# West Sussex Drug Related Deaths 2015-2017 audit

Summer 2019


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**West Sussex County Council**

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## Acknowledgements:

Special thanks to the Senior Coroner for West Sussex, Penelope A. Schofield and the Coroner's Office team for their assistance and accommodation, which made this work possible.

# Introduction

## Context of the report

In 2016 Public Health England released a report into the sharp rise of Drug Related Deaths (DRDs) to its highest ever national level in 2015. This included a 21% increase in 2013 and a 17% increase in 2014. ONS figures also indicated a 64% increase in heroin-related death registrations from 2013 to 2015. Deaths from 2013-15 examined in the 2017 West Sussex suicide audit 2017, revealed 42 individuals who had taken their own lives by self-poisoning, (20% of all suicides in the three-year period).

Whilst Public Health teams and Commissioning managers collect data on those who have died whilst connected to services, this does not provide us with insight into the wider population and whilst community services are essential to preventing early death, many of those identified in this audit were not involved with services at any point. An examination of the barriers and facilitators to service engagement can help to refocus efforts to engaging with more residents.

This newly designed audit covers a three-year period, 1st January 2015 to 31st December 2017, and aims to build upon the knowledge generated from other sources, ensuring the focus is on information that is not readily available from elsewhere.

The percentages used in this report describe the proportions within the cases audited and they do not necessarily extrapolate to wider populations when making predictions. Confidence intervals and other statistical methods have not been applied, as no attempt is made to draw inference outside of the cases audited. Further, it is important to reflect on the success of services currently provided county-wide. This report does not identify the numbers who have been supported to overcome substance misuse or mental health problems. These figures only describe the attributes and activities of those who lost their lives and so may appear to negatively reflect services or professionals, which is not the intention.

There are no formal recommendations contained within this report, – the findings having been used to inform the West Sussex HASC partnership priorities which will be published in the Autumn of 2019. There are however areas of learning, famed in the context of preventing early death, and suggestions of some gaps in knowledge which it might be useful to fill in the future.

## Drug misuse deaths and other deaths from drug poisonings

There is no internationally-agreed definition of what constitutes a drug-related death and therefore, the figures reported in ONS statistical bulletin are based on the current national definition of deaths related to drug poisoning. This definition includes accidents, suicides and assaults involving drug poisoning, as well as deaths from drug abuse and drug dependence. It does not include other adverse effects of drugs (for example, anaphylactic shock, or transport accidents where the driver was under the influence of drugs).

Drug-poisoning deaths involve a broad spectrum of substances, including legal and illegal drugs, prescription drugs (either prescribed to the deceased or obtained by other means) and over-the-counter medications. Some deaths may also be the result of complications of drug abuse (such as deep vein thrombosis or septicaemia resulting from intravenous drug use, or heart disease due to chronic cocaine use), rather than an acute drug overdose. Deaths involving these types of complications are generally coded as a mental and behavioural disorder due to drug use. These definitions exclude cases where only alcohol and/or tobacco were involved in death.

Deaths from 2001 onwards have been included where one of the following ICD-10 codes is the underlying cause of death:

- Mental and behavioural disorders due to drug use (F11–F16, F18–F19)
- Accidental poisoning by drugs, medicaments and biological substances (X40–X44)
- Intentional self-poisoning by drugs, medicaments and biological substances (X60–X64)
- Assault by drugs, medicaments and biological substances (X85)
- Poisoning by drugs, medicaments and biological substances, undetermined intent (Y10 – Y14)

In addition, this definition includes only deaths related to poisonings by drugs, medicaments and biological substances - poisonings by other types of chemicals and noxious substances (such as carbon monoxide) are excluded.

Drug misuse deaths exist within this wider definition, but are recognised as distinctly pertaining to:

a) deaths where the underlying cause is drug abuse or drug dependence
b) deaths where the underlying cause is drug poisoning and where any of the substances controlled under the Misuse of Drugs Act 1971 are involved

With this, the reader should appreciate that the default term for inclusion is 'deaths from drug poisonings, and some - but not all - of these will be drug misuse deaths. 'Other deaths' may include for example, accidents with one's medication or suicides, which are not 'drug misuse'.

## Methodology

There is no single agreed methodology for collecting drug-related death data. Rather, the auditing team followed examples of good practice and attempted to maintain consistency with previous local reports. Templates from the 2017 West Sussex suicide audit were used to inform an initial structure of data collection and these were piloted against two real cases.

Clear inclusion and exclusion criteria were established before the audit began. The coroner's team was asked for all cases of deaths related to drug poisonings, filed with a final inquest date within 2015, 2016, or 2017.

Cases were excluded where the deceased was neither a resident of West Sussex nor was their death within the county boundaries, though the coroner may have them on file if they died near to the county, i.e. Havant, Portslade or Horley, or if they were admitted to hospital within the county before dying. Rare exceptions were made to include such cases where they had received significant support from West Sussex-based services during their life, despite living over the county lines.

It is important to note the contrast in the number of deaths between official ONS annual reports and those identified by this audit. Whilst efforts have been made to clearly define cases for review, a degree of interpretation is applied by each auditor when allocating cases into discrete groups and because of this, statistical deaths from drug poisoning rates based on audit data should be viewed with caution. What is of importance are the observed trends and how characteristics and circumstances align to generate meaningful insights.

Traditional paper forms were replaced with an electronic database (Excel 2010) to which the auditors would input in real time. Where possible, data entry was restricted by use of dropdown menus for each cell, with options for free-text specifications or further notes within each section. In all, over 10,000 cells of data were recorded over 81 sections for each of the 123 individuals, with further records to log the audit or keep notes.

Outline of the data collected in the audit:

| | |
|---|---|
| Section 1: Personal details | Demographic details |
| | Personal history/status |
| Section 2: Information relating to death | Events surrounding death |
| | Involvement of witnesses |
| Section 3: Toxicology | Substances linked to death |
| Section 4: Mental health and social disorders | Known issues in the past year |
| Section 5: Contact with services in the community | CGL service history |
| | GP service history |
| | Links to domestic or sexual violence |
| | Links to other drug deaths |
| | Links to tier 4 services |
| | Other services used |
| Section 6: Summary of contexts and drivers | Auditor's reflection on key events leading up to death |

Whilst attempts were made to only include data felt to be necessary, due to the potential range of demographics, circumstances, service use, personal history and lifestyles, parts of the audit structure were not suitable for many cases and some data is therefore of low fidelity and not included in this report. For context, *N*-values will be included when discussing findings.

The audit team was comprised of several members of the Public Health and Social Research Unit (PHSRU) of West Sussex County Council. At the coroner's convenience, dates were agreed when the team could access the case files in the coroner's office and files had been manually selected by the coroner's team from their archives beforehand. Case files typically included: a coroner's summary sheet; a toxicology report; an autopsy report; a police report of the circumstances of death; where available, a character reference describing the background of the individual from those close to them; copies of suicide notes where relevant, and photos of the scene; any relevant physical or mental health service history, particularly if the individual was under the care of services around the time of their death; and copies of any inquests or investigations into the death. Some documents were not always present, meaning closer scrutiny was not always possible and some files contained little information for the auditing team to log. In particular, primary care records were often not available. Where relevant, the report describes figures in this context as overall numbers and particular attributes or issues may have been higher, if complete histories had been available.

The team viewed two files openly and discussed their interpretation of the findings and the database to improve interpersonal reliability. From then on, each team member selected casefiles in no particular order and examined it individually, logging data as they went. Discussion was encouraged and complicated cases were considered openly by all those present. Completed files were returned to the coroner's team for filing after each day. No names were recorded, though other personal information including postcode was added to the database for analysis. All data was stored on secure drives on the WSCC laptops.

## Strengths and limitations

Following the approach of the West Sussex suicide audit (2017), this audit includes some cases where people have travelled into the county and died here and as such, rates and base numbers should not be compared directly with previous works or external outcome indicators. For data surveillance, it is recommended the reader use statistical releases available regularly from the ONS.

By predetermining the responses available for input in the form of drop-down menus, the auditors were forced to match the wide potential of each individual's life and their circumstances of death to a rigid structure. This method has strengths and weaknesses which should be considered.

For effective and reliable analysis, it was required that recorded data should be categorical and not the auditor's description of the case at hand. For example, if the cause of death was left to open text input, these would have to be combined post-audit on the basis of the analyst's interpretation of the auditor's description, taking up time and potentially misaligning data into new categories which may incorrectly capture the facts.

In contrast, by forcing the auditor's hand there is an inevitable loss of richness, as compromises have to be made at the time to assign data to a category which may only roughly match the facts. The reader should therefore bear in mind that the data has been assigned a category as the only effective way to collect and analyse the data, rather than each category being a literal translation of the thousands of pages of information condensed here. In this analysis, it was evident that three variables in particular were defining much of the context of the individual's death. As such, much of the analysis is conducted via these themes. For transparency, these main themes are defined here:

Cause of death

- Accidental overdose – when an individual did not understand that their actions may lead to death.
- Self-administered overdose – when the individual understood, by the nature of the volume of substances taken, that there was a serious risk of death, but a desire to die could not be established.
- Suicide – when an individual was believed by the county coroner to have intended to die, in light of sufficient evidence at inquest.
- Others – complex cases which could not be attributed to one of the three main groups.

ONS Classification

- Drug misuse death – as defined above (pages 1-2).
- Other poisoning – all deaths that do not meet the criteria of drug misuse.

Access to substance

- Prescribed own – medications prescribed to the individual by a practitioner
- Prescribed others – medications prescribed to another, but taken, or offered to the individual
- Purchased via vendor – medications or substances purchased over the counter or via the internet. Some substances not licenced in the UK for human use are included here, as they were delivered by a traceable vendor to the doorstep.
- Controlled (illegal) – Any drug or substance not licenced for human use without a prescription. This includes any substance under the Misuse of Drugs Act 1971, and not fitting into the above 'purchased via vendor' category. It is recognised that nuanced areas of debate exist in distinguishing these two, in some cases.

## Report format

The results of this audit have been split into five sections discussing the data:

- ***Firstly**, examining the quantitative demographic data and circumstances of death, to draw out any patterns.*
- ***Secondly,** examining the wider determinants around the individual's life that were contributing factors to death*
- ***Thirdly,** examining the toxicological findings and substances contributing to death*
- ***Fourthly,** summarising the known service histories of the individuals*
- ***Lastly,** thematically drawing out contexts and mechanisms which contributed to the individual's death, from the 25,000 words of free-text recorded during the audit.*

Each section is appended with a summary of key points. With these areas collated, the report will aim to summarise any lessons identified by service providers (where these were included in case files) and lessons which may aid in developing prevention strategies. Where given, tables showing percentage values may experience rounding and not sum to 100.

