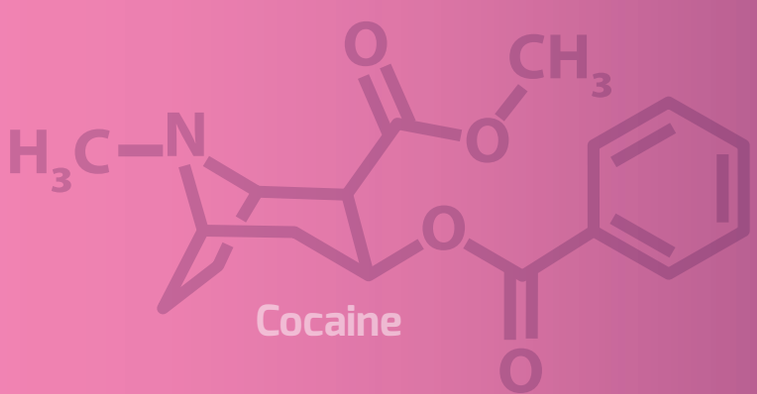
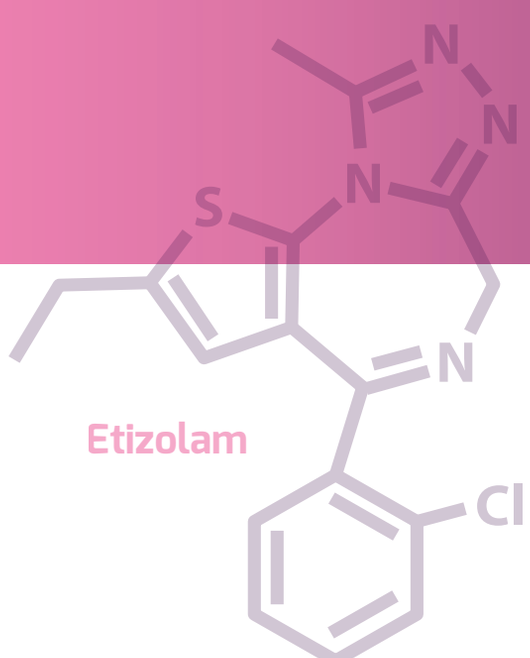
PHILTRE

Annual Report
Adroddiad Blynyddol
1st April 2018 - 31st March 2019





WEDINOS

www.wedinos.org

Contents

Foreword

58%
increase

We are delighted to report that each year **WEDINOS** 2.0 builds on existing collaborations and engagement with over 171 organisations from across the UK having now contributed psychoactive samples for profiling in additional to individual contributors. During 2018-19, we have seen a 58 per cent increase in sample submissions from the previous year, highlighting the value of **WEDINOS** to those using substances and at risk from, or experiencing, adverse consequences as well as the range of health and social care professionals, frontline services and clinicians contributing to the service.

WEDINOS represents a key harm reduction intervention, enabling identification of trends in psychoactive substance use and evidencing emerging threats posed by new substances, new combinations, medications new to misuse, and the impact of global drug markets.

Of urgent concern is the increasing availability, range and use of non-prescribed 'prescription' medications by diverse populations, both young and old and the strengthening evidence of substitution of substances within drug groups, both representing clear public health challenges.

Josie Smith
WEDINOS programme lead and Head of Substance Misuse, Public Health Wales

WEDINOS

WEDINOS is funded by Welsh Government and launched in October 2013 as a collaboration between Public Health Wales, Cardiff Toxicology Laboratories at University Hospital Llandough (Cardiff and Vale UHB) and the School of Pharmacy at Cardiff University and supported by Welsh Government.

WEDINOS provides a framework for the collection and testing of samples of psychoactive substances and combinations of drugs (hereafter referred to as "samples") along with information regarding the symptoms users experienced, both expected and unexpected. Collation of these findings along with identification of the chemical structure of the samples enables the dissemination of pragmatic evidence-based harm reduction information for those using psychoactive drugs or considering use.

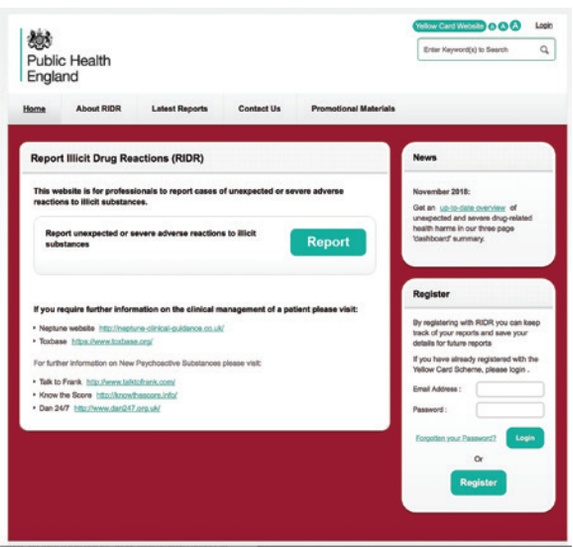
The analytical tools used for the profiling of samples includes a Quadrupole Time of Flight (Q-ToF) mass spectrometer (which acts as the primary analytical tool), a Fourier-Transform Infrared (FTIR) spectrometer, Nuclear Magnetic Resonance (NMR) spectroscopy, Gas Chromatography–Mass Spectrometry (GC-MS) and Liquid Chromatography–Mass Spectrometry (LC-MS).

Collaborations and Stakeholders

WEDINOS programme staff are active collaborators and stakeholders, contributing to a range of expert groups on a regional, national and international level.

Project staff work alongside key partners and stakeholders from both statutory and third party organisations who provide support to individuals using or considering using psychoactive substances and concerned others.

WEDINOS and RIDR



RIDR: Reporting and responding to emerging drug health harms
https://report-illicit-drug-reaction.phe.gov.uk/

Laura Pechey, Programme Manager - Alcohol and Drug Treatment and Recovery; Alcohol, Drugs, Tobacco and Justice Division; Public Health England.

Report Illicit Drug Reactions (RIDR) is a national scheme for reporting unexpected or severe illicit drug reactions developed by Public Health England (PHE) with the Medicines and Healthcare products Regulatory Agency (MHRA). Professionals from across the UK can report any unexpected or severe illicit drug reactions that they encounter using a secure online portal. RIDR aims to improve our understanding of illicit drug health harms and increase the speed at which they are detected. *The more reports that we receive from professionals, the better our guidance on responding to emerging drug health harms will be.*

Professionals include anyone working with people who use drugs including housing and homelessness, local authorities, substance misuse services and criminal justice services.

Intelligence received through a range of sources—including RIDR, **WEDINOS**, drug alerts, early warning systems and national statistics—is reviewed by PHE's Drug Harms Assessment and Response Team (DHART). The DHART is made up of clinical, scientific and policy experts with professional involvement in surveillance of and/or responding to issues relating to drug misuse. The DHART meets quarterly to review the latest intelligence and agree an up-to-date summary to support frontline professionals in responding to emerging drug health harms.

