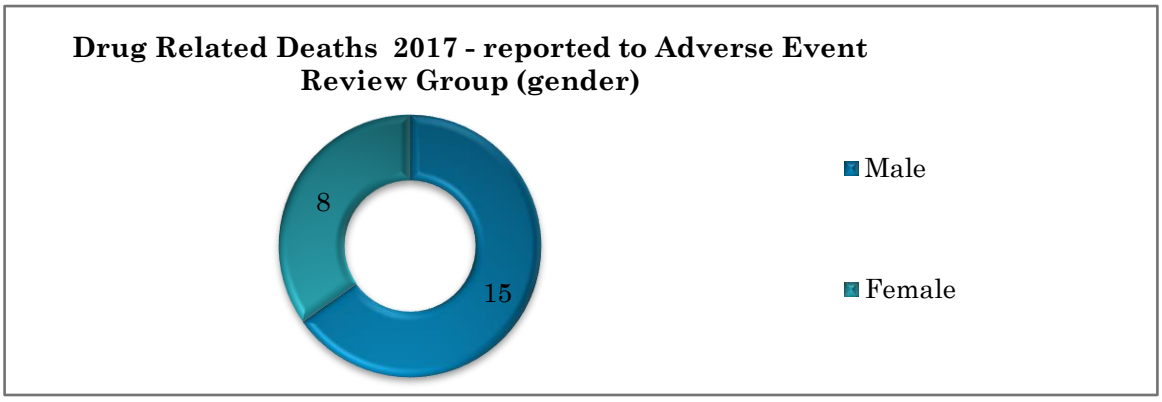
Drug Deaths which were reported to the NHS Forth Valley Adverse Event Review Group

(contributed by Nick Higgins, Clinical Governance Lead, NHS Forth Valley)

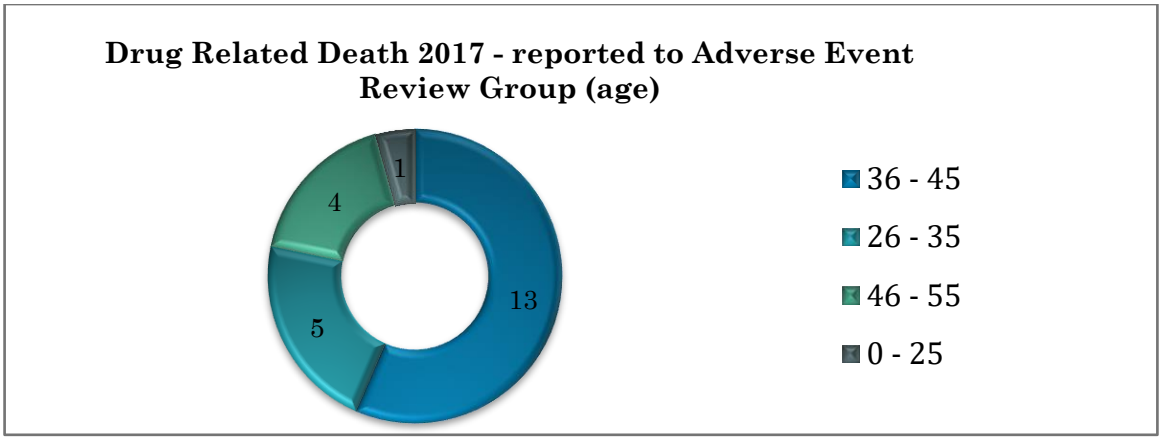
The Adverse Event Review Group was notified of a total of 23 Drug Related Deaths where the death occurred in 2017. This group examines deaths for which the subjects were in contact with secondary care services at the time of their death or in the year prior to their deaths. This is a defined subset of the deaths; this information is captured for the first time in this report to reflect the investment that the ADP made to support the review of these deaths in 2017.

