

# **DRUG DEATHS IN FIFE SCOTLAND**

**2012**

**A report on the findings of the  
Fife Drug Deaths Monitoring and Strategic Group**

**(Fife Alcohol and Drug Partnership)**

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## **Executive Summary**

### ***Background***

The Fife Drug Deaths Monitoring and Strategic Groups evolved under the auspices of the Fife Alcohol and Drug Partnership (ADP) (formerly the Drug and Alcohol Action Team - DAAT), in order to identify a systematic approach to synthesising individual drug deaths, which includes the analysis of similarities, trends and patterns among them. This report summarises the findings of drug deaths that occurred in Fife in 2012. As from 2013 the ADP reformulated the Fife Drug Death Strategic Group into a Fife Overdose Prevention Group reflecting the activities identified as necessary processes to occur to further reduce drug deaths in Fife through the profiling of these cases between 2005-2012.

### ***Aims and Objectives***

The principal aims of the report included 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 Fife area. Consequently, findings have enabled the groups to set forth recommendations to facilitate the reduction of drug deaths and inform policy and practice at a local and national level.

### ***Methods***

The population of drug deaths (DDs) in Fife in 2012 consisted of 23 cases. Information about these deaths was collected via dissemination of the Fife Drug Deaths Questionnaire and/or case notes held by social care services, specialist addiction services, general practice, prison and police services e.g. Scottish Criminal Records Office (SCRO). Data relating to the specific cause of death, post-mortem and toxicology was obtained from the Procurator Fiscal offices in Fife.

### ***Key Results***

#### **Incidence and Prevalence of Drug Deaths**

- Fife had a total of 23 Drug Deaths in 2012
- Since 2005, the number of drug deaths in Fife has increased annually until 2008. However, since 2008 then the trend has indicated a reduction in the number of drug deaths on an annual basis
- Drug related death cases are not officially recorded
- The average drug death rate in Fife in 2012 (0.063 per 1000) was lower than the 2007-2011 Scottish average rate of 0.10 per 1000
- The central area of Fife had the highest incidence of drug deaths
- 95.7% of Fife drug death victims were White Caucasian
- 91.3% of the victims were male – a higher proportion than in previous years
- The mean age of the Fife drug death victims in 2012 was 35.52 years
- DD victims were aged between 19 and 57 years of age at the time of their deaths, with a relatively even spread between those ages

## **Demographic, Social Functioning and Life Context Trends**

- While a substantial proportion of drug death victims lived alone (34.8%), the majority (56.5%) were living with others at the time of their deaths
- The living arrangements of drug death victims at the time of their deaths did not differ much from those of the six month prior to death, except in those cases where the person had been incarcerated during that time or experienced a change in relationship status
- While the majority (60.9%) of drug death victims were classed as single, most were in some form of relationship at the time of their deaths
- The majority (60.9%) of victims had children; however, 78.6% of these did not live with their children
- 23 individuals lost a parent as a result of a drug death in Fife in 2012
- The majority of drug death victims were not socially isolated; many reported a close relationship with a family member (73.9%) or a close friendship with another person (52.2%)
- At the same time, a substantial number of drug death victims were known to also have significant difficulties in these relationships
- The mean age at which the drug death victims left school was 16 years
- Most of the drug death victims were engaged in some form employment or education after leaving school
- Only 9.5% were unemployed after leaving school. However this figure was reversed directly before death, at which point 78.3% of drug death victims were unemployed

## **Criminal Justice Issues and Offending Patterns**

- 91.3% of drug death victims had at least one lifetime arrest
- 57.1% of the drug death victims who had been arrested, were arrested at least once in the 6 months prior to their death
- 47.8% of the drug death victims had served a prison sentence at some point during their lives
- Only 18.2% of the drug death victims who had served a prison sentence had done so in the 6 months before their death
- Only one drug death victim died within 2 weeks of the date of their release from prison
- Court enforced interventions at the time of death are rare

## **Physical, Psychological/Psychiatric Health and Significant Life Events**

- The majority of drug death victims (60.9%) suffered from psychological or psychiatric difficulties, the most common of which were depression and/or anxiety
- Just under half of the victims (47.8%) also had significant physical difficulties
- 69.6% of drug death victims were known to have experienced a significant adverse life event in their adult lives
- Most common adverse life events included bereavement, accidents and assaults
- The majority of drug death victims (65.2%) had experienced a combination of psychological and physical difficulties as well as life events alongside their substance misuse problems

## **Substance Misuse Histories**

- Almost all drug death victims were known were poly-drug users, 56.5% of which were known to inject drugs
- The average age at which drug misuse began was 16.9 years, and age at which individuals first injected was 27 years
- Therefore, by the time of their deaths, the victims had an average drug using career of over 18 years
- 56.5% of drug death victims were known to have overdosed at some point in their lives, often on multiple occasions
- Only 13.0% victims were known to have overdosed in the 6 months prior to their deaths

## **Service Use Histories**

- All 23 drug death victims were known to services in the 5 years prior to their deaths
- 19 of the 23 drug death victims had accessed at least one service in the 6 months prior to their deaths
- General Practitioners, NHS Fife Addiction Services, Criminal Justice and Scottish Prison Services were the four most commonly accessed services
- A large proportion of drug death victims did not seek/receive treatment for their drug problem 6 months before they died
- 21.7 % were receiving pharmacological treatment in the 6 months prior to their death; most were prescribed methadone and all were still receiving their substitute medication at the time of their deaths

## **Circumstances of the Death**

- The majority (60.9%) of drug deaths in Fife in 2012 occurred during the first half of the year
- Drug deaths which occurred over the weekend were no more likely to involve alcohol or involve prescribed substitute medication than those occurring during the week
- The majority of DDs (65.2%) occurred in the presence of others, which were in all cases known to the victim
- 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 just under half of the cases (46.7%); however, this was often partial and had to be instructed by the ambulance dispatch service over the telephone

## **Toxicology Findings**

- Benzodiazepines, Heroin/Morphine, Methadone and Anti-Depressants were the four most common substances involved in the drug deaths of 2012
- 95.7% of victims had taken benzodiazepines shortly before their death
- Methadone was involved in 52.2% of all drug deaths; however, only 3 out of 12 individuals who died with this substance in their system had actually been prescribed the medication

- Prescribed and non-prescribed methadone is involved in a growing proportion of drug deaths in Fife, which is approaching the levels of deaths involving illicit heroin use
- All of the drug deaths occurring in Fife involved a lethal combination of two or more sedative substances
- The “therapeutic” and “fatal” ranges of a substance (as used in the toxicology reports) are diffused in their meaning in light of these poly-substance deaths
- There is widespread evidence that drug death victims were sourcing prescribed medication from out with the healthcare services

### **Substances Misused in Fife**

- The average purity level of Heroin recovered in Fife broadly agrees with the Scottish average and remains low
- Caffeine and Paracetamol are the most common inert substances used to dilute Heroin
- Currently within Scotland, there is no capability for fully analysing all recovered drugs

### **Recommendations**

- As a matter of urgency, resolve delays now incurring in receiving toxicology and/or post mortem reports from the Procurator Fiscal Services. This is very important as the lack of timely information has a direct and adverse effect on our ability to maintain a ‘live’ and effective drug death profiling process that could contribute to further reduction in the number of fatal overdose events in Fife.
- Continue the Fife Drug Deaths Database to produce and report data, both annually and accumulatively on a three year basis.
- Assess the future potential to examine cases not categorised as drug deaths, but as drug related deaths.
- Further investigation into helping to narrow the gap of recording of drug deaths by the Police Scotland and Information Services Division (ISD) NHS Scotland and General Register Office of Scotland (GROS).
- Explore the possibility of utilising psychological autopsy techniques with the relatives of the deceased in order to improve the quality of the data collected on these individuals.
- Look for further funding to compare a group of drug death victims with a matched sample of treatment seeking drug users.
- Encourage a collaborative approach to data sharing between several initiatives (e.g. suicide, alcohol related deaths, road deaths) in order to enhance the understanding of deaths in the substance using population.
- Identify drug death hotspots within geographical areas in the three year report and target interventions accordingly.
- Harness opportunities for overdose awareness training of individuals most likely to be providing support to the drug death victims.
- Explore opportunities to extend drug prevention programmes to young people who leave school (approximately aged 16-20).
- The fact that 91.3% of drug death victims had been arrested at some point in their lives provides an opportunity for early intervention through the development of an arrest treatment and referral scheme in Fife.



- Explore opportunities for custody-based environments to work closer with healthcare systems to deliver targeted overdose interventions.
- Continue to monitor emerging populations with complex episodes of physical, psychological and substance misuse problems.
- Facilitate the process of identifying complex cases and establish a means of providing therapeutic support to vulnerable adults such as via the Adult Vulnerability Act.
- Encourage shared assessment and exchange of information amongst services, particularly when it comes to crisis events.
- Aim for more assertive outreach to vulnerable individuals.
- Work closer with service providers within the Fife Mental Health Consortium, such as mental health services, Choose Life and psychiatric services.
- Provide support and advice to Integrated Care Pathway (ICP) Programmes in Fife on the issue of comorbidity.
- Continue to closely monitor the life events of drug users and their possible impact on overdose risks.
- Encourage current healthcare systems to identify and monitor vulnerable individuals early in their life cycle.
- Explore a formal means of identifying non fatal overdoses in partnership with ambulance services.
- Facilitate communication between and within agencies to promote awareness of those individuals who have had a history of successive episodes of non fatal overdose.
- Identify possible separate risk factors in injecting and non-injecting drug users.
- Acknowledgement that benzodiazepine use still forms a major and increasing component of drug deaths in Fife.
- Support and encourage substance users to access treatment services and utilise substitute prescribing programmes.
- Where multiple morbidities are present and care is spread amongst various agencies, co-ordination of care should be prioritised (e.g. transition of individual from prison environment to community).
- Greater communication of pertinent issues affecting the physical and psychological well-being of individuals is required amongst agencies.
- Assertive outreach support is encouraged in cases where vulnerability is identified as a risk factor.
- Patients on an opiate substitute programme should undergo a random, oral fluid drug screen at least twice a year. If poly-drug use is indicated, the use of supervised opiate substitute medication dispensing and increased keyworking/psychosocial interventions should be considered in order to decrease the risk of overdose.
- Identify rationale for prolonged and sustained methadone maintenance in individuals' care plans.
- Increase awareness that non-prescribed methadone is as lethal as heroin and increasingly involved in drug deaths in Fife.
- Provide information and training for partners, family members and friends of drug users in recognising to recognise the first signs of a drug overdose.
- Provide training to partners, family members and friends of drug users to provide suitable interventions in the case of an overdose, including CPR procedures, naloxone use and contacting the emergency services.
- Increase awareness in the community of the signs of an overdose and appropriate interventions, especially in high risk areas.

- Provide overdose education and training regarding the risks of consuming a combination of drugs, especially sedatives.
- Monitor the impact and contribution of methadone related deaths in future cases.
- Closely monitor individuals who are prescribed psychoactive medication in the community.
- Encourage service providers prescribing opioids for a diagnosed medical condition to be aware of potential overdose risk, especially in individuals with a history of substance abuse and/or psychiatric problems.
- Members of the controlled drug intelligence network (NHS Fife, Police and Fife Council) should create a governance framework on the prescribing patterns of methadone, benzodiazepines, anti-depressants and other sedative medication, with a particular focus on the prevention of diversion of prescribed substances.
- A comprehensive analysis of seized drugs in Fife will inform the local picture and, in turn, assists in reducing harm to drug takers.
- Police Scotland and Procurator Fiscal Service look at increasing the analysis of seized drugs in Fife, especially street level deals, which will inform the local picture and, in turn, assists in reducing harm to drug takers.

## **A Case Vignette of a Typical Drug Death Victim in Fife in 2012**

The average Drug Death victim from Fife would be a White Caucasian 35 year old male who lived in central Fife. He would have started his substance misuse at the age of 16 years; around that time he would also have left school. He would have gained employment or started an apprenticeship as a labourer. His childhood would have been disrupted; his parents would not have stayed together and he would have had a family history of psychiatric difficulties and/or substance misuse. He may have suffered physical/sexual abuse and/or spent some time in care.

He would have proceeded to misuse a cocktail of drugs and approximately three years after leaving school, he would have started taking heroin. He would have started injecting at around 27 years of age. He would have maintained meaningful and close relationships with his friends and family members throughout his life. He would have had children; however, they would not have lived with him and he would have lost custody of them.

He would have been known to at least 2 services, intermittently, including his GP and the NHS Fife Addiction Services during the 5 years prior to his death. In this time he would have been misusing several types of substances including heroin, benzodiazepines (prescribed and/ or non-prescribed), and methadone. He would also have encountered at least one complex episode of a co-morbid psychiatric or physical health problem with or without instances of drugs overdose and/or self-harm. He would also have experienced other life events, such as bereavement and the loss of a close relationship. He would have criminal record and have served a prison sentence some point during his life.

In the six months before his death he would have been arrested at least once. He would have committed crimes linked to his drug use and have outstanding charges/court cases at the time of his death, for crimes such as theft or shoplifting. At the time of his death, he would be unemployed, living alone or living with other adults and would not have changed accommodation type during those 6 months. He would have been classed as single, but may have been in a volatile, on/off relationship at this time. He would have been close to friends and family members and so would not have been socially isolated. During this time he would have been known to GP and Fife NHS Addiction Services but would not have sought or received pharmacological treatment for his drug dependency. During this time, he would be misusing a cocktail of illicit and prescribed substances.