WEDINOS works in partnership with PHE to share intelligence, including contributing to the DHART, supporting the development of RIDR and regular information sharing.

Abertawe Medical Partnership

Janet Keauffling, CNS Homeless & Vulnerable Adults, Abertawe Medical Partnership.

In 2018, we were faced with mounting concerns about a change in the quality and appearances of heroin locally. Needle exchange workers were being asked to provide more needles because the mix was more viscous and oily than usual and harder to draw up into the needles. Rumours were circulating that this was "Black Tar Heroin". **WEDINOS** was able to demonstrate conclusively that this was not the case and provided information on the constituents that were creating the changes noted.

WEDINOS has also provided up to date information on trends in drug substitutions locally such as Etizolam or Alprazolam sold as Diazepam. This data has been essential for awareness about increased risks of overdose.

It is this type of clear unequivocal evidence that makes it easier for us to dispel myths quickly and give good, consistent harm reduction advice. It is an invaluable resource for anyone working with drug users.

Taith - Wales

Dorian Dunell and Leanne Bruford

In recent years we have seen a huge spike in the availability of a variety of substances that could potentially have a detrimental impact not just for the users but for their family and wider community.

We actively inform service users of **WEDINOS** testing and encourage individuals to submit samples for testing whilst reassuring individuals that the system is completely confidential recognised by a barcode only.

We find that the process for submitting substances extremely simple and straight forward. Once contacted **WEDINOS** arranges collection of the bagged sample the same day, we will also facilitate local service user group members to submit substances via Taith. Once collected we can track the process of the submitted substances on the **WEDINOS** webpage by a unique individual tracking number. The turnaround time for publication of the results of testing is extremely quick. This in turn enables us to provide accurate feedback to the person or persons who have submitted the substance and deliver the correct if and when needed harm reduction advice. Should potentially dangerous substances be identified we would ensure that all relevant steps are taken to share this information with other partner agencies.

WEDINOS provide an exceptional service that over the years has provided accurate, factual, and up to date information that has assisted Taith in the identification of unknown substances in order to appropriately support our service users.

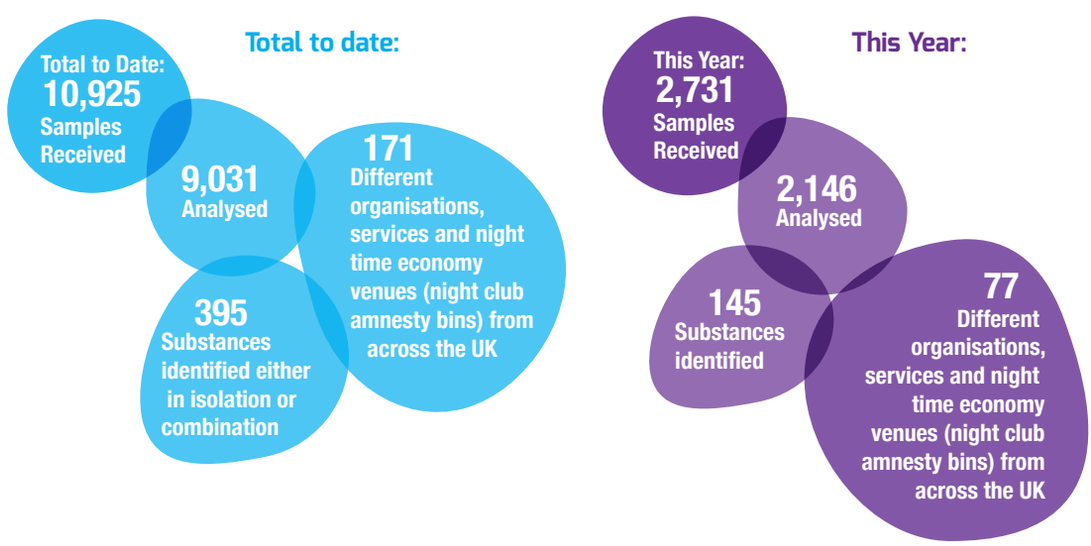
Headline Figures 2018/19

- **Total to date:**
  10,925 samples received
  - 9,031, analysed
  - 395 substances identified either in isolation of combination.
  - 171 different organisations, services and night time economy venues (night club amnesty bins) from across the UK.

- **This Year:**
  2,731 samples received representing an increase of 58 per cent from 2017/18
  - 2,146 analysed ^ 38 per cent
  - 145 substances identified v 17 per cent
  - 77 different organisations, services and night time economy venues from across the UK ^ 20 per cent

- Median age of sample providers 35 years (range 13 to 74 years)
- As in 2017/18 benzodiazepines were the most commonly identified class of mind altering / psychoactive substances.
- Consistent with previous years cocaine was the most commonly identified substance, followed closely this year by MDMA.
- 20 reporting forms to EMCDDA following substance identifications – 7 European firsts – 8 United Kingdom firsts.

Fig. 1: WEDINOS activity to date and in last year 2018/19



Substance Use Prevalence . . .

The Wider Perspective

The United Nations Office on Drugs and Crime (UNODC) reported about 275 million people worldwide (roughly 5.6 per cent of the global population aged 15-64 years), used drugs at least once during 2016. Some 31 million of people who use drugs suffer from drug use disorders, meaning that their drug use is harmful to the point where they may need treatment.

According to the World Health Organisation 167,750 were directly associated with drug use disorders (mainly overdoses). Opioids continued to cause the most harm, accounting for 76 per cent of deaths where drug use disorders were implicated.[1.]

The Crime Survey for England and Wales 2017/18 reported that 9 per cent of adults aged 16 to 59 had taken a drug in the last year, a slight increase from the 8.5 per cent reported in 2016/17. This equates to around 3 million people or 1 in 11 adults aged 16 to 59. Amongst 16 to 24 year olds, 19.8 per cent reported taking a drug in the last year, an increase from 19.2 per cent the previous year, accounting for around 1 in 5.[2.]

Amongst 16-24 year olds, 8 per cent reported having used a class A substance in the last year.

The most recent provisional estimates for problem drug* use in Wales, including populations not in contact with any services, in 2015-16 was 49,370 (95% confidence interval (CI) 42,230 – 58,540).