# Findings from the audit

## (1) Demographics and circumstances surrounding death

There were 123 deaths from drug poisonings registered in West Sussex for the period 2015-2017. Of these, 86 were male and 37 were female. Table 1.1 shows the age and sex breakdowns for all 123 individuals. Males aged 25-44 years accounted for 37% of all deaths.

Figure 1.1, Drug poisoning deaths in West Sussex, by age and sex, as a percentage of all registered deaths (n=123)

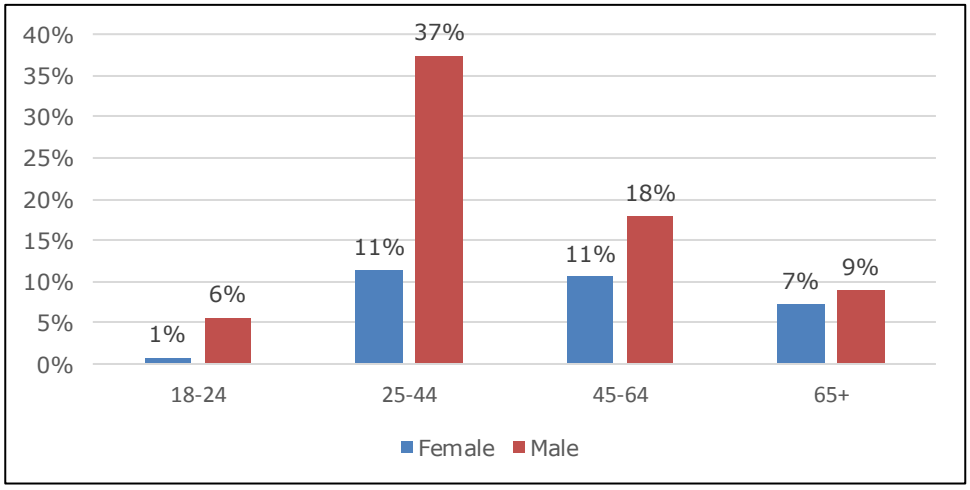



Table 1.1 shows the contrast between male and female deaths, for the three main groupings (Verdict from coroner's files; ONS category; and Access to substance). Over half of all deaths were considered 'accidental overdoses' and accounted for 58% of male deaths and 43% of female deaths. Females proportionally had more self-administered overdoses and suicides than males. Suicides were attributed to 35 of the 123 deaths.

Drug misuse deaths accounted for 52% of all deaths and 64% of male deaths, whilst only accounting for 24% of female deaths. Half of male deaths (51%) involved controlled substances, compared to one in six female deaths. Two thirds of female deaths occurred with their own prescribed medications.

When considering the 64 drug misuse deaths in isolation, 50 of these involved controlled substances (44 of which were male). When considering the 59 other drug poisoning deaths, 12 were purchased in store or online, and 42 were with their own prescribed medication. Breakdowns of these are included in appendix tables.

Table.1.1, All deaths as a percentage within three main groupings

| | Female (n=37) | Male (n=86) | All deaths (n=123) |
|---|---|---|---|
| **Verdict from Coroner's records** | | | |
| Accidental overdose | 43% | 58% | 54% |
| Self-administered overdose of drugs | 19% | 12% | 14% |
| Suicide | 35% | 26% | 28% |
| Other | 3% | 5% | 4% |
| Total | 100% | 100% | 100% |
| **ONS classification** | | | |
| Drug Misuse Death | 24% | 64% | 52% |
| Other drug poisoning death | 76% | 36% | 48% |
| Total | 100% | 100% | 100% |
| **Access to substance** | | | |
| Controlled (illegal) | 16% | 51% | 41% |
| Purchased in store or online | 14% | 14% | 14% |
| Prescribed, but not to the deceased | 5% | 5% | 5% |
| Prescribed, own medication | 65% | 29% | 40% |
| Unknown | 0% | 1% | 1% |
| Total | 100% | 100% | 100% |

Eight individuals had a history of prison or with probation services in the past year (all males). All these were attributed to drug misuse deaths. Ten individuals were known to be homeless, or of no fixed abode (all males), all of which were attributed as accidental overdoses and drug misuse deaths. – Homelessness and prison/probation experience did not overlap considerably, but there were some instances of these co-occurring.

Four percent of individuals were known to be bisexual or homosexual, and 5% were known to be from an ethnic minority background, though data efficacy was low in these areas. Evidence around Naloxone use were also not sufficiently documented to warrant inclusion in this report.

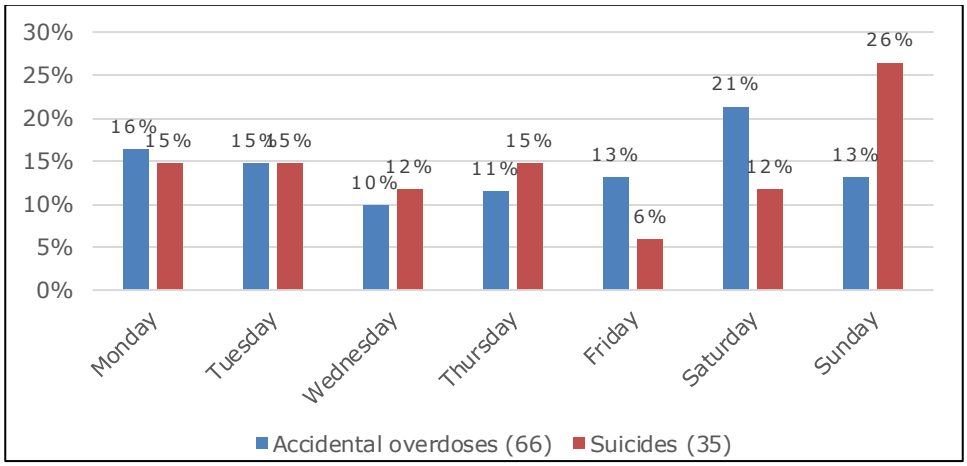
The majority of incidents leading to death occurred in the individual's home (66%), including 46% of those involving controlled substances. Nine percent of all incidents occurred in a public space, including 22% of those involving controlled substances (Table 1.2).

Table 1.2, Location of discovery by how substances were accessed

| Location where discovered | Controlled (illegal) | Purchased in store or online | Prescribed, but not to the deceased | Prescribed, own medication | All deaths |
|---|---|---|---|---|---|
| Own home | 46% | 76% | 83% | 82% | 66% |
| Other's home | 22% | 0% | 17% | 12% | 15% |
| Public toilet | 10% | 0% | 0% | 0% | 4% |
| Public space/park | 6% | 0% | 0% | 2% | 3% |
| On the street | 6% | 0% | 0% | 0% | 2% |
| Other (e.g. hotel) | 10% | 24% | 0% | 4% | 10% |
| Total | 100% | 100% | 100% | 100% | 100% |

Incidents leading to death were widely dispersed throughout the week, with an increase of accidental overdoses on Saturdays, amounting to 21% of incidents and an increase of suicides on Sundays, accounting for 26% of incidents (Figure 1.2).

Figure 1.2, Accidental overdoses and suicides by days of the week




Key points

- There were 123 deaths from drug poisonings in the three-year period. Over a quarter of these were suicides and more than half were accidental overdoses.
- Roughly half of all deaths were classed as drug misuse and half were other drug poisonings (52% and 48%).
- Males accounted for two thirds of all deaths. Half of these involved controlled substances and males accounted for 86% of all drug misuse deaths, particularly focused between ages of 25 and 44 years.
- Female deaths were spread more evenly among older age groups and were explained by a higher proportion of accidental overdoses and suicides involving prescribed medications. Drug misuse was ascribed to 24% of female deaths.
- Eight males had been in prison or involved with probation services in the past year (9% of male deaths).
- Ten males were known to be homeless or of no fixed abode (16% of all drug misuse deaths).
- Four in every five deaths occurred in the home or the home of another. Only 9% of deaths occurred in a public area.
- There was an increase in overdoses on Saturdays and suicides on Sundays.
- Evidence around Naloxone intervention and resuscitation attempts were not sufficiently documented to report on, in this audit.

## (2) Social determinants and mental health

Roughly a third of deaths concerned individuals who were classed as economically inactive, in that they were unemployed and not actively seeking work. Due to age differences in sex-profiles, more females were retired (38%) compared to males (13%). Only 23% of males were in employment, despite 87% being working age.

Table 2.1, Economic activity, by sex

| | Female (n=37) | Male (n=86) | All deaths (n=123) |
|---|---|---|---|
| Economically inactive (not looking for work) | 30% | 31% | 31% |
| Employed full or part time | 16% | 23% | 21% |
| Unemployed (looking for work) | 5% | 17% | 14% |
| Retired | 38% | 13% | 20% |
| Student full-time | 0% | 6% | 4% |
| Long-term sick or disabled | 5% | 5% | 5% |
| Caring for home / family | 0% | 2% | 2% |
| Other (specify) | 5% | 1% | 2% |
| Not known | 0% | 1% | 1% |
| Total | 100% | 100% | 100% |

Individuals living alone accounted for 40% of all deaths and near half of these were aged 25-44 years. Eighteen percent lived with a spouse or partner and 13% lived with their parents at time of death. Ten individuals (8%) were classed as homeless or no fixed abode.

Table 2.2, Social living situation, by age group, as a percentage of all deaths (n=123)

| Living with, by age group (% of all deaths) | Alone | Spouse / partner | Parents | Other Adults (shared) | Other family | Child(ren) under 18 only | Other/ unknown | All deaths |
|---|---|---|---|---|---|---|---|---|
| 18-24 | 1% | 0% | 3% | 1% | 0% | 0% | 2% | 7% |
| 25-44 | 19% | 8% | 7% | 7% | 1% | 1% | 7% | 49% |
| 45-64 | 12% | 5% | 2% | 4% | 2% | 0% | 3% | 28% |
| 65+ | 8% | 5% | 0% | 2% | 0% | 0% | 2% | 16% |
| Total | 40% | 18% | 13% | 13% | 2% | 1% | 13% | 100% |

By mapping the known residential postcodes (or area of living for those with no fixed abode), we can identify the areas of more concentrated deprivation (IMD at LSOA level)[1] and see that of all deaths, 25% of individuals with attributable postcodes lived in the most deprived tenth of the county (Table 2.3). Concerning drug misuse deaths only, 57% of individuals with attributable postcodes lived in the most deprived 20% of the county. Other drug poisonings were more evenly spread throughout the county, due to the association with suicides and accidental overdose of prescribed medications.