On the day of this death he would have purchased at least one 'tenner' bag of heroin alongside benzodiazepines. He would have shared these amongst friends/co-users and injected in the presence of them. He would have died in the presence of others and would have been believed to be sleeping and any attempts to revive him would therefore have been delayed. Any means of formal resuscitation such as CPR, if attempted at all, would have been only partially conducted. He would have died at his resident home address.

At post mortem his blood sample would have revealed a cocktail of depressants such as morphine, benzodiazepines, and methadone. His cause of death would most likely have been classed as "Adverse Effects of Heroin".

## **Section 1: Introduction**

### **1.1 Background**

The National Investigation into Drug Related Deaths (DRD) (2005) commissioned by the 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 that involved key agencies to reduce deaths under the auspices of local Alcohol and Drug Partnership (ADP). Prior to October 2009 the ADP was named the Fife Drug Alcohol Action Team (DAAT).

### **1.2 Governance and Structure**

A Fife Drug Deaths group was already in place in Fife since 2003, as a key-working sub-group, accountable to Fife DAAT (now ADP). Initially, the committee met regularly to consider the circumstances surrounding Drug Deaths in Fife in collaboration with the services stated<sup>1</sup>. However, in 2005, the groups made a number of recommendations to the ADP and a subsequent revision of the group structure took place. Between 2005 and 2012 the Fife Drug Death Group was divided into the Fife Drug Death Monitoring and the Fife Drug Death Strategic Group. The former's core responsibility was to profile drug death cases, collect information from a multitude of agencies and then conclude cause of death and provide recommendations to the Fife Drug Death Strategic Group. The role of the Fife Drug Death Strategic Group together with the Fife Overdose Prevention Co-ordinator was to establish a yearly action plan that all agencies in Fife were committed to deliver. These action points contained suggested improvements in clinical and information governance structures and responses, delivering overdose prevention programmes Fife wide through service level agreements and operational guidelines together with a series of educational activities to clinicians and other service providers. In 2013 the Fife Drug Death Strategic Group was changed into the Fife Overdose Prevention Group as a reflection of past achievements in establishing a robust system that allowed a new focus on improving care pathways and further collaborative working environment that is responsive, effective and able to capture 'hidden' populations and others that were deemed to be chaotic but not engaging with services in Fife.

### **1.3 Mission Statement**

The mission statement of the Fife Drug Death Monitoring Group and Fife Overdose Prevention Group is to facilitate a '**Fife wide multi-agency approach to understanding and preventing drug deaths**'.

### **1.4 Ethos and Philosophy of Fife Drug Deaths Group**

The Drug Deaths Groups have two principal functions:

The first aims 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

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<sup>1</sup> Statutory and non-statutory agencies involved in any or all services involved in the provision of a service or care package to the individual prior to their death

questionnaire to all agencies outlined in the Fife ADP Directory of Services as well as Prison Services (SPS). All services are notified of a suspected drug death, and are asked to provide information about those individuals that they have had contact with. Therefore all agencies involved in the provision of a service to the Drug Death (DD) victim, form the *monitoring* component of the group.

The second element uses the information gathered to draw upon trends, similarities, and key themes arising from the drug deaths and aims to formulate strategic action plans to address these issues in order to reduce the number of drug deaths in Fife. This aim fulfils the purpose of the strategic component of the group. Thus, in line with national recommendations, the strategic and/or overdose prevention group endeavours to inform and disseminate good practice, and enhance the provision of care to reduce the growing number of Drug Deaths in Fife.

## **Section 2: Methodology**

This report is a retrospective analysis of trends, similarities and common themes occurring within victims of drug deaths in Fife over the past year (2012). The information contained in this report is descriptive in nature and does not infer that the presented information necessarily identifies risk factors attributable to a drug death. In order to accomplish such a task one would require a controlled sample of a living, drug taking and general population. Instead, the trends and patterns in this report can be treated as factors which commonly precipitate a drug death, rather than cause it.

### **2.1 Population**

In 2012, the Fife Drugs Death Monitoring Group considered a total of 40 cases, which were highlighted as suspected drugs deaths at the time of death.

17 of these individuals were later confirmed (by post-mortem examinations and toxicology) to have died of causes other than the direct effect of illicit substances. However, this number should in no way be treated as an indication of the number of drug related deaths in Fife.

At the time of writing this report, a further 18 individuals were confirmed by post-mortem examinations and toxicology to have died as a direct result of the consumption of illicit substances, that is, as a result of a drug death. For the remaining 5 individuals, the post-mortem and toxicology reports were not available at the time of writing this report. However, these individuals are nevertheless included in the present report on the basis of the circumstances of the deaths, which strongly suggest consumption of illicit substances and no indication of other causes of death.

Therefore, the population of drugs death in Fife in 2012 consisted of 23 individuals, the circumstances of which are described in detail in Section 3 of this report.

### **2.2 Definition of a Drug Death (DD)**

The definition of a Drug Death (DD) is complex, with individual studies adopting specific definitions, which vary depending upon the focus of the study. The Scottish Criminal Drugs Enforcement Agency (SCDEA) defines 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 complexity of providing a suitable definition of what constitutes a drug death 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; p7). This definition allows the incorporation of deaths indirectly associated with drug abuse, which would be excluded by the SCDEA, such as chronic intoxication, suicide, drug abuse-related accidents and drug-abuse related diseases.

This definition is similar, but not identical, to the definition employed by the General Register Office for Scotland (GROS). The GROS 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.

Any deaths resulting from the overdose of a controlled substance in the year 2012 have been included and considered in this report.

The ICD-10 inclusion and exclusion criteria of what constitutes a drug death presented below are used by various national investigations into drug deaths, e.g. GROS, 2008 and The National Investigations into Drug Related Deaths 2003 (Zador et al., 2005) and Drug Misuse Statistics Scotland (ISD, 2008). Subsequently, the Fife Drug Death Monitoring and Strategic Groups conform to this definition of a drug death. However, based on the experience of the Fife Drug Death Monitoring Group, we are aware that the interpretation of this definition can, in practice, be rather subjective. As such, we may be excluding deaths that might in other settings be considered a drug death, and vice-versa.

### **2.3 Inclusion Criteria: ICD-10**

Drug Deaths, where the underlying cause of death has been coded to the following sub-categories of 'mental and behavioural disorders due to psychoactive substance use';

a)

- (i) opioids (F11)
- (ii) cannabinoids (F12)
- (iii) sedatives or hypnotics (F13)
- (iv) cocaine (F14)
- (v) other stimulants, including caffeine (F15)
- (vi) hallucinogens (F16); and
- (vii) multiple drug use and use of other psychoactive substances (F19)

b) Deaths coded to the following categories and where a drug listed under the Misuse of Drugs Act (1971) was known to be present in the body at the time of death:

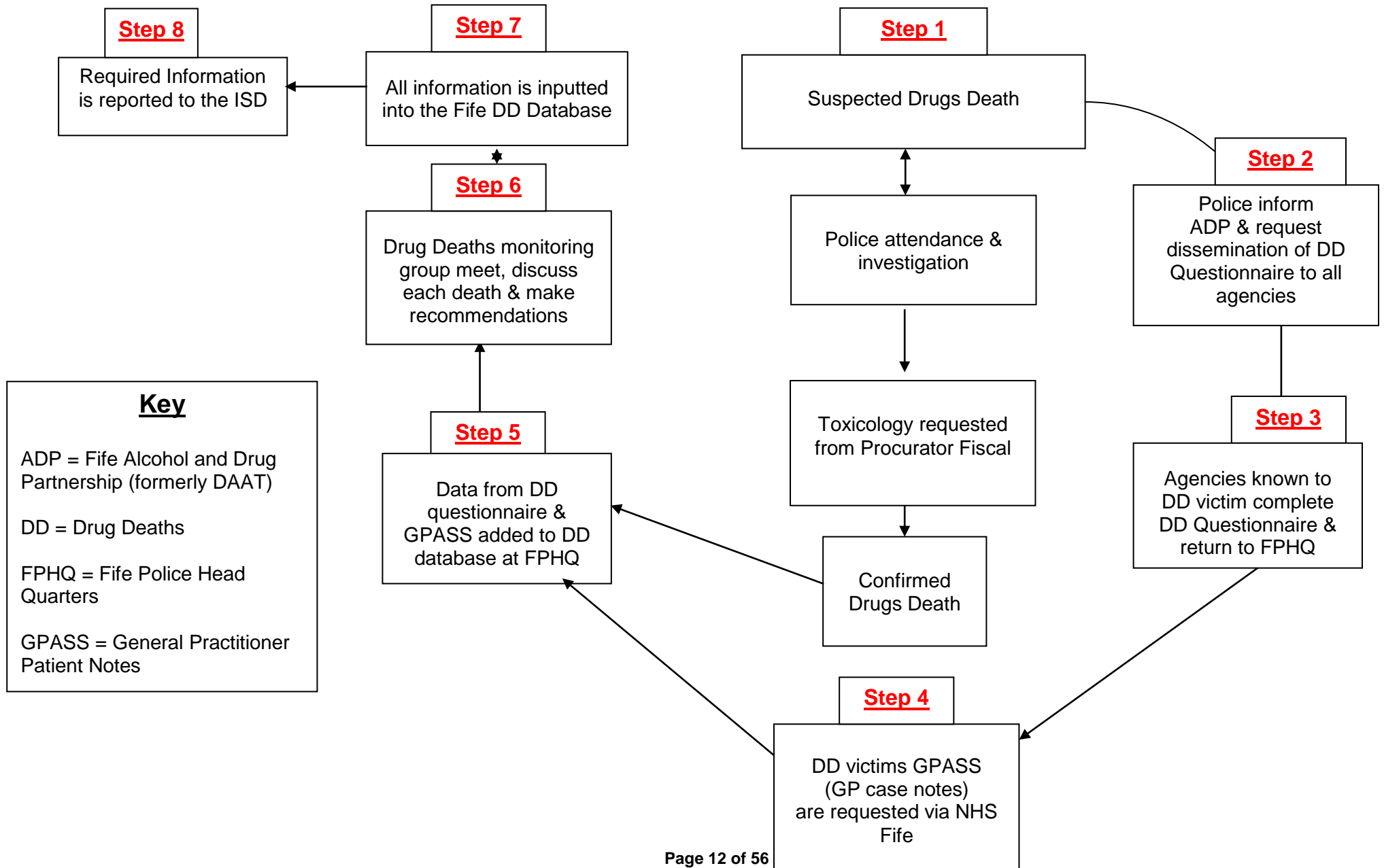
- (i) accidental poisoning (X40-X44);
- (i) intentional self-poisoning by drugs, medicaments and biological substances (X60—X64);
- (ii) assault by drugs, medicaments and biological substances (X85) and
- (iii) event of undetermined intent, poisoning (Y10-Y14)

### **2.4 Exclusion Criteria**

- (a) deaths coded to mental and behavioural disorders due to the use of alcohol (F10), tobacco (F17) and volatile substances (F18)
- (b) deaths coded to drug abuse which were caused by secondary infections and related complications (e.g. septicaemia)
- (c) deaths from AIDS where the risk factor was believed to be the sharing of needles;
- (d) deaths where a drug listed under the Misuse of Drugs Act was present because it was part of a compound analgesic or cold remedy, e.g.:
  - Co-proxamol: Paracetamol, dextropropoxyphene
  - Co-dydramol: Paracetamol, Dihydrocodeine
  - Co-codamol: Paracetamol, codeine sulphate

All three of these compound analgesics have, particularly co-proxamol, been used in suicidal overdoses.

**2.5 Step by Step Processes Involved in Information Gathering**





## **2.6 Step-by-step Guide to Data Collection**

### **Step 1.**

A suspected Drugs Death occurs in Fife 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 ADP, which in turn disseminates the Fife Drug Death Questionnaire (Appendix C) to all relevant agencies for completion. At this point, Fife Constabulary also request toxicology from the Procurator Fiscal<sup>2</sup>.

### **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 Fife Police Headquarters for the attention of the Drug Death Monitoring Group.

### **Step 4.**

Police inform NHS Fife of the victim's GP details and the GP notes are requested on behalf of the Drug Deaths Monitoring Group.

### **Step 5.**

All questionnaires, case notes and post-mortem/toxicology reports are returned to FPHQ where details are entered into the DD Database. This is generally achieved in a six to eight week period from the time of death.

### **Step 6.**

The Fife Drug Death Monitoring Group meets and discusses each death and make recommendations. The group meet every eight weeks.

### **Step 7.**

All information is finalised in the Fife Drug Death Database.

### **Step 8.**

The Drug Death Researcher, on behalf of the Fife Drug Death Monitoring Group, reports each Drug Death, alongside all the detail required of the death to the ISD within 8 weeks of the death.

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<sup>2</sup> This was a serious limiting factor for the collection of timely and confirmed drug death reports in 2012, with some cases taking 8 months or more to receive either a toxicology or post mortem report. The Group is still not able to get clarification from the Procurator Fiscals about what the actual reasons for these delays are and, more worrying, the same delays are still being encountered in the collection of toxicology reports for the 2013 cases.

