GIG CYMRU NHS WALES
Iechyd Cyhoeddus Cymru
Public Health Wales

SUBSTANCE MISUSE PROGRAMME

Harm Reduction Database Wales:

Drug related mortality

Annual Report 2018-19

About Public Health Wales

Public Health Wales exists to protect and improve health and wellbeing and reduce health inequalities for people in Wales. We work locally, nationally and internationally, with our partners and communities.

The Substance Misuse Programme works to address both the current and emerging public health threats in Wales and in line with the overarching strategic objective to '**reduce health inequalities, and prevent or reduce communicable and non-communicable disease, wider harms and premature death related to drugs and alcohol**'.

Substance Misuse Programme
Public Health Wales
Number 2 Capital Quarter
Tyndall Street
Cardiff
CF10 4BZ

Tel: 02920104496

www.publichealthwales.org/substancemisuse

Acknowledgements: Public Health Wales would like to thank all those that contributed to the Harm Reduction Database Wales, including service users, staff and all provider organisations including specialist substance misuse services, criminal justice services including OIS and specialist clinical treatment service providers.

Published: Drew Turner, Gareth Morgan and Josie Smith
Substance Misuse Programme, Health Protection Division, Public Health Wales, 2019.

Contents

Glossary of key abbreviations

ABMUHB	Abertawe Bro Morgannwg University Health Board
ABUHB	Aneurin Bevan University Health Board
APB	Area Planning Board
BCUHB	Betsi Cadwaladr University Health Board
CRC	Case Review Coordinator
CTUHB	Cwm Taf University Health Board
CVUHB	Cardiff and Vale University Health Board
EASR	European Age Standardised Rate
HDUHB	Hywel Dda University Health Board
HRD	Harm Reduction Database Wales
ICD-10	International Classification of Disease codes
NPS	New psychoactive substances
NSP	Needle and Syringe Programme
ONS	Office for National Statistics
OST	Opioid substitution therapy
PTC	Over the counter medication
POMs	Prescription-only medicines
PTUHB	Powys Teaching University Health Board
PWID	People who inject drugs
SCRA	Synthetic Cannabinoid Receptor Agonist
SMS	Substance misuse service
THN	Take-home Naloxone
WNDSM	Welsh National Database for Substance Misuse

This year marks a change in the reporting of drug related death prevention interventions and drug related death data and review. In previous years, separate reports have been produced by Public Health Wales for the Harm Reduction Database Modules-Take Home Naloxone (THN) provision and Fatal and Non-Fatal Drug Poisoning case reviews, and the analysis of Office of National Statistics (ONS) annual drug related death data for Wales. Previous reports are available from Public Health Wales Substance misuse programme. This document presents the available data produced by ONS for Wales along with interpretation of the data, trends and caveats. This report is designed to support health, social care, criminal justice and related service providers, planners, commissioners and policy makers to reduce drug related deaths in Wales.

1 Executive summary

In 2018, drug related mortality reached record levels in Wales and across the UK. Drug poisoning deaths are the highest on record, having increased by 78 per cent over the last 10 years.

Drug misuse deaths,[1] a subset of drug poisoning deaths, increased by 12 per cent from 185 in 2017 to 208 deaths in 2018 – a rate of 72 per million population. Wales has the second highest rates of drug misuse deaths in England and Wales regions.

Premature deaths from drug use are preventable. Each drug related death has a considerable and long lasting impact upon the individual's family, peers and communities. Whilst the impact of drug deaths are experienced by the whole socio-economic spectrum, they are more than four times more likely to occur in those living in the most deprived areas in Wales compared to the least deprived.

Wales operates a number of initiatives aimed at preventing or reducing drug deaths, including the national Take-Home Naloxone programme and access to specialist substance misuse treatment. However, in light of the scale of drug deaths in Wales, evidence on the impact and influence of macro, meso and micro level policies and practices, and their role as barriers or facilitators to reducing drug deaths, is required to inform change.

1.1 Key findings and trends

1.1.1 Take-home Naloxone

- **Since 1st July 2009 THN has reportedly been used during 2,641 opioid drug poisoning events, each one a potential drug death – a fatal opioid poisoning was reported in only 1.4 per cent (n=34) events where THN was used**
- In the last year, however, THN was reportedly used in 457 drug poisoning events resulting in 11 deaths. Over the same period, declines in the frequency of follow-on care including ambulance attendance and hospitalisations were recorded.
- 2018-19 was the first year since implementation that declines in both provision of kits to new individuals and resupply of THN to existing kit holders was recorded.
- Regional variation exists in the provision and coverage of THN to those at risk of experiencing or witnessing an opioid drug poisoning event.
- Among new individuals receiving THN, a quarter were listed as family / partner / carers or professionals working with people at risk of opioid poisoning

1.1.2 Drug deaths in Wales – data from the Office for National Statistics

- In 2018, 327 deaths due to drug poisoning were registered in Wales, an increase of 26 per cent from the previous calendar year. Of these, 208 were classified as drug misuse deaths, an increase of 12 per cent

[1] A death where the underlying cause is either drug abuse or drug dependence, or the underlying cause is drug poisoning and any of the substances controlled under the Misuse of Drugs Act 1971 are involved

- As in previous years, the most commonly reported substance was heroin/morphine, reported in 108 deaths (52 per cent). Other substances reported were diazepam, cocaine and methadone. Poly-drug use was reported in 49 per cent (n=102) of drug misuse deaths an increase of 5 percentage points on the previous year
- There has been **a more than four-fold increase in the number of deaths involving cocaine over the last five years**. In 2018, cocaine was recorded in 31 of deaths, representing 15 per cent of all drug misuse deaths.
- In 2018, the ratio of deaths amongst males and females was around 3:1. However, drug misuse deaths amongst females have increased year on year since 2013 and are now at highest number recorded by ONS. Most deaths occurred in those in the 40-44 year age group reported in 19 per cent of all drug deaths (n = 40) in 2018. There were 12 drug deaths in people under the age of 25.
- There remains considerable geographic variation in the age-standardised rates of drug misuse deaths across Wales, with rates ranging from 6 to 12.7 deaths per 100,000 population in comparable urban areas.

1.1.3 Fatal / non-fatal drug poisoning reviews – data from Health Boards across Wales

- Since implementation of the rapid review process on drug deaths in 2014, a total of 452 fatal and 611 non-fatal drug poisoning reviews have been conducted in Wales. The number of fatal drug poisoning reviews undertaken in 2017-18 represents 65 per cent of those deaths recorded by ONS
- 135 Fatal Drug Poisoning cases were reviewed in 2018. In over 79 per cent, the drug poisoning incident occurred within a private residence, with 21 per cent of incidents occurring within a hostel facility or public place. 30 per cent were reported as living in non-secure housing or having no fixed abode (NFA) at the time of death. In nearly 85 per cent of cases death was pronounced at scene
- In a third of cases reviewed 'no known contact' was reported between the deceased and any local services health, social care or criminal justice services in the 12 months prior to death
- Where any service contact was reported within 12 months prior to death, 60 per cent a history of mental illness or diagnosed psychiatric disorder

1.2 Recommendations

- Ensure expansion of the existing Take-Home Naloxone programme in order to improve coverage and distribution. Models of delivery should include but not be limited to; provision on an opt-out bases through community pharmacy NSP services, primary and secondary care settings and all prisons, development of peer distribution networks, community kits alongside defibrillators. Consider reclassifying THN as an over-the-counter medication.[2]

- Development of national Welsh Accord for the Sharing of Personal Information (WASPI) and establish full implementation of non-fatal drug poisoning review processes across each Health Board in Wales. This to include legal position statement in relation to information sharing in light of GDPR.

- Ensure all suspected drug deaths are identified, investigated and lesson learned and disseminated to reduce further deaths:
    i. Formalisation of collaborative working processes and information sharing protocols between Police, Coroner's offices, WAST, primary and secondary care and substance misuse and related services to and drug poisoning review panels

    ii. Scope the development of a Centre of Excellence with Pathology (Forensic Lead) and Toxicology, centralised and proportionately funded by Local Authorities and Central Government to investigation both fatal and non-fatal drug poisonings alongside all non-natural deaths

    iii. Establishment of central point for the dissemination of drug poisoning review recommendations, information and trends, and 'good new stories' of effective practice

- Consider, at a national level, mechanisms to influence the current legislative approach to UK drug policy in light of the evidence reviews undertaken across the UK in 2019 and in previous years. Consider implementation of a medical amnesty policy, which protects people who are seeking medical attention for drug-related injury or overdose from prosecution for related drug offences

- Establish formal evidence gathering events to evaluate current prescribing practices, online pharmacies and diverted medications in Wales – to include opioid substitution therapies, medication prescribing, prescription reviews and cross/inter service communication

[2] European Monitoring Centre for Drugs and Drug Addiction. Take-home Naloxone. Available at: http://www.emcdda.europa.eu/publications/topic-overviews/take-home-naloxone_en

2 Preventing fatal opioid drug poisonings through distribution of Take Home Naloxone (THN)

The supply of take-home naloxone (THN), along with training on the identification and response to opioid poisonings remains a vital and cost-effective intervention in the prevention of fatal opioid poisonings[3]. Since 2009, THN has been supplied to individuals identified 'at risk' of opioid poisoning by substance misuse services, Integrated Offender Services (IOS), prisons, and approved homelessness services / hostels[4].

Amendments made to the Human Medicines Act Regulations (2015)[5] have since provided opportunities for increased distribution and a wider range of individuals to carry THN including family, friends and carers of people at risk, professionals, and volunteer programmes.

2.1 THN distribution in Wales

Currently in Wales, THN is available from 58 registered sites. The number of sites supplying THN has increased year on year from 11 'pilot' sites participating in 2009 to 58 in 2018-19 (see Figure 1). Increases in availability and distribution have been influenced by the Human Medicines Act amendment, which facilitated all commissioned substance misuse services (SMS) to distribute THN as opposed to only those providing clinical services. However, due to ongoing regulatory requirements, supply remains limited from a range of settings e.g. homelessness services / hostels without co-located SMS.

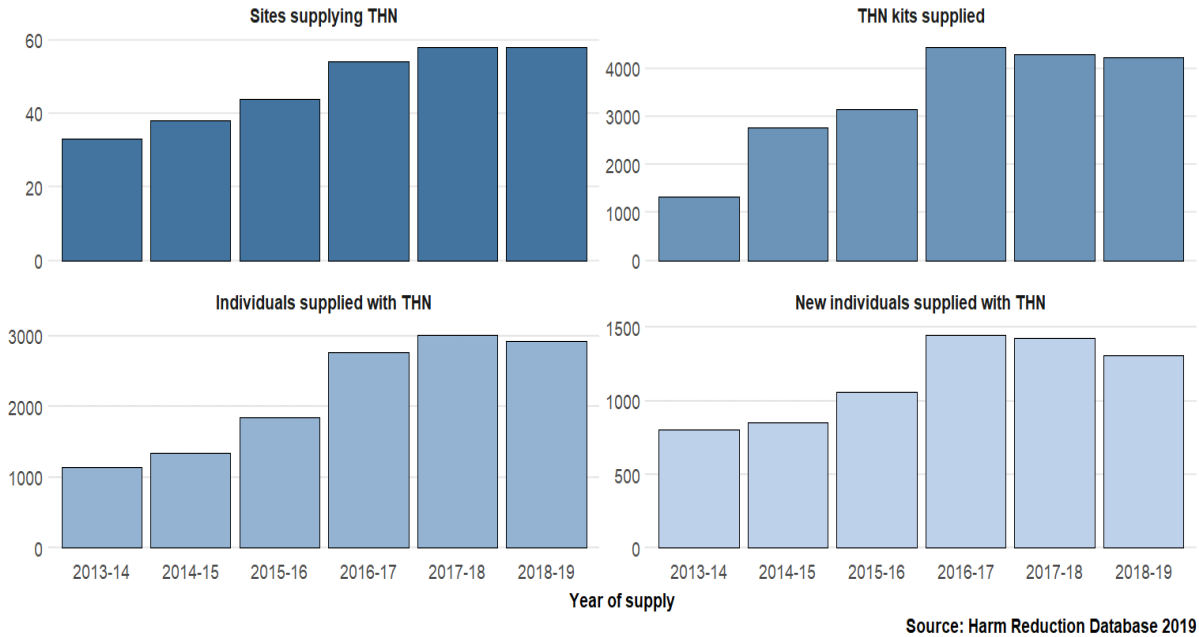

Figure 1 - Time series of sites distributing THN, number of existing and 'new to service' individuals supplied with THN, and number of THN kits provided, 2013-14 to 2018-19, Wales

[3] Langham S, Wright A, Kenworthy J, Grieve R, Dunlop WCN. Cost-Effectiveness of Take-Home Naloxone for the Prevention of Overdose Fatalities among Heroin Users in the United Kingdom. Value in health; 2018. 21, 407-415

[4] Homelessness services / hostels commissioned to provide substance misuse service (including Needle and Syringe Programme)

[5] The Human Medicines Act (Amendment) (No.3) Regulations (2015) www.legislation.gov.uk/uksi/2015/1503/made

2.1.1 Individuals supplied with THN

Since the 1st July 2009, a total of 9,033 individuals have been supplied with 22,977 THN kits throughout Wales.

In 2018-19:

- **2,931 individuals supplied** with THN (supply or re-supply), a **decrease of 3 per cent** from the previous year. This represents the first decrease of supply since the programme began (see Table 1)
- **1,308 new individuals supplied** with THN, a **decrease of 8 per cent** from the previous year
- **4,224 THN kits supplied**, a decrease of 1 per cent from the previous year

This reporting period represents the first year since the introduction of THN in Wales where overall supply has declined. Whilst opioid deaths in Wales are at the highest rates since ONS recording began, any decline in the supply of this vital harm reduction intervention is of concern.

Table 1 - Number of sites, individuals supplied and THN kits provided by year, 2009-10 to 2018-19

Year	Number of Sites	Total individuals supplied	New individuals supplied	THN kits provided
2009-10	11	293	289	312
2010-11	21	432	390	469
2011-12	30	830	726	947
2012-13	28	900	725	1,029
2013-14	32	1,140	807	1,336
2014-15	38	1,345	855	2,754
2015-16	43	1,853	1,058	3,140
2016-17	54	2,771	1,449	4,437
2017-18	57	3,020	1,426	4,279
2018-19	58	2,931	1,308	4,224

2.2 THN used in fatal and non-fatal drug poisoning events

Since implementation of the THN programme across Wales, there have been 2,641 reported instances where THN was used during a suspected opioid poisoning event. The current reporting period represents the second consecutive year where the number of recorded uses of THN has declined, from 542 in 2017-18 to 457 in 2018-19 (see Figure 2).

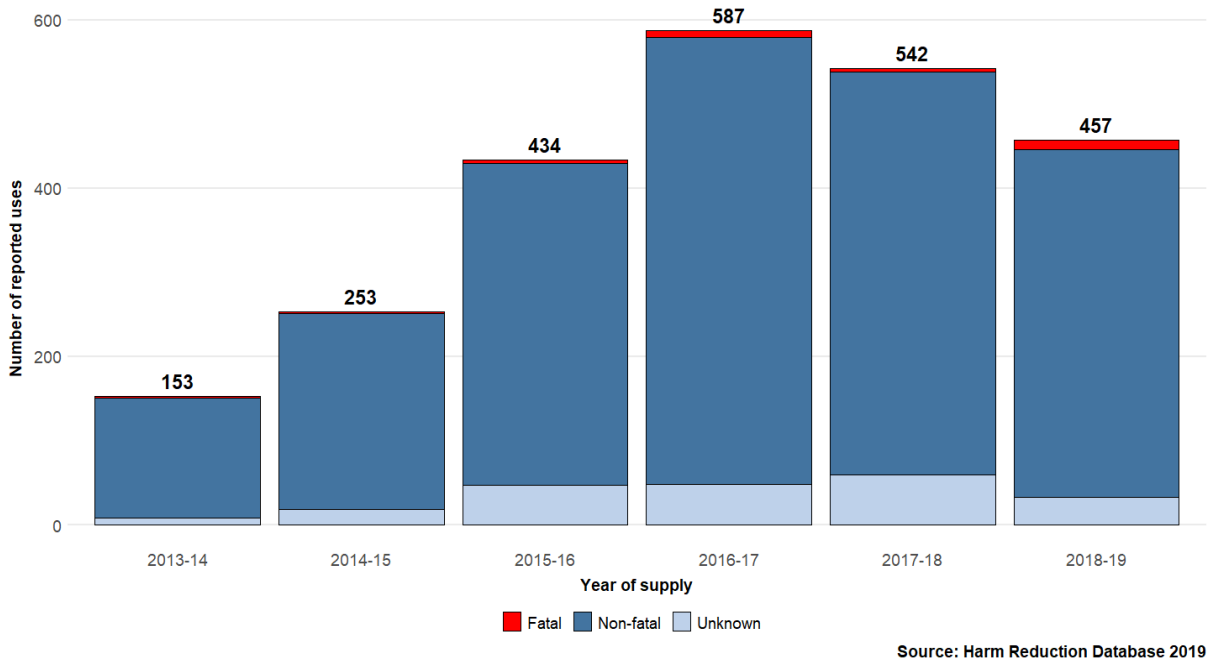

Figure 2 - Number of reported uses of THN recorded at time of re-supply by outcome, 2013-14 to 2018-19

2.2.1 Outcome, setting, recipient and administrator of THN

Outcome

Data on known outcome was recorded for the majority of suspected opioid poisonings where THN was reported to have been used (see Figure 2). Since 2009, a fatal opioid poisoning was reported in 1.4 per cent (n=34) of all recorded incidents where THN was used.

Of the 457 incidents reported in 2018-19:

- A fatal opioid poisoning was reported in 2 per cent (n=11) of incidents
- Non-fatal opioid poisoning reported in 90 per cent (n=413) of incidents
- No outcome was recorded in 7 per cent (n=33) of incidents

Whilst the proportion of reported fatal opioid poisonings remains low, the proportion of incidents recorded in 2018-19 has nearly tripled compared to the previous year (see Table 2).

Table 2 - Outcome, setting, recipient, and administrator of THN at time of reported use, Wales 2013-14 to 2018-19

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Reported incidents where THN was used	153	253	434	587	542	457
% Outcome was known	95%	93%	89%	92%	89%	93%
% Fatal opioid poisoning*	1.4%	<1%	1.0%	1.5%	<1%	2.6%
Recepient of THN*						
% administered to 'THN kit holder'	8%	13%	14%	14%	13%	18%
% administered to third party	92%	87%	86%	86%	87%	82%
Person administering THN*†						
% administered by 'THN kit holder'	73%	76%	76%	76%	80%	80%
% administered by professional / hostel worker	15%	15%	16%	10%	6%	6%
% administered by peer / family member	12%	8%	7%	11%	11%	12%
Setting where THN was administered*						
% administered in private residence	66%	59%	62%	62%	63%	65%
% administered in hostel	11%	20%	16%	12%	9%	7%
% administered in public place	22%	22%	22%	25%	29%	28%

* Proportion of individuals where data has been recorded on HRD. See Appendix for summary of data completeness

† where THN kit was administered to a third party

Setting in which THN was used

To reduce future fatal and non-fatal poisonings it is important to recognise and identify the common settings of opioid poisoning events to better identify appropriate interventions and targeting of services.

In 2018-19 the setting in which THN was used was recorded for 94 per cent (n=429) of incidents where use of THN was reported.

- THN use within **private residences** remains the most common setting, reported in 65 per cent of incidents (see Table 2 & Figure 3)
- THN use within **hostel setting** has declined over the last 5 years from 20 per cent in 2014-15 to 7 per cent in 2018-19. This decline may be explained in part by the transition and/or increased use of Synthetic Cannabinoid Receptor Agonists (SCRAs) rather than opioids amongst homeless populations over recent years[6]
- THN use within **public places** has increased, accounting for 28 per cent of incidents in 2018-19. This may be a result of ongoing training and supply to professionals and peer groups and increase in 'first responder' schemes available within some services in Wales.