1. World Drug Report 2018, United Nations Office on Drugs and Crime; https://www.unodc.org/wdr2018/
2. Drug Misuse: Findings from the 2017/18 Crime Survey for England and Wales; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729249/drug-misuse-2018-hosb1418.pdf

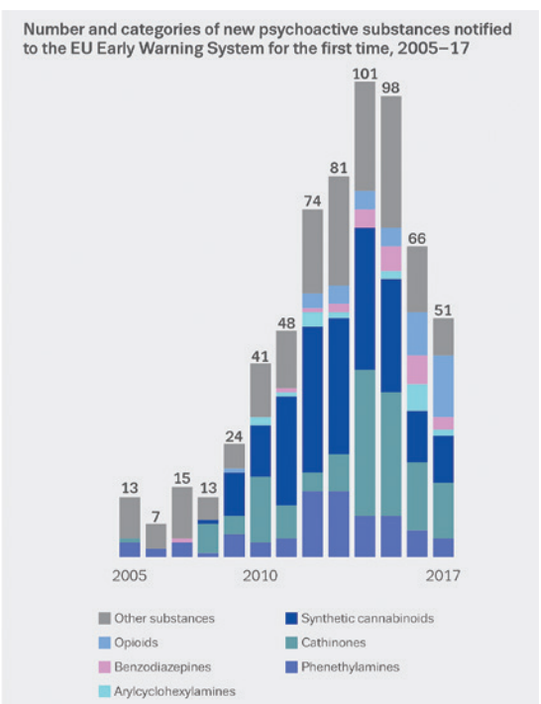
* In this context problem drug use (PDU) is defined by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) as "injecting drug use or long duration or regular use of opioids, cocaine and/or amphetamines [including amphetamine type substances]".

Harms from Substance Use

Overall, the number of hospital admissions for poisonings with named illicit drugs has decreased by 2.4 per cent to 6,506 in 2017-18. However, over the last five years, there has been a 7.2 per cent increase in illicit drug admissions.[3.]

In 2017, 260 deaths due to drug poisoning were registered in Wales, a decrease of 4.1 per cent from the previous calendar year. Of all drug-poisoning deaths, 185 (71.2 per cent) were defined as a drug misuse death, a reduction of 3.7 per cent from 192 deaths in 2016.

Fig. 2



European Drug Trends

The top three substances identified by **WEDINOS** during this reporting period were cocaine and MDMA, followed by ketamine.

These findings are consistent with the European Monitoring Council for Drugs and Drug Addiction (EMCDDA), who state that cocaine and MDMA are the most commonly used illicit stimulants across Europe; showing **WEDINOS** continues to provide a robust evidence base for the UK.

Also in line with the EMCDDA, **WEDINOS** has seen a decrease in the number of substances classified as New Psychoactive Substances (NPS); however, this is alongside an increase in the prevalence of benzodiazepines. The EMCDDA make particular note of their concerns around the emergence of new benzodiazepine-related substances, with the availability of both established and new benzodiazepines on the illicit drugs market appearing to be increasing in some countries.[4.]

As in previous years it remains clear, from evaluating a samples origin, that the setting i.e. prison, homelessness or night club influences the market and motivations for use.

3. Turner, D; Smith, J. Data mining Wales: The annual profile for substance misuse 2017-18, Public Health Wales, Substance Misuse Programme, 2018.
4. European Monitoring Centre for Drugs and Drug Addiction (2018), European Drug Report 2018: Trends and Developments, Publications Office of the European Union, Luxembourg.

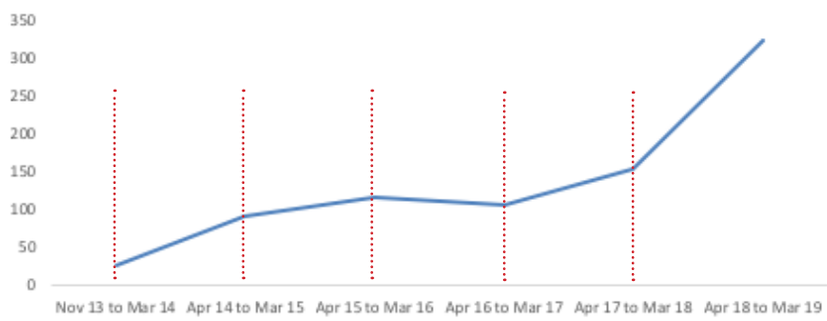
Headline News
Benzodiazepines – *unknown* unknowns

Since project launch **WEDINOS** has received 819 samples submitted in the belief that they contained benzodiazepine, 40 per cent of which have been received and analysed in the last year.

110%
increase

With 324 samples submitted as benzodiazepines between April 2018 to March 2019, an increase of 110 per cent on the previous year.

Fig 3 : Benzodiazepine Submissions



Benzodiazepines may be prescribed for conditions including:
- **Anxiety**
- **Insomnia**
- **Seisure Control**
- **Muscle Relaxation**

Although there are always concerns and potential for adverse effects from the consumption of psychoactive substances, the risk is increased by the rising prevalence of substance substitution within the unregulated illicit benzodiazepine market.

What are benzodiazepines?

- Agonists at the benzodiazepine site on the GABA-A receptor, increasing gamma-aminobutyric acid (GABA).
- GABA contributes to motor control, vision, and many other cortical functions as well as regulating anxiety.
- Almost all therapeutic and adverse effects of benzodiazepines arise from their action on the Central Nervous System.

In their 2018 report the European Monitoring Council for Drugs and Drug Addiction (EMCDDA) highlighted a concern around the emergence of new-benzodiazepine substances, their availability and accessibility via online markets. These substances are generally not licensed medicines in the European Union; very little is known about their toxicology. As with other benzodiazepines risks are likely to increase when they are used alongside illicit drugs or alcohol [5].

5. European Drug Report 2018: Trends and Developments; EMCDDA, Lisbon, June 2018; http://www.emcdda.europa.eu/publications/edr/trends-developments/2018_en [accessed 11/04/2019]

The United Nations Office on Drugs and Crime (UNODC) have reported increases in use and deaths related to benzodiazepine-type NPS, sold under names such as “legal benzodiazepines” or “designer benzodiazepines”, representing a growing public health issue in some countries [6].

The EMCDDA is currently monitoring 24 new benzodiazepines, with 15 reported since 2015. This exponential increase in the number of reports is highlighted the timeline below.

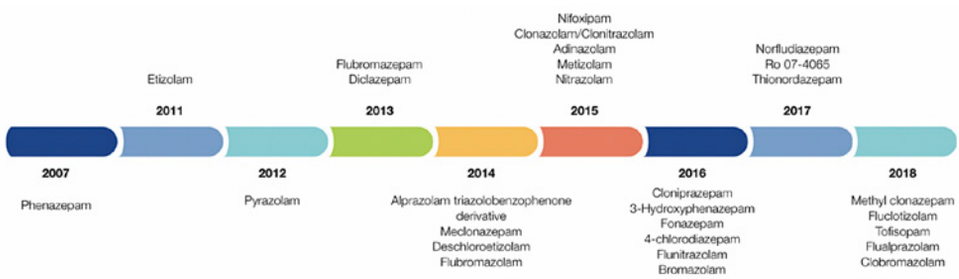


Fig. 4: Timeline of benzodiazepines notified as new psychoactive substances in Europe, 2007–18.
http://www.emcdda.europa.eu/activities/action-on-new-drugs

N.B. the 2019 identification and report of bentazepam by the Swedish early warning system, was post publication of the EMCDDAs timeline.