## **2.7 Protocol and Creation of the Drug Deaths Database**

The template utilised in creating the Fife Drug Deaths (DD) Database was 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 contains the following domains:

1. Demographic Characteristics
2. Life Context and Social Functioning
3. Criminal Justice Issues and Offending History
4. Substances Use History
5. Physical and Psychological Health
6. Service Provisions
7. Additional information

The questionnaire is updated when required, and in 2009 a new version (v3.0) of the Fife Drug Death 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, NHS Fife Addiction Services and voluntary bodies such as FIRST and DAPL). Upon completion, the questionnaire(s) are returned to the committee and information pertaining to the domains outlined above is entered into the database. In order to adhere to data protection principles, data is anonymised where possible, and coded accordingly. The database is securely held on a stand-alone machine and housed within the Fife Police Headquarters. All governance and data-sharing between the statutory and non-statutory agencies in Fife (known as the 'gold standard') have been formalised and approved.

## **2.8 Drug Deaths Database**

The main source of information for the current report was the Fife Drugs Death Database (EXCEL/SPSS), which holds all data on Drugs Deaths that have occurred within the Fife area since 2005.

## **2.9 Data Analysis**

For the purposes of the present report, data contained within the Drug Deaths 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 Chairman of the DD group. Data collection processes also involved constant liaison with group members PC Kenny Cameron and Cheryl Young for access to various police sources. 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 outlines above
4. Data analysis (via Excel/SPSS) and interpretation/synthesis
5. Presentation of results

## **2.10 Data Collection Sources**

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

<b>Domain</b>	<b>Sources Used</b>
1. Demographic Characteristics	- Sudden Death Report
	- SCDEA
	- Fife Drug Death Questionnaire
2. Life Context and Social Functioning	- Sudden Death Report
	- SCDEA
	- Social Work Notes, Social Enquiry
	- Criminal Justice Service Reports
	- Psychiatric Reports
	- GP Notes and Correspondences
	- Fife Drug Death Questionnaire
3. Criminal Justice and Offending	- CHS (Criminal History System)
	- Crime File
	- Sudden Death Report
	- Post-Mortem/Toxicology Reports
	- Fife Drug Death Questionnaire
4. Substance Use History	- Sudden Death Report
And	- GP Notes and Correspondences
5. Physical and Psychological Health	- Fife Addiction Service Notes
	- Psychiatric Reports
	- Social Work Notes
	- Fife Drug Death Questionnaire
6. Service Use History	All of the above sources
7. Additional Information	All of the above sources

## **2.11 Missing Data**

The availability or 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 Fife Drug Death Questionnaire and access to GPASS has enabled the DD group to gain a greater insight into the established life domains of the DD victims of 2012 than has been possible in previous years. 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.

## **Recommendations**

- As a matter of urgency, resolve delays now incurring in receiving toxicology and/or post mortem reports from the Procurator Fiscal Services. This is very important as the lack of timely information has a direct and adverse effect on our ability to maintain a 'live' and effective drug death profiling process that could contribute to further reduction in the number of fatal overdose events in Fife.
- Continue the Fife Drug Deaths Database to produce and report data, both annually and accumulatively on a three year basis.
- Assess the future potential to examine cases not categorised as drug deaths, but as drug related deaths.
- Further investigation into helping to narrow the gap of recording of drug deaths by the Police Scotland and Information Services Division (ISD) NHS Scotland and General Register Office of Scotland (GROS).
- Explore the possibility of utilising psychological autopsy techniques with the relatives of the deceased in order to improve the quality of the data collected on these individuals.
- Look for further funding to compare a group of drug death victims with a matched sample of treatment seeking drug users.
- Encourage a collaborative approach to data sharing between several initiatives (e.g. suicide, alcohol related deaths, road deaths) in order to enhance the understanding of deaths in the substance using population.

### **2.12 Format of Results**

The results of the present report are, as previously stated, analysed from a descriptive perspective and are then compared and contrasted to drug deaths at a Scottish national and UK-wide level. For the purpose of clarity, the structure of the present report does not directly reflect the layout of the Fife Drug Death Questionnaire; instead, the results section (Section 4) is divided into the following series of sub-sections:

- 1 - Demographic Characteristics
- 2 - Life Context and Social Functioning
- 3 - Criminal Justice and Offending
- 4 - Physical, Psychological/Psychiatric Health and Significant Life Events
- 5 - Substance Misuse Histories
- 6 - Service Use Histories
- 7 - Circumstances of the Deaths
- 8 - Toxicology Results
- 9 - Pharmacology of Heroin in Fife

## **Section 3: Results**

### **3.1 Demographic Characteristics**

This section describes patterns surrounding the incidence and location of drug deaths. It also considers gender, age and ethnicity of drug death victims.

#### **3.1.1 Incidence and Prevalence of Drug Deaths**

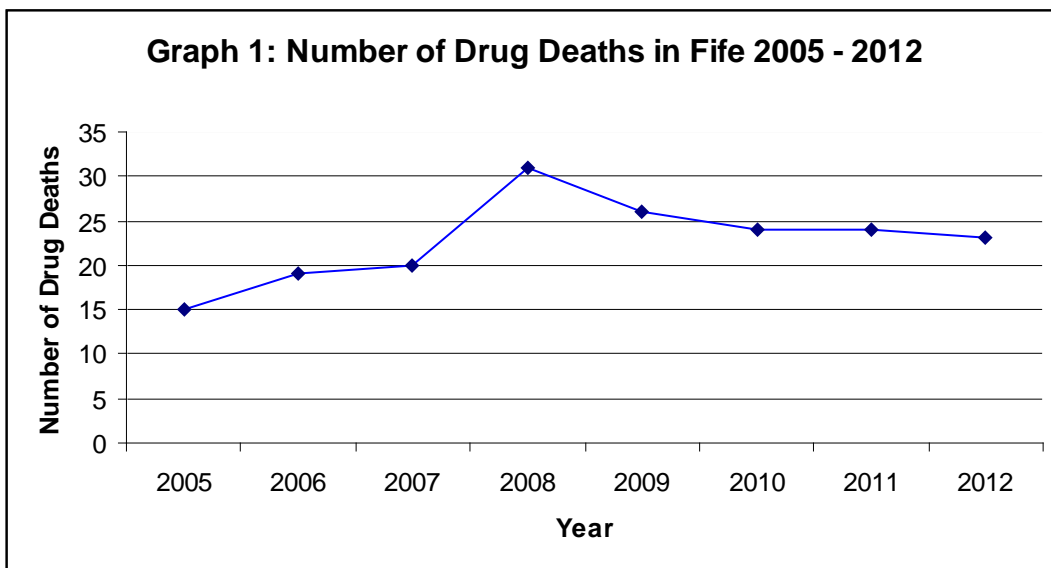
In 2012 the Fife Drug Death Monitoring Group reviewed 40 cases including drug related, non-drug related and drug deaths cases. All of these 40 cases were discussed and reviewed in clusters, which enabled the group to focus on the individual circumstances surrounding each death.

The group's definition of a drug death considers those deaths that are directly attributable to the overdose of an illicit substance and not the broader scale of deaths including deaths from accidental injury, blood borne viruses and suicides, even if these involve illicit substances.

Toxicology reports and discussions identified a total of 17 cases which did not conform to the group's definition of a drug death. However, these excluded deaths should in no way be taken as an indication of the number of drug related deaths in Fife in 2012.

The remaining 23 cases are included as drug deaths in the present report. 18 of these cases have been confirmed by post-mortem examination and toxicology reports as drug deaths. For the remaining 5 cases, the post mortem and toxicology reports were not yet available at the time of writing this report. These cases are nevertheless included as drug deaths in the present reports on the grounds of the circumstances of these deaths strongly suggesting that they occurred as the direct result of the consumption of controlled substances.

**Graph 1: The Prevalence of Drug Deaths in Fife 2005-2012**



Since 2005, there have been a total of 182 drug deaths in Fife. Graph 1 displays the difference in the trends over time between 2005 and 2012 inclusive. Between 2005 and

2008 there was an increase in the number of drug deaths each year. 2009 was the first year which showed a reduction in drug deaths, a trend which has continued until 2012.

**Key Points**

- Fife had a total of 23 Drug Deaths in 2012
- Since 2005, the number of drug deaths in Fife has increased annually until 2008. However, since 2008 then the trend has indicated a reduction in the number of drug deaths on an annual basis
- Drug related death cases are not officially recorded

**3.1.2 Residency of DD victims within Fife**

Of the 23 drug deaths in Fife in 2012, 4 occurred in North-East Fife, 7 in West Fife and 12 in Central Fife. However, the population in these areas differ substantially and in order to get an accurate reflection of drug death rates, the death rates of individuals per 1000 individuals of the population is considered. The calculation of the number of DDs per 1000 of the population corresponding to the location of the drug death enables identification of DD hotspots.

The DD rate per 1000 of the population has been calculated according to geographical area. Table 1 displays the towns that constitute East, West and Central Fife, as well as the population of each area.

**Table 1: Population of the Geographic Areas within Fife<sup>3</sup>**

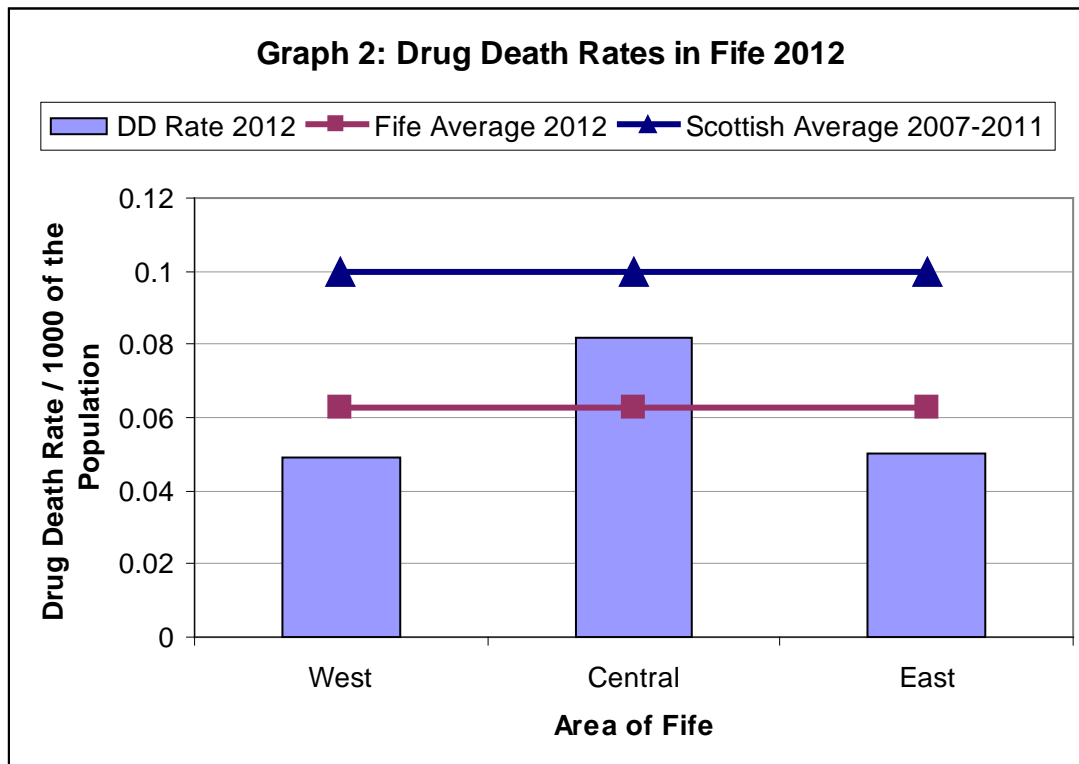
<b>Central</b>	<b>East</b>	<b>West</b>
Buckhaven Glenrothes Kennoway Kirkcaldy Leven Methil	Anstruther Cupar Guardbridge St Andrews	Cowdenbeath Dunfermline Rosyth
<b>145,760</b>	<b>77,298</b>	<b>144,312</b>

Across the whole of Fife, the rate of drug deaths per 1000 was 0.063 in 2012. This is below the 2007-2011 Scottish average rate of 0.10 DDs per 1000<sup>4</sup>. However, when considering the separate geographical areas of Fife, the rates differ substantially; most DDs occurred in central Fife (0.082 per 1000), followed by eastern Fife (0.05 per 1000) and finally western Fife (0.049 per 1000). This pattern is similar to those observed in previous years and is summarised in Graph 2 below:

<sup>3</sup> This information was obtained from the General Register Office (GRO)

<sup>4</sup> This information was obtained from the General Register Office (GRO)

**Graph 2: DDs in Fife by Geographical Area per 1000 of the Population in 2012**



The majority of DDs in 2012 occurred in the victim's own homes (15 out of 23, or 65%); in these cases the hometown reflects the town of death. Four drug death victims died in a hospital A&E department; however, in all of these cases the victims consumed the illicit drugs which killed them in their home towns. Two victims had no fixed abode, but these also died in the areas where they tended to stay. The remaining two victims died at addresses different to their own; however, in each case the locus of death was in their hometown, and no further than 2.1 miles from their own homes.

Together, these results indicate that in 2012 all DD victims died in close proximity to their homes. Thus, we can assume that it is likely that they did not have to travel far to obtain their drugs and elevated death rates in specific locations are not as a result of individuals travelling to those areas in order to obtain the drugs.