[6] European Monitoring Centre for Drugs and Drug Addiction (2019), European Drug Report 2019: Trends and Developments, Publications Office of the European Union, Luxembourg.
http://www.emcdda.europa.eu/system/files/publications/11364/20191724_TDAT19001ENN_PDF.pdf

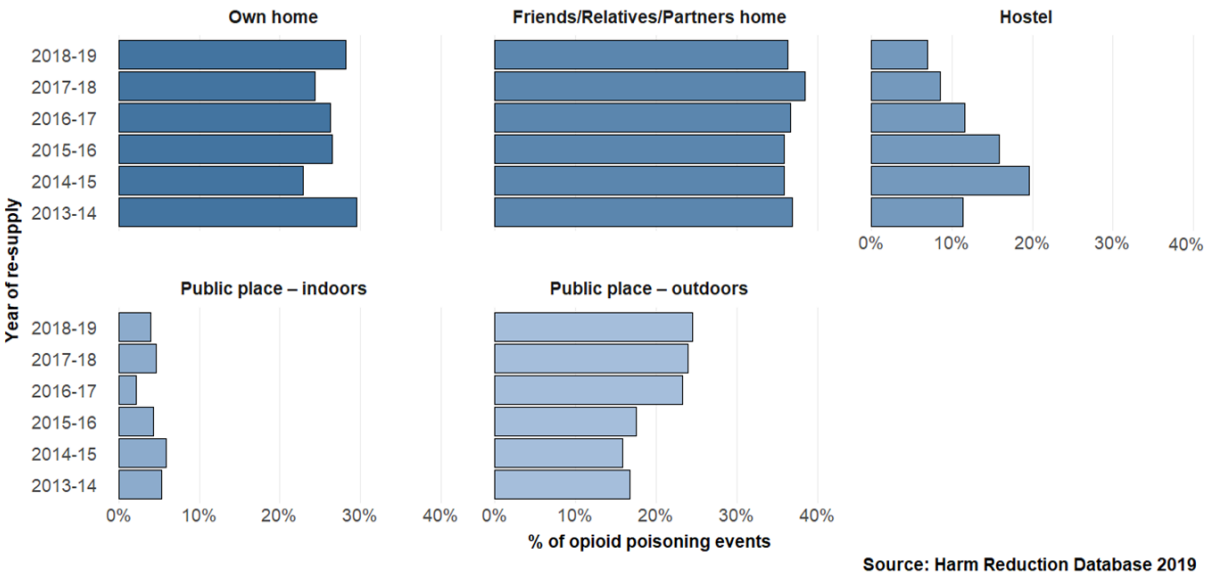

Figure 3 – Recorded setting in which THN was reportedly used, Wales, 2013-14 to 2018-19

Recipient and administrator of THN

In 2018-19, the recipient of THN was reported for 94 per cent (n=430) of opioid poisoning incidents recorded on the HRD.

- THN **was administered to a 'third party'** (i.e. not the individual originally supplied with the kit) in 82 per cent of incidents
- Reports of kits being **administered to the named 'THN kit holder'** have increased over the last 6 years from 8 per cent in 2013-14 to 18 per cent in 2018-19
- Reports of THN being **administered by the named 'THN kit holder'** have increased over the last 6 years, from 73 per cent in 2013-14 to 80 per cent in 2018-19. This trend indicates an increase in confidence amongst individuals supplied with THN in recognising the signs associated with opioid poisoning, and administering THN when required

2.2.2 Follow-on care

Whilst THN remains an effective intervention for reducing fatal opioid poisonings, the acute effect of THN is time limited[7]. As such follow-on care, including paramedic/ambulance call is essential in every instance of THN administration to ensure an individual does not relapse into an opioid poisoning.

Details surrounding the request for follow-on care was recorded for 95 per cent (n=432) of incidents where use of THN was reported in 2018-19. Summary of actions taken can be found in Table 3 & Figure 4.

[7] Approximately 20 minutes following administering dose

Table 3 – Recorded follow-on care following reported use of THN, 2014-15 to 2018-19

	2014-15	2015-16	2016-17	2017-18	2018-19
Ambulance called	**145**	**275**	**291**	**242**	**212**
No further action	0	25	59	63	49
Person refused hospital	55	90	81	59	58
Person taken to hospital	90	160	151	120	105
No ambulance called	**96**	**135**	**260**	**251**	**220**
No follow on care recorded	**12**	**24**	**36**	**49**	**25**

In 2018-19:

- **Ambulance was called** to attend 49 per cent of incidents (n=212) where THN use was reported. This represents the third consecutive year where the proportion of incidents where ambulance was called has declined, from 67 per cent reported in 2014-15.
- Where ambulance was called, the individual was **taken to hospital** in 50 per cent (n= 105) of incidents. Whereas, individuals **refused to go to hospital** in 27 per cent (n=49) of incidents. Both responses have seen a decline over recent years, with more cases being reported as requiring '**No further action'** following ambulance call out. It should be recognised that in some instances healthcare professionals are not always met with a positive response following the administration of THN[8], which may lead to any provision of onward care to be challenging. Further investigation is required to understand and evidence these trends.

These data is of concern as it is suggestive of a downward trend in the request for follow-on care following use of THN, particularly when taken alongside the increase in fatal opioid events following administration of THN observed in 2018-19.

[8] McAuley A, Murno A, Taylor A. "Once I'd done it once it was like writing your name": Lived experience of take-home naloxone administration by people who inject drugs. International Journal of Drug Policy: 2018, 58, p. 46-54.

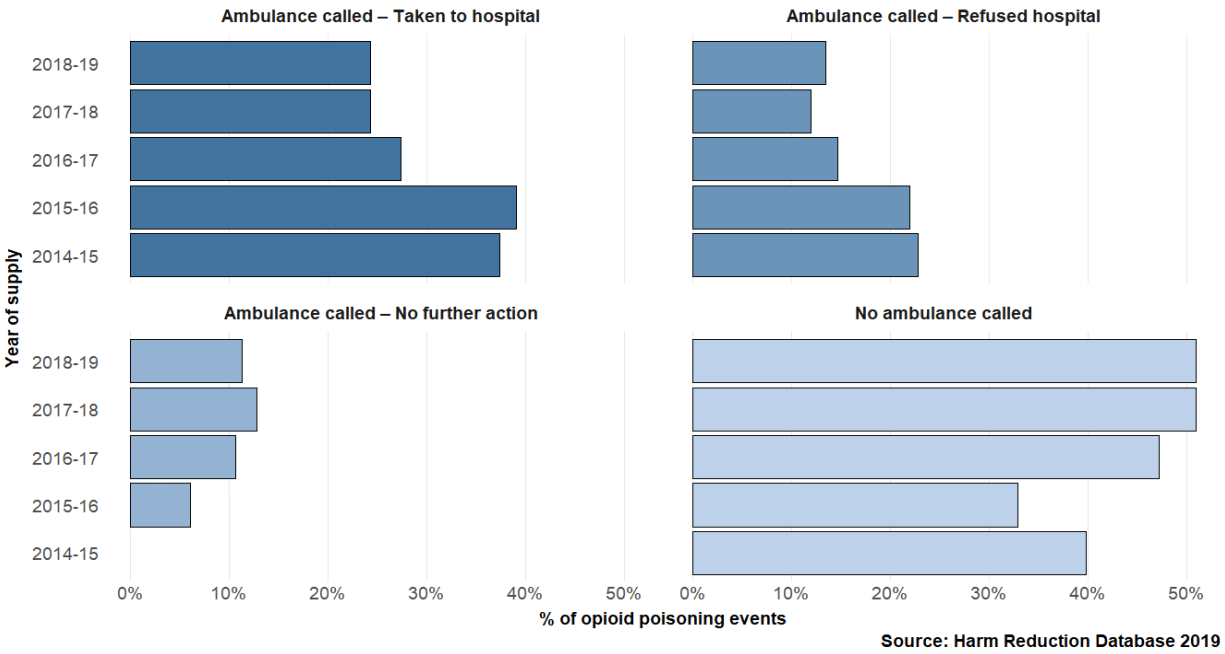

Figure 4 - Proportion of reported uses of THN where follow on care was recorded, Wales, 2014-15 to 2018-19

2.3 Individuals supplied with THN for the first time

2.3.1 Number of individuals

A total of 9,033 individuals have been supplied THN since the program began. The number of new unique individuals supplied with THN in Wales decreased by 5.4%, from 1,426 in the previous year to 1,308 in 2018-19, representing the second year in which supplies to new individuals has declined following year on year increases since the programme began.

These observed patterns in supply rates to new individuals currently mirror other national THN programmes[9], indicating that decreases may occur overtime as THN becomes wide spread amongst the 'at-risk' population.

The HRD Wales: Needle and Syringe Programme (NSP) module reports that in 2018-19, there were over 7,300 people who inject drugs (PWID) in Wales reporting use of opioids and regularly accessing NSP services[10], both SMS and Community Pharmacy-based NSP services. Of these, over 48 per cent only access Community Pharmacy based services, with rates even higher in rural regions. Although THN has been made available from all SMS NSPs in Wales, provision within Community Pharmacy based NSP services remains severely limited.

As such gaps still remain in both the accessibility and availability of THN across populations currently not in contact with specialist substance misuse services.

[9] National Services Scotland (2018). National Naloxone Programme Scotland, Monitoring Report 2017/18. Available at: https://www.isdscotland.org/Health-Topics/Drugs-and-Alcohol-Misuse/Publications/2018-11-27/2018-11-27-Naloxone-Report.pdf

[10] Public Health Wales (2019). Harm Reduction Database Wales: Prevention and detection of infectious disease amongst people accessing substance misuse services. Annual Report 2018-19

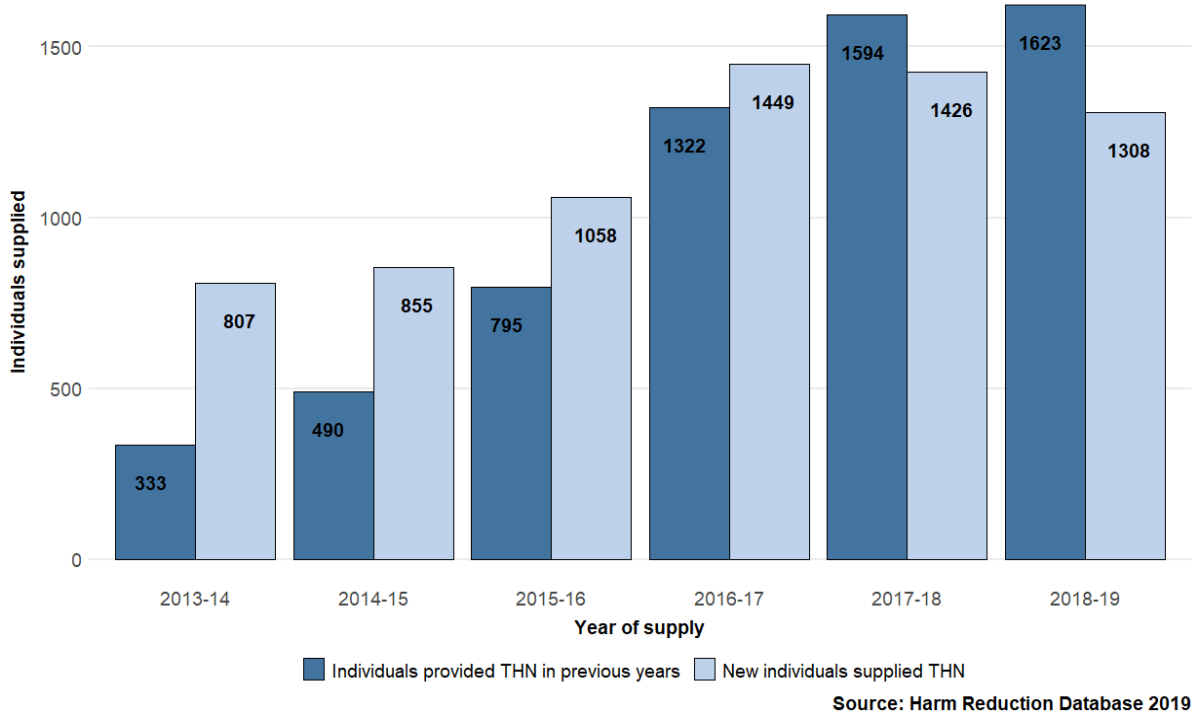

Figure 5 - Number of individuals supplied with THN by year, 2013-14 to 2018-19, Wales

2.3.2 Role of new individuals supplied with THN

Amendment to the Human Medicines Act Regulations in 2015[11] provided opportunities for a wider range of individuals to be issued THN, including family, partners and carers of people considered 'at risk', and professionals who are in increased contact with individuals who use opioids.

In 2018-19, 24 per cent (n=315) of new individuals supplied with THN were either family or carers of an 'at risk' individual (8 per cent) or professionals (16 per cent). Distribution within such groups was proportionally similar to the 23 per cent recorded in the previous year. The number of new individuals considered 'at risk' supplied with THN in 2018-19 remains comparable with recent years with 1,035 individuals supplied with THN (see Figure 6).

Over the last year additional amendments have been made to the Human Medicines Act Regulations introducing nasal THN as an alternative preparation method for supply[12]. This amendment provides opportunity of widening distribution of THN to peer and professional groups, particularly in instances where an injectable preparation was viewed as a barrier to use.

[11] The Human Medicines Act (Amendment) (No.3) Regulations (2015) www.legislation.gov.uk/uksi/2015/1503/made
[12] Public Health England (2018). Guidance on widening the availability of naloxone. https://www.gov.uk/government/publications/widening-the-availability-of-naloxone/widening-the-availability-of-naloxone#products-that-drug-services-can-supply

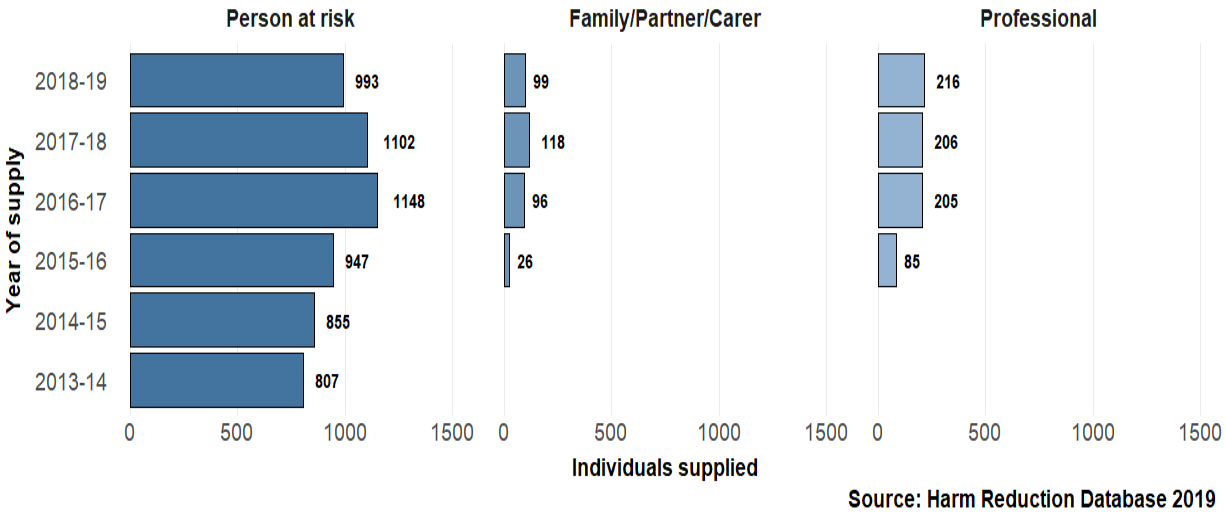

Figure 6 - Number of new individuals supplied THN by role, 2013-14 to 2018-19, Wales

2.3.3 Demographics of at-risk individuals newly supplied with THN

At risk individuals include those likely to experience or witness an opioid poisoning event and includes individuals injecting or using opioids including heroin and/or in receipt of opioid substitute treatment (OST) such as methadone or buprenorphine.

- Median age and range, proportion of individuals aged 50+ years, and length of injecting career have both increased since 2014-15 (see Table 8). This data is consistent with an older cohort of PWID using opioids accessing NSP services in Wales[10]
- Sex distribution has remained relatively consistent over the last 3 years, with females representing 37 per cent of individuals receiving THN
- The proportion of clients reporting non-secure housing / fixed address (NFA) has decreased year on year, from 38 per cent in 2015-16 to 31 per cent in 2018-19. This trend is contradictory to that observed within NSP services, where non-secure / NFA housing within individuals reporting use of opioids has seen year on year increases since 2015-16[13]
- The highest risk of opioid poisoning event is amongst those with a recent period of abstinence from opioid use, specifically those recently released from prison or detoxification/rehabilitation services. The proportion of individuals issued with THN following recent release from prison is a concerning trend.

[13] Public Health Wales (2019). Harm Reduction Database Wales: Prevention and detection of infectious disease amongst people accessing substance misuse services. Annual Report 2018-19

Table 4 - Demographics of new individuals considered 'at risk' of an opioid poisoning event supplied THN, 2015-16 to 2018-19, Wales

	2015-16	2016-17	2017-18	2018-19
New individuals supplied	1,058	1,449	1,426	1,308
Person "at risk" of opioid poisoning	90%	79%	77%	76%
% Male	71%	63%	62%	63%
% Under 25 years	8%	8%	8%	7%
% Over 50 years	8%	8%	9%	11%
Median age (years)	36	37	38	38
Primary risk factor*				
Poly-drug use	55%	63%	65%	63%
Recently left dotox	11%	11%	11%	11%
Recently released from prison	19%	12%	13%	12%
New opiate user	15%	15%	11%	14%
% Living in non-secure housing / NFA*	38%	36%	35%	31%
% Reported history of opioid poisoning (ever)*	45%	43%	37%	39%

* Proportion of individuals where data has been recorded on HRD. See Appendix for summary of data completeness

2.4 Re-supply of THN

Individuals who carry THN are able to collect replacement or additional kits from SMS services. In 2018-19, there were a total of 2,556 re-supply events across Wales, involving 1,755 unique individuals, a decrease of 2 per cent compared to the previous year. This was the first year where a decline in re-supply events has been observed since the programme began.

Of all individuals supplied with THN in 2018-19:

- 79 per cent (n=2,320) were supplied with THN once
- 14 per cent (n=407) were supplied THN twice
- 7 per cent (n=204) were supplied three or more times

These figures are consistent with previous years as shown in Figure 7.

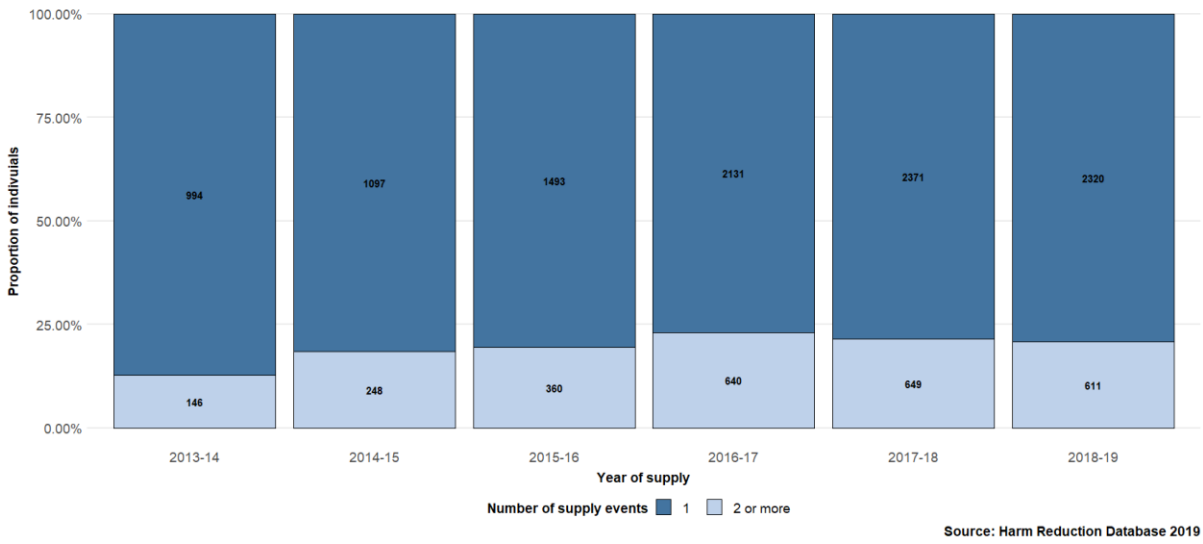

Figure 7 - Proportion of individuals resupplied with THN multiple times during one year, 2013-14 to 2018-19, Wales

2.4.1 Reason for re-supply

A reason for re-supply was provided for all of re-supply events. As per previous years "kit lost" represents the most common reason for re-supply, recorded for 54 per cent (n=1,377) of events in 2018-19. These rates have remained consistent since 2014-15.