[1] The Index of Multiple Deprivation was last calculated by the Office for National Statistics in 2015 at Lower Super Output Area (approximately 1,500 residents) levels. It combines the following weights: Income Deprivation (22.5%); Employment Deprivation (22.5%); Education, Skills and Training Deprivation (13.5%); Health Deprivation and Disability (13.5%); Crime (9.3%); Barriers to Housing and Services (9.3%); Living Environment Deprivation (9.3%).

It is also possible to identify the individual wards with the highest occurrence of drug misuse deaths (Table 2.4). Worthing Bognor Regis, Littlehampton and Chichester centres held particularly high concentrations of drug misuse deaths.

Table 2.3, Drug deaths, by deprivation of resident postcode (West Sussex deciles)

| Deprivation:<br>IMD 2015 – West Sussex internal deciles | All deaths | Drug misuse death | Other drug poisonings |
|---|---|---|---|
| 1 – More deprived | 31 | 22 | 9 |
| 2 | 15 | 11 | 4 |
| 3 | 13 | 7 | 6 |
| 4 | 13 | 7 | 6 |
| 5 | 8 | 4 | 4 |
| 6 | 9 | 1 | 8 |
| 7 | 7 | 1 | 6 |
| 8 | 5 | 1 | 4 |
| 9 | 6 | 2 | 4 |
| 10 – Less deprived | 8 | 2 | 6 |
| (Unknown or out of county) | (8) | (6) | (2) |
| Total | 123 | 64 | 59 |

Table 2.4, Wards with more than one drug misuse death in the audit period

| Wards with more than one Drug Misuse Death | All deaths | Drug misuse death | Other drug poisonings |
|---|---|---|---|
| Selden (Worthing) | 5 | 5 | 0 |
| Central (Worthing) | 6 | 4 | 2 |
| Courtwick with Toddington (Littlehampton) | 5 | 4 | 1 |
| Marine (Bognor) | 4 | 3 | 1 |
| Hotham (Bognor) | 3 | 3 | 0 |
| Castle (Worthing) | 4 | 2 | 2 |
| Heene (Worthing) | 3 | 2 | 1 |
| Chichester North (Chichester) | 2 | 2 | 0 |
| Chichester South (Chichester) | 2 | 2 | 0 |
| Denne (Horsham) | 2 | 2 | 0 |

We can represent the deaths in West Sussex visually, shown below in Figures 2.1a/b. Drug misuse deaths can be seen to cluster around urban areas and deaths from other drug poisonings are more evenly dispersed throughout he county. We can also see that there were fewer accidental overdoses in Horsham district, than perhaps in Mid-Sussex.

Figure 2.1a, Deaths in West Sussex, by ONS classification

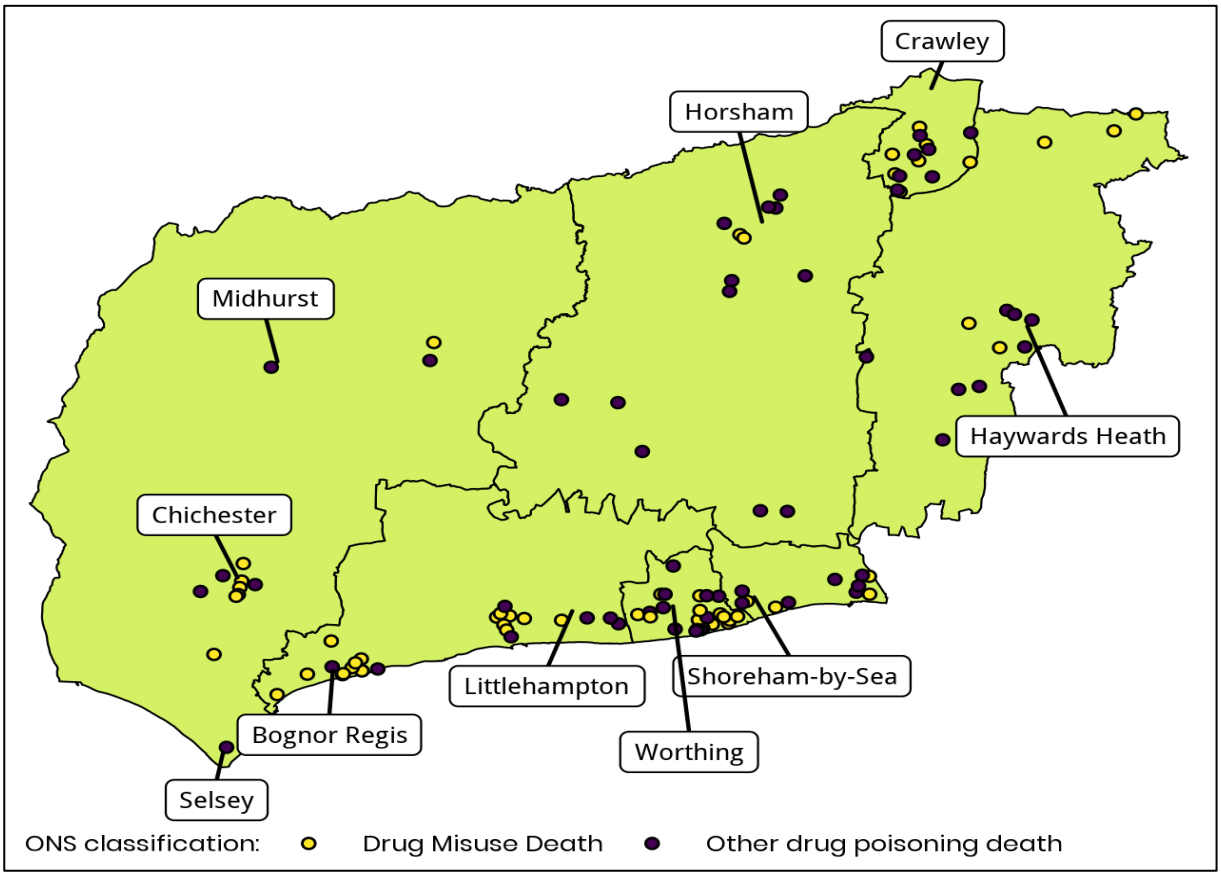
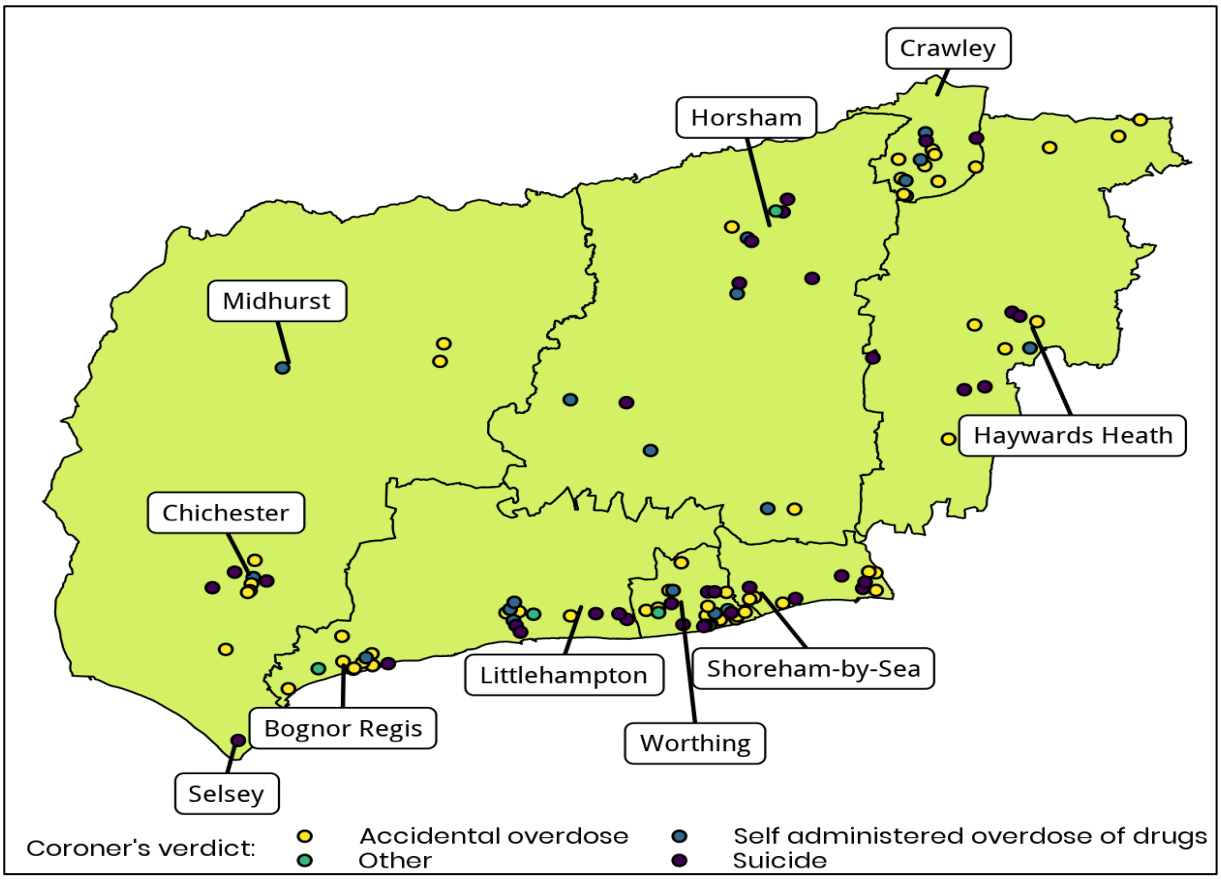



Figure 2.1b, Deaths in West Sussex by coroner verdict



In reviewing the coroner's findings and the relevant medical histories to the inquest, it was possible to infer mental health issues, where such details were included. In some cases, these were not diagnosed by a mental health professional or clinician but were known to those close to the deceased and were communicated in character testimonies. Some individuals had multiple issues or illnesses. It is possible that other issues existed but were undocumented in the inquest files.