The group, to date, has completed reviews on nine of the cases, with the majority likely to be completed prior to the end of the year. Learning points have been shared with the statutory Clinical Governance Group and themes identified included: DVLA guidance, recording and management of alcohol misuse, how to engage those who are failing to benefit from treatment, better information for GPs on the role and remit of substance misuse services, revision of guidelines around methadone supervision, drug testing and management of co-morbidity and substance misuse in the Community MH setting.

Gender of the individuals

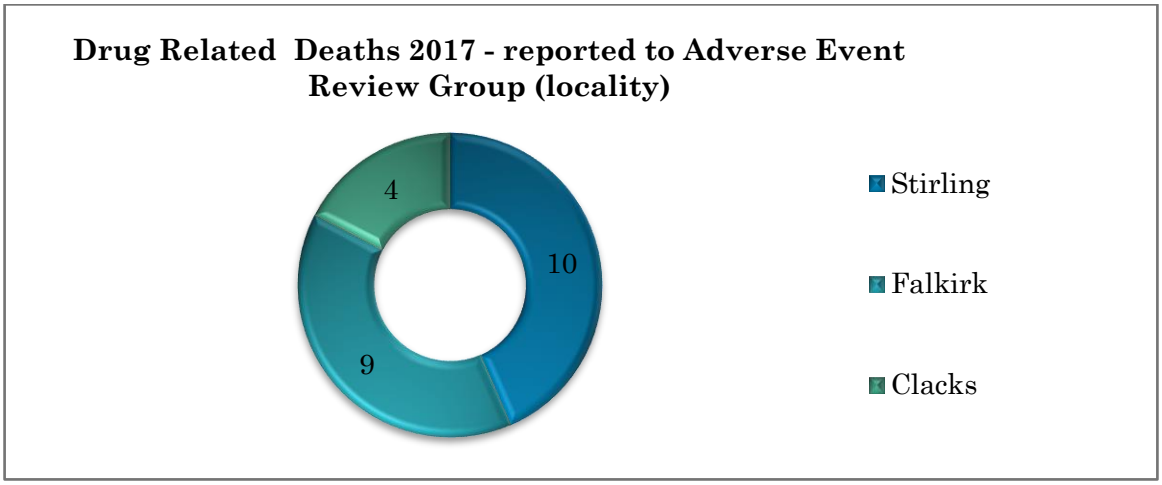


Age range of the individuals



There were no deaths reported of individuals in the over 55 category. The age range was from 24 – 50 years, with the average age being 38.7 years of age.

Locality:



Substances Involved:

The following substances were found at toxicology (still awaiting the Post Mortem & Toxicology report in 1 case):

Etizolam:	7
Alprazolam:	4
Phenazepam:	5
Gabapentin:	4
Pregabalin:	9
Heroin (as morphine/ codeine, 6MAM):	13
Methadone:	18 (prescribed in the vast majority of cases)
Diazepam:	10
Alcohol:	4 (at low concentrations in all these cases)

Group Membership

The following individuals are members of the Forth Valley ADP Drug Death and Critical Incident Review Group:

Denise Allan	(NHS Prisoner Healthcare)
Elaine Brown	(C&SADP)
Nick Burgess	(CJSW Falkirk)
Tracy Coyle	(CADS)
Carol Crawford	(Blood Borne Virus MCN)
Michael Grassom	(CJSW Stirling)
Norma Howarth	(Signpost/ARS)
Elaine Lawlor	(FVADP)
Jean Logan	(Lead Pharmacist MH & SM FVNHS)
Kenny McAndrew	(DCI- Police)
Ann McArthur	(Health Promotions NHSFV)
Ruth McDonald	(FADP)
Ann McGregor	(Blood Borne Virus MCN)
Dr Claire McIntosh	(Consultant Psychiatrist)
Kenny McAndrew	(DCI- Police)
Jim McSpurren	(SAS)
Norrie Moane	(Signpost/ARS)
Paul Mooney	(ASC)
Annemarie Parnell	(CJSW Falkirk)
Martha Rae	(SFAD)
Roseann Robertson	(Housing, Stirling)
Scott Robertson	(Police Scotland)
Laura Smith	(Housing Falkirk)
Dr Caroline Steele	(GP)