A further 18 per cent (n= 457) stated they had used their previous THN kit in a drug poisoning event. This proportion has decreased from to 32 per cent in 2015-16. It is not possible to evidence how many kits supplied may have been used in opioid poisoning event if the individual does not return for re-supply.

Individuals supplied with THN are encouraged to return for re-supply in line with the expiry date listed on the kit provided[14]. In 2018-19, 20 per cent of individuals were re-supplied 'kit was out of date', a marginal decrease from 22 per cent the previous year. Rates of re-supply due to 'kit out of date' has fluctuated over the last few years. As such further work is required in order to reengage individuals approaching expiry or carrying out of date kits in order to ensure their effective use when required.

The remaining 8 per cent of resupply events were to provide the individual with a spare kit to ensure available THN kit in all locations where they may be needed.

[14] Approximately 2-3 years from date of issue

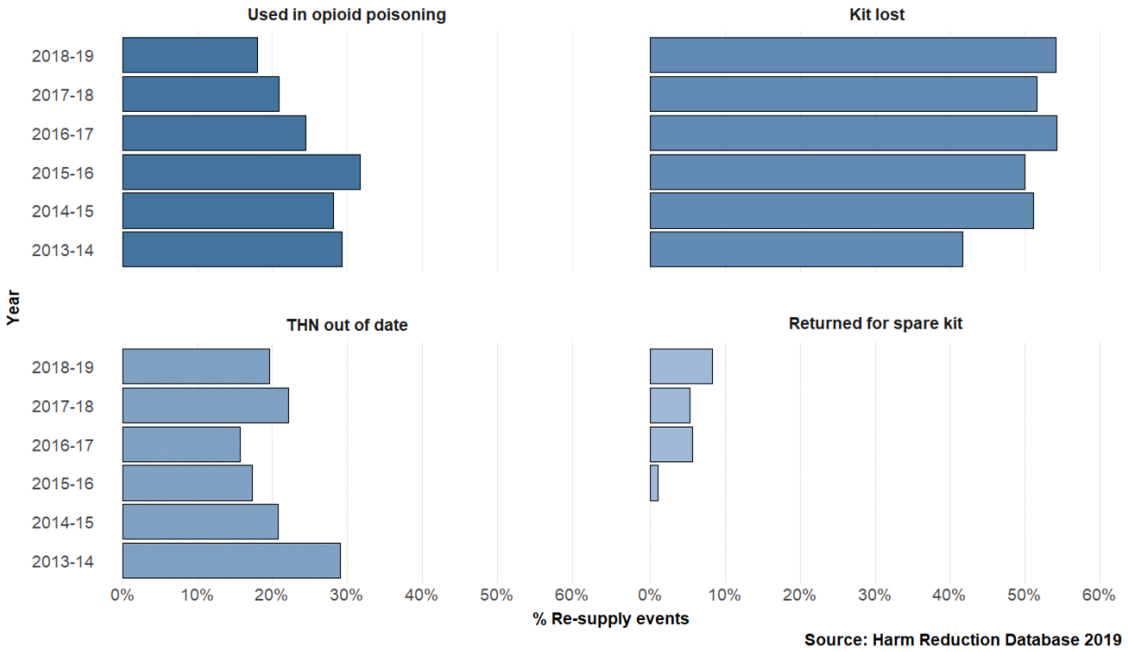

Figure 8 - Reasons for re-supply as reported, 2013-14 to 2018-19, Wales

2.5 THN distribution by health board

In 2018-19 the European Age Standardised Rate (EASR)[15] for all individuals supplied with THN in Wales was 160 per 100,000 population, and 70 per 100,000 population for new individuals. Geographical comparisons between health boards (see Table 5, Figure 9, Table 6, Figure 10) highlights variation in individuals supplied with THN.

All individuals supplied with THN

- The highest rates of THN supply in 2018-19 was recorded within Cardiff and Vale (155 per 100,000 population) and Abertawe Bro Morgannwg (136 per 100,000 population) University Health Boards, with lowest rates observed in Aneurin Bevan (75 per 100,000 population) and Betsi Cadwaladr (64 per 100,000 population) University Health Boards
- Cardiff and Vale, Hywel Dda, and Powys Teaching Health Boards all saw increased rates of individuals supplied with THN in 2018-19 compared to the previous year

New individuals supplied with THN

- The highest rates of THN supply to new individuals in 2018-19 was observed within Cardiff and Vale (62 per 100,000 population) and Hywel Dda (59 per 100,000 population) University Health Boards, with lowest rates observed in Aneurin Bevan (33 per 100,000 population) and Cwm Taf (32 per 100,000 population) University Health Boards

[15] Office for National Statistics (ONS): Implementing the 2013 European Standard Population: the impact of selected upper age limits on mortality statistics. https://webarchive.nationalarchives.gov.uk/20160106020035/http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/revised-european-standard-population-2013--2013-esp-/index.html

Table 5 - Number of sites, individuals and THN kits supplied by Health Board area in Wales, alongside European age-standardised rate (EASR) per 100,000 population - all individuals supplied with THN, 2013-14 to 2018-19[16]

	Sites supplying THN 2018-19	Individuals supplied 2018-19	Number of kits issued 2018-19	EASR 2013-14	EASR 2014-15	EASR 2015-16	EASR 2016-17	EASR 2017-18	EASR 2018-19
ABMU*	13	678	983	86.7	153.8	173.6	227.4	244.8	210.3
Aneurin Bevan	9	410	608	62.3	59.7	66.6	127.5	135.0	116.1
BCU*	8	390	486	41.5	43.7	44.0	76.7	100.4	99.7
Cardiff and Vale*	9	735	997	85.4	91.7	191.8	237.0	232.6	238.9
Cwm Taf	7	219	308	45.4	25.7	94.8	119.2	142.7	118.5
Hywel Dda	6	333	415	49.0	52.1	64.3	130.3	132.5	161.1
Powys Teaching	4	102	187	37.1	51.3	22.5	89.5	133.3	153.9
Wales†	58	2,931	4,224	61.6	72.7	100.8	150.5	163.9	159.8

* Includes THN supplied by Prisons located within Health Board

† Includes sites outside of Wales funded by the national THN programme reporting supply to Welsh residents (n=2)

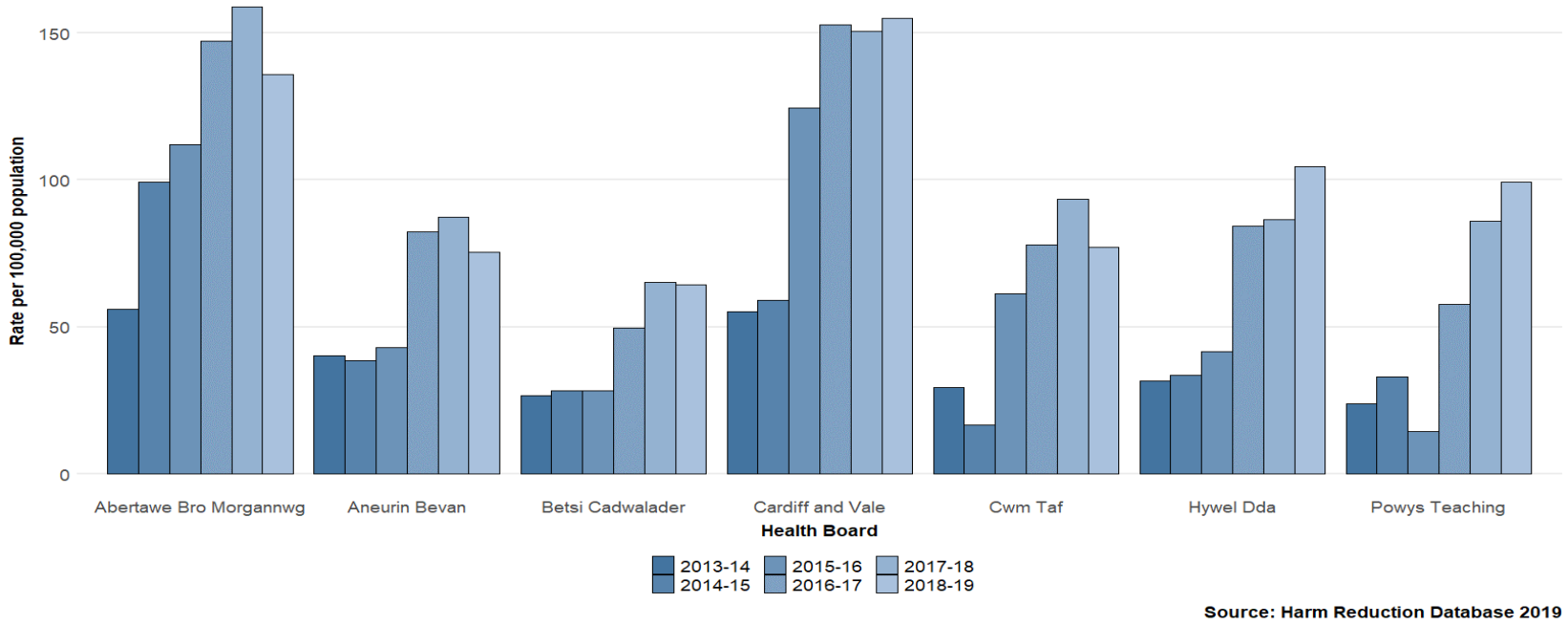

Figure 9 - EASR of unique individuals provided with THN by Health Board/APB area, 2013-14 to 2018-19

[1] European Age Standardised Rates (15-64 years) calculated using mid-year population estimates (2013, 2014, 2015, 2016, 2017, 2018) Stats Wales.

Table 6 - European age standardised rate (EASR) per 100,000 population - new individuals supplied with THN by Health Board area in Wales, 2013-14 to 2018-19[9]

	New individuals supplied 2018-19	EASR 2013-14	EASR 2014-15	EASR 2015-16	EASR 2016-17	EASR 2017-18	EASR 2018-19
ABMU*	235	59.8	97.1	93.9	99.7	88.0	71.4
Aneurin Bevan	182	42.1	33.1	32.3	64.9	65.2	50.5
BCU*	230	27.5	27.5	31.5	50.8	66.0	57.7
Cardiff and Vale*	296	63.5	58.8	107.1	109.4	89.2	95.1
Cwm Taf	90	30.6	15.7	54.7	60.9	70.3	48.7
Hywel Dda	194	37.6	33.1	33.6	75.4	67.4	91.2
Powys Teaching	48	30.4	41.5	12.1	35.1	55.2	68.5
Wales†	1,308	43.6	45.9	57.3	78.1	76.1	70.2

* Includes THN supplied by Prisons located within Health Board

† Includes sites outside of Wales funded by the national THN programme reporting supply to Welsh residents (n=2)

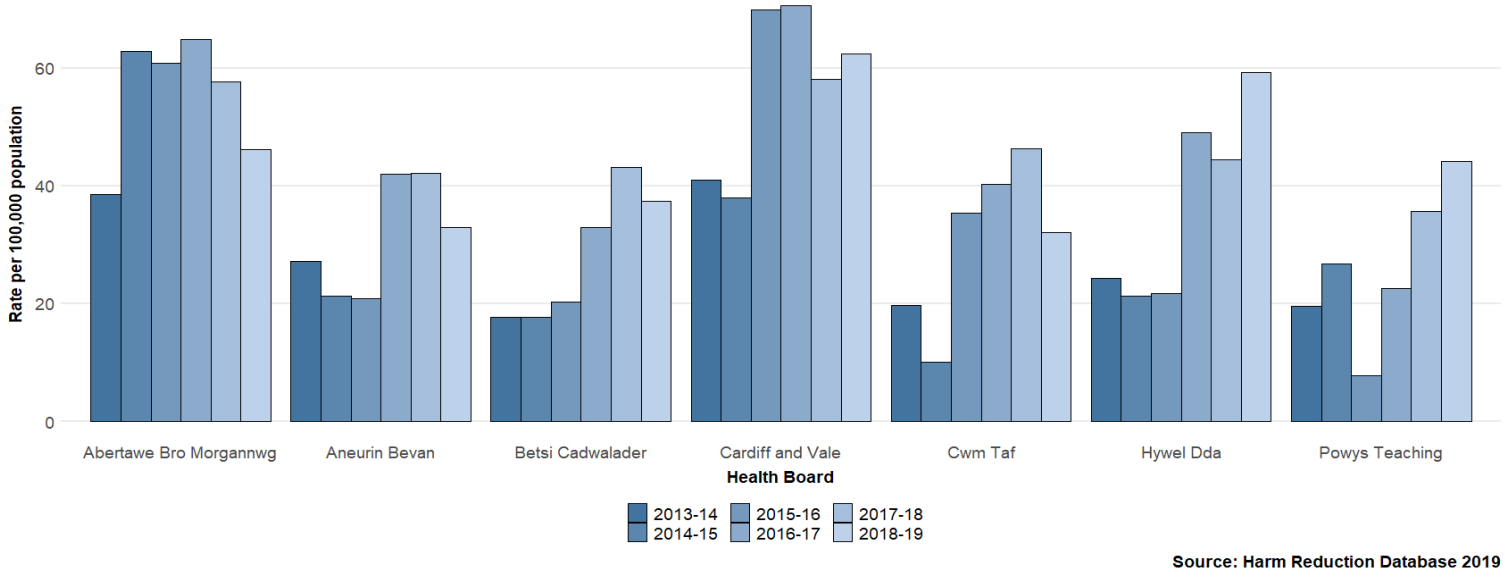

Figure 10 - EASR of new individuals supplied with THN by Health Board, 2013-14 to 2018-19

2.6 THN distribution - Prison vs. Community

Following release from prison, opioid users are at increased risk of fatal and non-fatal drug poisoning. Currently THN is supplied on release within four of the six prisons located in Wales. In 2018-19 THN training and supply was implemented in HMP Berwyn, which currently houses men with long-term sentences. Two further prisons located on the border of England and Wales housing Welsh residents, are also included within the THN programme and report via the HRD.

Since implementation of national THN programme:

- **THN has been supplied** on 3,116 occasions to either new individuals or as a re-supply within a prison setting
- 1,190 individuals have been supplied with THN for the **first time** whilst in prison

In 2018-19:

- THN was **supplied in prison** on 700 occasions (18 per cent of all supply events) to either new individuals or as a re-supply, a decrease of 14 per cent on the previous year
- 581 individuals were supplied with THN whilst in prison, a **decrease of 9 per cent** compared to the 640 individuals supplied in 2016-17
- 169 individuals received THN for the **first time**, representing 12.7 per cent of all new individuals supplied across Wales

Whilst the prison estate remains a vital setting in ensuring the supply of THN to new individuals throughout Wales, this is the first year since implementation of the THN programme where supply rates have declined.

Table 7 - Number of THN supply events conducted within prison setting, by prison and year

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
HMP Berwyn	-	-	-	-	10	19
HMP Cardiff	96	85	152	305	257	204
HMP Eastwood Park*	0	0	0	116	201	238
HMP Parc	60	81	38	26	92	80
HMP Stoke Heath*	-	-	-	-	2	2
HMP Swansea	23	85	138	156	251	157
Total	**179**	**251**	**328**	**603**	**813**	**700**

* THN supplied to Welsh residents within Prison population

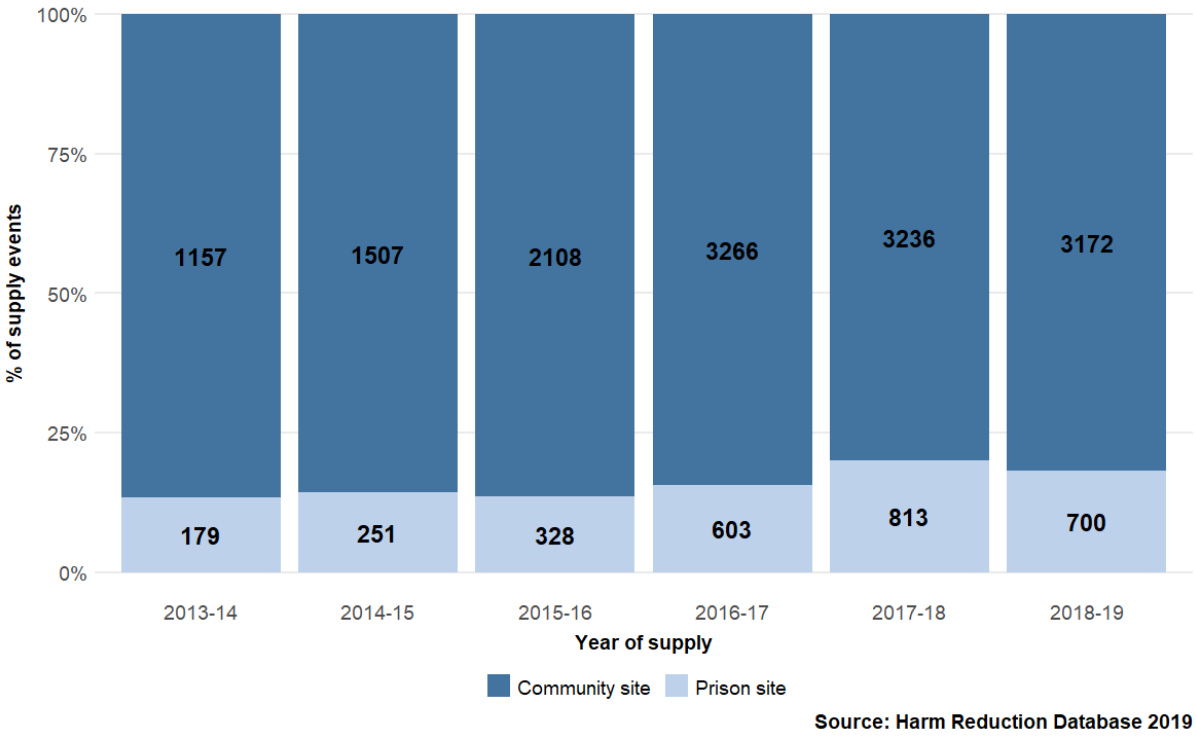

Figure 11 - Proportion of THN supply events within prison compared to community sites, 2013-14 to 2018-19

3 Drug deaths in Wales

3.1 Drug poisoning deaths

In 2018, 327 deaths due to drug poisoning were registered in Wales, an increase of 26 per cent from the previous calendar year. Of the drug-poisoning deaths, 64 per cent were defined as a drug misuse death, specifically drug deaths involving illicit drugs controlled under the Misuse of Drugs Act 1971 and other related legislation.[17]

The number of drug poisonings not classified as a drug misuse death (non-drug misuse deaths) increased by 60 per cent on the previous year, from 75 in 2017 to 119 in 2018.

There was a 12 per cent increase in drug misuse deaths from 185 deaths in 2017 to 208 in 2018 (see Figure 12).

During this reporting period, both the number of registered drug misuse deaths and non-drug misuse deaths are recorded at the highest ever levels recorded by ONS.

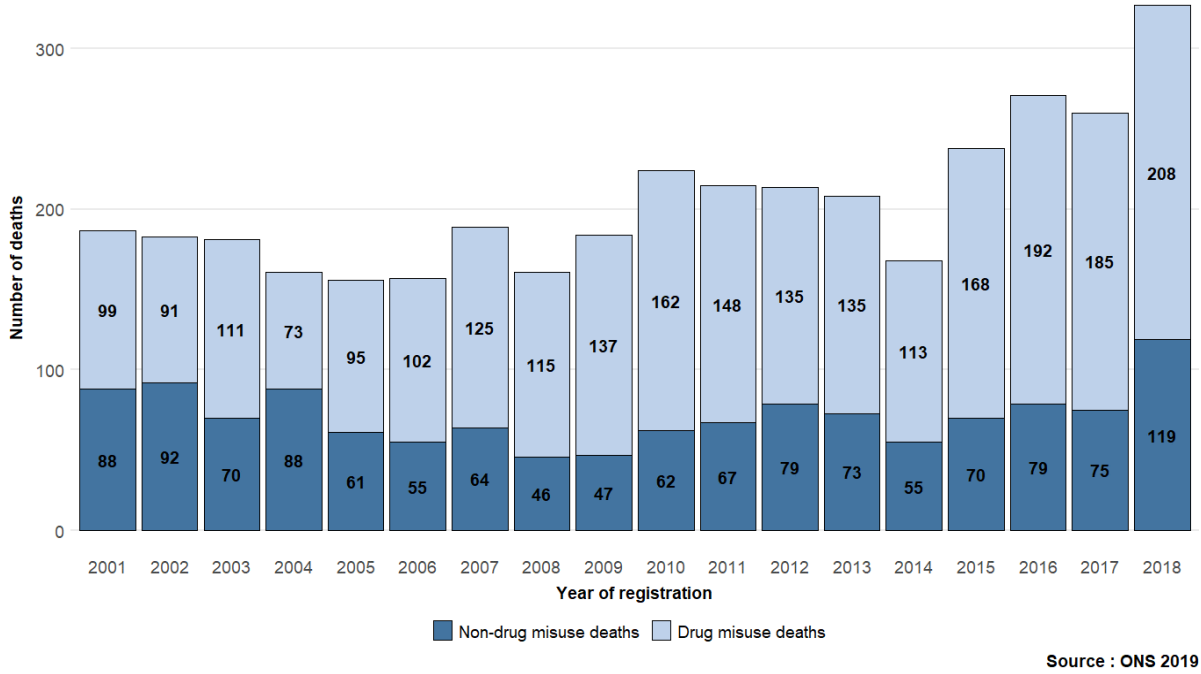

Figure 12 – Drug poisoning deaths in Wales by year of registration and drug misuse status, 2001 to 2018

The European age standardise rate (EASR)[18] [19] per million population of drug misuse deaths in Wales has increasing by 56 per cent over the last 10 years from 46 deaths per million in 2009 to 72 deaths per million population in 2018.