Of the 123 individuals to have died, 106 (83%) had at least one of the issues documented in Table 2.5. Of drug misuse deaths, 42% had a depressive illness and 23% had a suicidal intent recorded in the past year; 34% had a known form of anxiety disorder and 12% had a personality disorder. Of those who died from other drug poisonings, 67% had a depressive illness and 38% had a known suicidal intent in the past year. These higher percentages coincide with those who took their own life with medications or other substances. Thirty one percent had a known form of anxiety disorder.

Table 2.5, Known mental health or substance abuse issues in the past year, for each individual

| Mental health or substance abuse issues | All deaths | | Drug misuse death | | Other poisoning | |
|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % |
| Depressive illness | 66 | 54% | 27 | 42% | 39 | 67% |
| Drug misuse (ongoing) | 53 | 43% | 48 | 74% | 5 | 9% |
| Alcohol misuse | 44 | 36% | 26 | 40% | 18 | 31% |
| Anxiety/phobia/panic disorder/OCD | 40 | 33% | 22 | 34% | 18 | 31% |
| Suicidal intent recorded | 37 | 30% | 15 | 23% | 22 | 38% |
| Personality disorder | 12 | 10% | 8 | 12% | 4 | 7% |
| Schizophrenia/similar disorders | 8 | 7% | 3 | 5% | 5 | 9% |
| Bipolar affective disorder | 6 | 5% | 2 | 3% | 4 | 7% |
| Anger management | 4 | 3% | 4 | 6% | 0 | 0% |
| Adjustment/reaction disorder | 3 | 2% | 0 | 0% | 3 | 5% |
| Dementia | 2 | 2% | 1 | 2% | 1 | 2% |
| Learning disability | 1 | 1% | 1 | 2% | 0 | 0% |
| Eating disorder | 1 | 1% | 0 | 0% | 1 | 2% |
| Other issue/illness | 14 | 11% | 8 | 12% | 6 | 10% |

Of those who died, 54% were known to be prescribed a psychoactive medication (Table 2.6). This was defined as something designed to affect mood, emotions or cognitive functioning and does not include pain-killers or other medical medications. Forty two percent of those who died from drug misuse held a prescription for psychoactive medication, as did 66% of those who died from other drug poisonings.

Table 2.6, Those known to be prescribed psychoactive medications at time of death

| Was the deceased prescribed psychoactive medication? | All deaths | | Drug Misuse Death | | Other drug poisoning | |
|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % |
| No/Unknown | 57 | 46% | 37 | 58% | 20 | 34% |
| Yes | 66 | 54% | 27 | 42% | 39 | 66% |
| Total | 123 | 100% | 64 | 100% | 59 | 100% |

The audit also examined possible links to domestic violence or sexual assault. Of those who died, 16% were known to be victims at some stage of their life (33% of females and 9% of males).

Table 2.7, Known historic links to domestic abuse or sexual violence, by sex

| Links to domestic violence or sexual assault | All | | Female | | Male | |
|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % |
| No/Unknown | 95 | 77% | 25 | 68% | 70 | 81% |
| Yes, as perpetrator | 8 | 7% | 0 | 0% | 8 | 9% |
| Yes, as victim | 19 | 15% | 11 | 30% | 8 | 9% |
| Yes, both victim and perpetrator | 1 | 1% | 1 | 3% | 0 | 0% |
| Total | 123 | 100% | 37 | 100% | 86 | 100% |

Key points

- One in three individuals to have died were classed as economically inactive; 21% were in work and 20% were retired, highlighting thee wide range of demographics involved.
- Ten individuals (8%) were known to be homeless or of no fixed abode and all were males. A further 40% of individuals lived alone and 13% lived with their parents.
- The locations of deaths can be mapped geographically to understand areas of higher prevalence. Fifty seven percent of drug misuse deaths occurred in the most deprived fifth of the county.
- Worthing, Bognor Regis, Littlehampton and Chichester centres (in descending order or prevalence) had significant concentrations of drug misuse deaths.
- Of all who died, 83% were linked to an ongoing mental health or substance misuse issue and one in three were linked to a known suicidal intent. Two in three to die from 'other drug poisonings' had a depressive illness.
- Other prominent mental health issues were anxiety-related disorders (33%), personality disorders (10%) and schizophrenia, or other delusional disorders (7%).
- Fifty four percent of individuals were known to have a prescription for psychoactive medications from their practitioner, including 42% of those to die from drug misuse.
- One in three females and one in ten males were known to have been victims of sexual violence or domestic abuse.

## (3) Toxicological analysis

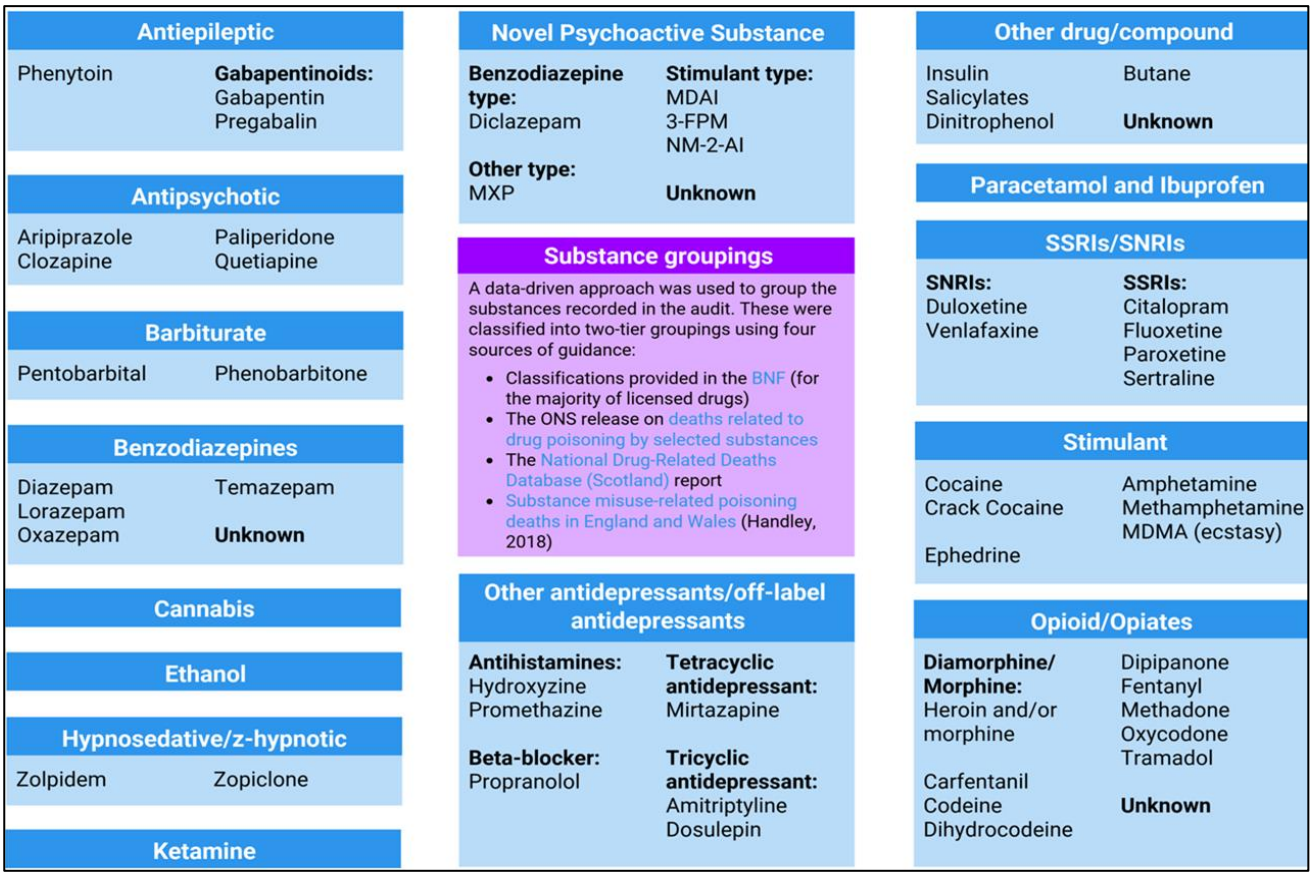
All toxicological information was taken from blood analysis reports found within the coroner's inquest files. Some uncertainty existed between isolated substances and groups i.e. "Cause of death: Benzodiazepine toxicity" or "Opiates" and as a result some specific substances were only available as their broader grouping. This was also exacerbated if blood analysis was conducted sometime after death. It was also difficult for specialists to report on how much a substance contributed to death when there were multiple substances involved. As such, the auditing team resisted attributing cause of death to a primary substance, over others involved. In many cases, it was the combination of substances that led to death, rather than the strength of any one substance.

There are many ways with which to group the substances identified throughout the records:

- Common treatment/prescribing intent
- Legality/classification
- Commonality in death
- Pharmacological grouping

For this report, the broad pharmacological grouping was chosen as the core narrative. This is to avoid confusion and offer the most insight possible for services and commissioners. Across the audit, 56 unique substances recorded as contributing to death, in 350 separate occurrences. These are displayed in Figure 3.1.

Figure 3.1, The substances identified and their broad groupings



In only 21% of deaths was one substance found in analysis, which could have contributed to death (Table 3.1). The highest number of substances was seven, and 53% of deaths occurred with at least three unique substances present.

Table 3.1, Numbers of unique substances found to contribute to death

| Number of unique substances appearing in toxicology | Number of deaths (number of drugs) | Proportion of deaths |
|---|---|---|
| 1 | 26 (26) | 21% |
| 2 | 31 (62) | 25% |
| 3 | 31 (93) | 25% |
| 4 | 20 (80) | 16% |
| 5 | 10 (50) | 8% |
| 6 | 3 (18) | 2% |
| 7 | 2 (14) | 2% |
| Total | 123 (343) | 100% |

Examining the broad groupings, opiates/opioids were recorded in 71% of deaths (Table 3.2). The second most common substance was alcohol (described as ethanol), in 31% of cases. - As this audit is not concerned with deaths pertaining to just alcohol consumption, all of these alcohol deaths are due to their mixing with other substances.