### **Key Points**

- The average drug death rate in Fife in 2012 (0.063 per 1000) was lower than the 2007-2011 Scottish average rate of 0.10 per 1000
- The central area of Fife had the highest incidence of drug deaths

### **3.1.3 Gender and Ethnicity**

The majority (91%) of Fife DD victims in 2012 were male. While the gender ratio of drug death victims consistently includes more males than females, this year the proportion of male victims is particularly high, with a male: female gender ratio of 21:2. In comparison

with this, across the whole of Scotland, 73.5% of all drug death victims were male in 2011<sup>5</sup>.

Almost all (95.7%) of the drug death victims were white Caucasian, the predominant ethnicity in Fife.

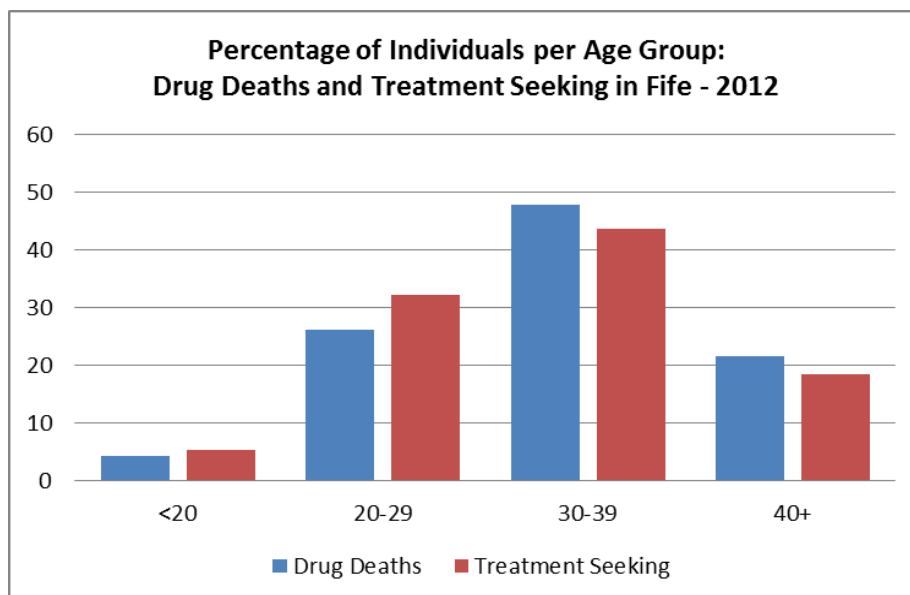
### 3.1.4 Age

The age of DD victims in 2012 ranged between 19 and 57 years, with a mean age of 35.52 years, which indicates a slight but steady increase in the average age of death seen in since 2005. This is consistent with national patterns, where the median age of drug death victims has increased from 26 in 1996 to 37 in 2011.<sup>6</sup>

The drug death victims in Fife in 2012 span a wide range of ages. When broken down into separate age categories spanning 10 years each, the results show a relatively even distribution of ages of the DDs victims. 26.1% of victims were between the ages of 20-29, and 47.8% were between the ages of 30-39 at the time of their deaths. 21.7% of drug death victims were 40 years of age or older. Only one victim (4.3%) was aged 19 years and under which challenges the commonly held public belief that DD victims are in their late teens.

While there appears to be a trend for the individuals to die due to a drug death at a slightly later stage in life as compared to previous years, the majority of individuals seeking substance misuse treatment for the first time in Fife<sup>7</sup> were also within the 30-39 year age group. These figures are summarised in graph 3 below.

Graph 3: Ages of Drug Death Victims and Individuals Seeking Substance Misuse Treatment



This indicates, for the first time, that these figures are relatively evenly matched. However, the drug death victims had, on, average, a long drug using career by the time that they died, indicating that either they thought treatment only shortly before their deaths, or were already in treatment and therefore not accurately captured in this representation.

<sup>5</sup> Taken from the 2011 GROS figures

<sup>6</sup> National figures are calculated using median

<sup>7</sup> These figures were obtained from the ISD and are for the year ending March 2012



### **Key Points**

- 95.7% of Fife drug death victims were White Caucasian
- 91.3% of the victims were male – a higher proportion than in previous years
- The mean age of the Fife drug death victims in 2012 was 35.52 years
- DD victims were aged between 19 and 57 years of age at the time of their deaths, with a relatively even spread between those ages

### **Recommendations:**

- Identify drug death hotspots within geographical areas in the three year report and target interventions accordingly

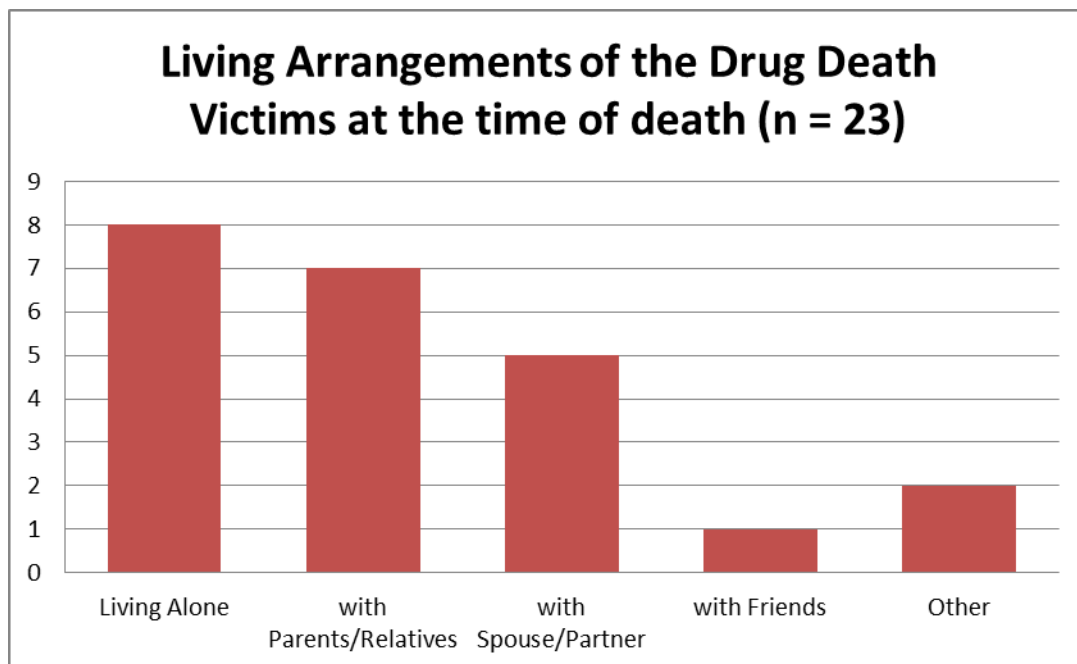
### **3.2 Life Context and Social Functioning**

This section describes drug death victims' accommodation and living arrangements at the time of their death and in the six months preceding their death. This section also considers information relating to employment, both directly after school and at the time of death and patterns surrounding the individuals' relationships with both family and friends.

#### **3.2.1 Housing and Living Arrangements**

Graph 1 below specifies the living arrangements of the DD victims at the time of their deaths.

**Graph 1: Living arrangements of DD victims**



While 34.8% of DD cases were living on their own, the majority (56.5%) were living with others; that is, their partners, parents, relatives or friends at the time of their death.

A total of two individuals were described by reporting services as “homeless” at the time of their deaths. These two individuals had no fixed abode at all, with their lifestyles being described in reports as a “nomadic lifestyle”. Their exact sleeping arrangements of these individuals prior to their deaths are difficult to ascertain, but it appears that they were primarily staying with various friends.

When considering the housing status of the drug death victims, it is important to recognise that in many cases the living arrangements varied frequently, and the lifestyles of a number of these individuals were described as “chaotic”. As such, for 4 (19.4%) victims, had two or more different types of living arrangements identified in the six months prior to their deaths. In two of these cases, this was because they had been incarcerated in the 6 months prior to their death, and in the remaining two cases this was due to changes in the individuals' relationship status.

Whilst the living arrangements were known for all DD victims, the exact accommodation type was not always easy to ascertain. However, five individuals (21.7%) lived within the parental home, and two individuals (8.7%) lived in accommodation provided by the Kingdom Housing Association. Most individuals resided in some form of private accommodation, which was often rented from Fife Council. However, the exact numbers are difficult to quantify, as this information is rarely recorded by services.

Overall, these results suggest that the majority of DD victims were living in relatively stable environments. Furthermore, the fact that the majority of DD victims were living with others suggests that they may have been supported by a network of friends and families. It also indicates that amongst the chaos of their drug use they were able to sustain relationships with others, which is the focus of the next section of this report.

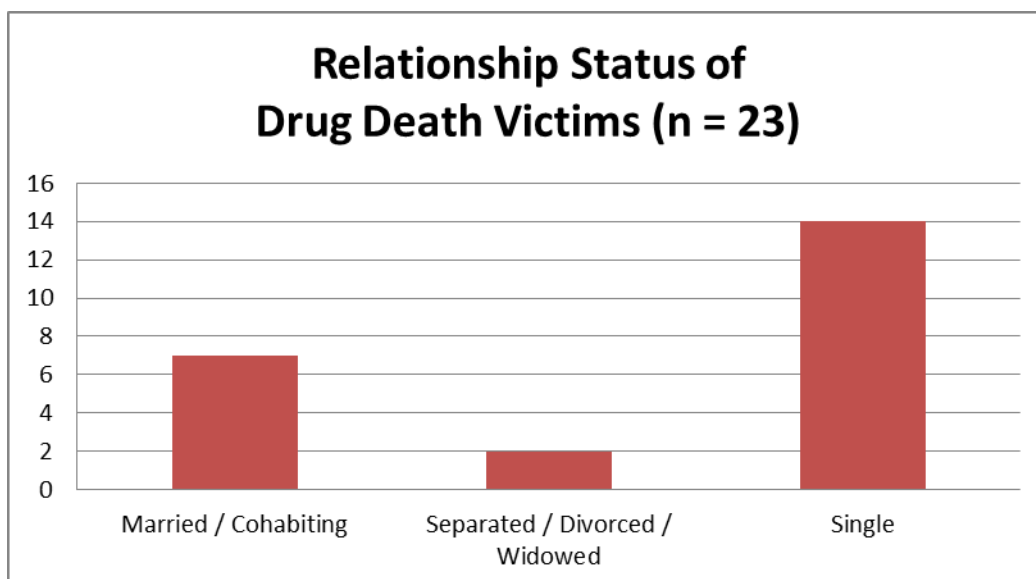
### Key Points

- While a substantial proportion of drug death victims lived alone (34.8%), the majority (56.5%) were living with others at the time of their deaths
- The living arrangements of drug death victims at the time of their deaths did not differ much from those of the six month prior to death, except in those cases where the person had been incarcerated during that time or experienced a change in relationship status

### **3.2.2 Relationship and Family Information**

The relationship status of the drug death victims at the time of their deaths was also considered, since it provides an indication of the level of social support available to them. Graph 2 below shows the relationship status of individuals at their time of death.

**Graph 2: Relationship status of DD victims at time of death in 2012**



Whilst a large proportion (60.9%) of drug death victims were classified as single at their time of death, a number of these individuals were nevertheless involved in a romantic relationship of some duration immediately prior to their death. As such, four of the victims

who were classed as single, divorced or separated were actually in some form of relationship at the time of their deaths.

Of these 23 drug death victims, two (8.7%) had a partner who also had a substance or alcohol misuse problem and five (21.7%) were known to have experienced significant difficulties within these relationship, including domestic abuse. For these individuals, their drug misuse use was probably perpetuated by their environment. Since this information is not recorded routinely, this figure may, in reality, be higher.

### ***3.2.3 Relationship with Children***

Information pertaining to whether or not the drug death victims had any children was available for all victims and collected mainly from police reports and information provided by social work services. Although the majority (n = 14 or 60.9%) of the drug death victims had children, this does not imply that they were directly responsible for their welfare. In fact, in only three (21.4%) of these cases were the children living with the drug death victim at their time of death.

Details of where the children of the remaining 11 drug death victims were living at the time of death are often difficult to ascertain from records. However, this information is becoming more available on an annual basis. Three individuals had children over the ages of 18; in these cases the children lived elsewhere and were presumably self-sufficient. The remaining 8 (34.8%) victims had children under the age of 16, who were living elsewhere, often with the other parent or in kinship or regular foster care.

In total, 23 individuals lost a parent as a result of a drug death in Fife in 2012. Twenty of these children were under the age of 18 and five children lost a primary caregiver.

### ***3.2.4 Friendships and Relationships***

Information about the nature of relationships the drug death victims held with friends was also considered. However, information relating to the family relationships and especially friendships is often difficult to ascertain.

Nevertheless, 17 individuals (73.9%) were known to have a close relationship with a family member. In most of these cases (76.5%), this close relationship was shared with a parent, but the drug death victims also enjoyed close relationships with siblings and other family members. 35.3% had close relationships with multiple family members.

Furthermore, 12 individuals (52.2%) also had close and lasting friendships.

However, the drug death victims also experienced difficulties in these relationships. As such, five victims (21.7%) had a family member and nine victims (39.1%) had at least one friend who also had a substance misuse problem. Furthermore, four individuals (17.4%) also experienced significant difficulties in these relationships, including severe and frequent altercations and even assault.