With the exception of two years, Wales has historically maintained a higher rate of drug misuse deaths than England, as shown in figure 13. Rates in England in 2018 were 43 per million population

17 A death where the underlying cause is either drug abuse or drug dependence, or the underlying cause is drug poisoning and any of the substances controlled under the Misuse of Drugs Act 1971 are involved.
18 Eurostat: revision of European standard population – report of Eurostats task force – 2013 edition. Available at: http://ec.europa.eu/eurostat/en/web/products-manuals-and-guidelines/-/KS-RA-13-028
19 Population estimate data sourced from Stats Wales: https://statswales.gov.wales/Catalogue

with substantial regional variation. Rates of drug misuse deaths have increased in both countries over the past decades.[20]

A direct comparison to drug misuse deaths in Scotland should be made with caution due to differences in both data collection methods and delays between date of deaths and death registrations. However, the rate of drug misuse deaths in Scotland is higher than Wales, with Scotland reporting 231 deaths per million population in 2018[21].

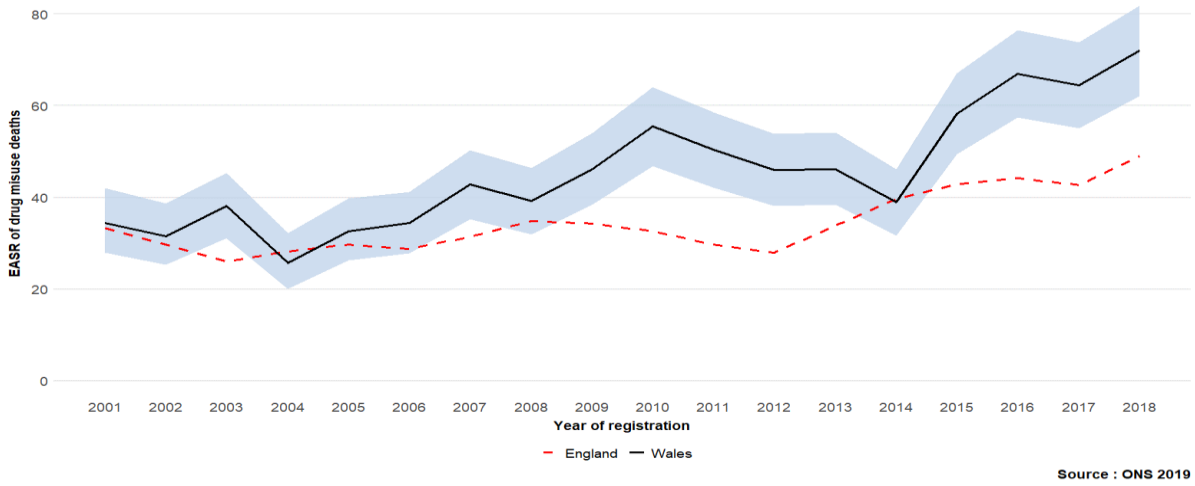

Figure 13 – Age standardised rates per million population of drug misuse deaths in England and Wales by registered year of death, with 95% confidence intervals, 2001 to 2018

Comparisons between regions across England indicates that in 2018 Wales had the second highest rate per million population of drug misuse deaths, behind the North East of England.

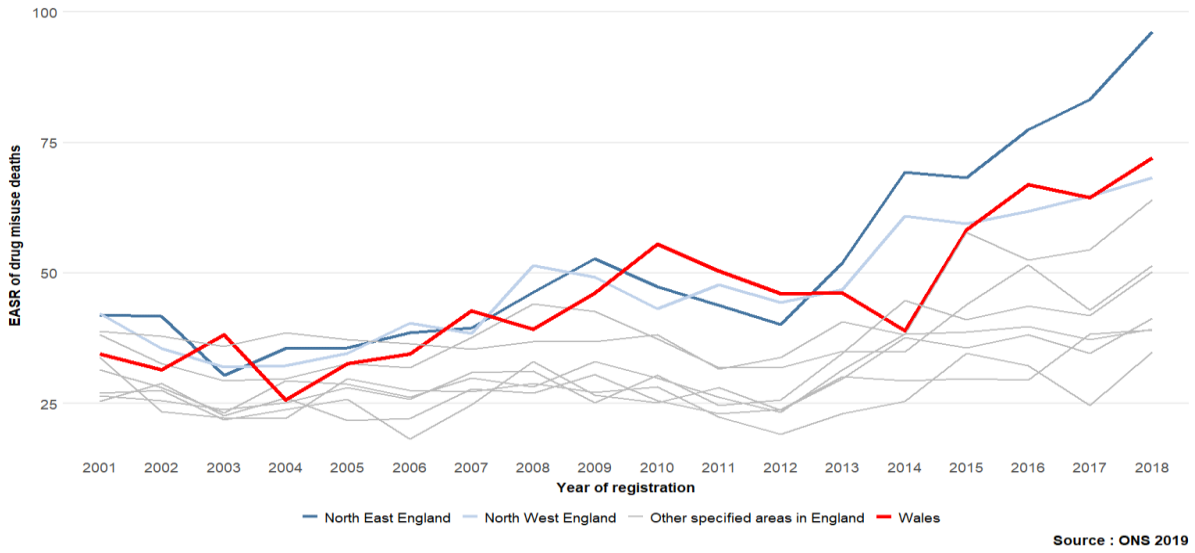

Figure 14 – Rate of drug misuse deaths per million population in Wales compared to specified regions in England, 2001 to 2018

20 Office for National Statistics (2019). Deaths related to drug poisoning in England and Wales: 2018 registrations. Available at https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2018registrations

21 National Records of Scotland (2019). Drug-related Deaths in Scotland in 2018. Available at https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/drug-related-deaths-in-scotland/2018

3.2 Non-drug misuse deaths - Overview

In 2018, 119 drug poisonings were registered in Wales which did not meet the ONS definition of a drug misuse death[22]. This represents an increase from the 75 registered in the previous year (see Table 8) and the highest number recorded within the last decade. Median age of death was 48 years (range 18 – 89), and 51 per cent were male (n = 61).

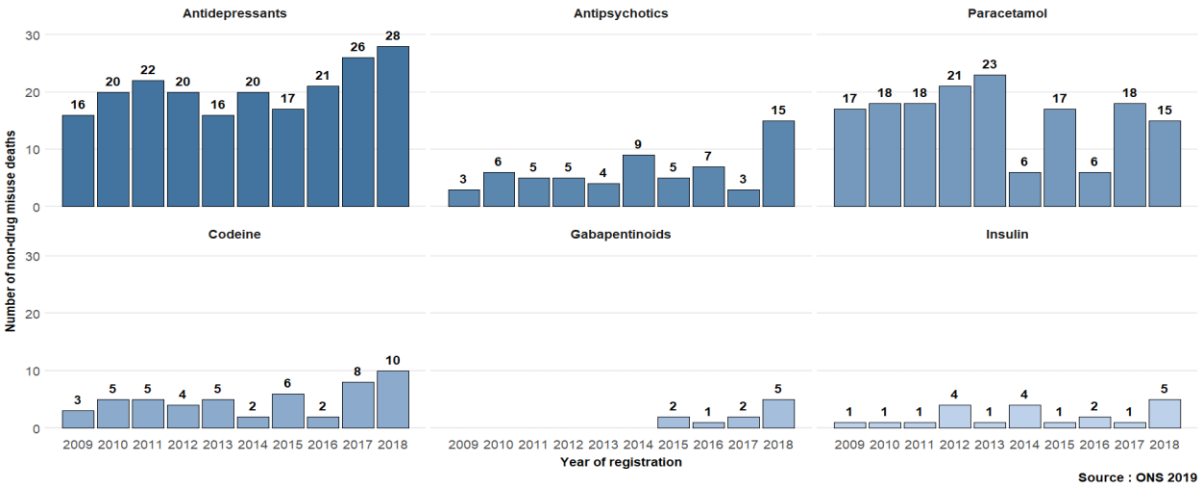

Figure 15 – Number of non-drug misuse drug poisonings in Wales involving the top five substances recorded, 2009 to 2018

The most common single substance recorded was paracetamol, present in 13 per cent of drug poisonings deaths (n = 15) (see Figure 15). The most common substance group recorded were anti-depressants, reported in 28 deaths, increasing for the third year. There have been increases in deaths involving antipsychotics and codeine, however, a single year increase is not sufficient to allow confidence in describing new trends. During this period, 'no named substance' was recorded for 53 non-drug misuse deaths.

Table 8 – Demographic data and rates for non-drug misuse drug poisonings, 2014 to 2018.

	2014	2015	2016	2017	2018
Wales					
Number of non-drug misuse deaths	55	70	79	75	119
EASR per 100,000 population	1.8	2.4	2.7	2.5	4.0
Median age (years)	47	44.5	46	49	48
Age range (years)	15 - 76	15 - 91	18 - 95	19 - 97	18 - 89
% Male	53%	60%	65%	53%	51%
Health board EASR (n)					
ABMU	0.6 (3)	1.8 (9)	1.7 (9)	3.3 (17)	4.7 (24)
Aneurin Bevan	0.7 (4)	1.8 (10)	2.3 (13)	2.9 (17)	4.7 (27)
BCU	3.2 (21)	2.6 (19)	2.3 (15)	2.1 (15)	4.4 (29)
Cardiff & Vale	2.3 (10)	1.4 (6)	1.7 (8)	1 (5)	2.3 (11)
Cwm Taf	3.7 (11)	2.8 (8)	2.6 (7)	2.9 (8)	5.3 (16)
Hywel Dda	1.8 (6)	5.7 (17)	7.6 (26)	3.3 (11)	2.9 (10)
Powys Teaching	0 (0)	0.6 (1)	1 (1)	1.7 (2)	1.3 (2)

22 A death where the underlying cause is either drug abuse or drug dependence, or the underlying cause is drug poisoning and any of the substances controlled under the Misuse of Drugs Act 1971 are involved.

3.3 Drug misuse deaths - Overview

The remainder of this section will summarise only drug poisonings classified as a drug misuse death as defined by ONS.[23] A drug misuse death is a drug poisoning where the underlying cause has been classified as:

- Drug abuse
- Drug dependence
- Drug poisoning and any of the substances controlled under the Misuse of Drugs Act 1971 are involved

The most common underlying cause of death registered in 2018 was accidental poisoning, representing 87 per cent (n = 181) of all deaths in 2018 (see Figure 16). All drug misuse deaths have been included in the analysis regardless of intent.

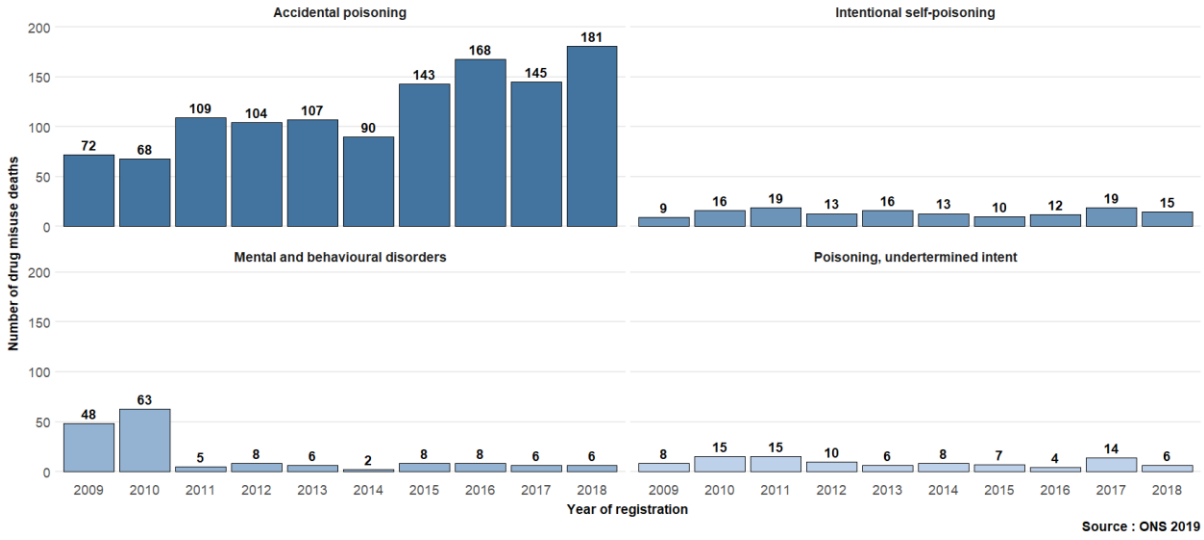

Figure 16 – Underlying cause of death for drug misuse deaths in Wales by year of registration, 2009 to 2018

3.4 Drug misuse deaths – Demographics

3.4.1 Drug misuse deaths by Welsh Index for Multiple Deprivation

Drug harms are typically associated with social and economic deprivation. Taking all 1,583[24] drug misuse deaths in Wales occurring in the last five years, 42 per cent occurred amongst those from the 20 per cent most deprived areas (deciles 1-2) (see Figure 17). As such, drug misuse deaths were five times higher in those living in the most deprived quintile compared with the least deprived quintile.

23 Office for National Statistics (2019). Deaths related to drug poisoning in England and Wales: 2018 registrations. Available at https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2018registrations

24 There were 3 deaths where a Welsh Index for Multiple Deprivation (WIMD) rank could not be established.

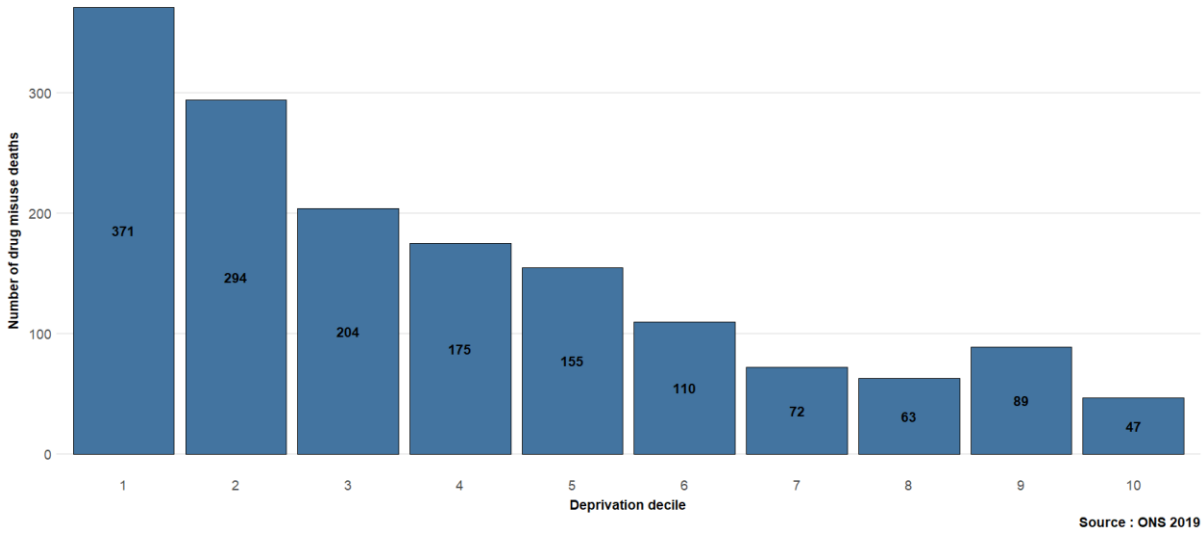

Figure 17 – Number of drug misuse deaths between by deprivation decile, 2009-18 (1 = highest rank of deprivation to 10 = lowest rank of deprivation)

3.4.2 Drug misuse deaths by gender and age

Figure 18 indicates the number of drug misuse deaths stratified by gender. In 2018, the ratio of deaths amongst males and females was around 3:1, 71 per cent (n=152) male and 27 per cent (n = 56) female. Drug misuse deaths amongst females have increased year on year since 2013 and are now at highest number recorded by ONS.

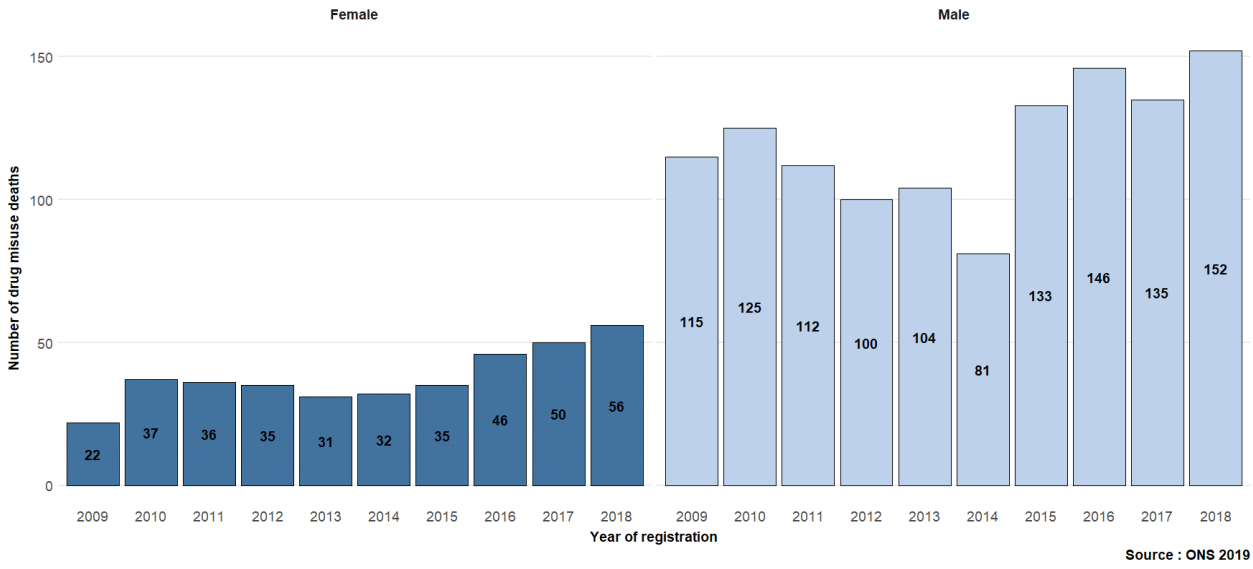

Figure 18 – Drug misuse deaths by gender and year of registration, 2009 to 2018, Wales

In 2018, the median age of drug misuse deaths was 42 years (range 15-91), an increase of 3 years compared to 2017, representing the first time median age at death has increased since 2015.

The median age of death was highest amongst females, 43.5 years (range 15-91), compared to that recorded for males, 41 years (range 15-81). The age gap has narrowed with the median age of males increasing by 3 years compared to the previous year.