Prevalence of benzodiazepine use

In the UK there is very little information available specifically relating to the prevalence of benzodiazepine use. The Crime Survey for England and Wales reported that in 2017-18 0.6 per cent of the adult population having used ‘tranquillisers’ (not prescribed by a doctor or healthcare practitioner). This was an increase from 0.4 per cent in 2016/17; equating to around 63,000 more people using the drug [7].

UNODC state that of misused prescription drugs, the non-medical use of benzodiazepines remains the most common.

Around 60 countries have ranked benzodiazepines among the three most commonly misused substances, and some countries report higher prevalence rates for their use than for many other substances.[8]

There were 831 hospitalisations in Wales in 2017-18 relating to benzodiazepines. The ONS report: Deaths related to drug poisoning in England and Wales: included 391 deaths in 2017 where benzodiazepines were involved, an increase from 284 in 2012.

6. Non-medical use of benzodiazepines: a growing public health threat?, Global SMART Update, vol. 18, UNODC, September 2017.
7. Drug Misuse: Findings from the 2017/18 Crime Survey for England and Wales; Home Office, July 2018; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729249/drug-misuse-2018-hosb1418.pdf [accessed 11/04/2019]
8. The Global Overview of Drug Demand and Supply; latest trends, cross-cutting issues, UNODC 2018.

Dosage and Content

Excluding the potential for adverse and acute effects as a result of the misuse of benzodiazepines, **WEDINOS** has identified additional concerns relating to content and dosage amongst samples provided by individuals in the belief that they had purchased a specific benzodiazepine.

"It is what I think it is . . ."

The first concern relates to a 2017 study in which **WEDINOS** analysed the dosage of diazepam tablets. The criteria for analysis was that the tablets were:
a) to contain diazepam,
b) were round and blue (indicating a 10mg dose),
c) were pressed with the letters 'MSJ';

MSJ being one of the most common 'brands' of illicit/street diazepam.

600 tablets were identified as meeting the aforementioned criteria, with a randomly selected 10 per cent of tablets undergoing analysis for diazepam content. Within these tablets a dose range of 7.1mg to 11.8,g identified.

Benzodiazepine Substitution

Alprazolam: common brand name Xanax

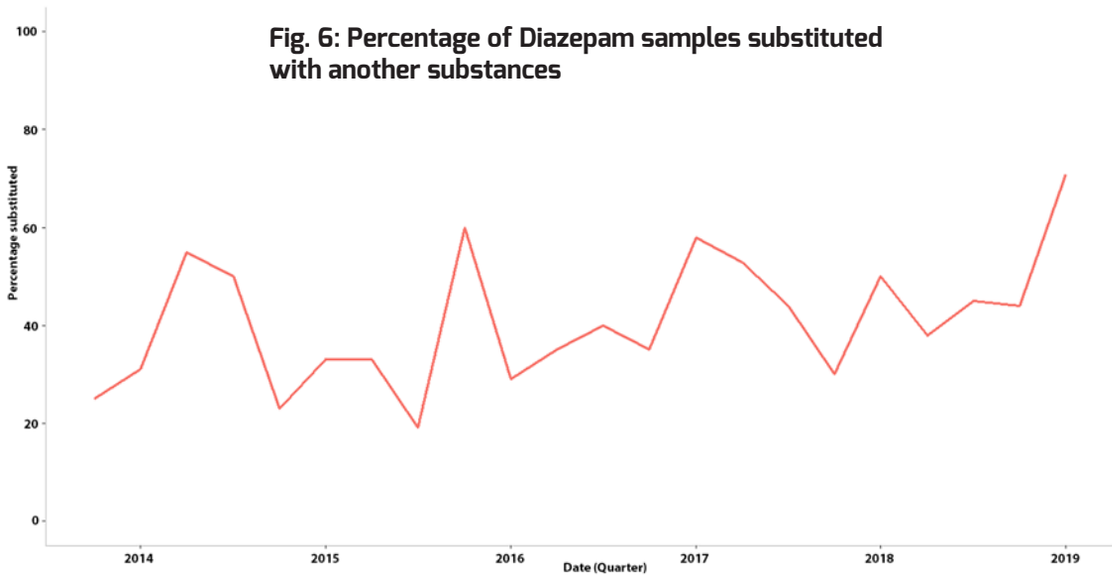
Alongside the concerns relating to consuming substances of unknown dosage, **WEDINOS** has been able to evidence a trend of benzodiazepine samples that are found upon analysis to contain another substance, more often than not another benzodiazepine. As shown in **Table 1**, in the first quarter of 2019, 71 per cent of samples submitted as diazepam and 45 per cent of alprazolam, were found to contain other substances.

Table 1: Substitution

Substance	% substituted Jul-Dec 18	% substituted Jan-Mar 19
Diazepam	44%	71%
Alprazolam	53%	45%

Although not a recent issue, this is the highest level of substitution of diazepam evidenced by **WEDINOS** to date, as shown in **Fig.6** below.

Fig. 6: Percentage of Diazepam samples substituted with another substances

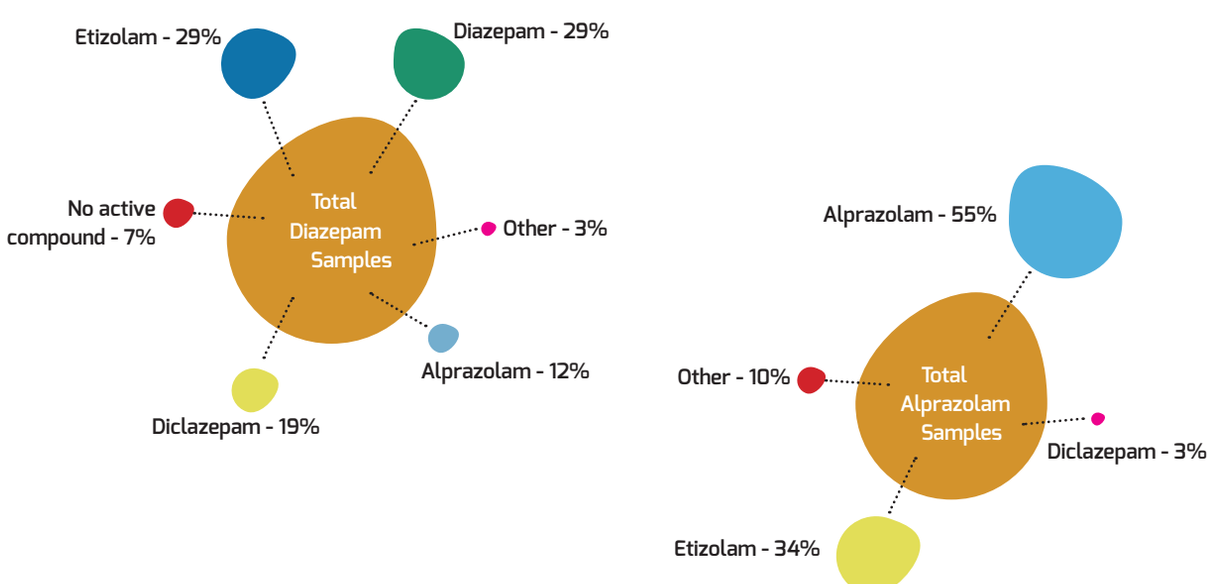


Most common substitutes

Fig. 7 specifies the most commonly identified substances within samples submitted as diazepam and alprazolam. As can be seen in both sample groups, etizolam, is the most commonly identified.