The fact that many drug death victims had engaged in a relationship shows that they were not socially isolated as a result of their drug use and had managed to maintain meaningful relationships with others, including those outside the drug using community. This suggests that there was perhaps some degree of social support available to the drug death victims as they did have relatives and friends to whom they could turn for support if it was needed.

There is a support base, that can be tapped into provide important information relating to overdose and drug misuse that could be cascaded to not only the drug using, but wider spectrum of the community.

### **Key Points**

- While the majority (60.9%) of drug death victims were classed as single, most were in some form of relationship at the time of their deaths
- The majority (60.9%) of victims had children; however, 78.6% of these did not live with their children
- 23 individuals lost a parent as a result of a drug death in Fife in 2012
- The majority of drug death victims were not socially isolated; many reported a close relationship with a family member (73.9%) or a close friendship with another person (52.2%)
- At the same time, a substantial number of drug death victims were known to also have significant difficulties in these relationships

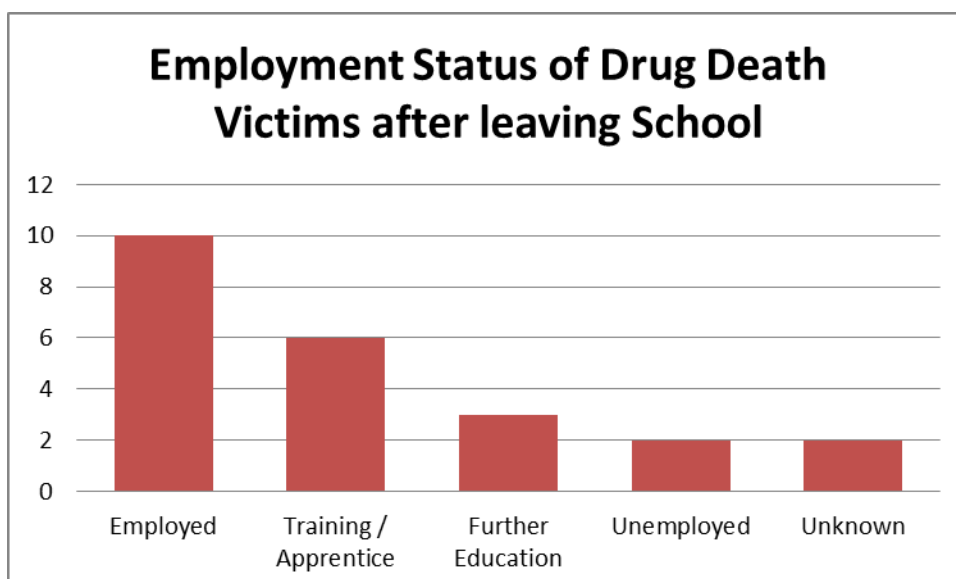
### ***3.2.5 Education and Employment Status after Leaving School***

The mean age at which drug death victims left school was 16 years; however, this information was only known for 17 of the 23 individuals (73.9%). Only four individuals (17.4%) were known to have left school with some qualifications, while thirteen eventual drug death victims (56.5%) were known to have left school without any qualifications.

After leaving school, the majority of DD victims (90.5%) were engaged in some form of meaningful or productive activity; the remaining 9.5% were unemployed. (This information was not known for two of the victims).

The type of activity DD victims engaged in after school is displayed in Graph 3 below. The specific details of their employment were generally not known.

**Graph 3: Employment Status of DD Victims after Leaving School**



### **3.2.6 Employment Status at the Time of Death**

At the time of their deaths, the majority of drug death victims were unemployed (78.3% or 18 individuals). Only five victims (21.7%) held some form of employment at the time of their deaths. Of those who were unemployed, all were in receipt of some kind of state benefit. Thirteen individuals (56.5%) were known to engage in criminal activities to supplement their incomes.

There is a large discrepancy between the employment status of individuals post school education and immediately prior to death. This is perhaps not surprising given that DD victims had a prior history of drug abuse starting around the age of 16.9 years. Although on average, individuals did not die as a result of their drug abuse until the age of 35 years, they were abusing drugs from the age of 17. These figures provide an indication of the chronicity of their substance misuse and subsequent impact of this on their quality of life.

Overall, the information on employment status indicates that this is a population with a broad range of skills and occupations, of which many entered employment, pursued training apprenticeships and a minority went into further education after leaving school. Few were unemployed after leaving school. However this trend was reversed immediately prior to death with large number of DD victims being unemployed and few being in any meaningful form of employment. These findings are consistent with the national investigation into drug related deaths (Zador *et al.*, 2003).

#### **Key Points**

- The mean age at which the drug death victims left school was 16 years
- Most of the drug death victims were engaged in some form employment or education after leaving school
- Only 9.5% were unemployed after leaving school. However this figure was reversed directly before death, at which point 78.3% of drug death victims were unemployed

#### **Recommendations**

- Harness opportunities for overdose awareness training of individuals most likely to be providing support to the drug death victims
- Explore opportunities to extend drug prevention programmes to young people who leave school (approximately aged 16-20).

### **3.3 Criminal Justice and Offending**

The present section examines the drug death victims' criminal and offending history in more detail. History of incarcerations is also considered.

#### **3.3.1 History of Offending**

The criminal justice and offending histories of all drug death victims (n = 23) were known and considered. 22 out of the 23 individuals (or 95.6%) had recorded criminal histories. However, in three cases these histories related to minor offences which were not drug related. As such, 19 individuals (82.6%) had significant criminal histories. 91.3% of the drug death victims (n=21) had been arrested at some points in their lives; in 12 (57.1%) of these cases the individual had been arrested, at least once, in the six months prior to their death. Seven of these individuals disclosed their substance misuse problems and five individuals disclosed mental health problems at the time of their arrests (within 6 months prior to their deaths).

39.1% (or 9 out of 23) drug death victims had outstanding charges or court cases at the time of their deaths. Of these individuals, two were scheduled for court appearances, three had been charged with theft and/or shoplifting, two had outstanding charges of assault and one had been charged with driving under the influence of alcohol. Five victims had multiple outstanding charges at their time of death, involving a combination of theft, assault, misuse of drugs and breach of peace charges.

#### **3.3.2 History of Incarcerations**

Eleven (or 47.8%) of drug death victims had served a prison sentence some point during their lives. Only two of these individuals had been in prison in the 6 months before their death.

**Table 1: Number of DDs occurring following prison release**

<b>Time since most recent prison release</b>	<b>No. of DD victims (n = 11)</b>
Up to 2 weeks	1
2 weeks to 1 month	0
2 to 6 months	1
6 months to a year	2
More than a year	7

As shown in Table 1, of the 11 individuals who had served a prison sentence at some point in their lives, only one died within 2 weeks of being released from prison. While incarcerated, a number of individuals had received and participated in overdose prevention programmes prior to their releases. However, it was not possible to ascertain whether any of these individuals had been supplied with "take-home-Naloxone" at the time of their release from prison.

### **3.3.3 History of Court Enforced Interventions**

The question of whether drug death victims had been subject to any legal interventions prior to their deaths was also considered. However, no individual was known to be subject to a court enforced intervention in the 6 months prior to their deaths.

#### **Key Points**

- 91.3% of drug death victims had at least one lifetime arrest
- 57.1% of the drug death victims who had been arrested, were arrested at least once in the 6 months prior to their death
- 47.8% of the drug death victims had served a prison sentence at some point during their lives
- Only 18.2% of the drug death victims who had served a prison sentence had done so in the 6 months before their death
- Only one drug death victim died within 2 weeks of the date of their release from prison
- Court enforced interventions at the time of death are rare

#### **Recommendations**

- The fact that 91.3% of drug death victims had been arrested at some point in their lives provides an opportunity for early intervention through the development of an arrest treatment and referral scheme in Fife
- Explore opportunities for custody-based environments to work closer with healthcare systems to deliver targeted overdose interventions.



### **3.4 Physical/Psychological Health and Significant Life Events**

This section explores the types of physical and psychological/psychiatric suffered by the drug death population in Fife, with a particular emphasis on co-morbidities and adverse life events.

#### **3.4.1 Psychiatric/Psychological Problems**

Fourteen of the 23 drug death victims (or 60.9%) were known to have psychiatric or psychological difficulties.

By far the most common problems experienced were mood disorders; twelve individuals suffered from clinical or sub-clinical depression and one individual had been diagnosed with bipolar (manic-depression) illness.

A number of individuals suffered from anxiety-related problems; three individuals were prescribed medication to manage their anxiety.

One individual had been formally diagnosed with Borderline Personality Disorder (BPD) and another had been diagnosed with Schizophrenia.

At least four of the above cases suffered from complex and multiple psychiatric difficulties.

Furthermore, seven drug death victims (or 30.4%) were known to have self-harmed at some point in the past, and four (17.4%) had attempted suicide at least once.

#### **3.4.2 Physical Health Problems**

Eleven of the 23 drug death victims (or 47.8%) suffered from significant physical difficulties.

Common problems included Hepatitis C (n = 6), respiratory problems (n = 6) and deep vein thrombosis (n = 4). Eight individuals (34.8%) experienced multiple and severe health problems alongside their substance misuse.

Consistent with the trend of previous years, in at least four DD victims this year there was an identifiable connection between chronic pain and substance dependence.

#### **3.4.3 Significant Life Events**

In their own childhoods, the drug death victims may also have experienced adversity. Of the 23 drug death victims, 73.9% had parents who did not stay together (or were never together) as a couple throughout their childhoods. Just above half of the victims (56.5%) had regular contact with both parents in their childhood. Four (17.4%) experienced unstable living conditions and five (21.7%) experienced instability in their secondary education. Eight eventual drug death victims (34.8%) were known to have experienced significant adversity in childhood, including physical, sexual and/or emotional abuse.

Sixteen drug death victims (69.6%) were known to have experienced significant adverse life events in their adult lives, with many individuals having suffered multiple life events.

The number and type of life events recorded in case notes/DD questionnaires are summarised in the table below:

**Table 1: Number and Type of Life Events Recorded in Case Notes/DD Questionnaires**

Life Event	No. of individuals	% of individuals
Severe Accident	6	26.1%
Assault (including domestic abuse)	5	21.7%
Child custody issues	5	21.7%
Recent Bereavement	4	17.4%
Homelessness	3	13.0%
Relationship Break-up	2	8.7%

The most common life event impacting the lives of drug death victims at the time of their deaths were accidents, assaults and bereavements. The loss was often recorded as that of a parent, child, or close friend.

At a basic level, the above information provides an indication of the level of instability of these individuals in their lives. Their personal histories show that these drug death victims experienced abuse, sexual/physical and/or emotional, significant losses/life events, which may have in turn been precipitating, maintaining and/or consequential factors of their substance misuse. There is also an indication that drug use is generational.

Sadly, in some cases the drug death victims' siblings, parents or other family members were not only substance users but also drug death victims themselves. The adverse life events experienced by drug death victims convey a sense of vulnerability, which may have led to the formation of coping by means of substance misuse and therefore impacted negatively upon their abilities to manage adversity in their adult lives.

**Key Points**

- The majority of drug death victims (60.9%) suffered from psychological or psychiatric difficulties, the most common of which were depression and/or anxiety
- Just under half of the victims (47.8%) also had significant physical difficulties
- 69.6% of drug death victims were known to have experienced a significant adverse life event in their adult lives
- Most common adverse life events included bereavement, accidents and assaults

**3.4.4 Co-morbidity**

Up until this point, the psychiatric problems, physical problems and life events of these individuals have been examined in isolation. In reality, however, individuals often suffer from a combination of these factors. The concept of co-morbidity can differ widely in terms of context and interpretation. For example, an ongoing issue is whether or not co-morbidity should be viewed over the course of a lifetime, or within a predefined context (Todd et al., 2004). For the purposes of this report, analysis of the victims' co-morbid health problems precede in the context of multiple physical, psychological/psychiatric, and substance

misuse morbidities over the course of their lives, as opposed to a specific point in their lives.

The table below summarises the combinations of physical and psychiatric/psychological difficulties<sup>8</sup>, as well as life events experienced by the DD victims in connection with their substance abuse.

**Table 2: Combinations of Co-morbidity with Substance Misuse Experienced by DD victims (n=26)**

<b>Combinations</b>	<b>No. of Individuals</b>	<b>% of Individuals</b>
Physical difficulties alone	0	0 %
Psychological difficulties alone	1	4.3%
Life Event alone	3	13.0%
Physical + Psychological	2	8.7%
Physical + Life Events	2	8.7%
Psychological + Life Events	4	17.4%
Physical + Psychological + Life Events	7	30.4%

As demonstrated by the table above, the combined effects of physical and psychological difficulties, together with life events, are far more prevalent in this population than these difficulties on their own. The vast majority of DD victims (65.2%) had experienced a combination of significant physical and psychological difficulties and life events alongside their substance misuse problems. Only four individuals (17.4%) had no documented difficulties apart from their substance misuse.

### **Key Points**

- The majority of drug death victims (65.2%) had experienced a combination of psychological and physical difficulties as well as life events alongside their substance misuse problems

### **Recommendations**

- Continue to monitor emerging populations with complex episodes of physical, psychological and substance misuse problems
- Facilitate the process of identifying complex cases and establish a means of providing therapeutic support to vulnerable adults such as via the Adult Vulnerability Act
- Encourage shared assessment and exchange of information amongst services, particularly when it comes to crisis events
- Aim for more assertive outreach to vulnerable individuals
- Work closer with service providers within the Fife Mental Health Consortium, such as mental health services, Choose Life and psychiatric services
- Provide support and advice to Integrated Care Pathway (ICP) Programmes in Fife on the issue of comorbidity
- Continue to closely monitor the life events of drug users and their possible impact on overdose risks.
- Encourage current healthcare systems to identify and monitor vulnerable individuals early in their life cycle.