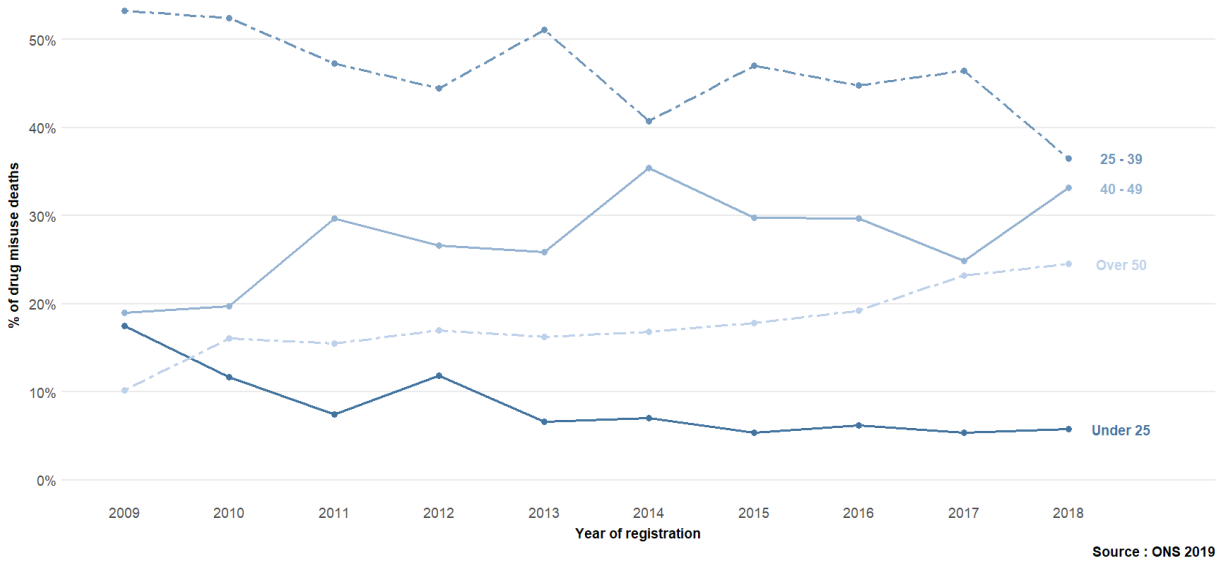

Figure 19 – Proportion of drug misuse deaths by age group, 2009 to 2018, Wales

Figure 19 and Figure 20 indicate the proportion and number of deaths by age group and by age group and gender respectively.

The 40-44 year age group represents the most common age group, reported in 19 per cent of all drug deaths (n = 40) in 2018. There were 12 deaths in people under the age of 25, accounting for 5.8 per cent of drug misuse deaths in 2018.

Compared to 2017, there have been increases in deaths amongst those aged under 25 as well as those aged above 50, partially amongst males:

- Amongst young people, the increase in deaths was due to sole use of either MDMA or cocaine.
- In those aged over 50, increases related to use of other opioids (non-heroin/morphine opioids), accounting for 39.2 per cent of drug misuse deaths in the over 50s compared to 25 per cent in those younger than 50. In addition, there was also an increase in the number of deaths involving heroin/morphine in this age group, 22 deaths in 2018 compared to 14 deaths in 2017

Analysis of individual substances can be found in section 3.5 Drug misuse deaths – Substances

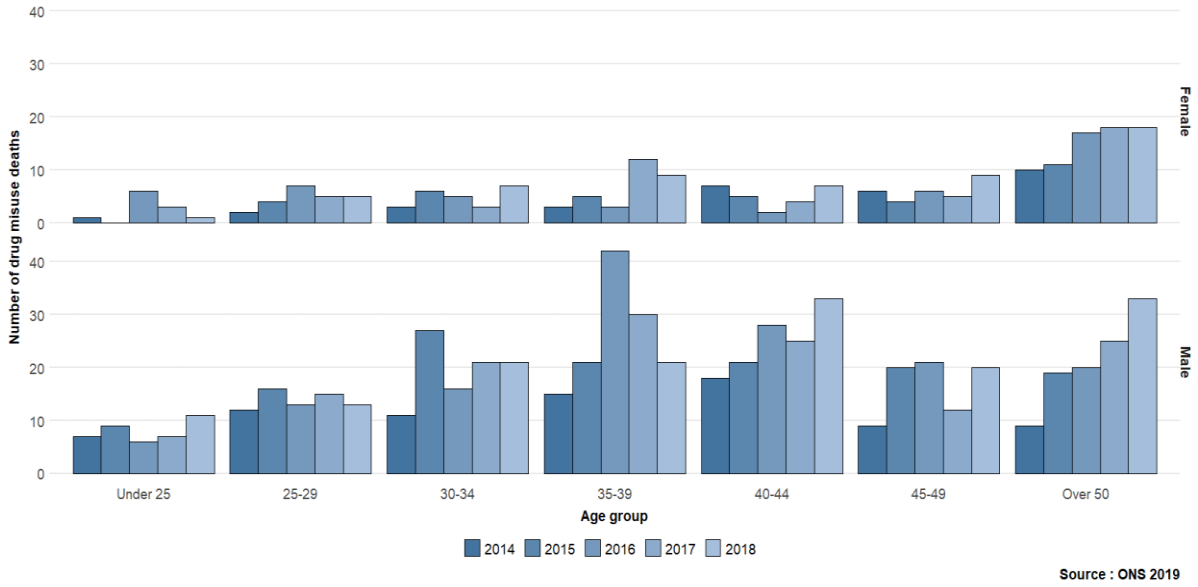

Figure 20 – Drug misuse deaths by age group, gender and year of registration, 2014 to 2018

3.5 Drug misuse deaths – Substances

In 2018 and consistent with previous years, the most common substance recorded for a drug misuse death in Wales was heroin/morphine, reported in 52 per cent of deaths (n=108). Other substances commonly recorded were:

- **Diazepam** (16 per cent, n= 34)
- **Cocaine** (15 per cent n=31)
- **Methadone** (8 per cent, n= 17)
- **Codeine** (7 per cent, n= 14)
- **Tramadol** (7 per cent, n = 14)

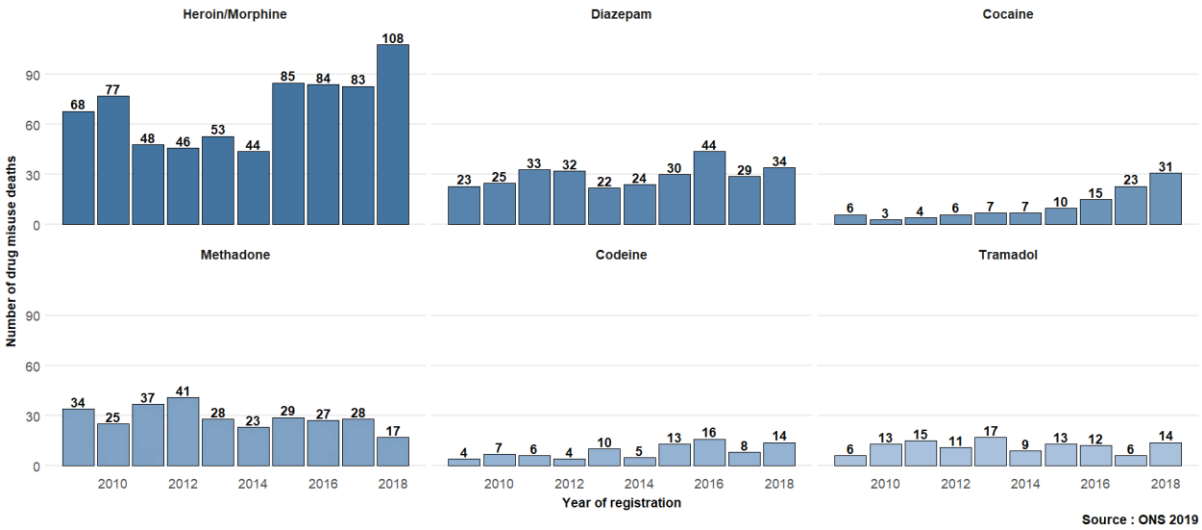

Figure 21 – Top six substances recorded in drug misuse deaths in Wales, 2009 to 2018

Drug misuse deaths often involve a combination of substances, including alcohol and prescription-only medicines (POMs) or over the counter medicines (OTCs) referred to as poly-drug use. In 2018, 49 per cent (n=102) of drug misuse deaths had more than one substance recorded, an increase compared to the previous year at 44 per cent, as shown in Figures 22, 23 and 24. It may be that secondary substances are under-reported as not all substances identified though toxicological screening may be recorded on the death certificate.

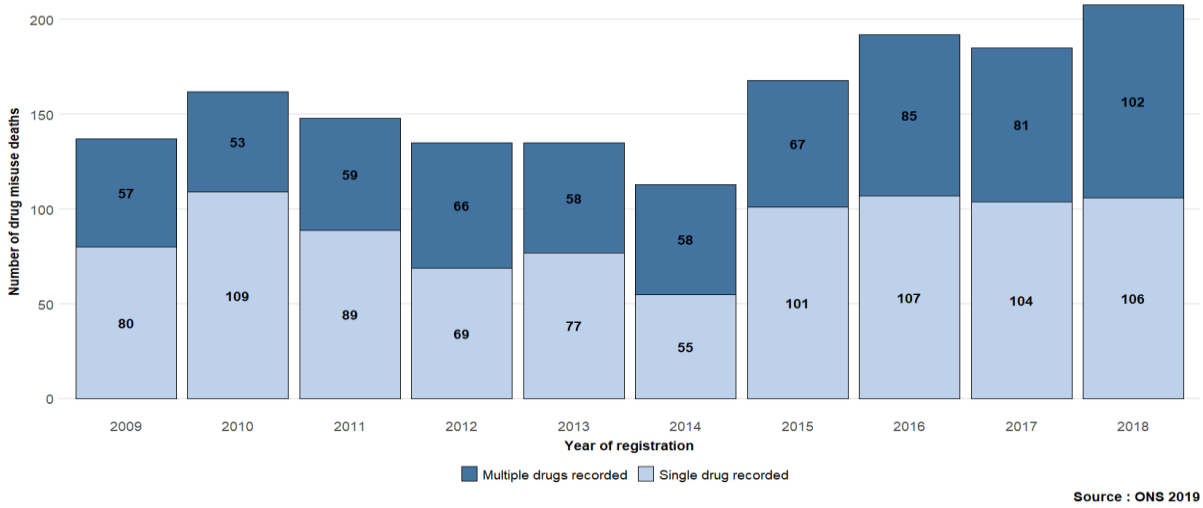

Figure 22 – Drug misuse deaths in Wales with multiple substances recorded, 2009 to 2018

Alcohol use may contribute to a drug misuse death due to the combined respiratory depressant effects particularly when consumed alongside opioids and/or benzodiazepines. In 2018 alcohol was toxicologically evidenced in 15 per cent (n = 32) of drug misuse deaths, representing a decrease compared to 20 per cent recorded in the previous year as shown in figure 23.

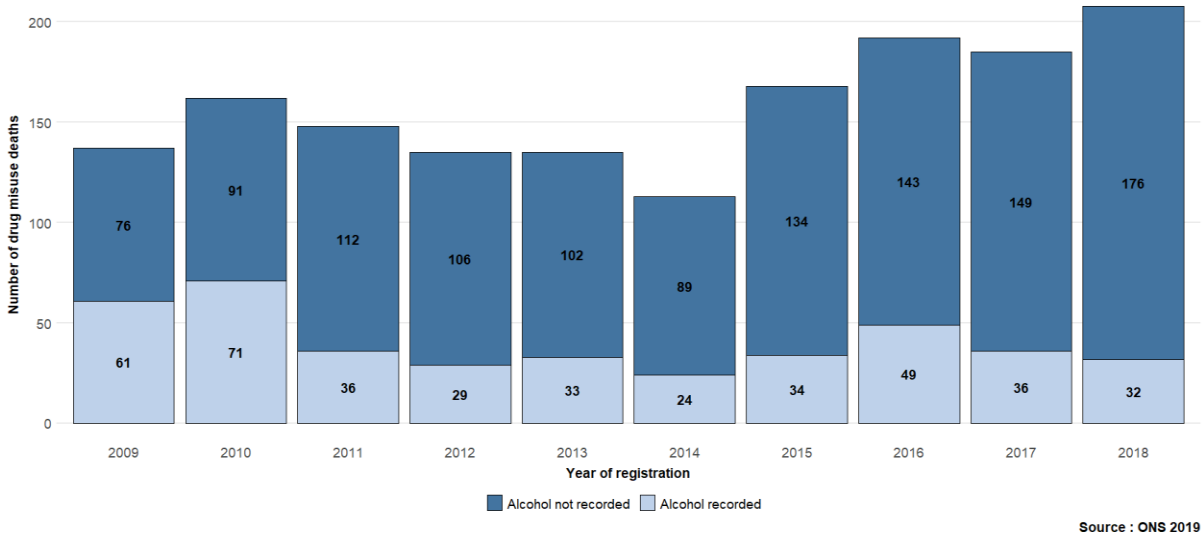

Figure 23 – Drug misuse deaths in Wales involving alcohol, 2009 to 2018

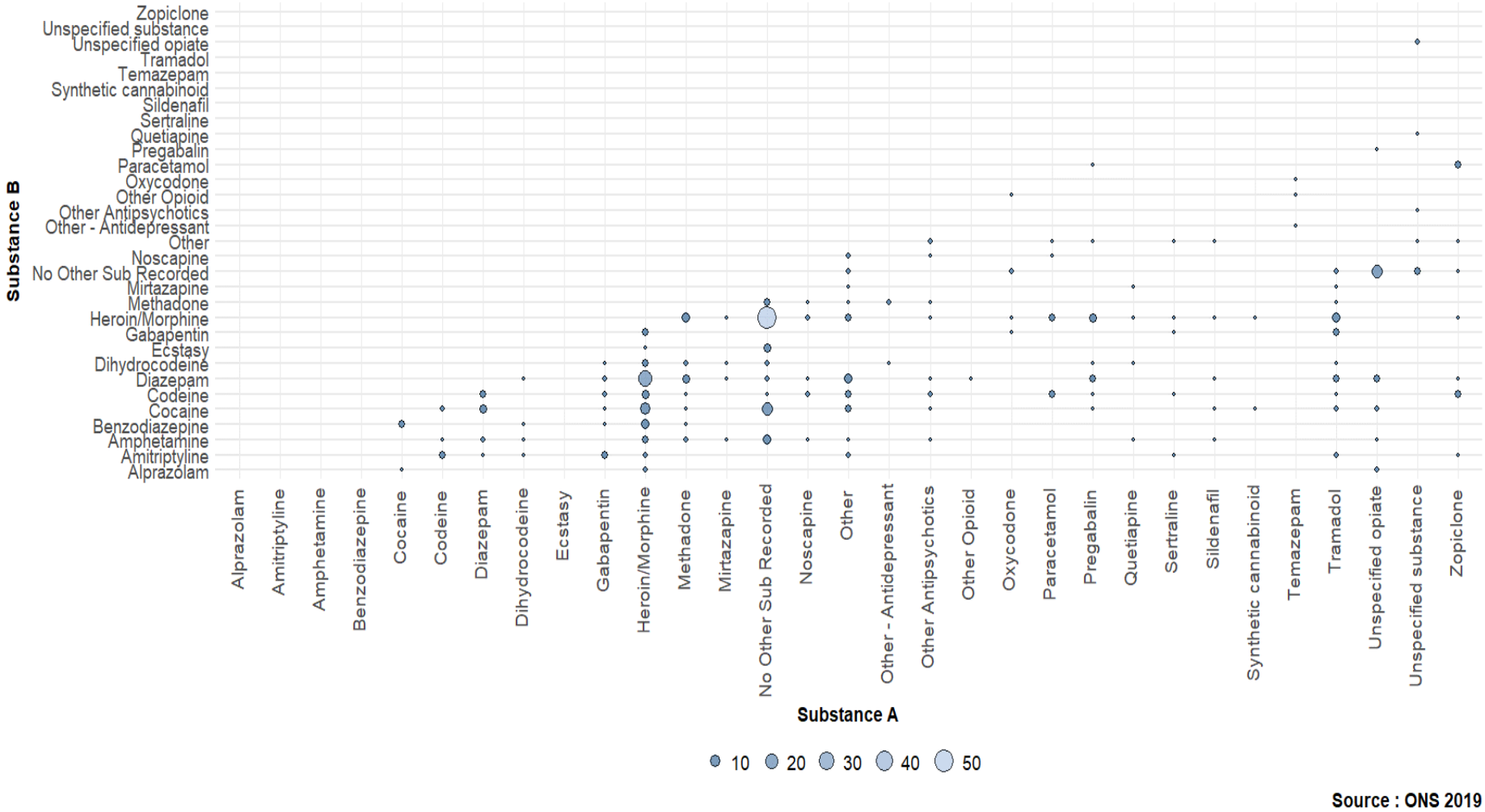

Figure 24 – Relative number of drug misuse deaths involving single or combinations of drugs identified together on any position and recorded on the death certificate in Wales 2018.[25]

25 Substances labelled 'Other' include any substance with only 1 death recorded and did not full into any other category.

3.5.1 Opioids – Heroin and Morphine

Opioids represent the most common substance group recorded in drug misuse deaths in Wales. In 2018, 79 per cent of deaths involved an opioid (n = 166), compared to 82.7 per cent in the previous year. Of the 166 opioid deaths, 65 per cent involved heroin/morphine (n = 108), an increase of 10 per cent compared to the previous year. The remaining 58 deaths involved at least one other opioid such as methadone, codeine or tramadol.

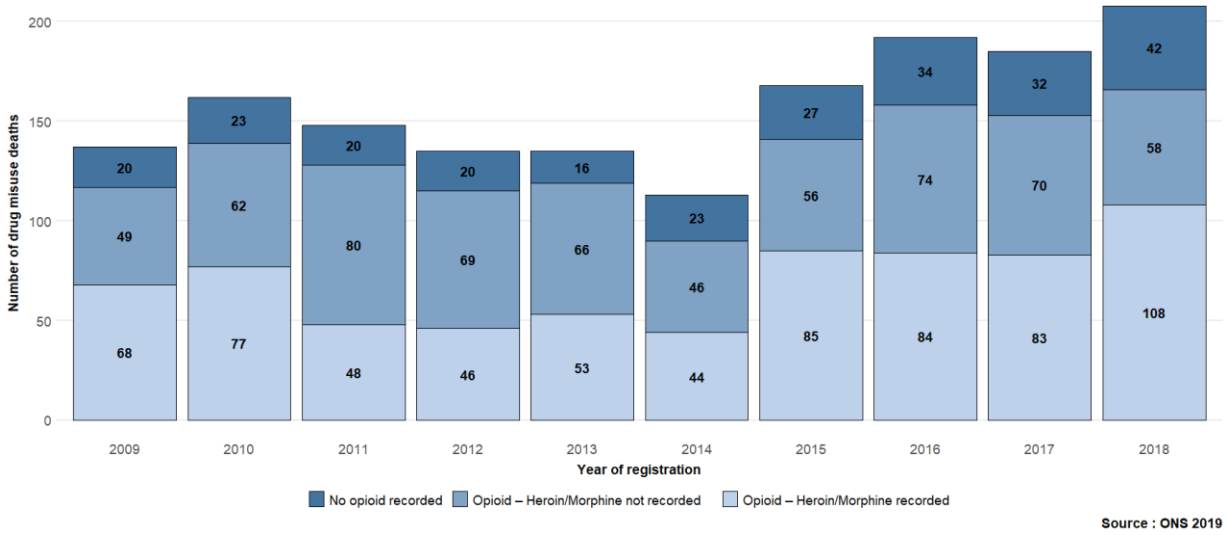

Figure 25 – Drug misuse deaths in Wales, by substance group and year of death registration, 2009 to 2018

The median age of a heroin/morphine death was 40.5 years, consistent with the evidence of older cohort of injecting drug users which has been widely indicated in previous reports. [26,27] The number of deaths involving males increased from 55 in 2017 to 83 in 2018. Deaths involving females have decreased slightly from 28 recorded in 2017 to 25 in 2018. Demographic data for heroin/morphine deaths are shown in Table 9.

Abertawe Bro Morgannwg University Health Board (ABMU) accounted for 31 percent of deaths involving heroin/morphine in Wales. However, the single year EASR per 100,000 population for this region decreased compared with the previous year. The largest increase in EASR per 100,000 population was observed in in Cwm Taf University Health Board area.