Etizolam is the most frequent substitute substance in the benzodiazepine samples tested. Etizolam is 7-10 times as potent as diazepam.

Fig. 7: Diazepam and alprazolam substitution



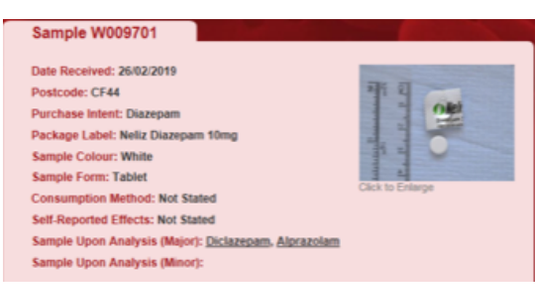
This substitution of one benzodiazepine for another raises multiple concerns; including dosage, time of onset and duration of effects, see **Table 2**. All of these factors have the potential to affect the episodes of use and adverse and acute effects.

Table 2 : Benzodiazepine Effects

Benzodiazepine	Dose range	Onset of effects	Duration of effects
Diazepam	Light – 2.5 to 5mg Common – 5 to 15mg Strong – 15 to 30mg	30 to 90 minutes	12 to 24 hours
Etizolam	Light – 0.2 to 0.5mg Common – 0.5 to 1mg Strong – 1 to 5mg	15 to 25 minutes	5 to 7 hours
Alprazolam	Light – 0.25 to 0.5mg Common – 0.5 to 1.5mg Strong – 1.5 to 2mg	20 to 40 minutes	5 to 8 hours
Diclazepam	Light – 1 to 2mg Common – 2 to 3mg Strong – 3 to 4mg	10 to 45 minutes	8 to 12 hours
Clonazepam	Light – 0.25 to 0.5mg Common – 0.5 to 1mg Strong – 1 to 2mg	20 to 60 minutes	8 to 12 hours
Clonazolam	Light – 75 to 200mcg Common – 200 to 400mcg Strong – 400 to 1000mcg	10 to 30 minutes	6 to 10 hrs

For consistency all figures were taken from https://psychonautwiki.org

Substitution within blister packs



This substitution is not unique to the illicit street sale of benzodiazepines, **WEDINOS**, has received several samples highlighted as online purchases, that have been sealed within medicinal blister packs such as **WEDINOS** sample W009701, submitted in Wales, as diazepam, that upon analysis was found to contain diclazepam and alprazolam.

Individuals purchasing tablets contained within blister packs may hold the belief that they are purchasing pharmaceutical products.

This is of particular concern as international monitoring systems such as the EMCDDA have reported the establishment and growth of online markets and their importance in providing a platform for the marketing and distribution of substances.

Summary

- Unknown dosage – **WEDINOS** has evidenced dose variance amongst illicit MSJ diazepam tablets, widely used and available
- High prevalence of substance substitution
- Varied therapeutic doses
- Varied substance half-lives
- All factors increase the potential for an individual to experience adverse and acute effects; including accidental overdose, hospitalisations and deaths

Synthetic Cannabinoid Receptor Agonists (SCRAs) (AKA Spice)

WEDINOS sample 000037286
Plant matter sample containing 5F-ADB

WEDINOS sample W008442
White powder sample containing 5F-ADB

SCRAs have been a fixture within **WEDINOS** annual reports since the inaugural report in 2014. And this year is no different.

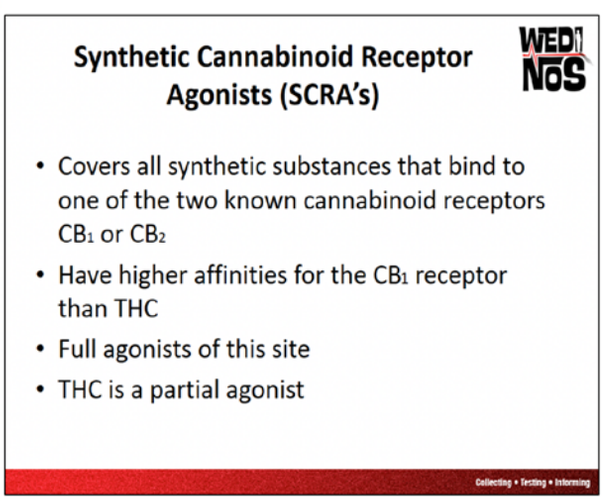
As in last year's report, we continue to see fewer SCRAs than in previous years.

Consistent with the 2017-2018 report the potent and ultra potent SCRAs 5F-ADB and AMB-FUBINACA are the most commonly identified. However, since December 2019 we have evidenced a decrease in the number of samples of AMB-FUBINACA, paralleled by an increase in the prevalence of **4F-MDMB-BINACA**.

The SCRA 5F-ADB was the sixth most commonly identified substance within all samples. SCRA samples are most prevalent within samples provided by criminal justice services, in particular the prison estate; and homelessness services.

This is further evidenced later in this report, where we see 5F-ADB fall outside of the top 10 most commonly identified substances, following the exclusion of criminal justice service samples.

The increase in prevalence of 4F-MDMB-BINACA, is mirrored across Europe the publication of the EU Early Warning System briefing: Spread of 4F-MDMB-BINACA in Europe on 4th April 2019 stating the first formal notification was made on 20 November 2018 by the EMCDDA on behalf of France. The substance has also been reported in Hungary, Lithuania, the Netherlands, Sweden, Romania the United Kingdom and United States



WEDINOS sample W007904. 'Mood Enhancer CBD' e-liquid adulterated with 5F-MDMB-PINACA

Information provided by **WEDINOS** was published within that briefing detailing the following: *"16 samples containing 4F-MDMB-BINACA were submitted to **WEDINOS** between December 2018 and March 2019. Fourteen of the samples were herbal material while the remaining two samples were liquids for vaping. The self-reported effects from users were consistent with cannabimimetic activity, and included euphoria, relaxation, chest pains, irregular heartbeat, vomiting, confusion, agitation, visual hallucinations, and paranoia."*

Although the total number of identifications for 4F-MDMB-BINACA remains relatively low (n=19).