Table 3.2, Groupings of drugs and their occurrence in individual deaths

| Broad substance grouping | Number of deaths where one or more drug within each group was recorded | Proportion of all deaths where one or more drug within each group was recorded |
|---|---|---|
| Opioid/opiates | 87 | 71% |
| Ethanol | 38 | 31% |
| Benzodiazepines | 32 | 26% |
| SSRIs and SNRIs | 26 | 21% |
| Stimulant | 26 | 21% |
| Other/off-label antidepressants | 23 | 19% |
| Paracetamol and ibuprofen | 20 | 16% |
| Hypnosedative/z-hypnotics | 12 | 10% |
| Cannabinoids | 8 | 7% |
| Antipsychotic | 7 | 6% |
| Other drug/compound | 5 | 4% |
| Antiepileptic | 4 | 3% |
| Barbiturate | 4 | 3% |
| Novel psychoactive substance | 3 | 2% |
| Ketamine | 2 | 2% |

Remembering that the presence of a controlled substance automatically denotes a death as 'drug misuse', it is useful to view these by their ONS classification (Table 3.3). Whilst opiates, typically heroin, were involved in 57 drug misuse deaths (89%), opiate-based medications were involved in 30 other drug poisoning deaths (51%). These frequently included pain-relief patches

and codeine. Benzodiazepines were present in 28% of both groups. Paracetamol/Ibuprofen was found in 19 other drug poisoning deaths.

Table 3.3, Drug groupings present at death, by ONS classification

| Broad substance grouping | Drug Misuse Death | | Other drug poisoning death | |
|---|---|---|---|---|
| | Count | % | Count | % |
| Opioid/opiates | 57 | 89% | 30 | 51% |
| Ethanol | 20 | 31% | 18 | 31% |
| Benzodiazepines | 18 | 28% | 14 | 28% |
| SSRIs and SNRIs | 10 | 16% | 16 | 27% |
| Stimulants | 25 | 39% | 1 | 2% |
| Other/off-label antidepressants | 4 | 6% | 19 | 32% |
| Paracetamol and ibuprofen | 3 | 5% | 17 | 29% |
| Hypnosedative/z-hypnotics | 2 | 3% | 10 | 17% |
| Cannabinoids | 7 | 11% | 1 | 2% |
| Antipsychotic | 3 | 5% | 4 | 7% |
| Other drug/compound | 1 | 2% | 4 | 7% |
| Antiepileptic | 0 | 0% | 4 | 7% |
| Barbiturate | 1 | 2% | 3 | 5% |
| Novel psychoactive substance | 3 | 5% | 0 | 0% |
| Ketamine | 2 | 3% | 0 | 0% |

Individuals of different ages were seen to access different substances, on average. For example, whilst opiates were involved with 80% of deaths in the 25-44 years age group, they were only involved with 40% of those aged 65 years or more (Table 3.4).

Table 3.4, Drug groupings present at death, by age band of individual

| Broad substance grouping | Age-band | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 18-24 | | 25-44 | | 45-64 | | 65+ | |
| | Count | % | Count | % | Count | % | Count | % |
| Opioid/opiates | 5 | 63% | 48 | 80% | 26 | 74% | 8 | 40% |
| Ethanol | 0 | 0% | 24 | 40% | 12 | 34% | 2 | 10% |
| Benzodiazepines | 1 | 13% | 20 | 33% | 8 | 23% | 3 | 15% |
| SSRIs and SNRIs | 3 | 38% | 10 | 17% | 9 | 26% | 4 | 20% |
| Stimulants | 2 | 25% | 17 | 28% | 7 | 20% | 0 | 0% |
| Other/off-label antidepressants | 0 | 0% | 15 | 25% | 3 | 9% | 5 | 25% |
| Paracetamol and ibuprofen | 2 | 25% | 4 | 7% | 6 | 17% | 8 | 40% |
| Hypnosedative/z-hypnotics | 2 | 25% | 5 | 8% | 2 | 6% | 3 | 15% |
| Cannabinoids | 0 | 0% | 6 | 10% | 1 | 3% | 1 | 5% |
| Antipsychotic | 2 | 25% | 3 | 5% | 2 | 6% | 0 | 0% |
| Other drug/compound | 1 | 13% | 1 | 2% | 1 | 3% | 2 | 10% |
| Antiepileptic | 0 | 0% | 2 | 3% | 0 | 0% | 2 | 10% |
| Barbiturate | 0 | 0% | 0 | 0% | 1 | 3% | 3 | 15% |
| Novel psychoactive substance | 2 | 25% | 0 | 0% | 1 | 3% | 0 | 0% |
| Ketamine | 0 | 0% | 1 | 2% | 1 | 3% | 0 | 0% |

Full tables of drug groupings by coroner verdict and primary source of drugs are contained in the appendix. Notable points include that 'other/off-label' antidepressants were found in 41%

of self-administered overdoses and 31% of registered suicides. Alcohol was present in 36% of accidental overdoses and 23% of suicides.

Of the 49 deaths caused by the individual's own prescribed medication, 65% involved opiates, and 37% involved 'other/off-label' antidepressants. Four of six deaths occurred from using opiates prescribed to someone else. Opiates were involved in 92% and stimulants in 42%, of the 50 deaths from controlled substances.

When examining the more frequent individual substances, rather than groupings, Table 3.5 shows that diamorphine (heroin) and morphine combined[2] were responsible for 46% of all deaths; alcohol was mixed with other substances in 31% of deaths; and cocaine was found in 31% of deaths.

Fentanyl, whilst increasing in use over recent years, occurred in only 6% of cases, though these were largely more recent deaths.

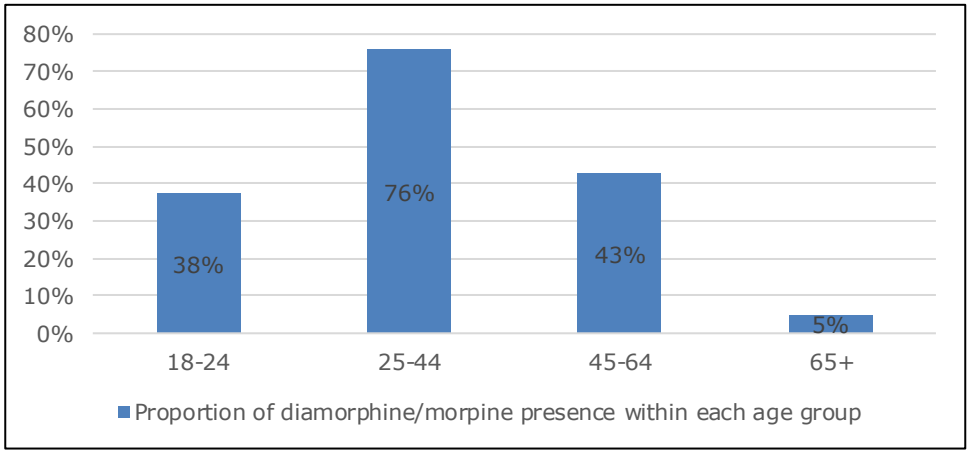
Table 3.5, Substances that were present at death, in at least five cases

| Name of Drug (non-grouped) | Count (n=123) | Proportion of all drug-related deaths |
|---|---|---|
| Diamorphine (Heroin)/Morphine | 57 | 46% |
| Ethanol | 38 | 31% |
| Cocaine | 22 | 18% |
| Paracetamol | 18 | 15% |
| Diazepam | 15 | 12% |
| Unclassified benzodiazepines | 14 | 11% |
| Codeine | 14 | 11% |
| Tramadol | 14 | 11% |
| Amitriptyline | 12 | 10% |
| Methadone | 12 | 10% |
| Citalopram | 10 | 8% |
| Zopiclone | 10 | 8% |
| Cannabis | 8 | 7% |
| Fentanyl | 7 | 6% |
| Dihydrocodeine | 6 | 5% |
| Sertraline | 6 | 5% |
| Mirtazapine | 5 | 4% |
| Oxycodone | 5 | 4% |
| Quetiapine | 5 | 4% |

Looking at age and substance use, it is possible to see that heroin use is far more prevalent in those aged 25-44 years, accounting for 76% of deaths in this cohort compared to 43% of those aged 45-64 years.

[2]Diamorphine (heroin) metabolises into morphine over time, so post-mortem it becomes difficult to distinguish between the two. Other traces and physical evidence available help to confirm death by heroin overdose. The ONS affirm that reporting only deaths which specifically mention heroin may underestimate the numbers.

Figure 3.2, Proportion of those in each age group, by presence of diamorphine/morphine




Key points

- Across the 123 deaths, 56 distinct substances were identified. Amongst others, these included antidepressants, sedatives and tranquilizers, opiate-based pain medications, antipsychotics and a range of illicit (controlled) substances.
- Seventy nine percent of individuals died with at least two substances in their system and over half those had at least three substances in their system.
- In 36% of accidental overdoses and 23% of suicides, one of the additional substances was alcohol.
- Opiates (including heroin and pain mediation) were involved in 71% of deaths and benzodiazepines in 21% of deaths. SSRIs/SNRIs and other anti-depressants were involved in 40% of deaths.
- Drug Misuse deaths and other drug poisonings showed very different profiles of substances used, as did age. Opiate-based pain-killers (51%) and anti-depressants (60%) were very common in other drug poisonings.
- Of the 49 deaths caused by the individual's own prescribed medication, 65% involved opiates, and 37% involved 'other/off-label' antidepressants. Four of six deaths occurred from using opiates prescribed to someone else.
- Heroin (46%), alcohol (31%), cocaine (18%) and paracetamol (15%) were the most common single substances in contributing to deaths from drug poisonings.
- Heroin contributed to the deaths of 76% of those in the 25-44 year old age bracket.

## (4) Service history

Though incomplete and inconsistent, 85 records held reference to GP service contact. Of these, 39 were known to be for physical health concerns, 32 were for mental health concerns and 7 were for both mental and physical health concerns. Forty six individuals had consulted with a GP within the month before their death and a further 17 (63 in total) had consulted with a GP within two months.

Of the 46 individuals who had seen their GP in the month before their death, 24 (52%) died from taking their own prescribed medications; seventeen were drug misuse deaths and 29 were other drug poisonings; 15 were accidental overdoses and 17 were confirmed suicides (with a further 8 self-administering overdoses, where suicides could not be confirmed).