26 Public Health Wales (2019). Harm Reduction Database Wales: Prevention and detection of infectious disease amongst people accessing substance misuse services. Annual Report 2018-19
27 Public Health Wales (2019). Data mining Wales: The annual profile for substance misuse 2017-18. Available at: http://www.wales.nhs.uk/sitesplus/documents/888/FINAL%20Annual%20Profile%20for%20Substance%20Misuse%202017-181.pdf

Table 9 – Summary demographic data related to deaths involving heroin/morphine by Health Board, including European age standardised rates (EASR) per 100,000 population (number of deaths in brackets), 2014 to 2018, Wales

	2014	2015	2016	2017	2018
Wales					
Number of deaths	44	85	84	83	108
EASR per 100,000 population	1.5	3.0	3.0	2.9	3.7
Median age (years)	38.5	36	38.5	39	40.5
Age range (years)	23 - 72	18 - 78	22 - 64	14 - 69	21 - 84
% Male	73%	85%	83%	66%	77%
Health board EASR (n)					
ABMU	2.3 (12)	5.4 (27)	5.8 (28)	7.7 (38)	6.5 (33)
Aneurin Bevan	1.1 (6)	2.2 (12)	1.3 (7)	1.2 (6)	1.7 (9)
BCU	0.9 (5)	1.4 (9)	1 (7)	2 (12)	2.3 (15)
Cardiff & Vale	2.3 (10)	2.9 (13)	3.1 (15)	1.7 (8)	3.5 (16)
Cwm Taf	2.2 (6)	5.5 (15)	5 (14)	2 (6)	5.2 (15)
Hywel Dda	1.6 (5)	2 (7)	4.1 (13)	4.1 (13)	5.4 (18)
Powys Teaching	0 (0)	2.1 (2)	0 (0)	0 (0)	2.2 (2)

In 2018, 46% of heroin/morphine deaths (n=50) were recorded as not involving any other substance. This contrasts with data from Scotland, where in the same period, over 90% of heroin deaths involved a secondary substance[28] and suggests the need for further investigation into potential differences in toxicological investigation or recording of deaths involving heroin. The remaining 54% (n = 58) of deaths included at least one other substance (see Figure 26).

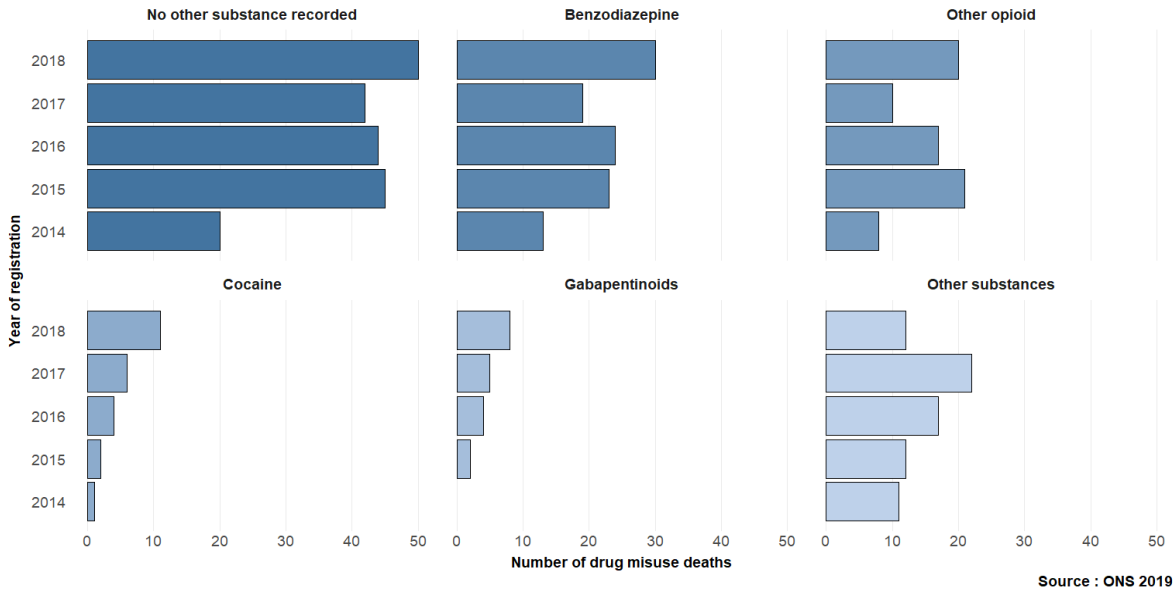

Figure 26 – Heroin/morphine drug misuse deaths involving different substance groups by year of registration, 2014 to 2018.

28 National records of Scotland (2019). Drug-related Deaths in Scotland in 2018. Available at https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/drug-related-deaths-in-scotland/2018

3.5.2 Other opioids – Non heroin/morphine

There were 78 deaths in which at least one opioid, other than heroin/morphine, was recorded. Amongst the top 10 substances reported in 2018 for drug misuse deaths, 5 were opioids other than heroin/morphine. Although a proportion of these deaths also involved heroin/morphine the majority did not (see Figure 27).

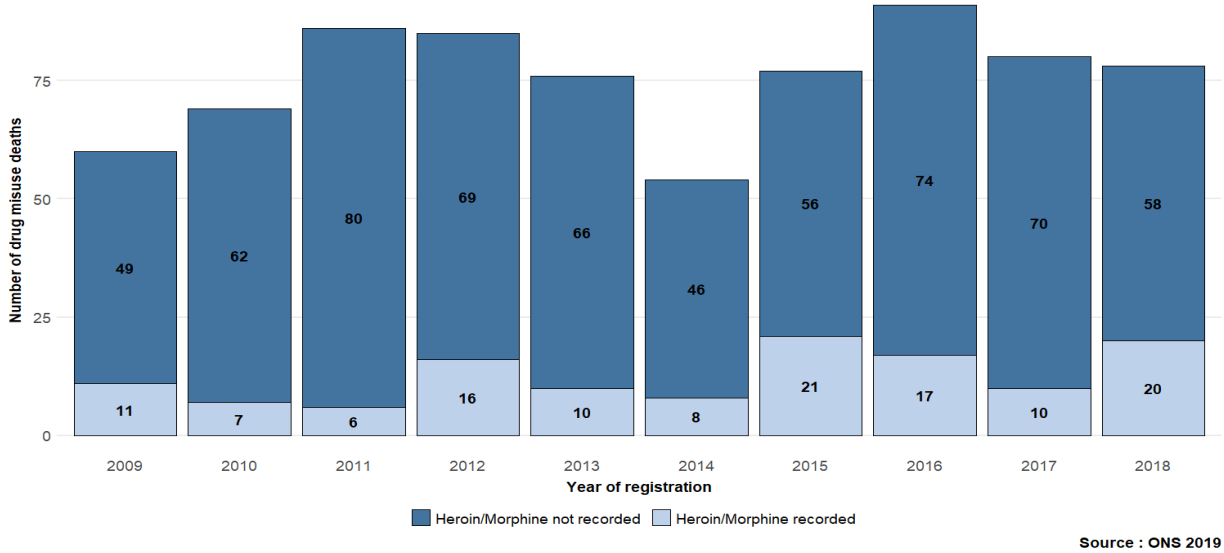

Figure 27 – Drug misuse deaths involving other opioids (non-heroin/morphine) by year of death registration, 2009 to 2018.

The most common opioid recorded, other than heroin/morphine, was Methadone (see Figure 28). The number of deaths involving methadone has reduced from a peak in 2012. Other commonly recorded opioids where Tramadol (n = 14), Codeine (n = 14) and Dihydrocodeine (n = 10). In 2018, no deaths involving fentanyl were recorded. Over the last 5 years there has been an increase in the number of deaths involving 'unspecified opiates', from 7 in 2014 to 23 in 2018.

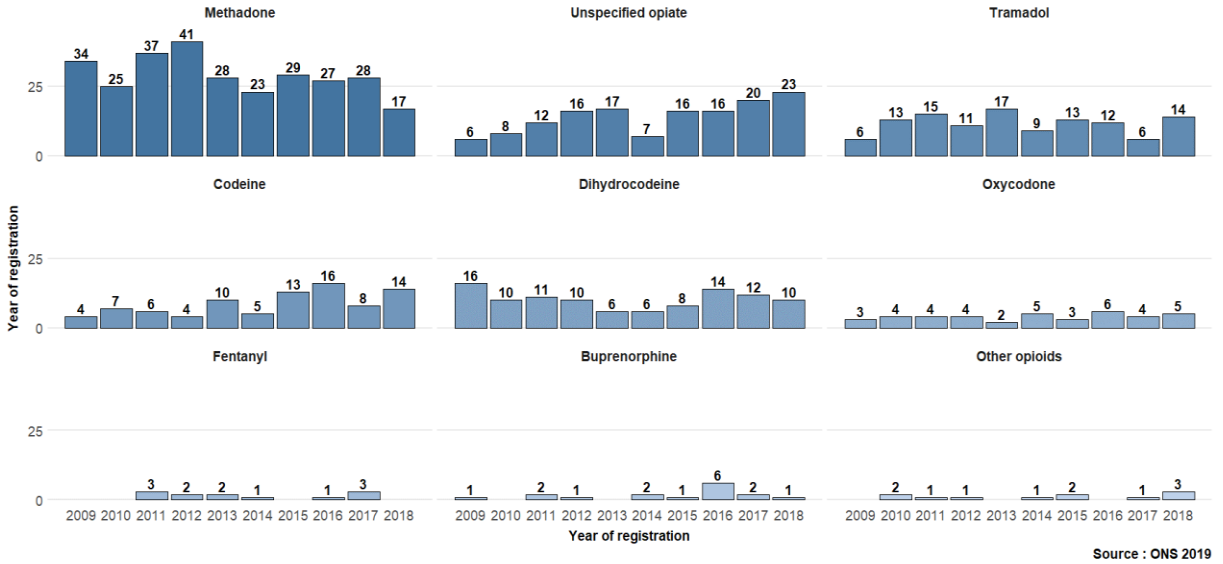

Figure 28 – Drug misuse deaths involving other opioids (non-heroin/morphine) by year of death registration and substance, 2009 to 2018

Table 10 – Summary demographic data related to deaths involving other opioids (non-heroin/morphine), by Health Board, including European age standardised rates (EASR) per 100,000 population (with number of deaths in brackets), 2014 to 2018, Wales

	2014	2015	2016	2017	2018
Wales					
Number of deaths	46	56	74	70	58
EASR per 100,000 population	1.6	1.9	2.5	2.4	2.0
Median age (years)	40	45	43.5	39.5	45
Age range (years)	18 -80	19 -71	18 -70	19 -91	24 -91
% Male	67%	68%	66%	77%	64%
Health board EASR (n)					
ABMU	1.2 (6)	3 (15)	3.1 (16)	4.9 (25)	3.7 (18)
Aneurin Bevan	0.7 (4)	1.5 (8)	2 (11)	1.4 (8)	1.6 (9)
BCU	1.7 (11)	1.5 (10)	2.1 (14)	1.8 (12)	1.6 (11)
Cardiff & Vale	1.8 (8)	1.8 (8)	3.1 (15)	1.8 (9)	1.6 (7)
Cwm Taf	4.3 (12)	2.9 (8)	1.9 (5)	3.5 (10)	3.2 (9)
Hywel Dda	1 (3)	1.2 (4)	2.6 (9)	1.7 (5)	1 (3)
Powys Teaching	2.3 (2)	2.2 (3)	3.2 (4)	1.2 (1)	0.6 (1)

The median age of deaths involving other opioids was 45 years compared to deaths involving heroin/morphine, and a lower proportion of individuals were male. The highest EASR of drug misuse deaths involving other opioids were recorded in ABMU with 3.7 deaths per 100,000 population (see Table 10).

Amongst the 58 deaths involving other opioids, 43 per cent (n=25) had no other substance recorded. In the remaining 33 deaths, substances recorded alongside opioids include benzodiazepines (13), antidepressants (9), gabapentinoids (7) and at least one other opioid (5).

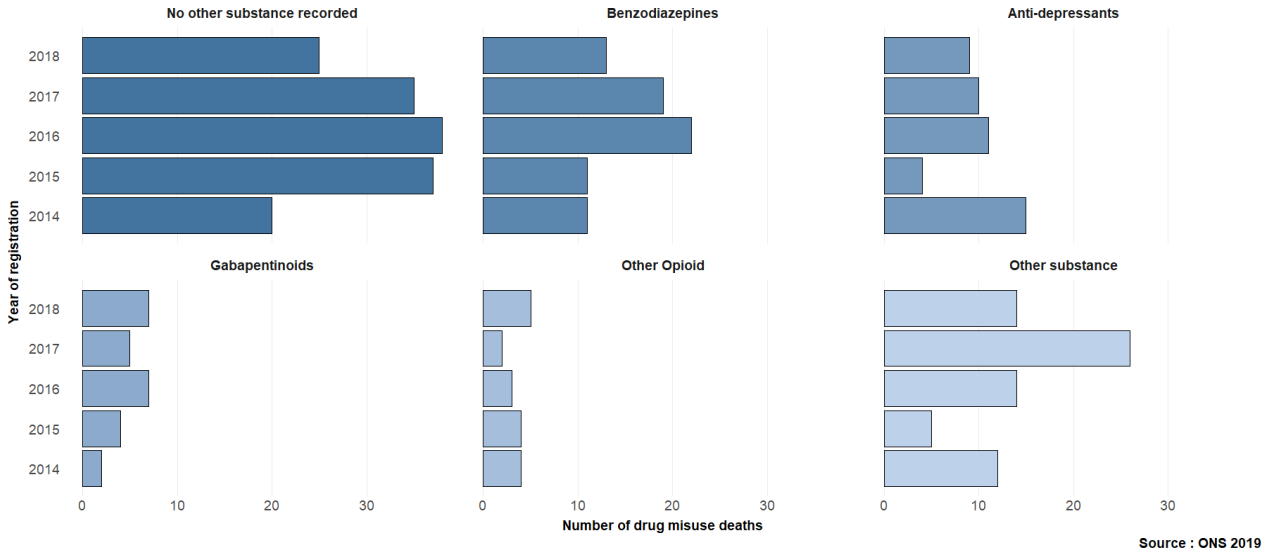

Figure 29 – Other opioid deaths involving different substance groups by year of registration, 2014 to 2018

3.5.3 Cocaine

In 2018, cocaine was recorded in 31 of deaths, representing 15 per cent of all drug misuse deaths. There has been a more than four-fold increase in the number of deaths involving cocaine over the last five years. This trend co-occurs with increases observed in reported cocaine related hospitalisations and individuals presenting for treatment within substance misuse services[29]. Due to current reporting mechanisms it is not possible to distinguish between deaths involving crack or powder cocaine.

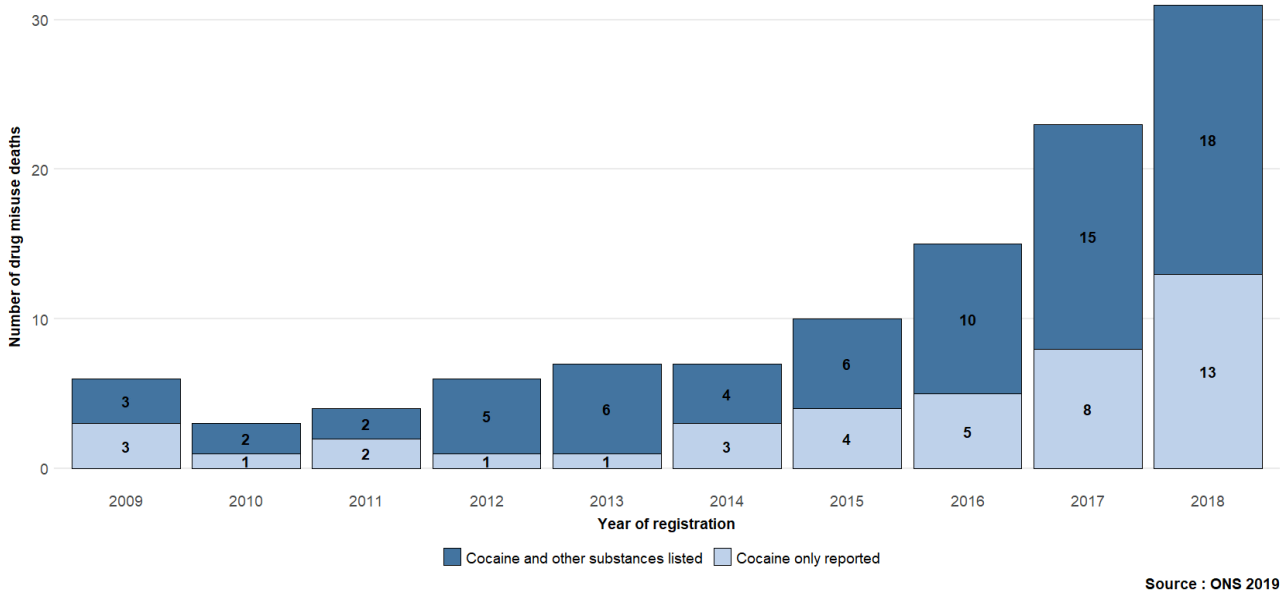

Figure 30 – Drug misuse deaths involving cocaine as the only substance reported, and cocaine alongside at least one other substance, by year of death registration, 2009 to 2018.

There have been increases in both the number of deaths where cocaine was the only substance listed and deaths where at least one other substance has been listed (see Figure 30). Common substances listed alongside cocaine are heroin/morphine (11) and benzodiazepines (10) (see Figure 31).

The median age of deaths involving cocaine in 2018 was 35 years (Table 11). Further analysis indicates, differences between median ages at death where cocaine was the only substance listed[30] (28 years) compared to deaths where cocaine was listed alongside other substances (42 years).

29 Public Health Wales (2018). Data mining Wales: The annual profile for substance misuse 2017-18. Available at http://www.wales.nhs.uk/sitesplus/documents/888/FINAL%20Annual%20Profile%20for%20Substance%20Misuse%202017-181.pdf
30 Excluding common bulking agents

Table 11 – Summary demographic data related to deaths involving cocaine, by Health Board, including European age standardised rates (EASR) per 100,000 population (with number of deaths in brackets), 2014-18, Wales

	2014	2015	2016	2017	2018
Wales					
Number of deaths	7	10	15	23	31
EASR per 100,000 population	0.2	0.3	0.5	0.8	1.1
Median age (years)	40	29.5	37	38	35
Age range (years)	19 - 48	22 - 55	27 - 51	24 - 57	23 - 56
% Male	86%	80%	100%	87%	87%
Health board EASR (n)					
ABMU	0.2 (1)	0.2 (1)	1.2 (6)	0.6 (3)	2.3 (12)
Aneurin Bevan	0.2 (1)	0 (0)	0.2 (1)	0.2 (1)	0.4 (2)
BCU	0.3 (2)	0.6 (4)	0.7 (5)	1.2 (7)	1.2 (7)
Cardiff & Vale	0.7 (3)	0.5 (3)	0.3 (2)	1.4 (6)	0.9 (4)
Cwm Taf	0 (0)	0.3 (1)	0.4 (1)	0.7 (2)	1.3 (4)
Hywel Dda	0 (0)	0 (0)	0 (0)	1 (3)	0.3 (1)
Powys Teaching	0 (0)	1.1 (1)	0 (0)	1 (1)	1.2 (1)

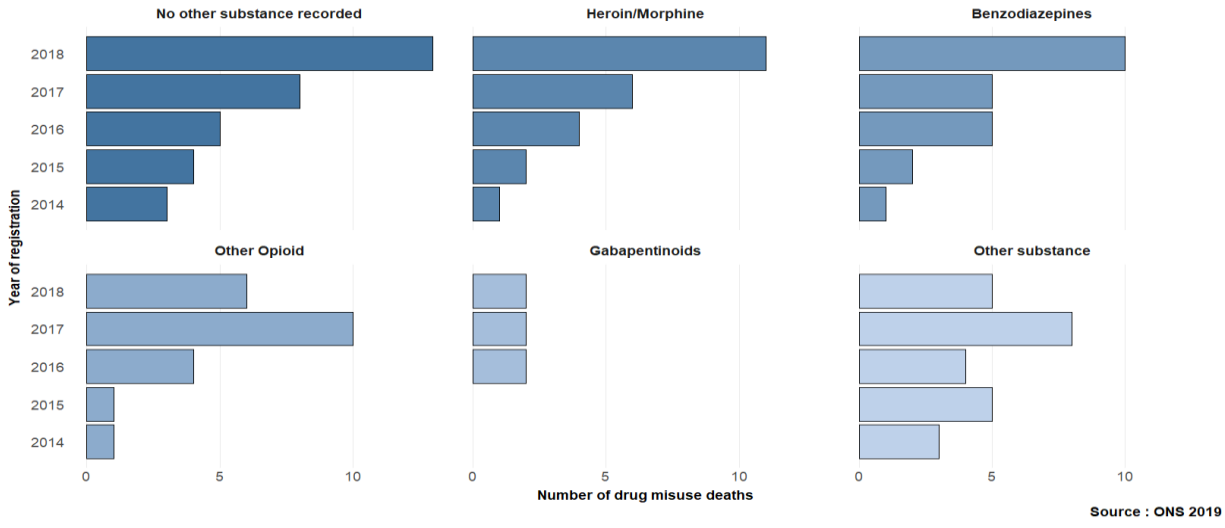

Figure 31 – Deaths involving cocaine and additional different substance groups by year of registration, 2014 to 2018, Wales

3.5.4 Benzodiazepines

Benzodiazepines were reported in 24 per cent of drug misuse deaths registered in 2018 (n = 24), representing second most common substance group reported after opioids. The proportion of deaths reported involving benzodiazepines has remained between 20 and 30 per cent since 2009.