WEDINOS' work around evidencing what SCRAs are in circulation and in what form, within the Welsh and wider United Kingdom drug market, has served to inform international partners, such as the EMCDAA and European Early Warning System on several occasions since project launch.

On 12th December 2018, **WEDINOS** information was referenced, in a European Early Warning System advisory report relating to SCRAs, entitled "Risk of poisoning from cannabidiol (CBD) e-liquids adulterated with synthetic cannabinoids". The aims of this advisory included highlighting that e-liquids recently sold as CBD in the United Kingdom have been found to contain the synthetic cannabinoids 5F-MDMB-PINACA (5F-ADB) and MDMB-CHMICA.

At that time **WEDINOS** reported that since September 2017 detection of synthetic cannabinoids in 8 samples of e-liquids sold or labelled as 'cannabidiol' or 'CBD'. The first sample was submitted in September 2017 and contained 5F-MDMB-PINACA (5F-ADB) and MDMB-CHMICA; the remaining 7 samples were submitted between May and October 2018 and contained 5F-MDMB-PINACA.

At least one sample was commercially labelled as 'Mood Enhancer CBD'.

The self-reported effects from the use of these products were consistent with those reported for synthetic cannabinoids, and included: euphoria, relaxation, visual hallucinations, paranoia, as well as chest pains, irregular heartbeat, breathlessness, vomiting, confusion, and agitation.

Anecdotal reports from homelessness substance misuse teams inform of an inability to sleep following consumption of the newer SCRA strains, resulting in increased adverse effects to mental health; this is contrary to previous experiences.

As SCRAs continue to remain within the UK drug market, **WEDINOS** will continue to monitor and evidence what strains are in circulation, their forms and provide relevant and pragmatic information to partners and stakeholders both here and internationally.

Key Findings . . . What most commonly identified substances

The most commonly identified chemical group of psychoactive substances for the second year in a row, were benzodiazepines, with 11 benzodiazepines identified (nine were identified in 2017/18). As with last years' findings, **Diazepam** was the most commonly identified benzodiazepine followed by **etizolam** and **alprazolam**. This is a potential risk for individuals using benzodiazepines as dosage and potency varies greatly.

Cocaine was the most commonly identified psychoactive substance (excluding caffeine).

UK Focal Point reports that powder cocaine is the most prevalent stimulant used in the UK, and second most prevalent substance overall behind cannabis. Following a fall in the mean purity of cocaine at street level from 51 per cent in 2003, to 20 per cent in 2009, purity has risen since, and was estimated at 54 per cent in 2016. Crack cocaine purity was the highest recorded in 2016 at 71 per cent[9].

The EMCDDA states that rising cocaine production in Latin America now appears to be making itself felt on the European market increasing the availability of the substance [10].

The number of deaths where cocaine was mentioned in England and Wales, has rose for the sixth consecutive year; with 432 deaths involving cocaine in 2017, compared with 371 deaths in 2016, and up from 139 in 2012 [11].

Table 3: Most commonly identified mind altering/psychoactive substance WEDINOS samples.

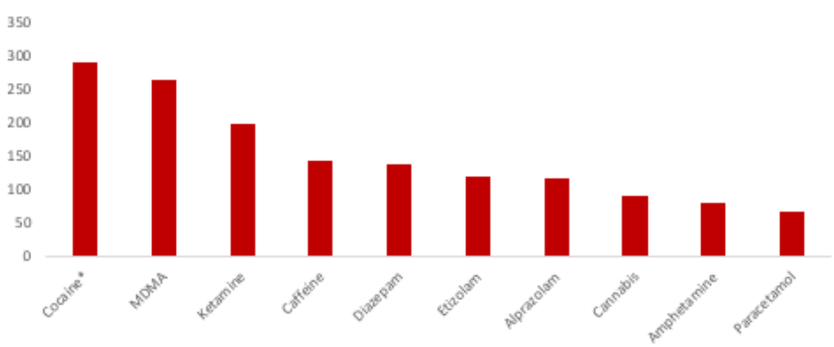
Number	2018-2019	2017-2018
1	Cocaine	Caffeine
2	MDMA	Cocaine
3	Ketamine	Cannabis
4	Caffeine	MDMA
5	Diazepam	Diazepam
6	5F-ADB	Nicotine
7	Etizolam	Amphetamine
8	Alprazolam	Paracetamol
9	Cannabis	5F-ADB
10	Amphetamine	Buprenorphine

9. UK Focal Point - United Kingdom Drug Situation 2017, London, 2018; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/697805/UK_drug_situation_Focal_Point_annual_report_2017.pdf
10. European Monitoring Centre for Drugs and Drug Addiction (2018), European Drug Report 2018: Trends and Developments, Publications Office of the European Union, Luxembourg. http://www.emcdda.europa.eu/system/files/publications/8585/20181816_TDAT18001ENN_PDF.pdf
11. The Office for National Statistics report: Deaths related to drug poisoning in England and Wales: 2017 registrations; https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2017registrations#deaths-from-selected-substances

Consistent with previous years, caffeine was the most popular bulking/cutting agent identified, however, as well as being found in combination with other substances, several samples of powders and tablets were found to contain caffeine in isolation.

WEDINOS receives samples from a wide variety of community settings, **WEDINOS** works closely with the six Welsh prisons and reports separately on finds that have no evidentiary value. If we remove these samples the make-up and order of the Top 10 changes.

Fig.8: Top 10 substances (Community)



*67 samples of cocaine were found to contain levamisole

Levamisole is one of the most commonly identified substances, this has not been included as a stand alone figure in this chart as it is exclusively identified in combination with cocaine.

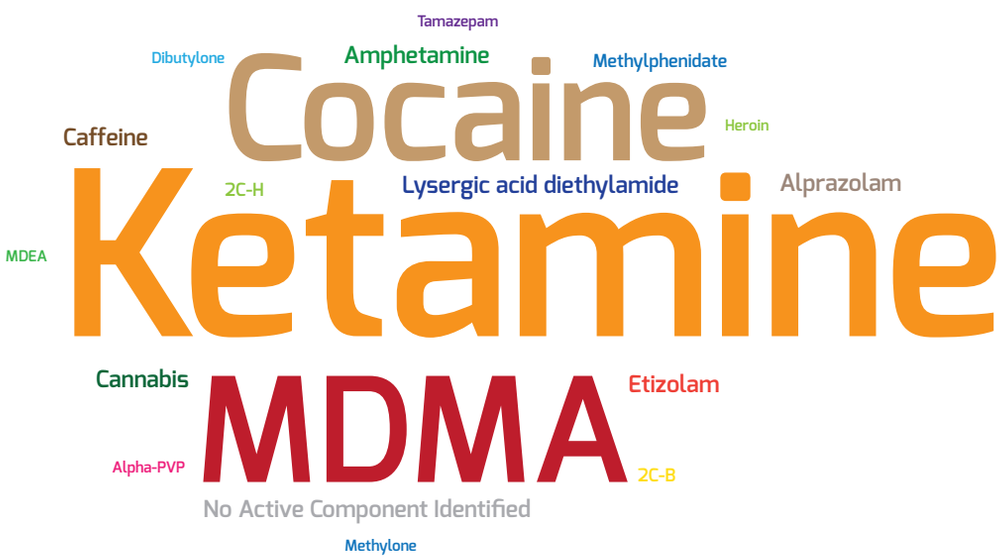
Night Time Economy and Festivals

During the reporting period 2018-2019 **WEDINOS** in partnership with the Welsh police forces and festival welfare services received 339 samples from night club and festival amnesty bins. Although no demographic, purchase intent or effects data is available with these samples; the results of analysis allow us an insight into the substances that are in circulation within the night time economy and festivals.