Action Plan 2018/2019

	Action	Sub Actions	Lead	Timescale	Comments	RAG
1.0: Ensure accurate collection of data regarding drug related deaths in Forth Valley.						
1.2	Consider any identified trends regarding gender in relation to drug related deaths and non-fatal overdoses.		DRD Group	September 2018	Detail of this action will be included in the 2017 DRD Research	
2.0: Develop mechanisms to learn from drug related deaths and implement changes to practice to prevent future drug related deaths. Staying Alive Good Practice Indicator: DRD Monitoring and Learning						
2.1	Embed case management approach for SMS deaths in and out of service. Include prison healthcare deaths	Develop internal SMS guidance for internal review processes for DRD.	Claire McIntosh Service Managers Elaine Lawlor Nick Higgins	March 2018	ADP supported an additional day of admin support for a period of 6 months. NHS has now streamlined the process. ISP in development	
2.3	Participate in Forth Valley DRD Research.	Complete report on 2016 drug related deaths. • Consider reasons for the significant increase in drug related deaths in 2016. Target communication and prevention strategies accordingly.	Elaine Lawlor Claire McIntosh Julia Neufeind DRD Group	October 2017 December 2018	Research commissioned and draft report due mid August. Continuation of local research, NFO Trends, will help identify patterns and trends.	

2.0: Develop mechanisms to learn from drug related deaths and implement changes to practice to prevent future drug related deaths. Staying Alive Good Practice Indicator: DRD Monitoring and Learning						
2.5	Continue direct NFO referral work with Scottish Ambulance Service and Signpost Recovery	Review process to include assertive outreach.	Elaine Lawlor Claire McIntosh Norrie Moane	September 2017	ICO Permission process underway, decision imminent. Review Assertive Outreach approach post decision	
		Seek permission from Medical Director regarding the Assertive Outreach approach	Claire McIntosh Elaine Lawlor	September 2017	Post ICO Permission	
		Post ICO Review- Convene a strategic meeting on ISP between Police and Health to clarify parameters on what can be shared re NFO data sharing	Elaine Lawlor	October 2018		
		Incorporate the assertive outreach pathway into the work of the Harm Reduction Mobile Unit	Norrie Moane Norma Howarth	October 2018	Action Pending	

2.0: Develop mechanisms to learn from drug related deaths and implement changes to practice to prevent future drug related deaths. Staying Alive Good Practice Indicator: DRD Monitoring and Learning						
2.6	Review the Patient Journey using CHI Post DRD	Caldicott approval re analysis for DRD Report 2017	Elaine Lawlor	September 2018	CG form submitted, researcher appointed.	
2.7	Ensure Alcoholics Anonymous, Narcotics Anonymous have access to those within Forth Valley Prisons	Liaise with FV Prisoner Healthcare Lead to gain a position.	Elaine Lawlor	October 2108		
2.8	Expand information sharing process with SAS to include those who are intoxicated by alcohol and consent to support.	Develop an Alcohol Card re intoxication. Explore options for referral process with SAS	Elaine Lawlor	November 2018		
2.9	GP ISP for Prison release	Develop and ISP for GP and SPS	Elaine Lawlor Nick Higgins Claire McIntosh	November 2018		
2.10	Drug Awareness Training for Gym staff	Training of staff on client group in relation to steroid misuse Pilot training programme with Active Stirling	Norma Howarth Harm Reduction Team	November 2018		