Due to the prominent role of community services, we searched for any specific connection to Change Grow Live (the current drug and alcohol services provider). This is summarised in Table 4.1. Of all deaths, 39 had any involvement with CGL recorded in their inquest file (32%). Of these, 34 had died from drug misuse, and seventeen had also been drinking alcohol at the time of death. Most died from using controlled substances, but 5 died from using their own prescribed medication. Two cases were confirmed as suicide and a further 3 involved self-administering an overdose, where suicidal intent was not confirmed.

Highlighting the prevalence of mental health issues, of the 39 involved with CGL, one in three had a form of anxiety disorder and half had a depressive illness; 28% had a recorded suicidal intent in the past year and 15% had a known personality disorder. – A number of these individuals had more than one mental health issue. Additionally, roughly one in four had been a victim of domestic violence or sexual assault at some point in their lives.

Table 4.1, Attributes of those known to CGL (current service provider)

| Attributes associated with death | Count |
|---|---|
| **ONS classification** | |
| Drug Misuse Death | 34 |
| Other drug poisoning death | 5 |
| Total | 39 |
| **Alcohol also consumed** | |
| Alcohol at time of death | 17 |
| No alcohol at time of death | 22 |
| **Access to substance** | |
| Controlled (illegal) | 31 |
| Purchased in store or online | 2 |
| Prescribed, but not to the deceased | 1 |
| Prescribed, own medication | 5 |
| **Coroner's verdict** | |
| Accidental overdose | 31 |
| Other | 3 |
| Self-administered overdose of drugs | 3 |
| Suicide | 2 |

| Attributes associated with individual | **Count** |
|---|---|
| **Mental health issues** | |
| Schizophrenia/delusional disorders | 0 |
| Bipolar affective disorder | 2 |
| Depressive illness | 20 |
| Anxiety / phobia / panic disorder / OCD | 13 |
| Eating disorder | 0 |
| Dementia | 1 |
| Alcohol misuse | 18 |
| Drug misuse | 32 |
| Personality disorder | 6 |
| Adjustment / reaction disorder | 1 |
| Learning disability | 1 |
| Anger management | 1 |
| Suicidal intent recorded | 11 |
| **Domestic/Sexual violence** | |
| Victim of domestic/sexual violence | 9 |
| Perpetrator of domestic/sexual violence | 3 |

Of the 65 drug misuse deaths, 24 had previous experiences with the police or criminal justice system; 7 had recent or ongoing contact with social support services; 10 had recent or ongoing contact with community or inpatient mental health services and 6 were in contact with

homelessness or housing support. Of the 54 who died from other drug poisonings, 10 were known to be engaged or historically engaged with community or inpatient mental health support.

Key points

- Service histories were inconsistent and often only mentioned in passing, but some insight could be drawn, particularly when an internal investigation was held. Sixty nine percent of individuals had a reference to some historic GP contact.

- Forty six individuals (37%) had met with a GP in the month prior to their death. Of these 24 (52%) died from taking their own prescribed medications.

- One in three individuals had been known to Change Grow Live, the current drug and alcohol service provider in West Sussex. Five of these deaths included suicides or self-administering an overdose.

- Mental health issues with these service users were prominent. Half had a known depressive illness and a third had an anxiety disorder. Twenty eight percent had a known suicidal intent recorded and 23% had been victims of domestic abuse or sexual violence.

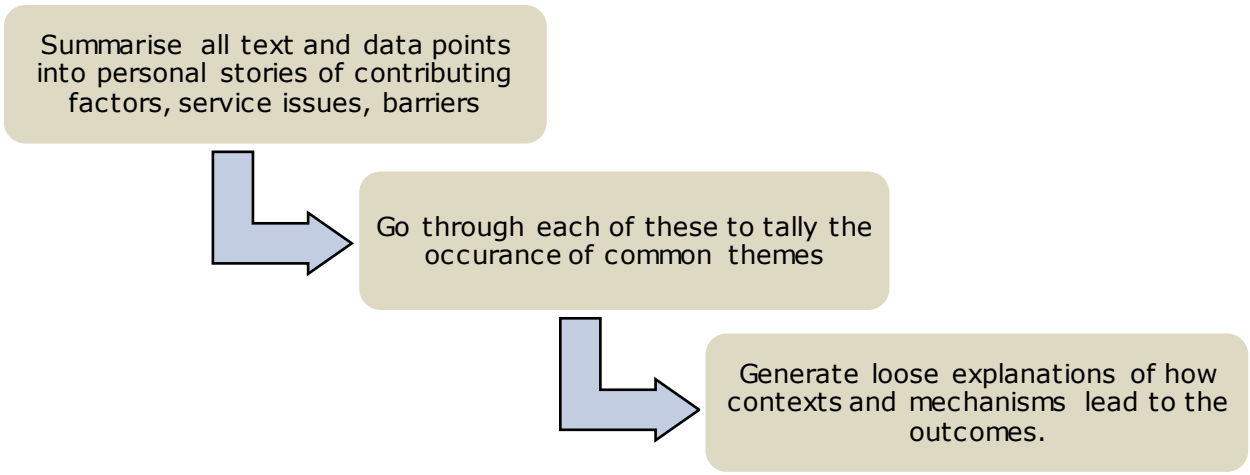
- Roughly one in three of those to die from drug misuse had a known history with the police or criminal justice services.

- Ten of the 65 individuals to die from drug misuse were receiving mental health treatment and 6 were involved with housing support services.

## (5) Thematic analysis

The previous sections have documented the aggregates of personal histories and characteristics, as defined by the predetermined audit categories. The use of open text boxes in an audit gives insight into how the subject was living in the world and interacting with communities and services, beyond that which can be recorded by traditional fixed-category databases. These were collected from character or witness testimonies, suicide notes where relevant, service reviews (often conducted where a death has occurred) and coroner summaries, and then synthesised to create a picture of emerging trends and themes. Figure 5.1 below briefly outlines this process.

Figure 5.1, Qualitative synthesis from personal histories




Every individual had their own story and their own circumstances; the specifics of which cannot be aggregated in a report of this manner. This process was an attempt to catalogue commonalities in a way that can be communicated clearly. It is important to note when tallying common themes, that one driving factor may be more important to both the individual and to developing services, than five other coinciding factors. It is not a measure of severity or priority, but of relevance to the individuals and breadth across the sample. Also, these themes were developed iteratively by the author and were they to be analysed by another, different themes may have emerged. The aim was to understand the relevant contexts of the individual's life and the mechanisms at play which contributed in some part to their death. This could be by creating barriers to services, by lowering personal resilience, or by any other means.

The tallied themes are summarised in Table 5.1 below. Brief explanations of these issues are included below the table, due to their subjective nature.

Most prevalent across all deaths were the those living with compounding mental health problems (66%). These were framed as when mental health or emotional problems were responsible for lowering the resilience of the individual (as a context) or directly contributing to their behaviours (as mechanisms). Of drug misuse deaths, 60% were felt to have compounding mental health problems. This was higher for those who died from other drug poisonings (70%), due to their closer affiliation with suicidal behaviours. In a number of cases, individuals with mental health problems were found to be too disruptive or problematic for substance misuse support services and they were also refused mental health treatment due to their substance abuse issues.

The second most common issue overall was of education and awareness of the risks of taking medications or controlled substances safely (38% of all deaths; 46% of drug misuse deaths and

29% of other poisonings). Two thirds of these individuals had been drinking alcohol at or near the time of death.

Table 5.1, Qualitative themes, tallied by ONS classification

| Themes identified | All deaths (n=123) | Drug misuse deaths (n=65) | Other drug poisonings (n=58) |
|---|---|---|---|
| Compounding mental health problems | 81 | 39 | 42 |
| Education or awareness around risks | 47 | 30 | 17 |
| Service communication issues | 35 | 19 | 16 |
| Diagnosis or gatekeeping failure | 39 | 16 | 23 |
| Known high risk of alcohol-related toxicity | 28 | 16 | 12 |
| Wasn't involved with any services | 23 | 16 | 7 |
| Serious pain or decline in physical health | 37 | 11 | 26 |
| Society's forgotten / needed general support | 16 | 11 | 5 |
| Limited service resources | 23 | 8 | 15 |
| Disengagement from services | 6 | 5 | 1 |
| Over-dependence on pain / other medication | 5 | 3 | 2 |
| Disagreements in prescribed treatment | 5 | 2 | 3 |
| Step-down from concentrated to community support | 4 | 3 | 1 |
| Referred to Mental health services, but didn't take-up | 4 | 2 | 2 |
| Criminal charges triggering suicide | 2 | 1 | 1 |

Compounding mental health problems:

- These were noted when mental health or emotional problems were responsible for lowering the resilience of the individual (as a context) or directly contributing to their behaviours (as mechanisms). Issues were only tallied when they were believed to play a notable or ongoing role, rather than day-to-day wellbeing problems which one might face.

Education / awareness around risks:

- Issues of how to take or store medication safely, the dangers of mixing substances, or on lowered tolerance after abstinence (mixing with alcohol was also a large contributor to this). Clinicians and pharmacists often informed individuals of the risks, but these were not necessarily taken to heart. Mixing medications or controlled substances with alcohol accounted for a significant number of these.

Service communication issues:

- When services did not share information on an individual's needs or communicate reasons for action taken with partners or the service user. Professionals may have left a post, without establishing sufficient continuity of support, or did not follow up on a referral to other services. On some occasions, individuals dropped off the service-radar without any one practitioner following their progress.

Diagnosis or gatekeeping failure:

- Individuals who were at some stage refused support on the basis of their eligibility or suitability or were misdiagnosed by professionals. In some cases, individuals were never seen by a practitioner. Learning was documented throughout the audit where an internal review was conducted.

Known high risk of alcohol-related toxicity:

- These individuals were known to be at risk from their drinking, due to their past behaviours and extra consideration of their potential to mix alcohol with other substances may have led to more support or a change in treatment.

Wasn't involved with any services:

- Individuals which did not interact with services at all and where it was felt that some intervention or engagement would have supported or safeguarded them, beyond what they could achieve on their own.

Serious pain or decline in physical health:

- Individual resilience was lowered over a period of time, due to physical health issues. In most cases these were already under clinical supervision, but the decline in physical health required personal or emotional support. This was a core issue in 'other' poisoning deaths, due to the connection with suicide and accidental overdoses with pain medication.

Society's forgotten / needed general support:

- These individuals were felt, by the author, to have aspirations of improving their personal context, but were unable or lacked the resilience to do this without models of support known to exist. These were not necessarily complex cases, but individuals generally had no one in their life with capacity to assist them.