<sup>8</sup> For the purpose of this table, past self-harm or suicide attempts are included as psychological difficulties

### **3.5 Substance Misuse Histories**

The present section further examines the substance misuse histories of the drug death victims; including the age at which they started misusing illegal substances, lifetime injecting characteristics and overdose histories.

In the 6 months prior to death, all but two of the drug death victims (n = 19, or 91.3%) were known to have misused prescribed and non-prescribed drugs in combinations of two or more, including at least one of the following; Heroin, Methadone, Benzodiazepines, Anti-Depressants (prescribed and non prescribed) and Alcohol. This also confirms previous findings of the Fife DD which suggest that almost all DD victims are poly-drug users.

Furthermore, all victims were known to have consumed prescribed or non-prescribed drugs in the seven days leading up to their deaths.

While the focus of this report is on drug deaths occurring as a result of illicit substances, it is nevertheless worth noting that the majority of DD victims (13 individuals or 56.5%) were also known to have severe problems with their alcohol consumption. However, for eight of those individuals, the alcohol abuse occurred in the past only and not at the time of their deaths.

#### **3.5.1 Age at which Drug Misuse Began**

The age at which the DD victims started misusing drugs was known for 18 individuals (78.3%), and ranged from 11 to 42 years, with an average of 16.9 years. This is also roughly the age at which most of the drug death victims left school. A common trend was for the individuals to start abusing cannabis at that age, followed by a combination of Ecstasy, LSD, Amphetamines and Cocaine some months after that.

The average age at which victims started abusing heroin was 19.2 years (range 15-24). This figure is based on ten individuals for whom this information was known.

The average age of a drug death victim in Fife in 2012 was 35.5 years – suggesting that the drug death victims had an average drug using career of approximately 18.6 years prior to their deaths.

#### **3.5.2 Lifetime Injecting Characteristics**

The injecting behaviour of drug death victims were considered in order to gain a more detailed profile of the drug use histories and characteristics of this population.

Thirteen (or 56.5%) of the drug death victims were known to have injected drugs at some point in their lives. The age at which these individuals first injected was known for eleven of these individuals and ranged from 18 – 43 years, with an average age of 27.09 years. Considered together with the age at which these individuals first stated using heroin, these figures confirm a known trend whereby individuals tend to first smoke heroin for some time before progressing to intra-venous usage.

### 3.5.3 Drug Use Characteristics of Injecting vs. Non-Injecting Users

The substances most commonly detected in the post-mortem toxicology findings of injecting and non injecting DD victims was examined further, and these are summarised in the table below.

**Table 1: Substances Detected in Toxicology of Injecting and Non-Injecting DD Victims**

Substance	Non-Injectors (n = 10)	Injectors (n = 13)
Heroin/morphine	40%	84.6%
Benzodiazepines	90%	100%
Methadone	50%	53.8%
Alcohol	40%	23.1%

As can be seen from the graph, Benzodiazepines were the most commonly abused drugs by all users, regardless of injecting status. However, these figures suggest that the injectors were more likely than the non-injectors to abuse morphine. There were little or no differences between the two groups in the proportion of individuals who were found with methadone and alcohol in their post-mortem toxicology.

### 3.5.4 Overdose Histories

Thirteen of the twenty-three individuals (or 56.5%) were known to have experienced at least one drug overdose at some point in their lives. For the remaining ten individuals it was unknown whether or not they had ever experienced a drug overdose.

For those individuals that were known to have overdosed in the past, the number of recorded overdoses ranged between 1 and 4. The majority of those who were known to have overdosed in the past had done so on multiple occasions.

However, only three of the drug death victims (13.0%) victims were known to have overdosed in the 6 months prior to their deaths.

#### **Key Points**

- Almost all drug death victims were known were poly-drug users, 56.5% of which were known to inject drugs
- The average age at which drug misuse began was 16.9 years, and age at which individuals first injected was 27 years
- Therefore, by the time of their deaths, the victims had an average drug using career of over 18 years
- 56.5% of drug death victims were known to have overdosed at some point in their lives, often on multiple occasions
- Only 13.0% victims were known to have overdosed in the 6 months prior to their deaths

### **Recommendations**

- Explore a formal means of identifying non fatal overdoses in partnership with ambulance services.
- Facilitate communication between and within agencies to promote awareness of those individuals who have had a history of successive episodes of non fatal overdose.
- Identify possible separate risk factors in injecting and non-injecting drug users.
- Acknowledgement that benzodiazepine use still forms a major and increasing component of drug deaths in Fife.
- Support and encourage substance users to access treatment services and utilise substitute prescribing programmes.

### **3.6 Service Use Histories**

The present section outlines the service use histories and frequency of contact with services of the drug death victims in the 6 months and 5 years prior to their deaths.

It is recognised that being engaged in a process of care and treatment has a positive impact on outcomes, including reducing 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 the eventual drug death victims.

#### **3.6.1 Services Accessed within 5 Years Prior to Death**

Records showed that all of the 23 individuals who died of a drug death in Fife in 2012 have had contact with at least one service in the five years prior to their deaths. The particular services involved are listed in the table below:

**Table 1: Contact with Services of 2012 DD victims in the 5 years prior to death**

<b>Service</b>	<b>No. of individuals who had contacts</b>	<b>% of individuals who had contact</b>
General Practitioner (GP)	23	100%
Fife NHS Addiction Services	13	56.5%
Scottish Prison Service (SPS/EACS)	10	43.5%
Social Work Criminal Justice Services	5	21.7%
Kingdom Housing	2	8.7%
Drug and Alcohol Project Limited (DAPL)	2	8.7%
Fife Alcohol Support Service (FASS)	1	4.3%
FIRST	1	4.3%

Table 1 illustrates the types of agencies that DD victims were involved with 5 years before their death. *This table does not include multiple contacts made by an individual to any single agency.* The majority of DD victims had accessed more than one service in the 5 years prior to their death. The individuals who had only accessed a single service were always in contact only with their General Practitioners.

General Practitioner was the most accessed services, followed by the NHS Fife Addiction Services, the Scottish Prison Service and Social Work Services. This pattern of contact is very similar to that of previous years.

#### **3.6.2 Services Accessed During the 6 months Prior to Death**

Nineteen individuals (82.6%) were known to have had contact with a service during the 6 months prior to their death.

The table below shows the number of agencies accessed by individuals (n = 9) in the 6 months prior to their deaths. This table does not describe the multiple contacts with services within the same month, but does include different agencies accessed by the same individual.

**Table 2: Contact with Services of 2012 DD victims in the 6 months prior to death (n = 19)**

<b>Service</b>	<b>No. of individuals who had contacts</b>	<b>% of individuals who had contact</b>
General Practitioner (GP)	17	73.9%
Fife NHS Addiction Services	7	30.4%
Scottish Prison Service (SPS/EACS)	2	8.7%
Social Work Criminal Justice Services	4	17.4%
Kingdom Housing	2	8.7%
Drug and Alcohol Project Limited (DAPL)	1	4.3%
Fife Alcohol Support Service (FASS)	1	4.3%
FIRST	0	0%

Table 2 displays the number of contacts of DD victims made with a statutory and/or non-statutory agency 6 months prior to death. 12 individuals had contact with multiple services in the 6 months prior to their deaths.

Most contact had been made with the General Practitioner, followed by NHS Fife Addiction Services, Social Work Services and Scottish Prison Services. Again, this pattern of contact is very similar to previous years.

#### **Key Points**

- All 23 drug death victims were known to services in the 5 years prior to their deaths
- 19 of the 23 drug death victims had accessed at least one service in the 6 months prior to their deaths
- General Practitioners, NHS Fife Addiction Services, Criminal Justice and Scottish Prison Services were the four most commonly accessed services

### **3.6.3 Pharmacological Intervention 6 Months Prior to Death**

Of particular interest is the proportion of DD victims who received pharmacological treatment for their drug dependency problem in the 6 months prior to their death.

Five individuals (21.7%) of drug death victims had received some form of treatment for a drug misuse problem in the six months prior to their deaths. This means that the majority of victims (78.3%) did not receive or seek pharmacological treatment in the 6 months prior to death. However, one of these individuals was on a waiting list for substitute prescribing. These results mirror previous findings and show that most drug death victims were not in receipt of specialist addictions input that involved pharmacological interventions

Of these five individuals who were receiving pharmacological treatment for their substance misuse, one was prescribed Buprenorphine and four were prescribed Methadone. All of these individuals were still in receipt of their substitute medication at the time of death.



Dispensing arrangements were known for all five individuals concerned. Four individuals were collecting their dosage from a pharmacy for supervised consumption on the premise, and did so on 6 days per week. The other individual collected their substitute medication once a week for consumption at home. The daily dosages of methadone ranged from 50mg-80mg daily. The duration each individual remained on their final dosage ranged between 1 month to 3 years.

Furthermore, for the five individuals who were prescribed substitute medication, this was detected in toxicology reports in only three of these cases. Furthermore, substitute medication (methadone and buprenorphine) was involved in ten further drug deaths of individuals who were not prescribed these substances. Section 3.8 of this report investigates the prevalence of diverted prescribed medication in more details.

The Fife Drug Death Monitoring group continue to closely monitor the mode of methadone prescribing and acknowledge that non supervised methadone dispensing may lead to an intensified risk of overdose or encourage diversion of methadone treatment (NTA, 2007). Since the beginning of 2008, this type of information is submitted to the Fife Controlled Drugs Intelligence Network.

### **Key Points**

- A large proportion of drug death victims did not seek/receive treatment for their drug problem 6 months before they died
- 21.7 % were receiving pharmacological treatment in the 6 months prior to their death; most were prescribed methadone and all were still receiving their substitute medication at the time of their deaths

### **Recommendations**

- Where multiple morbidities are present and care is spread amongst various agencies, co-ordination of care should be prioritised (e.g. transition of individual from prison environment to community)
- Greater communication of pertinent issues affecting the physical and psychological well-being of individuals is required amongst agencies
- Assertive outreach support is encouraged in cases where vulnerability is identified as a risk factor
- Patients on an opiate substitute programme should undergo a random, oral fluid drug screen at least twice a year. If poly-drug use is indicated, the use of supervised opiate substitute medication dispensing and increased keyworking/psychosocial interventions should be considered in order to decrease the risk of overdose.
- Identify rationale for prolonged and sustained methadone maintenance in individuals' care plans
- Increase awareness that non-prescribed methadone is as lethal as heroin and increasingly involved in drug deaths in Fife

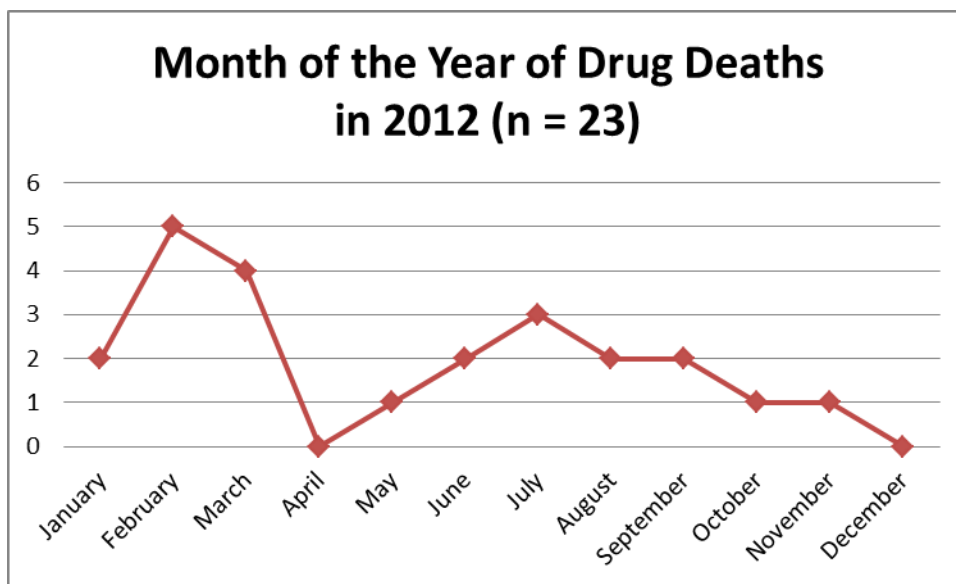
### **3.7 Circumstances of Death**

The present section summarises the circumstances of the drug deaths in Fife in 2012, including the months of the year and days of the week that the drug deaths occurred, as well as specific information concerning the scene of the death, such as the presence of others and attempted interventions.