3.0: Staying Alive Good Practice Indicator: High Risk Injecting / Wound Care / Bacterial Infections						
4.0: Staying Alive Good Practice Indicator: Prison Through care / Police Custody						
4.1	Provide Peer Support in Police Custody (New Forth Valley Custody Hub)	Explore options for referral for those in custody	EL/Police Custody Hub Staff/ Signpost Recovery, Arrest Referral /FVRC	November 2018		
5.0: Staying Alive Good Practice Indicator: Homelessness / Rough Sleeping / Housing						
5.2	Scope out the prevalence of injecting rates amongst drug users who are homeless	Interrogate Neo Database	Jean Logan Harm Reduction Service	December 2017	Work planned to start July 2018	
		Results of IEP Peer Questionnaire	FVRC/ADP Team	October 2018	Work underway	
5.3	Increase the FV Recovery Community presence in services.	Gather baseline data	FVRC/FV SMS Services	November 2018		

6.0: Staying Alive Good Practice Indicator: Prescription Drugs and Non-Opiate Illicit Substances						
6.1	Investigate the use of testing for stimulant use in the setting of the Emergency Department.	Scope out financial implications of auditing previous year's presentation	Tracy Coyle	October 2017		
7.0: Staying Alive Good Practice Indicator: Workforce Development						
7.1	Expand marketing of NPS training to the following settings: • Student support • A&E • Scottish Ambulance Service • Mental Health – acute and community settings • Homelessness	Scope out student support in higher education establishments across Forth Valley	ADP Support Team	November 2017	Marketing complete to Ambulance Service, Mental Health setting and Homeless settings.	
7.2	Host a GP evening session to look at decreasing gabapentinoid prescribing	Launch new guidelines	Elaine Lawlor/Claire McIntosh	December 2018		

COMPLETED ACTIONS

2.0: Develop mechanisms to learn from drug related deaths and implement changes to practice to prevent future drug related deaths. Staying Alive Good Practice Indicator: DRD Monitoring and Learning						
2.1	Embed case management approach for SMS deaths in and out of service. Include prison healthcare deaths	Develop and convene specific bi monthly case review meeting.	Claire McIntosh ADP Support Team	April 2017	Case Management process now embedded	
2.1		Ensure GPs are routinely invited to DRD reviews of appropriate patients.	Chair of Review Group Service Manager	Ongoing	GP's have been invited to where appropriate and where available.	

2.2	Develop Forth Valley Drug Trend Monitoring Group (DTMG).	Update the NHS Forth Valley Public Health and Forth Valley ADP Drug Warning system Process • Finalise Substance Misuse Alert Cascade Protocol. • Define process within a SOP. • Evaluate in partnership with clinical effectiveness	Oliver Harding Carol Crawford Elaine Lawlor Jean Logan		This process has ceased due to capacity issue within Public Health. Risks will be identified and acted upon by the Drug Trend Monitoring Group.	
2.2	Develop Forth Valley Drug Trend Monitoring Group (DTMG).	Agree representation on national group	ADP support	October 2017	Local Forth Valley Group now in place. A Forth Valley Representative will attend the National Group	
2.4	Wide dissemination of DRD Report including to IJB's and Community Justice Partnerships (supported by ORT champion)		ADP support	November 2017		
		Host Forth Valley Drug Related Death Conference	ADP Support Team	November 2017		
2.5	Continue direct NFO referral work with Scottish Ambulance Service and Signpost Recovery.	Review NFO ISP.	Elaine Lawlor	September 2017		

2.5	Continue direct NFO referral work with Scottish Ambulance Service and Signpost Recovery.	Complete NFO research for individuals known to Forth Valley Substance Misuse Services.	Norrie Moane	June 2017	Paper developed and shared with DRD group	
5.0: Staying Alive Good Practice Indicator: Homelessness / Rough Sleeping / Housing						
5.1	Extend invitation to Housing colleagues to join DRD Prevention Group.	Identify appropriate reps from Clackmannanshire, Falkirk and Stirling.	ADP Support Team	May 2017	Complete	
1.0: Ensure accurate collection of data regarding drug related deaths in Forth Valley.						
1.1	Continue to ensure ISD work completed.	Submit data to ISD.	Elaine Lawlor Claire McIntosh Anita Dufton Heather Jolly	August 2017	Data in the final stages of completeness	