Limited service resources:

- Mirroring the point above, some services were unable to provide the level of support required by individuals, or complex cases. This might include waiting-times, or staffing pressures preventing follow-ups and monitoring of individuals needing additional supervision.

Disengagement from services:

- Some individuals were engaged with services but at some point, disengaged. This is highlighted as an issue due to the difficulty in getting individuals through the door in the first instance and the missed opportunity in supporting them at that point.

Over-dependence on pain / other medication:

- Some individuals chose to purchase additional medications or controlled substances to top-up the effects of their prescribed medication or treatment. Particularly with long-term conditions, dependence can lower the therapeutic effect of safe doses.

Disagreements in prescribed treatment:

- In several instances, individuals were recorded as having challenged the judgment of their practitioner but failed to receive the treatment or diagnosis that they felt was appropriate. This is noted where it directly contributed to lowered resilience or death.

Step-down from concentrated to community support:

- Problems of service design persist when individuals leave more intensive support for less intensive support. The move, for example from inpatient facilities and daily supervision, to community support and weekly or monthly supervision was felt to be too acute for some, and a more gradual climb down may have met their needs better. Some cases raised the issue of individuals changing to lower risk support, despite them 'not feeling ready' to do so.

Referred to Mental health services, but didn't take-up:

- Some individuals were believed to require mental health support but were not interested or able to accept this referral. This lack of mental health support was believed to play a role in their circumstances.

Criminal charges triggering suicide:

- Whilst uncommon, the 2017 West Sussex suicide audit also identified a number of cases where individuals facing police investigation or potential prosecution chose to end their lives. In the present cases, police were not aware that individuals might have had low resilience.

If we take a different view, being the verdict gleamed from the coroner's files, then the prominence of some key themes clearly shifts (Table 5.2). Of the 66 individuals who died from an accidental overdose, two in three were linked to a need for better education or awareness of the risks of using medications or substances; over half had a compounding mental health problem. Of the 52 individuals who were confirmed as a suicide or self-administered an overdose (but not confirmed as a suicide), four in five had compounding mental health problems; half were linked to a diagnosis or gatekeeping failure and half were linked to serious pain or a decline in physical health.

Table 5.2, Qualitative themes, tallied by verdict from coroner's inquest

| Themes identified | Accidental overdose (n=66) | Suicide or self-administered overdose (combined; n=52) |
|---|---|---|
| Education or awareness around risks | 41 | 4 |
| Compounding mental health problems | 38 | 42 |
| Known high risk of alcohol-related toxicity | 21 | 7 |
| Wasn't involved with any services | 16 | 6 |
| Diagnosis or gatekeeping failure | 15 | 24 |
| Service communication issues | 14 | 20 |
| Serious pain or decline in physical health | 13 | 24 |
| Limited service resources | 9 | 14 |
| Society's forgotten / needed general support | 9 | 7 |
| Disengagement from services | 4 | 1 |
| Over-dependence on pain or other medication | 4 | 1 |
| Step down from concentrated to community support | 2 | 2 |
| Referred to Mental health services, but didn't take-up | 2 | 2 |
| Disagreement in prescribed treatment | 1 | 3 |
| Criminal charges triggering suicide | 0 | 2 |

Key points

- Each individual had a lifetime of experiences and personal contexts leading up to their death. This section attempts to draw meaning from a qualitative synthesis of the information held in the coroner's records.
- Mental health issues were linked to two in three deaths.
- A lack of education or awareness of the risks involved in using medication or controlled substances, particularly concerning mixing these with alcohol or other substances, was linked to one in three deaths.
- One in three of those to die from an accidental overdose had been previously linked to a high risk of alcohol-related toxicity.
- Gatekeeping and misdiagnosis failures were a prominent mechanism in preventing vulnerable individuals from accessing support services.
- Service communication issues, either to partner organisations or services, or to the individual was linked to a significant number of cases.
- Declining physical health or decencies on health and pain medication was a driving factor in a number of deaths, by lowering personal resilience.
- Service issues included a lack of resources to monitor individuals if they experienced problems, proved challenging to work with, or disengaged from services altogether. It is also possible that some individuals were not resilient enough to move to less focused support.
- There were a number of cases where individuals were offered a diagnosis that did not match their experience and this led to self-medication, disengagement from services or poor emotional wellbeing.
- A repeating theme was the catch-22 of those with mental health issues being unsuitable, or too disruptive, for substance abuse support services, but not eligible for mental health support on the basis of their substance misuse issues.
- From the records it appeared that some individuals had no complex cases, or need for intensive service support, but didn't have the capacity or resilience to move forwards in their lives. They required general support to help them get on their feet, which was not available to them.

# Summary

In the preparation of this report, the findings were presented to key partners, and the following questions were summarised to help move the conversation forwards. Answering these might require further research in the future, or simply a series of honest conversations between stakeholders. These only exist as a result of not being answered within the data and therefore require further consideration at this time.

- Are services too quick to reduce risk? – Or discharge individuals when not safe?
- When advising individuals of the dangers of taking medications or mixing substances, how can we improve chances of messages taking hold?
- Can people receiving ongoing pain medications be assessed for alcohol risks?
- Can some people be too unstable or disruptive to engage with the services offered to them? What happens then?
- What should be done when people are addicted to, or have an increased tolerance of pain medications? What can be done to reduce the likelihood of self-medication?
- For both self-medication and mental health concerns, research is required into how to get people to come to terms with lifelong pain with no relief.

Whilst this audit report has attempted to communicate both the particulars of the methodology and the nuances of the findings, it is hoped that the following points have been communicated clearly and with sufficient rationale to take forward:

- Deaths from drug poisoning affect a wide spectrum of residents in West Sussex. Whilst younger men account for a larger proportion, deaths are not attributable to a single cohort or demographic and as such, efforts to reduce early death require attention in many different areas.

- Geographic areas have been identified as more concentrated areas of drug misuse deaths and outreach work can be targeted to these areas; though the age of this data should remain a caveat in identifying such areas.

- Resolving the issues of compounding mental health problems appear to be a primary issue in reducing deaths from drug poisonings across a full spectrum of West Sussex residents.

- Messages around dangers of alcohol mixed with medications or other substances may need to be reconsidered or refocused. Efforts to understand how and why these might not take hold may help to reduce deaths in the future. This may require assessing individuals for alcohol risks at the point of prescription.

- The dangers of alcohol mixing might be rare, but they are heightened when the individual is in a period of low resilience, for which alcohol is a self-medicated relief and thoughts of other medication may not come into play.

- Diagnosis failings and barriers around gatekeeping and referrals are an issue of professional training, and were a significant theme running through many of the deaths examined.

- Those known to have engaged with community substance misuse services were shown to have a range of complex emotional and mental health problems, which may make treatment more difficult, particularly if staff do not have the skills or resources to deal with complex cases.

- Opiates are the primary group, in both misuse and other poisonings, but multiple substances (three or more) were found in more than half of all deaths. Opiates tended to involve heroin in drug misuse deaths and prescribed painkillers in other drug poisonings.

- The step-down between tier 4 and tier 3 services may be too steep, for substance addiction and for mental health patients going into less focused community-based support.

- Many of the deaths examined were of people who needed some focused help to support their everyday life and move forwards.

- Most of these cases were highly complex and person-specific and were not driven by a single solvable or targetable issue. Addressing those issues will require a more even and integrated culture of prevention and resilience building, concerning many partnering agencies.

- It may be necessary to repeat focused audit work like this in the future, to examine how policy and public services have adapted to these findings. To allow for ways of working to take hold, this should not occur for several years.

# Appendix tables

Table A.1 All deaths by drug misuse or other drug poisoning deaths

| | | Female | Male | All deaths |
|---|---|---|---|---|
| **Drug Misuse Death** | **Controlled (illegal)** | | | |
| | Accidental overdose | 5 | 37 | 42 |
| | Self-administered overdose | 0 | 2 | 2 |
| | Suicide | 0 | 2 | 2 |
| | Other cases | 1 | 3 | 4 |
| | Controlled (illegal) Total | 6 | 44 | 50 |
| | **Purchased in store or online** | | | |
| | Accidental overdose | 0 | 3 | 3 |
| | Self-administered overdose | 0 | 0 | 0 |
| | Suicide | 0 | 2 | 2 |
| | Other cases | 0 | 0 | 0 |
| | Purchased in store or online Total | 0 | 5 | 5 |
| | **Prescribed to another** | | | |
| | Accidental overdose | 1 | 0 | 1 |
| | Self-administered overdose | 0 | 0 | 0 |
| | Suicide | 0 | 0 | 0 |
| | Other cases | 0 | 0 | 0 |
| | Prescribed to another Total | 1 | 0 | 1 |
| | **Prescribed, own medication** | | | |
| | Accidental overdose | 1 | 3 | 4 |
| | Self-administered overdose | 1 | 2 | 3 |
| | Suicide | 0 | 0 | 0 |
| | Other cases | 0 | 0 | 0 |
| | Prescribed, own medication Total | 2 | 5 | 7 |
| | **Unknown** | | | |
| | Self-administered overdose | | 1 | 1 |
| | **Drug Misuse Death Total** | **9** | **55** | **64** |
| | | | | |
| **Other drug poisoning death** | **Purchased in store or online** | | | |
| | Accidental overdose | 2 | 1 | 3 |
| | Self-administered overdose | 0 | 2 | 2 |
| | Suicide | 3 | 4 | 7 |
| | Other cases | 0 | 0 | 0 |
| | Purchased in store or online Total | 5 | 7 | 12 |
| | **Prescribed to another** | | | |
| | Accidental overdose | 1 | 0 | 1 |
| | Self-administered overdose | 0 | 1 | 1 |
| | Suicide | 0 | 2 | 2 |
| | Other cases | 0 | 1 | 1 |
| | Prescribed to another Total | 1 | 4 | 5 |
| | **Prescribed, own medication** | | | |
| | Accidental overdose | 6 | 6 | 12 |
| | Self-administered overdose | 6 | 2 | 8 |
| | Suicide | 10 | 12 | 22 |
| | Other cases | 0 | 1 | 1 |
| | Prescribed, own medication Total | 22 | 20 | 42 |
| | **Other drug poisoning death Total** | **28** | **31** | **59** |