#### **3.7.1 Timings of Deaths**

##### **3.7.1.1 Month of the year**

**Graph 1: Month of the Year of DDs in 2012**



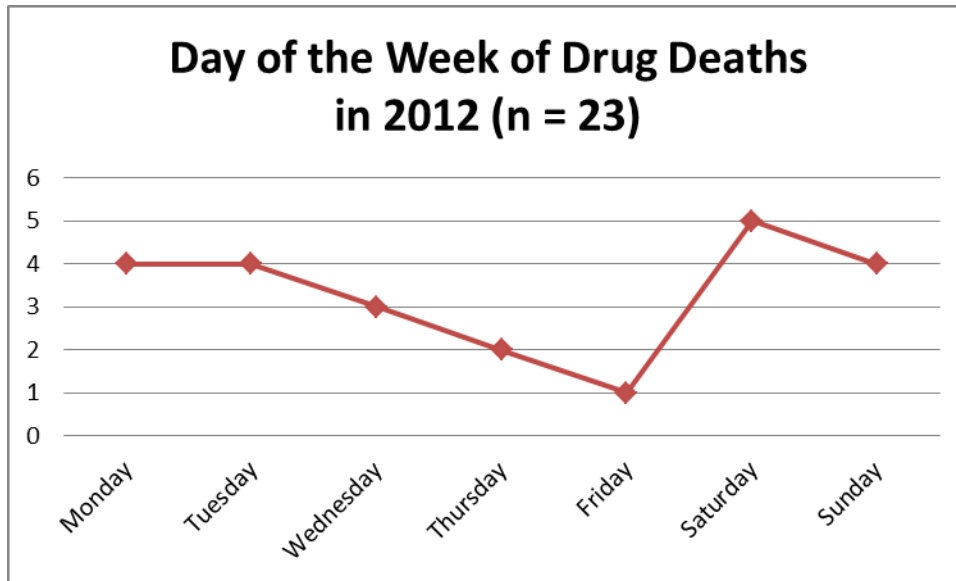
As can be observed from Graph 1 above, there was an overall decline of drug deaths over the course of 2012 in Fife. The majority of deaths occurred in the first half of the year, with 60.9% of death occurring between the months of January and June.

##### **3.7.1.2 Days of the Week**

The days of the week in which drug deaths occurred in 2012 are shown in Graph 2 below. As can be seen from this graph, drug death victims of 2012 were relatively and somewhat more likely to die over the course of a weekend than during the week.

In previous years, a possible trend has been monitored of whether or not drug deaths which occur over the course of a weekend may be more likely to involve alcohol. However, this trend was not observed 2012; exactly 3 of the 7 deaths which involved alcohol occurred over the course of a weekend.

**Graph 2: The days of the week of DDs in 2012**



Weekend drug deaths have also, in the past, been associated with the dispensing arrangements for those individuals on a drug therapy programme. Of all the DD victims of 2012, five individuals were in receipt of a prescribed substitute medication at the time of their deaths. As discussed in the previous section, only three of these individuals appear to have been compliant with their treatment. However, of these five individuals, two died over the course of a weekend. These figures do not allow for any conclusions to be drawn regarding the prevalence of drug deaths of individuals who are prescribed substitute medication over the course of a weekend. This is especially true in light of the low numbers of individuals this pertains to.

#### **Key Points**

- The majority (60.9%) of drug deaths in Fife in 2012 occurred during the first half of the year
- Drug deaths which occurred over the weekend were no more likely to involve alcohol or involve prescribed substitute medication than those occurring during the week

### **3.7.2 Circumstances of Death**

The circumstances surrounding the individual drug deaths were also considered, including whether or not others were present at the time of death, if bystanders recognised common signs of overdose and what, if any intervention was employed.

The majority of the drug death victims ( $n = 15$  or 65.2%) were in the company or in close proximity to others at their point of death. That means that others were at least present in the same premises as the victim during the episode of their death. In all cases, the individuals present were known to the victim. The relationships of those persons present were: partners ( $n = 7$ ), close family members ( $n = 6$ ), or friends of the victim ( $n = 5$ ). In the case of eight victims, there were multiple individuals present at the time of their deaths.

### **3.7.3 Snoring Immediately Prior to Death**

It has been noted that individuals often are observed to be snoring prior to a visible adverse reaction to the drugs they have consumed. This was identified in a minority of cases (n = 4), which nevertheless form 26.7% of victims who died in the presence of others. A further five individuals were simply thought to be asleep at the time of their death and this may have inhibited further intervention.

Other common observations included: salivating, gurgling noises, pale/blue face and blue lips. Individuals present were known to have checked on the drug death victims, sometimes on several occasions.

Whilst most cases did not report information on snoring, it may well be that it did not appear significant to those who were present (and of course would not have been identified in those cases where individuals died alone). However, awareness of such warning signs of an overdose may assist individuals in identifying overdose and intervening to prevent them becoming a drug fatality.

### **3.7.4 Interventions Attempted at the Scene**

Of cases where a witness was present (n = 15), some form of cardio-pulmonary resuscitation (CPR) was attempted by bystanders in prior to ambulance arrival in just under half of the cases (46.7%). Details pertaining to the exact nature of the CPR procedures carried were not always fully recorded; however, in only two cases (13.3%) did the bystanders commence CPR immediately. In most cases the CPR had to be instructed by the ambulance telephone operator to those present over the telephone.

The nature of CPR conducted was often partial, e.g. checking the airways, or putting the victim in the recovery position. In several cases the bystanders refused to carry out CPR: this was the case when either the victim was clearly deemed to be irrevocably dead, or when the bystanders were concerned about the risk of infection.

Ambulances attended all of the 23 drug deaths. However, in 18 of these cases (78.3%) the victim was immediately deemed to be irrevocably dead by the ambulance crew, and no resuscitation was attempted.

As in previous years, Narcan® (Naloxone injection) was sparsely used (n = 4) by paramedics who attended the scene in a bid to revive the drug death victims. There was no evidence of “take-home-Naloxone” being available at any of the scenes of death.

#### **Key Points**

- The majority of DDs (65.2%) occurred in the presence of others, which were in all cases known to the victim
- 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 just under half of the cases (46.7%); however, this was often partial and had to be instructed by the ambulance dispatch service over the telephone

### **Recommendations**

- Provide information and training for partners, family members and friends of drug users in recognising to recognise the first signs of a drug overdose
- Provide training to partners, family members and friends of drug users to provide suitable interventions in the case of an overdose, including CPR procedures, naloxone use and contacting the emergency services.
- Increase awareness in the community of the signs of an overdose and appropriate interventions, especially in high risk areas.

### **3.8 Toxicology Results of Drug Deaths in Fife 2012**

This section describes the post-mortem toxicology findings of the 23 Drug Death victims in context of a growing poly-substance misuse culture in Fife in 2012. This section also highlights the increased prevalence of prescribed medication in the drug deaths occurring in Fife.

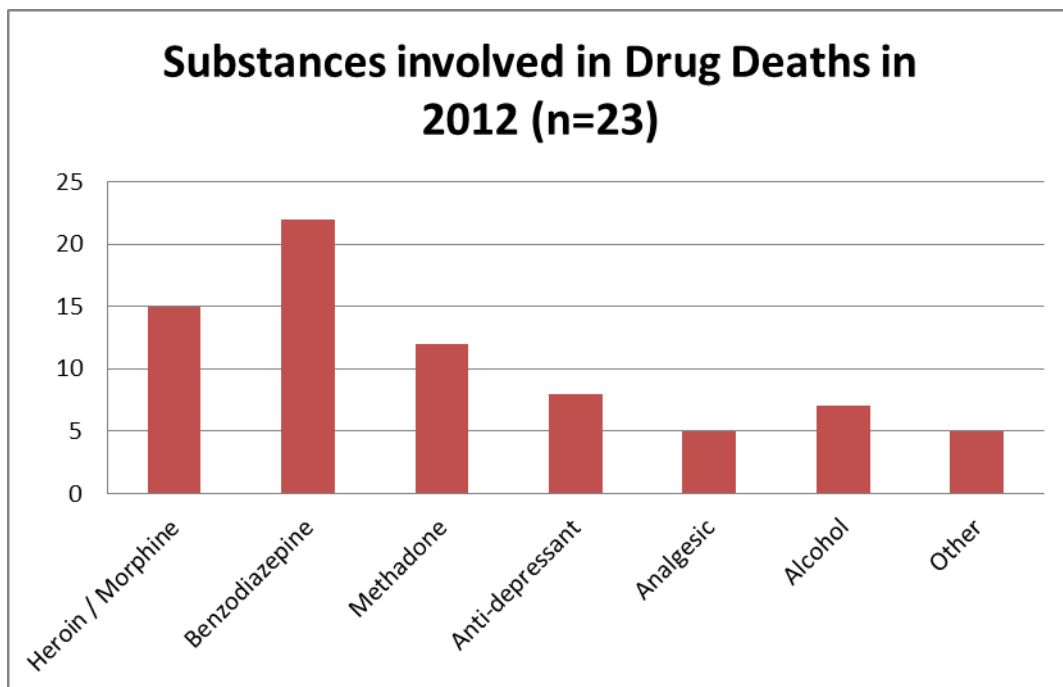
Post mortem toxicology reports of the 26 DD victims were analysed to gain a greater insight into the types of substances that led to the fatal overdoses.

Forensic toxicologists, currently conduct blood/urine tests for the substances believed to be implicated in the drug death. A typical blood test usually tests for; basic drugs, acid/neutral drugs, benzodiazepines, non-steroidal anti-inflammatory drugs (NSAIDS) and Morphine. Urine samples are analysed for opiates, amphetamines, cannabinoids, cocaine, benzodiazepines, methadone, barbiturates, tricyclic antidepressants (TCA), MDMA and methamphetamine. Therefore, only those substances tested for are likely to be detected in the toxicology, potentially biasing the outcome of toxicology findings.

#### **3.8.1 Toxicology results**

Graph 1 below shows all substances which were found in the toxicology results of the DD victims in Fife in 2012. The graph shows the number of victims who were found with each substance in their toxicology results.

**Graph 1: Substances involved in the DDs in Fife in 2012**



As this graph shows, benzodiazepines were most commonly involved substances in drug deaths in Fife in 2012. It was involved in all but one of the cases, an overwhelming majority of 95.7% of deaths.

Heroin/morphine was the second most common substance involved in drug deaths, having been detected by toxicology in 15 (or 65.2%) of victims.

The trend of prior years of increased involvement of Methadone in DDs in Fife appears to still be on the rise. Methadone was involved in 52.2% of all drug deaths in 2012. However, only three (or 20%) of the individuals who died with methadone in their system had actually been prescribed the medication at the time of their deaths. These findings suggest that the remaining nine victims had obtained their methadone illicitly.

Antidepressants such as Fluoxetine, Mirtazepine, Amitriptyline and Citalopram were detected in eight of the drug deaths.

Other substances detected in the drug death victims included cocaine (n = 2), Gabapentin (n = 3), Quinine (n = 2), and isolated cases of Tramadol, Dihydrocodeine, Amphetamine, Mephedrone and Ecstasy.

As was observed in previous years, benzodiazepines, heroin, methadone and anti-depressant medication were again the four most common substances involved in the drug deaths of 2012.

#### **Key Points**

- Benzodiazepines, Heroin/Morphine, Methadone and Anti-Depressants were the four most common substances involved in the drug deaths of 2012
- 95.7% of victims had taken benzodiazepines shortly before their death
- Methadone was involved in 52.2% of all drug deaths; however, only 3 out of 12 individuals who died with this substance in their system had actually been prescribed the medication
- Prescribed and non-prescribed methadone is involved in a growing proportion of drug deaths in Fife, which is approaching the levels of deaths involving illicit heroin use

### **3.8.2 Substances Implicated Concomitantly**

As demonstrated by the previous section, the vast majority of drug death victims died as a result of the consumption of a combination of drugs. On average, 3.43 substances were discovered in the toxicology of each Fife drug death victim. Virtually all individuals died as a result of at least 2 substances, and up to 6.<sup>9</sup>

### **3.8.3 Therapeutic, Fatal and Actual Levels of Substances**

Toxicology reports generally include a reference for the “therapeutic” and “fatal” ranges of a substance, based on the existing literature. However, these are often based on relatively small sample sizes, and do not take into account the possibility of poly-drug use. The latter is particularly important, as the entire drug deaths in Fife occurred as a result of multiple substances.

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<sup>9</sup> For the purpose of these statistics, benzodiazepines were counted as a single substance

Table 1 below shows the published therapeutic and fatal ranges for some of the most common substances found to be involved in the DDs in Fife in 2012. For comparison, it also shows the actual ranges observed in the victims in Fife.

**Table 1: Therapeutic, Fatal and Actual Ranges of Substances Involved in DDs (mg/l)**

	<b>Morphine</b>	<b>Diazepam</b>	<b>Nordiazepam</b>	<b>Methadone</b>	<b>Alcohol</b>
“Therapeutic” Range*	0.02 – 2.3	0.7 – 1.15	0.35 – 0.52	0.57 – 1.06	
“Fatal” Range*	0.14 <	0.89 <	1.48 <	0.52 <	
Actual Range (in Fife)	0.001 – 1.6	0.03 – 2.98	0.28 – 4.21	0.13 – 2.45	15 - 346

\*Toxicological analysis of all 382 drug deaths for 2002 in Scotland (Zador et al., 2005)

Fatal levels were not stated in toxicology reports for alcohol. As this table indicates, the actual amounts of the drugs observed in drug deaths victims in Fife are often lower than the published fatal and even therapeutic ranges of any given drug. This highlights the importance of the cocktail effect, and the above values continue to raise questions about the clinical utility of the designated ‘fatal’ and ‘therapeutic’ levels.