Within the 339 samples, 29 substances were identified; with six being bulking agents or metabolites of major psychoactive substance. Five samples contained no active compound.

The most commonly identified substances, in order of prevalence were ketamine, MDMA and cocaine. Excluding other stimulants and hallucinogenic drugs such as cathinones and substances from the 2C group; cannabis, alprazolam, Etizolam and heroin were also identified.

Fig. 9 Most Commonly Identified Substances



Most commonly identified New Psychoactive Substances

The term "new psychoactive substances (NPS)" is legally defined by the European Union as a new narcotic or psychotropic drug, in pure form or in preparation, that is not scheduled under the Single Convention on Narcotic Drugs of 1961 or the Convention on Psychotropic Substances of 1971, but which may pose a public health threat comparable to that posed by substances listed in those conventions.

Council of the European Union decision 2005/387/JHA

As such, NPS represent a subset of all psychoactive substances.

The most commonly identified NPS groups are benzodiazepines and Synthetic Cannabinoid Receptor Agonists (SCRAs). The term Synthetic Cannabinoid Receptor Agonist (SCRA) covers all synthetic substances that bind to one of the two known cannabinoid receptors (CB1 or CB2).

Of the ten most commonly identified NPS profiled by **WEDINOS** in the last year, three were benzodiazepines and three were SCRAs, as shown in **Table 3**; with twelve and six unique substances being identified from each group respectively in all samples submitted during this reporting period.

In relation to the SCRAs, of the six reported three were identified on less than 10 occasions. The most commonly identified SCRAs being the potent and ultra potent 5F-ADB and AMB-FUBINACA.

Of the NPS (all samples), six substances are available as prescribed medications, rising to seven, etizolam, which although not prescribed in the UK is available elsewhere in Europe. These substances appear available on the open internet.

Table 3: Most commonly identified New Psychoactive Substances

Top 10	NPS (all samples)	NPS (Community)
1	5F-ADB	Etizolam
2	Etizolam	Alprazolam
3	Alprazolam	5F-ADB
4	AMB-FUBINACA	Diclazepam
5	Diclazepam	2C-B
6	Quetiapine	Mephedrone
7	2C-B	4F-MDMB-BINACA
8	Mephedrone	AMB-FUBINACA
9	4F-MDMB-BINACA	Zolpidem
10	Pregabalin	Zopiclone

Who . . .

Of the 2,146 samples, demographic information was available for 63 per cent (n=1,342), with the remaining samples submitted as finds within services, from amnesty bins and by criminal justice services that had no evidentiary or forensic value, hence with no self-report effects form.

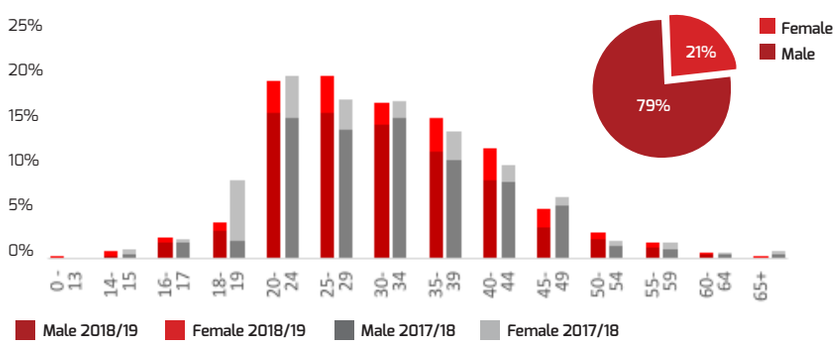
79 per cent of the samples were submitted by males and 21 per cent by females, comparable with 2017-2018.

The median age for all mind altering / psychoactive sample providers (Wales and wider UK) was 30 years (average age was 31.8 years), range 13 to 74 years. Median, average age and age range are all comparable to the previous year.

Females - median age was 32 years (range: 13-74 years).

Males - median age was 30 years, (range 15-70 years).

Fig. 10: Profile of psychoactive sample providers

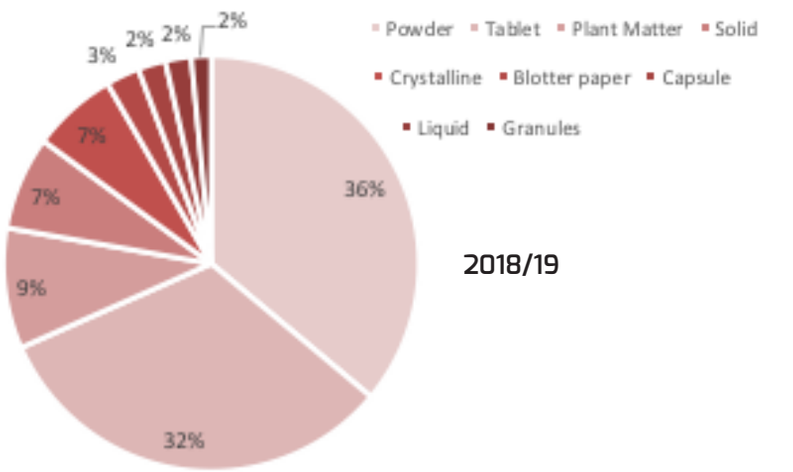


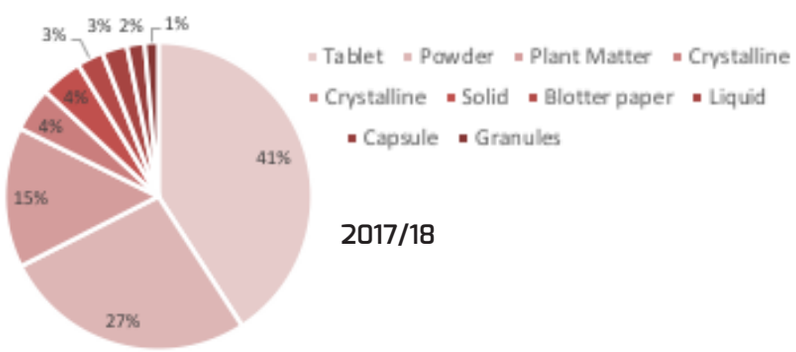
Samples submitted by children and young people in the age range 0-17 years in order of frequency, included: MDMA, cannabis, and alprazolam. There were single submissions of cocaine, LSD, ketamine, DMT, 4-AcO-DMT, ketamine, etizolam and methamphetamine.
For older adults aged 60 years and above included samples containing cannabis, diazepam, heroin, modafinil and zopiclone.