The most commonly reported benzodiazepine was Diazepam, reported in 34 deaths in 2018, making it the second most common individual substance reported. Other benzodiazepines listed included; Alprazolam (4) and Temazepam (2). Unspecified benzodiazepines were reported in 10 drug misuse deaths.

Recent reports have indicated increases in deaths involving benzodiazepines in other regions of the UK. In particular Scotland have seen substantial increases since 2014, in particular deaths involving new designer benzodiazepines such as Etizolam. [31] Whilst these trends are not being observed in Wales, further investigation into current routine toxicological screening and recording processes may be required.

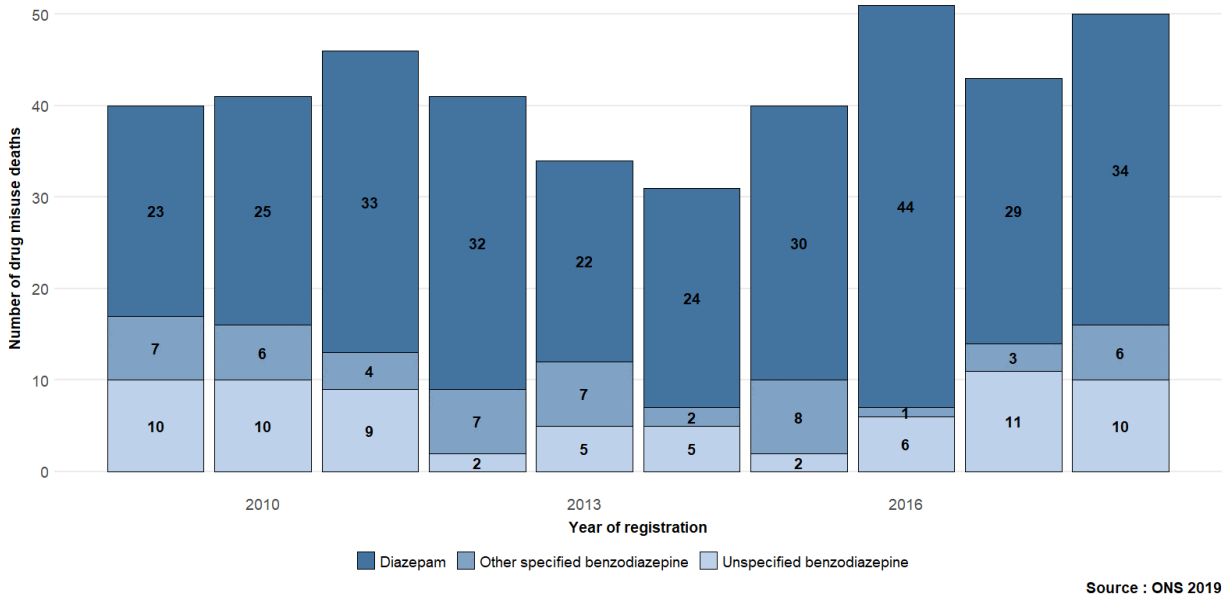

Figure 32 – Deaths involving benzodiazepines by year of registration and substance, 2009 to 2018.

The median age of deaths involving benzodiazepines was 38 years, and 84 per cent were male (see Table 12), a proportion which has increased each year over the last 5 years. The highest EASR were reported in ABMU Health Board area, accounting for 52 percent of all deaths involving benzodiazepines.

31 National records of Scotland (2019). Drug related deaths in Scotland in 2018. Available at https://www.nrscotland.gov.uk/files//statistics/drug-related-deaths/2018/drug-related-deaths-18-pub.pdf

Table 12 – Summary demographic data related to deaths involving benzodiazepines, by Health Board area, including European age standardised rates (EASR) per 100,000 population (with number of deaths in brackets), 2014-2018, Wales

	2014	2015	2016	2017	2018
Wales					
Number of deaths	31	37	50	42	50
EASR per 100,000 population	1.1	1.3	1.8	1.5	1.8
Median age (years)	40	39	39	37	38
Age range (years)	22 - 70	19 - 68	18 - 59	21 - 80	21 - 79
% Male	68%	70%	82%	81%	84%
Health board EASR (n)					
Aneurin Bevan	1.1 (6)	0.8 (4)	1 (5)	1.5 (8)	0.5 (3)
ABMU	1 (5)	2.9 (14)	3.8 (19)	3.6 (18)	5.2 (26)
BCU	0.4 (3)	0 (0)	0.1 (1)	0 (0)	0.5 (3)
Cwm Taf	1.1 (3)	1 (3)	1.9 (5)	0.7 (2)	0.8 (2)
Cardiff & Vale	0.9 (4)	2.3 (10)	2.2 (11)	0.8 (4)	1.6 (7)
Hywel Dda	3 (10)	1.2 (4)	3 (9)	3.2 (10)	2.5 (8)
Powys Teaching	0 (0)	1.2 (2)	0 (0)	0 (0)	1.2 (1)

Almost all, 96 per cent, of deaths involving benzodiazepines involved other substances, particularly opioids. Of the 50 deaths involving benzodiazepines, 43 were listed alongside at least one opioid, 5 alongside only non-opioids (see Figure 33). There were two deaths with only diazepam listed.

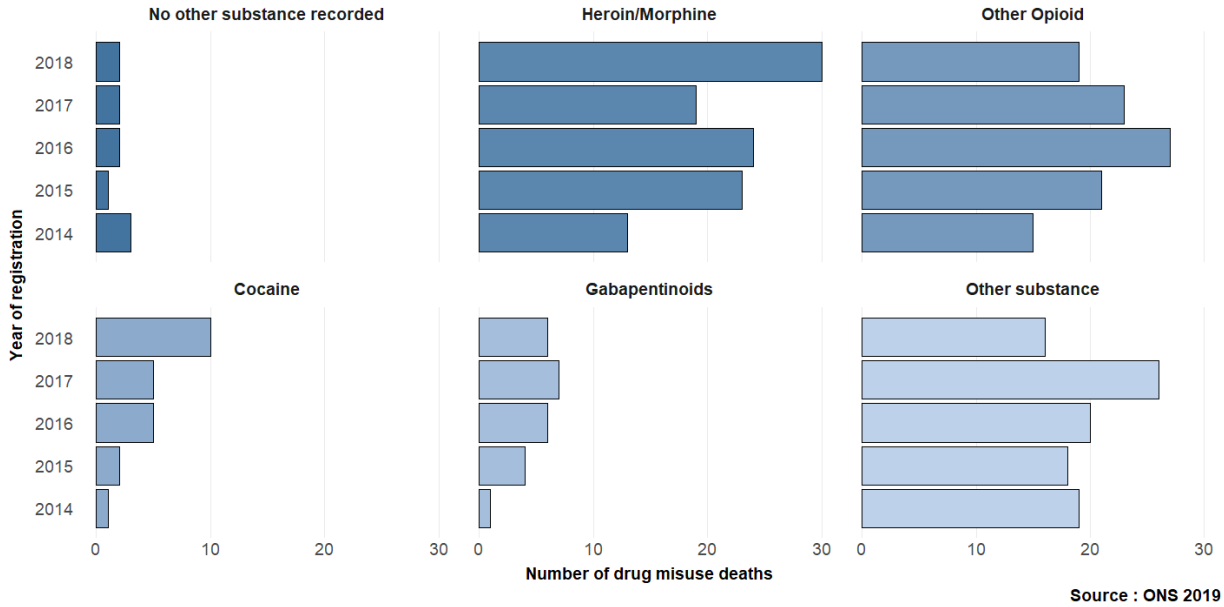

Figure 33 – Deaths involving Benzodiazepines and additional substance groups by year of registration, 2014 to 2018, Wales

3.5.5 Stimulants and other substances

In 2018, 20 per cent of drug misuse deaths involved non-opioid substances (n = 42). Although this proportion has remained stable over the last 5 years (between 17 and 20 percent), the number of deaths involving non-opioids has increased every year since 2013, with the exception of 2017 (see Figure 25).

Over the last decade, Ecstasy/MDMA was recorded in 15 drug misuse deaths, 12 of which have occurred since 2015. Evidence from WEDINOS and other drug testing services across Europe indicate that the average dose ranges of MDMA tablets has been increasing over recent years, with dose variation being common between tablets and batches.[32]

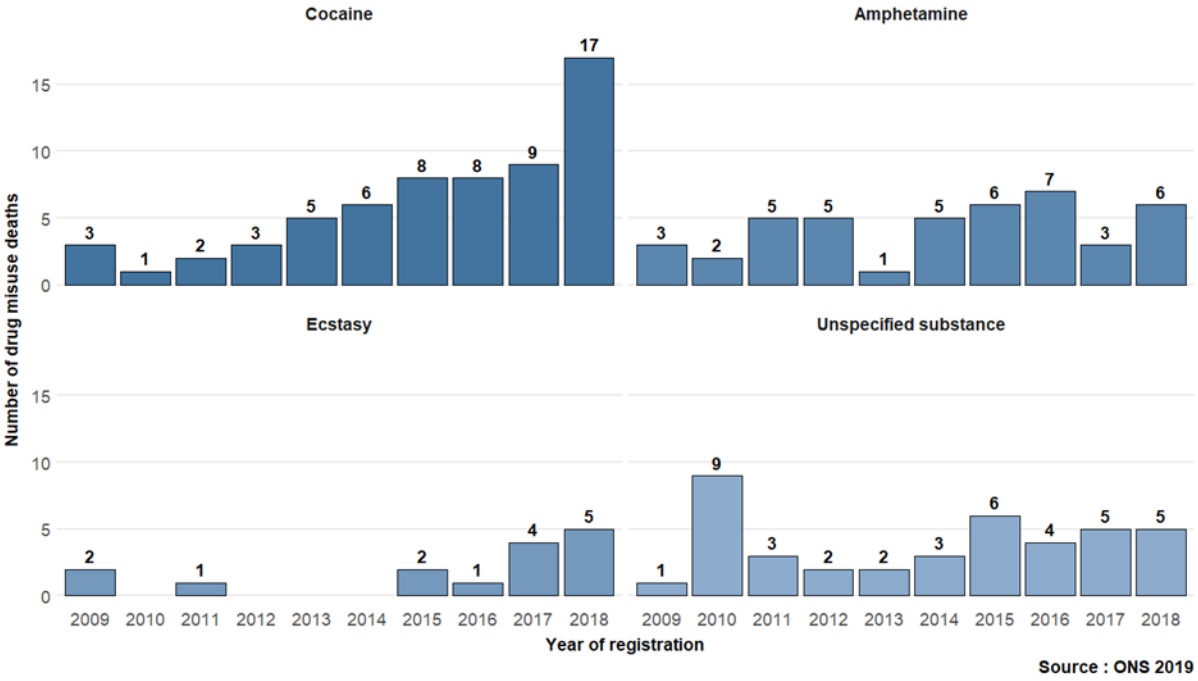

Figure 34 – Deaths involving stimulants and non-specified substances, by selected substance and year of registration of death, 2014 – 2018, Wales

[32] Public Health Wales. PHILTRE annual report of WEDINOS findings. 2017-18. Available at: https://www.wedinos.org/resources/downloads/Philtre_Annual_Report_2016-17.pdf

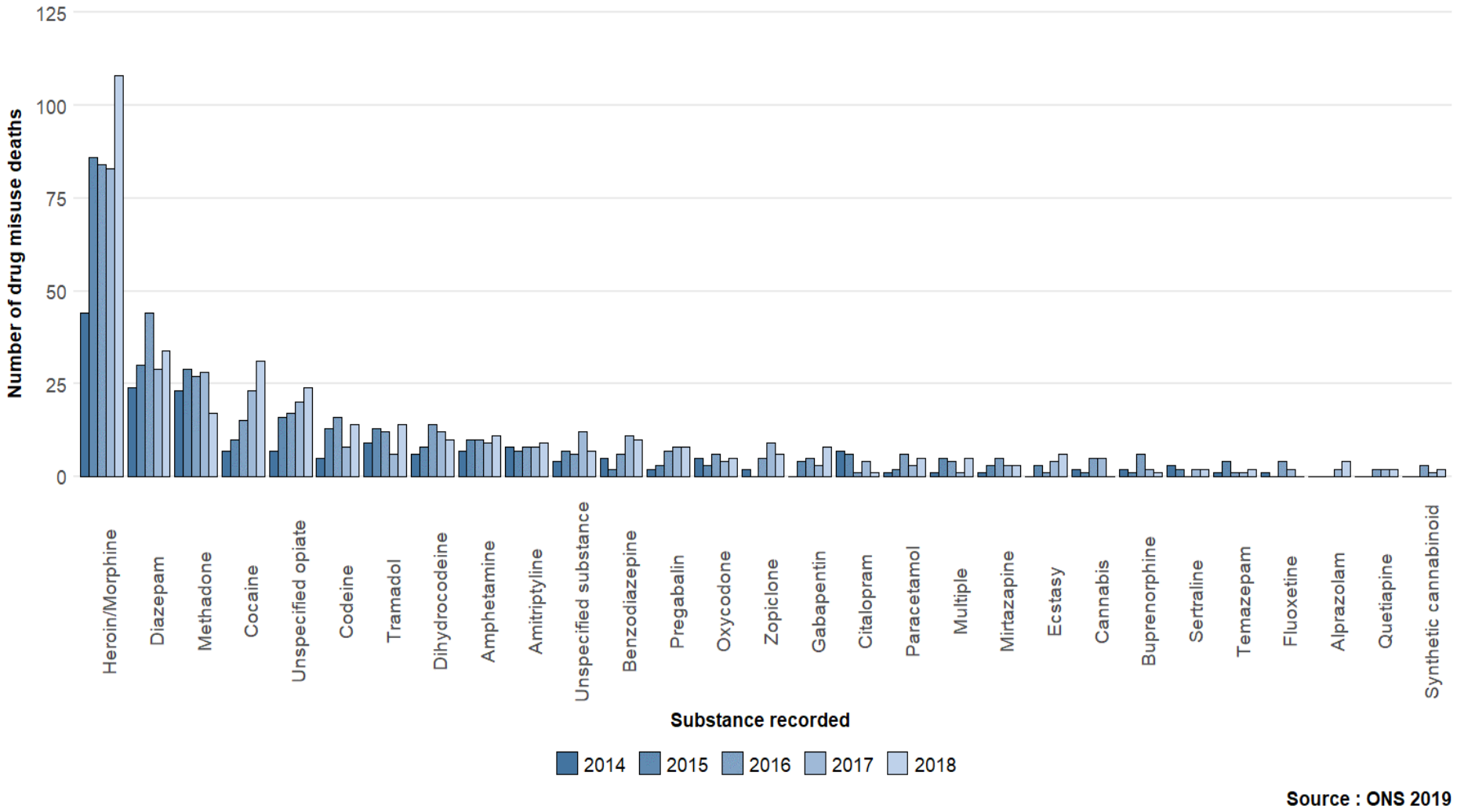

Figure 35 – Number of drug misuse deaths in Wales by substance 2014 to 2018[33]

33 Where reported by ONS. Drug deaths may contain more than one substance and will have been reported for each substance.

3.6 Drug misuse deaths – Geographical analysis

All rates of deaths within this section have been calculated as EASR per 100,000 population. [34,35]

In 2018, the EASR for drug misuse deaths in Wales was 7.2 deaths per 100,000. During this period the highest rates were observed in ABMU Health Board, with a rate of 12.7 deaths per 100,000 population (see Figure 36 and Table 13). This has been a consistent trend since 2015. The lowest rate of deaths were observed in Aneurin Bevan University Health Board (ABUHB) with 4.4 deaths per 100,000 population, and Powys Teaching Health Board (PTHB) at 2.8 deaths per 100,000 population.

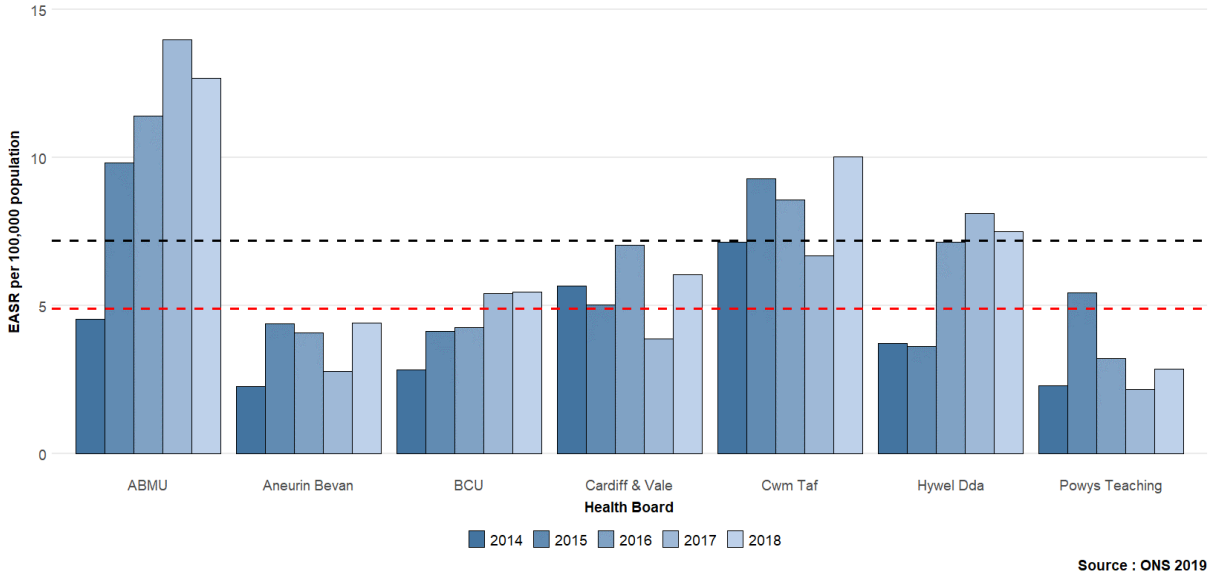

Figure 36 – EASR of drug misuse deaths per 100,000 population by health board, 2014 to 2018, with national rates for Wales (black) and England (red).

The local authority with the highest rates was Swansea (15.6 deaths per 100,000 population) and Neath Port Talbot (14.3 deaths per 100,000 population) (see Figure 37). The lowest rates were observed in Monmouthshire (1.39 deaths per 100,000 population), Powys (2.8 deaths per 100,000 population) and Blaenau Gwent (3.9 deaths per 100,000 population).

ONS publish a three year rolling average for each local authority as part of annual reporting. This combines the EASR of the last three years in order to identify longer term trends and account for annual fluctuations in deaths.[36] Using this measure, Swansea and Neath Port Talbot were recorded as having the highest rate of drug misuse deaths in Wales (see Figure 38), and listed as having the second and third highest rates when compared across all local authorities in England and Wales.