### **3.8.4 Prevalence and Diversion of Prescribed Medication**

In this section, the prevalence of substitute medication, benzodiazepines, anti-depressant and analgesic medication involved in the drug deaths is examined in further detail. Of particular interest is the question of whether or not this medication was prescribed to the individual.

Table 2 below summarises the *number of substances* found in the drug deaths in Fife, as well as whether or not these were prescribed. Please note that in some cases (e.g. anti-depressants); an individual may have consumed more than one substance of this type. Therefore, this table refers to the number of substances, not (necessarily) the number of individuals.

**Table 2: Pharmacological Substances Found Involved and Prescribed to Drug Death Victims**

	Found	Prescribed	Found + Prescribed	Not Found + Prescribed	Found + Not Prescribed
Substitute Medication	13	5	3	2	10
Benzodiazepines	22	2	2	0	20
Anti-Depressant	10	8	5	3	5
Analgesic	9	4	4	0	5

To explain this table, the first column (“Found”) gives the number of substances of any type that was detected in the toxicology reports of the 23 drug deaths in Fife. The second column (“Prescribed”) gives the number of substances of each type which was prescribed to the drug death victims at the time of death. However, these two columns alone do not imply that the victims complied with their prescription regimes. The third column (“Found and Prescribed”) gives the number of substances which were prescribed at the time of death and found in the toxicology results. As such, this third column gives an indication of compliance with prescription regimes. The fourth column (“Not Found and Prescribed”) gives the number of substances which were prescribed to the drug death victims at the time of their deaths, but which were not detected in post-mortem toxicology tests. As such,



this is medication that should have been present if the individuals had been compliant with their prescribing regimes. In these cases, the individual might have diverted their own medication, or may not be taking it correctly or at all. Finally, the last column (“Found and Not Prescribed”) gives the number of substances which were detected by post-mortem toxicology tests, but which were not prescribed to the individual. These cases point to individuals who have sourced this medication from other individuals.

Overall, the results suggest that when the drug death victims were prescribed a medication of these four types, they were, on the whole, likely to comply with the prescribing regimes.

However, there is also widespread evidence that the drug death victims were sourcing potentially prescribed medication from other individuals; medication which ultimately was involved in their eventual deaths.

### **Key Points**

- All of the drug deaths occurring in Fife involved a lethal combination of two or more sedative substances
- The “therapeutic” and “fatal” ranges of a substance (as used in the toxicology reports) are diffused in their meaning in light of these poly-substance deaths
- There is widespread evidence that drug death victims were sourcing prescribed medication from out with the healthcare services

### **Recommendations**

- Provide overdose education and training regarding the risks of consuming a combination of drugs, especially sedatives.
- Monitor the impact and contribution of methadone related deaths in future cases.
- Closely monitor individuals who are prescribed psychoactive medication in the community.
- Encourage service providers prescribing opioids for a diagnosed medical condition to be aware of potential overdose risk, especially in individuals with a history of substance abuse and/or psychiatric problems.
- Members of the controlled drug intelligence network (NHS Fife, Police and Fife Council) should create a governance framework on the prescribing patterns of methadone, benzodiazepines, anti-depressants and other sedative medication, with a particular focus on the prevention of diversion of prescribed substances.

### **3.9 Substances Misused in Fife**

#### **3.9.1 Purity Levels - Heroin**

Heroin use continues to be widespread across Fife. The purity of heroin recovered varies significantly and it is not uncommon to have purity levels of heroin in single figures 1 – 5%. However there are occasions where the purity levels can be significantly higher, 30 – 40%. In general the purity of heroin in Fife broadly agrees with the rest of Scotland.

#### **3.9.2 Cutting Agents**

In general the quality of heroin within Fife remains poor, due to its heavy adulteration with agents such as Paracetamol and caffeine.

It should be noted that relatively few street level deals e.g. “tenner bags” are routinely analysed for purity levels and also cutting agents. Until such time as a comprehensive analysis of street level drugs is undertaken then the interpretation of trends in relation to cutting agents and purity levels should be treated with caution. Furthermore a comprehensive analysis of street level deals would assist drug agencies in better informing clients.

#### **3.9.3 Concluding remarks**

It should be noted that in 2012, possibly due to low levels of heroin purity, agencies within Fife are reporting an increase in mephedrone use by heroin users and within that group an increase of users injecting mephedrone. (Classified as a Class B drug in April 2010). Mephedrone is also from local intelligence and feedback from agency on the increase amongst other drug using groups.

#### **Key Points**

- The average purity level of Heroin recovered in Fife broadly agrees with the Scottish average and remains low
- Caffeine and Paracetamol are the most common inert substances used to dilute Heroin
- Currently within Scotland, there is no capability for fully analysing all recovered drugs

#### **Recommendations**

- A comprehensive analysis of seized drugs in Fife will inform the local picture and, in turn, assists in reducing harm to drug takers.
- Police Scotland and Procurator Fiscal Service look at increasing the analysis of seized drugs in Fife, especially street level deals, which will inform the local picture and, in turn, assists in reducing harm to drug takers.

## Appendix A

### Fife Drug Deaths Strategic Group Action Plan ~ 2012/14

<b>Actions and Recommendations for Fife Drug Deaths Strategic Group.</b>			
<b>Key Recommendation</b>	<b>Proposed action</b>	<b>Outcome/output measures</b>	<b>Policy/Strategic overlaps</b>
<b>Deliver Overdose (OD) Prevention training to service users, carers and professionals</b>	Revise the Fife Overdose Prevention strategy as a training and awareness plan to incorporate: <ul style="list-style-type: none"> <li>• Work with all service providers in Fife to develop, deliver and monitor OD prevention training-for-trainers to staff and sustain that with support from Fife ADP service specification requirements</li> <li>• Ensure training is cascaded to service users and carers</li> <li>• Raise awareness of the risks of overdose and appropriate responses through use of targeted resources</li> </ul>	Issue of revised training and awareness plan  Database of trainers to be maintained and enhanced  Training programme developed for 2012/14  Maintain records of training delivered  Quarterly reporting to Fife DD strategic group on training delivery  Regular reporting/update to ADP  Agree a set of resources for different groups and settings and distribute appropriately	Short term prisoners' protocol  Fife Homelessness Strategies  Substance Misuse workforce development strategy  Commitment 13 (co morbidity) action plan  Vulnerable Adults Act
<b>Implement the Scottish Government's take-home Naloxone policy at a local level</b>	Establish this stream as part of the Fife DD Strategic Group remit to implement, taking account of further instructions from Scottish Government regarding: <ul style="list-style-type: none"> <li>• Funding mechanisms               <ul style="list-style-type: none"> <li>• Identification of high risk individuals</li> </ul> </li> <li>• Training for service users</li> <li>• Information we need to collect</li> </ul>	Number of people trained in use of take home Naloxone  Number of take home Naloxone kits issued and used  Reports of use of take home Naloxone  Adverse events reported Number of drug deaths	Prison take home Naloxone pilot
<b>Information regarding non-fatal overdoses is shared appropriately in order to facilitate delivery of support, Advice and signposting to services as indicated.</b>	Explore appropriate ways to use information on non-fatal overdoses to encourage individuals to access treatment (tiered approach)  Development overdose	Substance Misuse Service information cards (opt out) to be distributed by agencies attending non-fatal overdoses and ambulance service.  Initiate e-Health portal of	Fife Homelessness Strategies.  NHS Fife e-Health Strategy.  Fife ADP information gathering process.

	information sharing protocol with key action of sharing near misses with assertive outreach service	accessing live information on non fatal overdose incidence in Fife.	
<b>Undertake work to investigate diversion of prescribed medicines across Fife</b>	Work with police, pharmacy, public health, joint CHP Prescribing Group and others to investigate the extent and patterns of diversion of prescribed medicines.  Involve service users in this process	Report to be taken to relevant groups  Quick and rapid response to such information	Controlled Drug Intelligence Network Strategy  ADP Drug & Alcohol Strategy
<b>Improve the quality and completeness of information available for analysis by the Fife DD Monitoring Group</b>	Review the content and layout of the drug deaths questionnaire annually, taking account of feedback from stakeholders  Ensure we are reaching all the agencies/services that could provide the group with relevant information	Monitor completion rates for cases 8 weeks after notification.  Feedback annually to stakeholders the findings and recommendations from the review process  Update ADPs throughout year on current picture and emerging findings	ADP Drug Strategy
<b>Support the national discussion between Forensic Pathologist to standardised the reporting of causes of DRD</b>	Establish regional (ECSAS) membership of NFDRD	Monitor and report back progress with recommendations of NFDRD work plan in relation to this	
<b>Information Pack to be disseminated to family members/Partners/carers who have been bereaved through Drug Related Death</b>	Develop a booklet/pack for individuals affected by Drug Related Death in line with best practice	Pack to be disseminated to those affected by Drug Related death in Fife  Review by Fife Drug Death Strategic Group	

<b>Actions and Recommendations for Fife ADP and other strategic partnerships.</b>			
<b>Key Recommendation</b>	<b>Proposed action</b>	<b>Outcome/output measures</b>	<b>Policy/Strategic overlaps</b>
<b>Ensure that homeless / temporary accommodation services address issues of substance misuse</b>	Assess the needs of chaotic drug users within homeless hostels and review current service specifications for Homeless Health Outreach services and processes for referral and liaison with addiction services and mental health services in Fife		Fife Homelessness Strategies  ADP strategy
<b>Arrest Treatment and Referral Scheme</b>	Early intervention through the development of an arrest treatment service within Fife Police holding cells.	Establishing a single site arrest treatment in Fife	
<b>Support the continuing provision of early interventions within Criminal Justice Services</b>	Review the procedures for the ongoing care of prisoners who have received only detoxification in prison	Short –term prisoner protocol to be developed for Fife (as with Tayside protocol)	CJA strategy and action plan
<b>Improve the care of people with co-existing substance misuse and mental health problems</b>	Implement Commitment 13 Action Plan	Establish a Fife wide Co-morbidity Strategy	

<b>Actions and Recommendations for Fife ADP and frontline services</b>			
<b>Key Recommendation</b>	<b>Proposed action</b>	<b>Outcome/output measures</b>	<b>Policy/Strategic overlaps</b>
<b>Encourage holistic assessment (including available social supports and the quality of these supports, significant life-events and physical/psychological co-morbidities) in line with the principles of 'Recovery'</b>	<p>Develop improved information systems (for Fife Addiction Services and all other specialist services) that facilitate comprehensive assessment process and linkages with other systems</p>	<p>Establish a responsive, informative electronic database.</p> <p>Outcome measures.</p>	
<b>Improve overdose risk assessment and management for service users</b>	<p>Continue the use of the Fife overdose risk assessment and management processes.</p> <p>Develop an overdose risk assessment tool with processes identified for the various scores.</p> <p>Need to agree and recommend the best single OD risk assessment tool and develop protocols for what follow up action is for those assessed as high risk</p>	<p>All services in contact with people using any substances use the same risk assessment tool.</p>	
<b>Support universal services to appropriately manage substance misuse issues alongside other health problems</b>	<p>Development and dissemination of guidance for management of substance misuse problems within acute settings</p> <p>Review enhanced service agreement with primary care for provision of substance misuse services</p> <p>Improve the level of clinical practice in acute and primary care through a closer working model of care that facilitates a safer and cohesive approach</p>	<p>Agree an exit strategy and establish an ICP for this.</p>	
<b>Facilitate client engagement and retention in services</b>	<p>Adopt evidence based approaches to enhance engagement and retention (e.g. NTA guidance 'Towards successful treatment completion')</p>	<p>Clients to be fully informed of the benefits of engaging in both treatment (prescribing) and rehabilitation services as a package care and not just prescribing in isolation, and to be</p>	

		encouraged to adopt this approach in order to achieve stability	
<b>Stronger joint working between alcohol misuse and drug misuse services</b>	<p>Ensure care pathways allow services to address all substance misuse problems.</p> <p>Improve competence in staff to encourage multi disciplinary approaches to complex case.</p>	<p>Sustain the ICP process</p> <p>Staff has the confidence to assess, manage and refer clients with a range of substance misuse problems by improving training facilities.</p>	Integrated Care Pathway (ICP)

<b>Actions and Recommendations for improving prescribing practices</b>			
<b>Key Recommendation</b>	<b>Proposed action</b>	<b>Outcome/output measures</b>	<b>Policy/Strategic overlaps</b>
<b>Continue improvements in prescribing practice and medicines management for substance misusers</b>	<p>Encourage communication and information sharing between dispensing pharmacist and prescriber by allowing appropriate access to Addiction Services patient management system.</p> <p>Provide additional information/awareness raising and guidance to prescribers on pain control, the management of depression, interactions between opiate substitutes and other medicines, and the risks of benzodiazepine prescribing.</p> <p>Provide guidance to ensure that supervision/take home dispensing decision by all prescribers is appropriate.</p> <p>Establish regular, random, oral fluid drug screening. Explore establishment of period of supervision for all patients that take home opiate substitute medication</p>	<p>Number of patients agreeing to information sharing.</p> <p>Number of pharmacies participating.</p> <p>Increase in communication via web based patient management system</p> <p>Develop and issue guidance for prescribing benzodiazepines, opiate analgesics and other associated medication</p> <p>Monitor rates of supervision/take home dispensing.</p> <p>Monitor drug screening</p> <p>Monitor number of patients completing period of supervision</p> <p>Reduction in illicit methadone availability</p>	