How - Form of sample . . .

WEDINOS requests the 'form of sample' for each submission to monitor and report the various forms substances appear on the market and potential differences in method of consumption.

Fig. 11 : Form of psychoactive samples



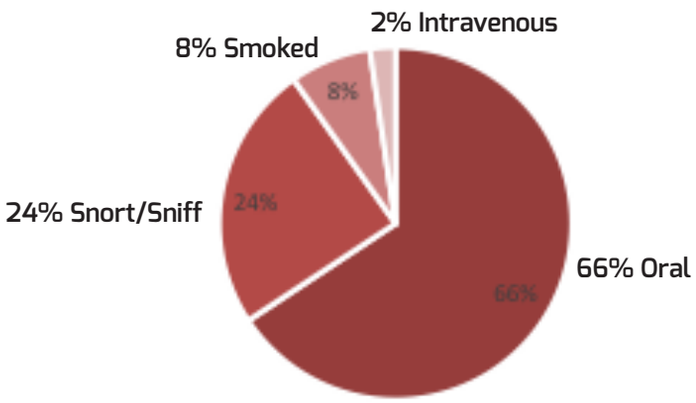


This year we have seen an increase in the proportion of powder samples, along with an increase in plant matter. With decreases in tablet, solid and crystalline samples.

Method of consumption and Harm Reduction Advice

Assuming that all plant matter samples are smoked, the remaining samples (pills, liquids, tabs, granules etc) were ingested through a variety of methods. The most common, at 66 per cent was oral consumption (swallowing, bombing) followed by snort / sniff at 24 per cent, as shown in **Fig. 12**, and consistent with previous years.

Fig. 12 : Method of consumption (excluding plant matter)



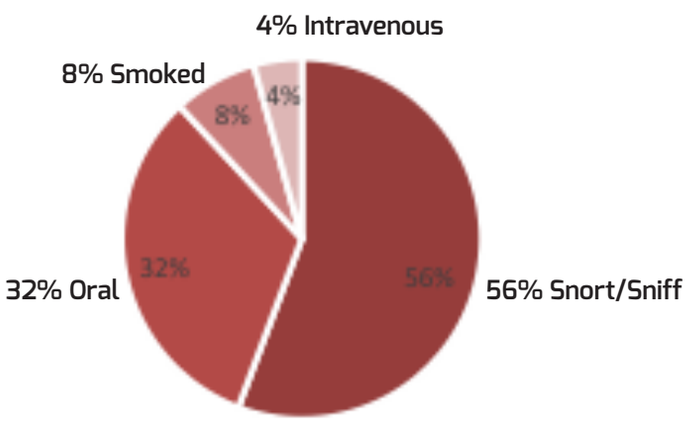
Two per cent reported intravenous injecting of substances. Injecting drug use carries with it inherent risks of bacterial and viral infection over and above the risks / toxicity of the substance being injected. Samples injected primarily contained heroin, followed by amphetamine, one sample contained cocaine (purchased as crack cocaine).

For further harm reduction information please visit:
http://www.wedinos.org/harm_reduction_advice.html

Focusing on the method of use for powders and crystalline materials, the most common method of consumption was snorting/sniffing with 56 per cent reporting this as shown in **Fig. 13**, compared to 54 per cent in 2017-2018.

Snorting/sniffing potentially caustic or toxic substances carries additional risks related to damage to the nasal passages as well as potential transmission of blood borne viral infection when sharing snorting paraphernalia in the precense of nasal passage damage and blood. As previously mentioned any injection of substances is of concern and carries a risk of introducing bacterial infection into the body.

Fig. 13: Method of consumption- crystalline, granules and powders



Legal Status - Substitution . . .

From project launch to date **WEDINOS,** has evidenced and described the substitution of substances, generally from within the same class of substance e.g. one stimulant for another. We have also seen substitution between classes, e.g. samples purchased in the belief it was MDMA found, upon analysis, to contain Ketamine. This substitution can have additional negative and unexpected impacts on the end user, not only legally and socially (changing controlled drug status); but also physically and psychologically.

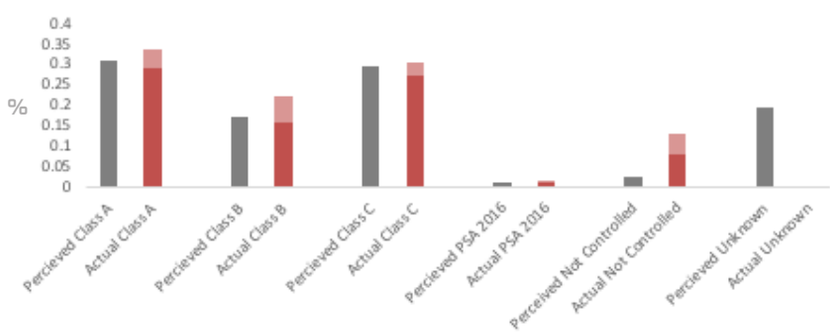
Sample and effects forms including detail on legal status of substances believed to have been purchased is available for all samples, except those received via amnesty bins and prisons (non evidentiary) and as such are excluded from this analysis.

As **Fig. 14** indicates, many samples had a different legal classification to that believed by the purchaser. Based on the highest classified substance present following analysis, samples controlled as Class A increased from 454 samples to 497; Class B rose from 253 to 330, and Class C from 435 to 448. Samples controlled by PSA 2016 fell slightly from 17 to 14. However, several samples were re-classified into and out of these 'controlled' groups.

The rise in proportion of benzodiazepines in **WEDINOS** samples is evidenced by the greater percentage of Class C substances 'perceived' and 'actual' compared to 2017-2018. Samples perceived as class C increased from 14 per cent in 2017-18 to 29 per cent this year and actual from 21 per cent to 30 per cent.

Many of the substances that remain uncontrolled are legislated by the Medicines Act 1968 and are prescription only medicines.

Fig. 14 : Proportion of controlled and not controlled / legal – perceived and actual (Psychoactive Substances)



WEDI NOS

GIG CYMRU NHS WALES
Iechyd Cyhoeddus Cymru
Public Health Wales

Llywodraeth Cymru
Welsh Government

Harm Reduction Wales
Lleihau Niwed Cymru