Table A.2, All substances recorded, by frequency and proportion of total deaths

| Name of Drug<br><br>*Total number of drug-related deaths = 123* | Count | Proportion of all drug-related deaths |
|---|---|---|
| Diamorphine (Heroin)/Morphine | 57 | 46 |
| Ethanol | 38 | 31 |
| Cocaine | 22 | 18 |
| Paracetamol | 18 | 15 |
| Diazepam | 15 | 12 |
| benzodiazepines - unknown | 14 | 11 |
| Codeine | 14 | 11 |
| Tramadol | 14 | 11 |
| Amitriptyline | 12 | 10 |
| Methadone | 12 | 10 |
| Citalopram | 10 | 8 |
| Zopiclone | 10 | 8 |
| Cannabis | 8 | 7 |
| Fentanyl | 7 | 6 |
| Dihydrocodeine | 6 | 5 |
| Sertraline | 6 | 5 |
| Mirtazapine | 5 | 4 |
| Oxycodone | 5 | 4 |
| Quetiapine | 5 | 4 |
| Fluoxetine | 4 | 3 |
| Propranolol | 4 | 3 |
| Temazepam | 4 | 3 |
| Venlafaxine | 4 | 3 |
| Ibuprofen | 3 | 2 |
| Pentobarbital | 3 | 2 |
| Amphetamine | 2 | 2 |
| Aripiprazole | 2 | 2 |
| Ketamine | 2 | 2 |
| Opioid/opiates - unknown | 2 | 2 |
| Paroxetine | 2 | 2 |
| Pregabalin | 2 | 2 |
| Promethazine | 2 | 2 |
| Zolpidem | 2 | 2 |
| 3-FPM (3-Fluorophenmetrazine) | 1 | 1 |
| Butane | 1 | 1 |
| Carfentanil | 1 | 1 |
| Clozapine | 1 | 1 |
| Crack cocaine | 1 | 1 |
| Diclazepam | 1 | 1 |
| Dinitrophenol | 1 | 1 |
| Dipipanone | 1 | 1 |
| Dosulepin | 1 | 1 |
| Duloxetine | 1 | 1 |
| Ephedrine | 1 | 1 |
| Gabapentin | 1 | 1 |
| Hydroxyzine | 1 | 1 |
| Insulin | 1 | 1 |
| Lorazepam | 1 | 1 |
| MDAI (5,6-methylenedioxy-2-aminoindane) | 1 | 1 |
| MDMA (3,4-methylenedioxy-methamphetamine) | 1 | 1 |
| Methamphetamine | 1 | 1 |

| | | |
|---|---|---|
| MXP (Methoxyphenamine) | 1 | 1 |
| NM-2-AI (N-methyl-2-aminoindane) | 1 | 1 |
| Novel psychoactive substance - unknown | 1 | 1 |
| Other - unknown | 1 | 1 |
| Oxazepam | 1 | 1 |
| Paliperidone | 1 | 1 |
| Phenobarbitone | 1 | 1 |
| Phenytoin | 1 | 1 |
| Salicylates | 1 | 1 |

Figure A.1, Deaths in West Sussex, by means of access to substance

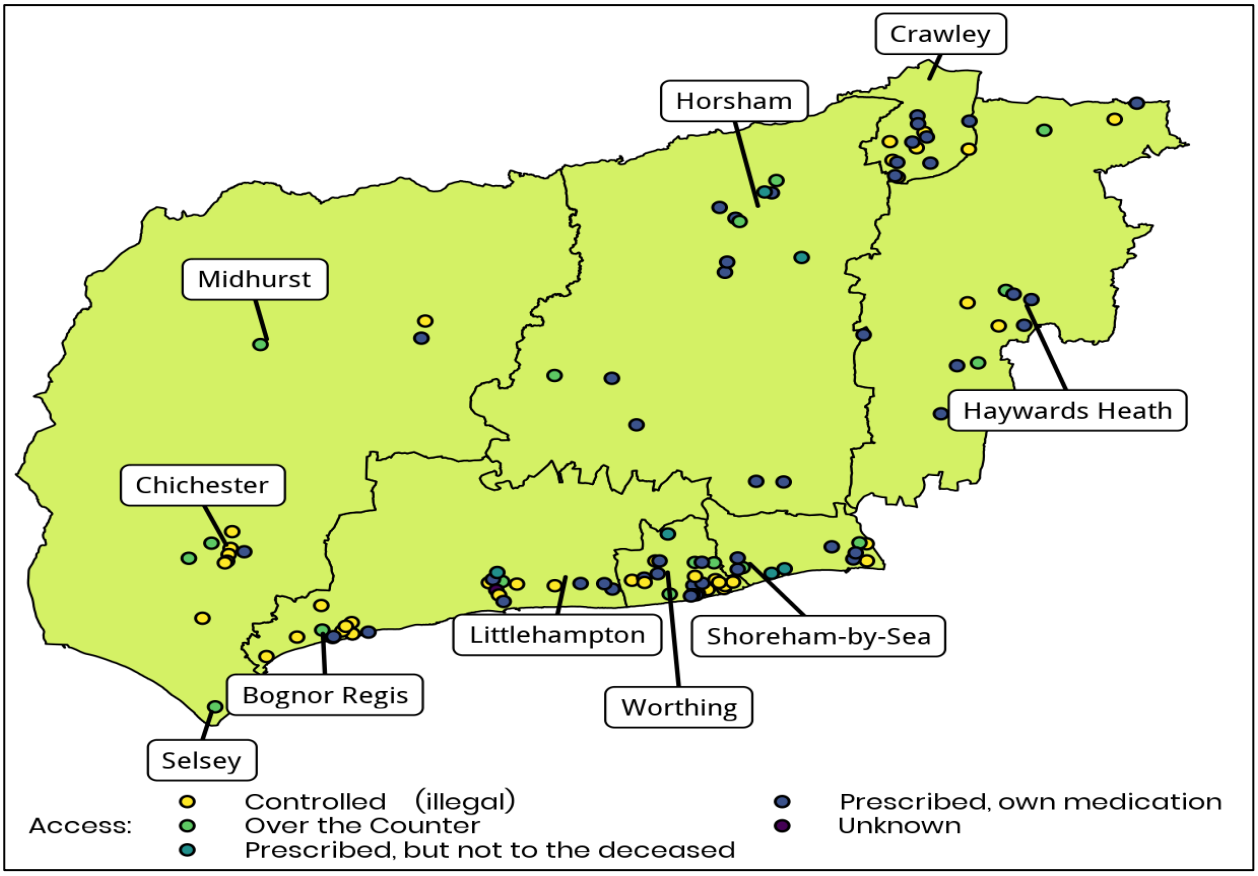


Table A.3a, Substances involved in deaths, by coroner verdict

| Broad substance grouping | **Coroner's verdict** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Accidental overdose | | Self-administered overdose of drugs | | Suicide | | Other | |
| | Count | % | Count | % | Count | % | Count | % |
| Opioid/opiates | 58 | 88% | 12 | 71% | 13 | 37% | 4 | 80% |
| Ethanol | 24 | 36% | 5 | 29% | 8 | 23% | 1 | 20% |
| Benzodiazepines | 20 | 30% | 7 | 41% | 4 | 11% | 1 | 20% |
| SSRIs and SNRIs | 12 | 18% | 3 | 18% | 11 | 31% | 0 | 0% |
| Stimulants | 22 | 33% | 1 | 6% | 1 | 3% | 2 | 40% |
| Other/off-label antidepressants | 4 | 6% | 7 | 41% | 11 | 31% | 1 | 20% |
| Paracetamol and ibuprofen | 4 | 6% | 3 | 18% | 12 | 34% | 1 | 20% |
| Hypnosedative/z-hypnotics | 4 | 6% | 2 | 12% | 5 | 14% | 1 | 20% |
| Cannabinoids | 5 | 8% | 1 | 6% | 1 | 3% | 1 | 20% |
| Antipsychotic | 3 | 5% | 2 | 12% | 2 | 6% | 0 | 0% |
| Other drug/compound | 2 | 3% | 0 | 0% | 2 | 6% | 1 | 20% |
| Antiepileptic | 1 | 2% | 1 | 6% | 2 | 6% | 0 | 0% |
| Barbiturate | 0 | 0% | 0 | 0% | 4 | 11% | 0 | 0% |
| Novel psychoactive substance | 3 | 5% | 0 | 0% | 0 | 0% | 0 | 0% |
| Ketamine | 2 | 3% | 0 | 0% | 0 | 0% | 0 | 0% |

Table A.3b, Substances involved in deaths, by primary source of core substance

| Broad substance grouping | **Primary source of core substance/s** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Controlled (illegal) | | Purchased in store or online/internet | | Prescribed, own medication | | Prescribed, but not to the deceased | |
| | Count | % | Count | % | Count | % | Count | % |
| Opioid/opiates | 46 | 92% | 4 | 24% | 32 | 65% | 4 | 67% |
| Ethanol | 19 | 38% | 2 | 12% | 15 | 31% | 2 | 33% |
| Benzodiazepines | 16 | 32% | 2 | 12% | 14 | 29% | 0 | 0% |
| SSRIs and SNRIs | 6 | 12% | 2 | 12% | 16 | 33% | 2 | 33% |
| Stimulants | 21 | 42% | 1 | 6% | 4 | 8% | 0 | 0% |
| Other/off-label antidepressants | 3 | 6% | 1 | 6% | 18 | 37% | 1 | 17% |
| Paracetamol and ibuprofen | 2 | 4% | 8 | 47% | 9 | 18% | 1 | 17% |
| Hypnosedative/z-hypnotics | 2 | 4% | 0 | 0% | 8 | 16% | 2 | 33% |
| Cannabinoids | 5 | 10% | 0 | 0% | 2 | 4% | 1 | 17% |
| Antipsychotic | 2 | 4% | 0 | 0% | 5 | 10% | 0 | 0% |
| Other drug/compound | 0 | 0% | 3 | 18% | 1 | 2% | 1 | 17% |
| Antiepileptic | 0 | 0% | 0 | 0% | 3 | 6% | 1 | 17% |
| Barbiturate | 0 | 0% | 2 | 12% | 1 | 2% | 1 | 17% |
| Novel psychoactive substance | 2 | 4% | 1 | 6% | 0 | 0% | 0 | 0% |
| Ketamine | 2 | 4% | 0 | 0% | 0 | 0% | 0 | 0% |