34 Eurostat: revision of European standard population – report of Eurostats task force – 2013 edition. Available at: http://ec.europa.eu/eurostat/en/web/products-manuals-and-guidelines/-/KS-RA-13-028
35 Population estimate data sourced from Stats Wales: https://statswales.gov.wales/Catalogue
36 Office for National Statistics (2019). Deaths related to drug poisoning in England and Wales: 2018 registrations. Available at https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2018registrations

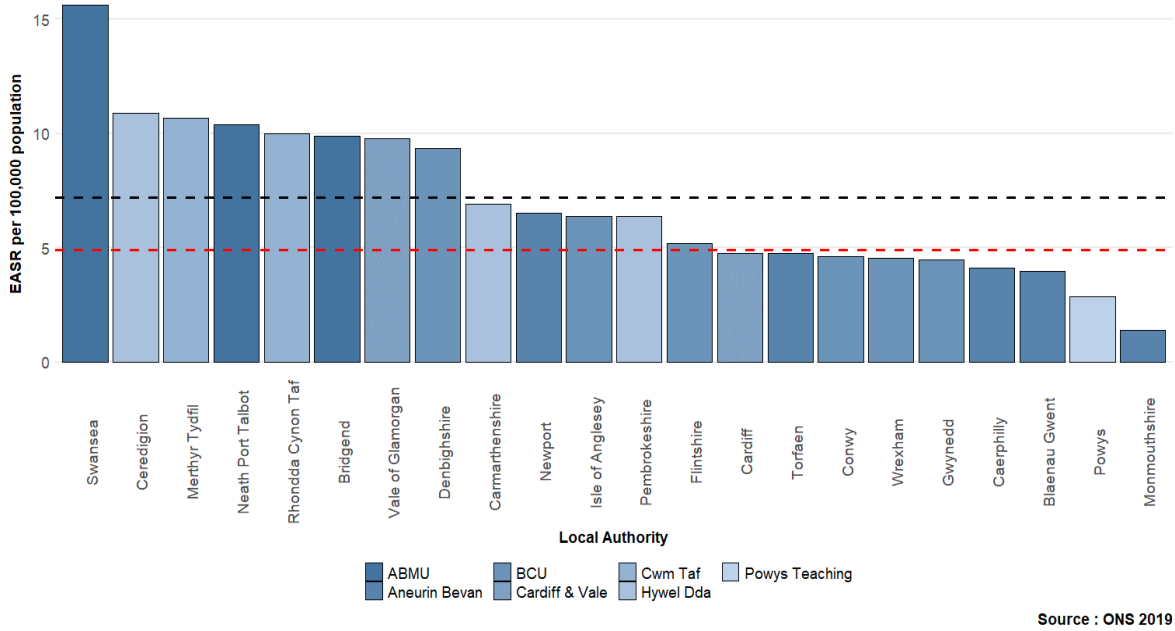

Figure 37 – EASR of drug misuse deaths per 100,000 population in Wales by local authority, 2018, with the national rate for Wales (black) and England (red)

It should be noted that a three year rolling average take time to adjust to any new trend. This, alongside the reporting delay for drug misuse deaths, mean that any effect of recent interventions since the last publication will not be evident in the data.

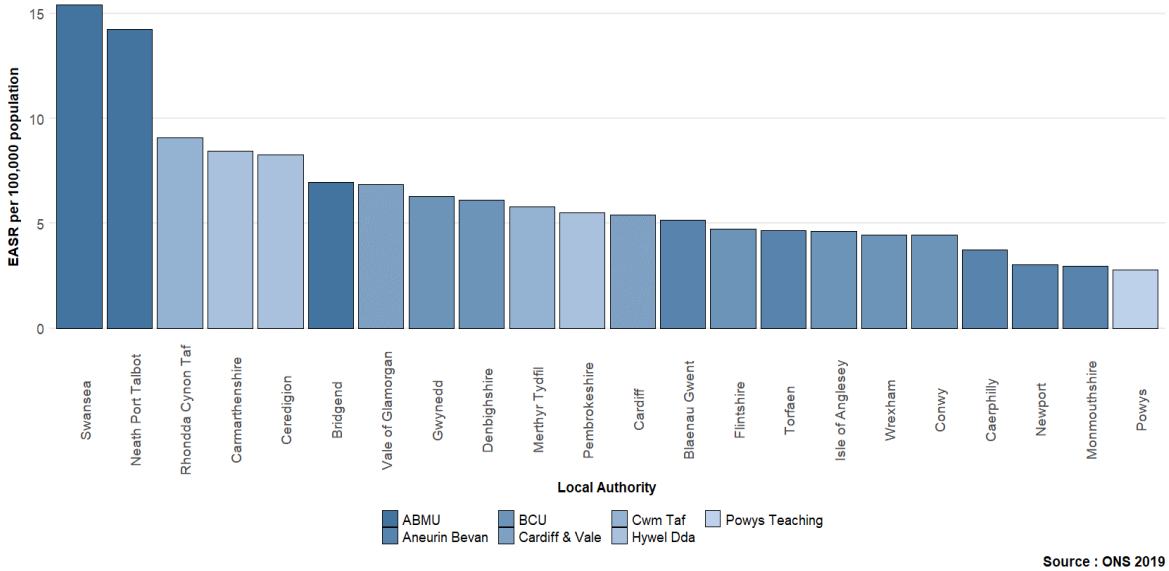

Figure 38 – Three year rolling average EASR per 100,000 drug misuse deaths in Wales, by local authority, 2016-18.

3.6.1 Abertawe Bro Morgannwg University Health Board (ABMUHB)

In 2018, the EASR of drug misuse deaths per 100,000 in ABMU reduced from 14 per 100,000 in 2017 to 12.7 deaths per 100,000 population. Despite this, the rate of deaths within this region remain the highest in Wales, with all three local authority's having rates above the Welsh average (see Figure 39).

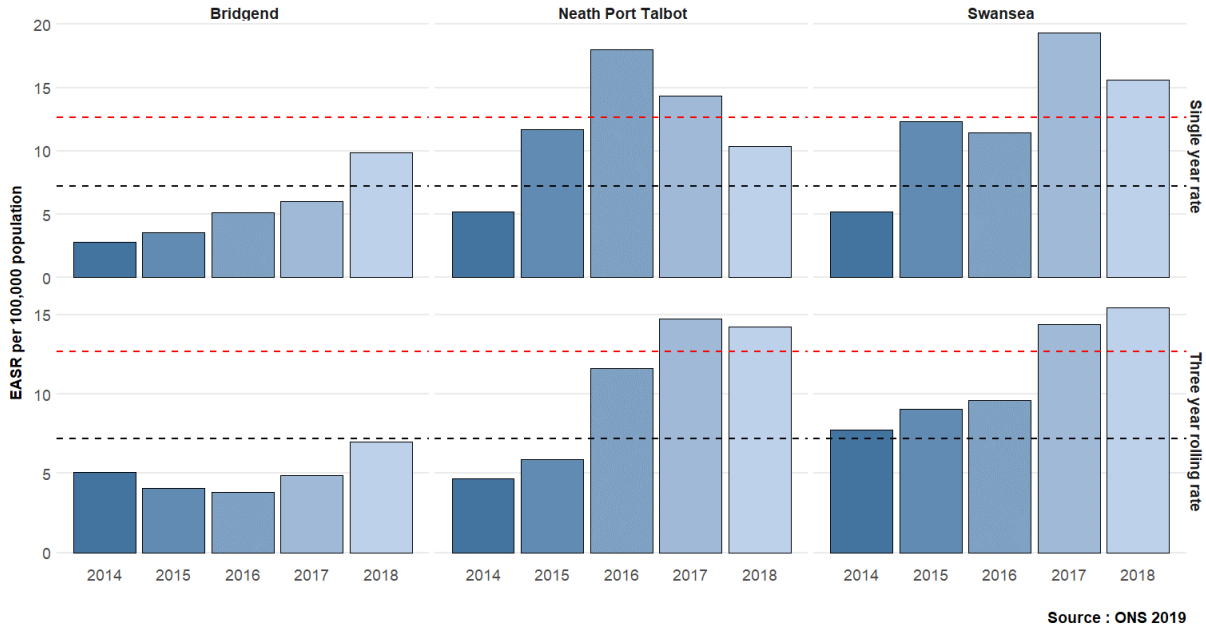

Figure 39 – EASR per 100,000 population of drug misuse deaths in local authorities in ABMUHB, by year, calculated using one and three years of data, 2014 to 2018. The lines show the single year EASR for the health board (red) and Wales (black).

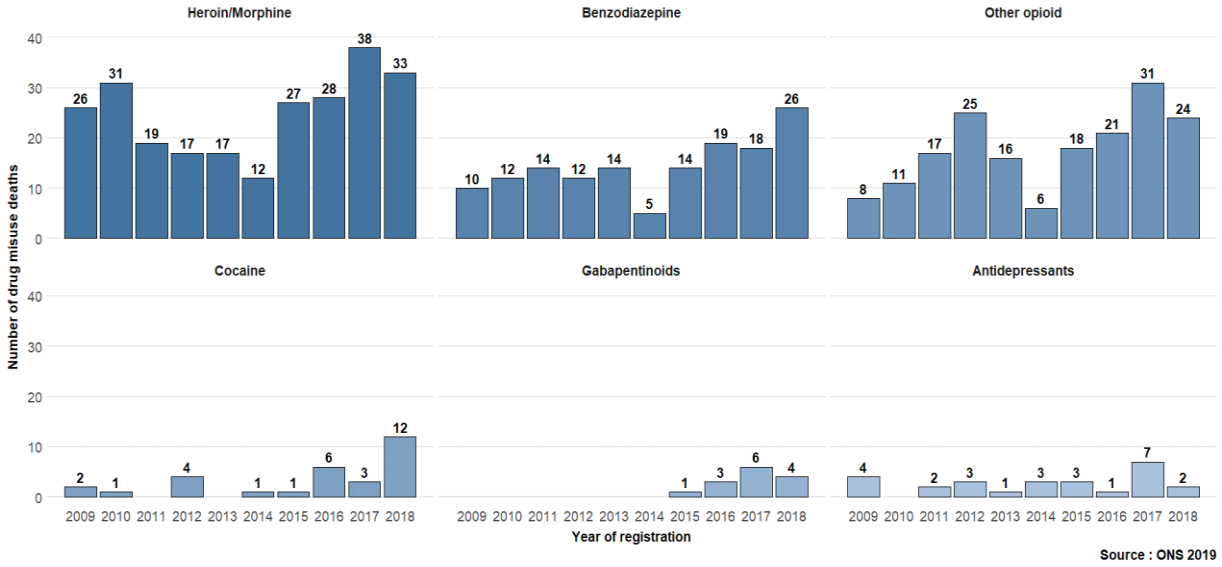

Figure 40 – Number of drug misuse deaths involving the 6 most reported substance groups in ABMU Health Board, by year, 2009 to 2018

3.6.2 Aneurin Bevan University Health Board (ABUHB)

The rate of drug misuse deaths in ABUHB was 4.4 deaths per 100,000 population in 2018, below the national average. This rate has increased compared to the previous year, however remains comparable with 2015 and 2016 rates. In 2018, all local authorities in Aneurin Bevan were below the national average (see Figure 41).

ABUHB is the only health board where the number of deaths involving heroin/morphine are lower than deaths involving other opioids (non-heroin/morphine).

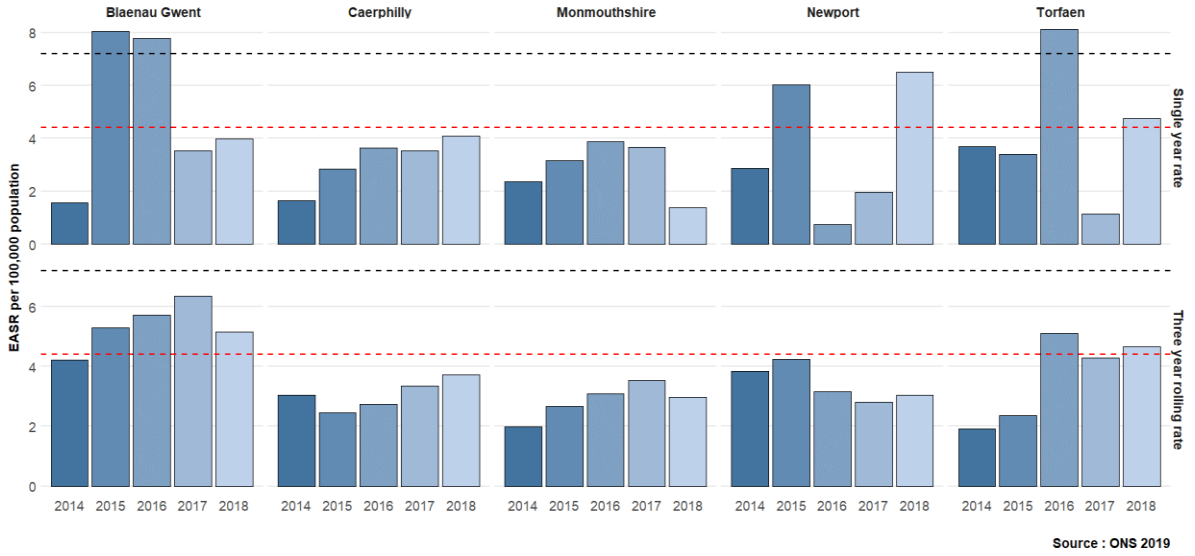

Figure 41 – EASR per 100,000 population of drug misuse deaths in local authorities in ABUHB, by year, calculated using one and three years of data, 2014 to 2018. The lines show the single year EASR for the health board (red) and Wales (black).

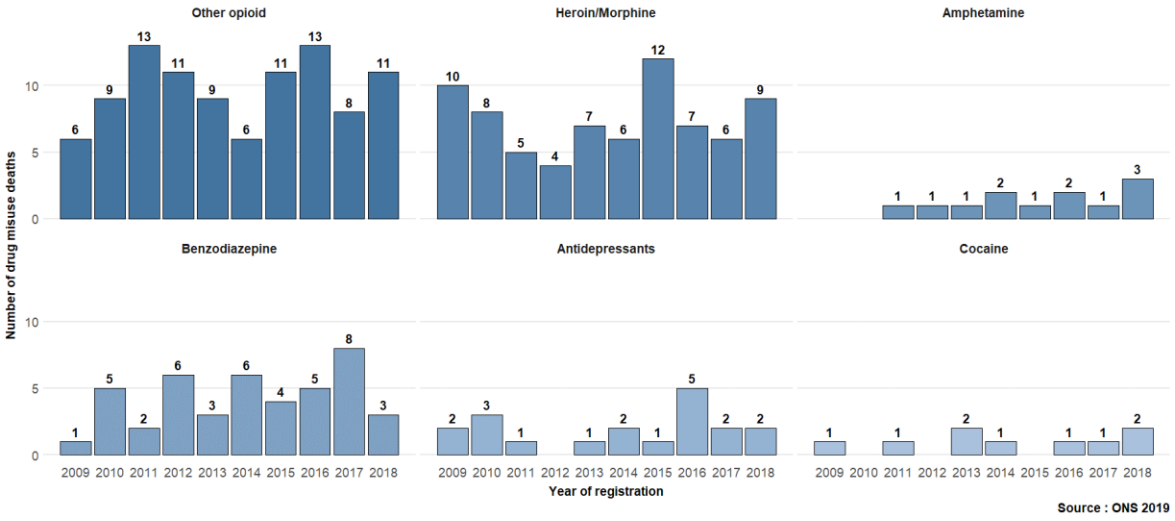

Figure 42 – Number of drug misuse deaths involving the 6 most reported substance groups in ABUHB, by year, 2009 to 2018

3.6.3 Betsi Cadwaladr University Health Board (BCUHB)

In 2018, a rate of 5.5 misuse deaths deaths per 100,000 population was recorded in BCUHB, a slight increase on the previous year. The rate of deaths in Denbighshire were above the Welsh national avarage. The EASR three year rolling averages show increasing rates in Denbighshire and Gwynedd (see Figure 43).

Figure 43 – EASR per 100,000 population of drug misuse deaths in local authorities in BCUHB, by year, calculated using one and three years of data, 2014 to 2018. The lines show the single year EASR for the health board (red) and Wales (black).

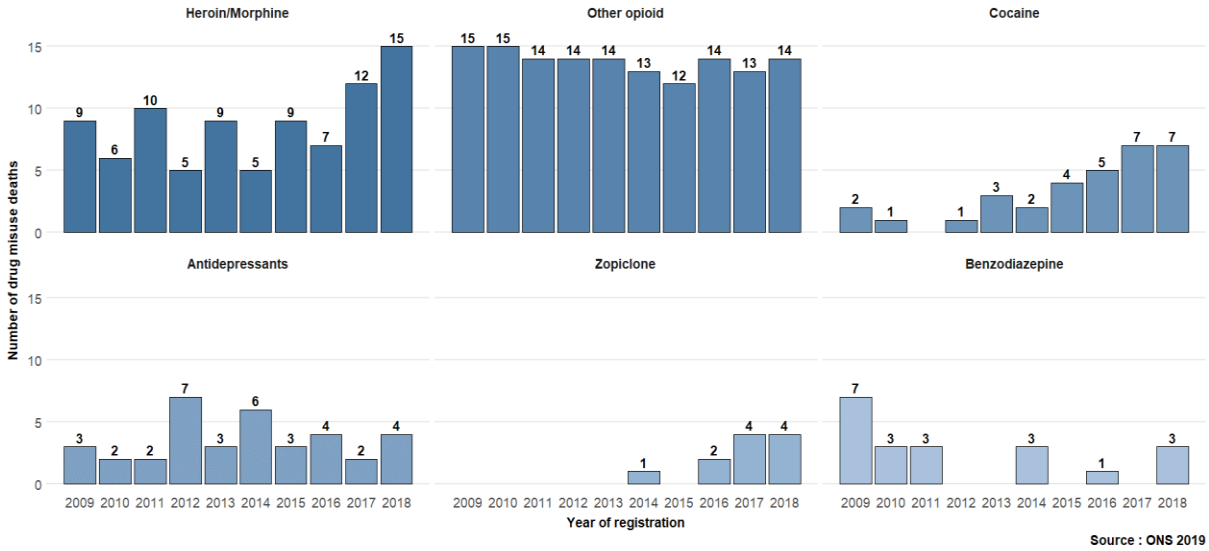

Figure 44 – Drug misuse deaths involving the 6 most reported substance groups in BCU, by year, 2009 to 2018

3.6.4 Cardiff and Vale University Health Board (CVUHB)

In 2018, there were 6 deaths per 100,000 population recorded in Cardiff and the Vale, lower than the Welsh average. Rates of deaths recorded in the Vale of Glamorgan were higher than the Welsh average in 2018 (see Figure 45). The three year rolling average shows that the rate of death in the Vale of Glamorgan is higher than that in Cardiff.

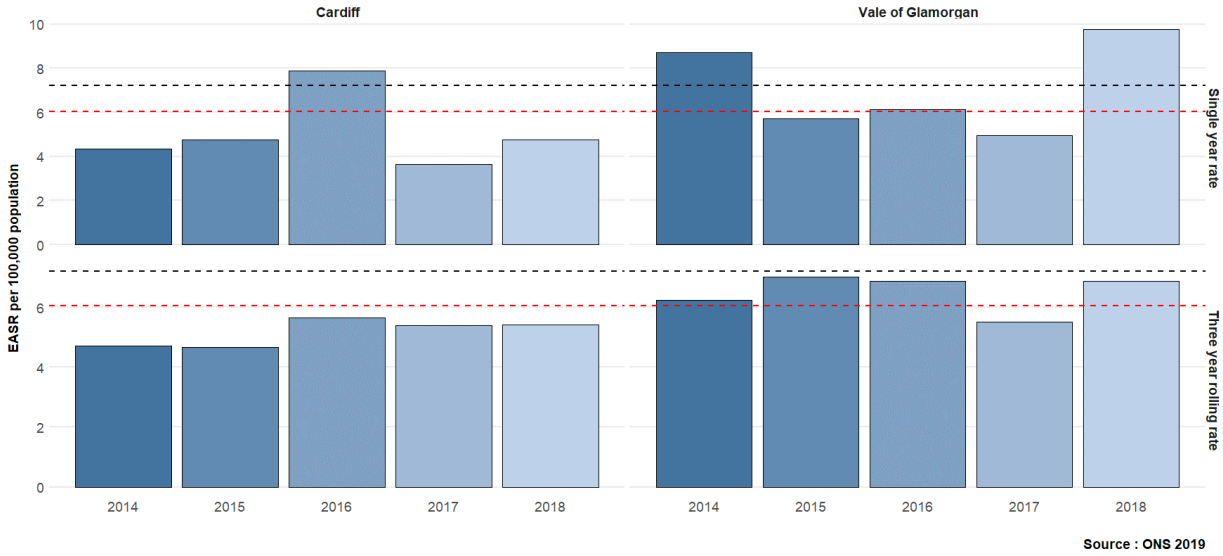

Figure 45 – EASR per 100,000 population of drug misuse deaths in local authorities in CVUHB, by year, calculated using one and three years of data, 2014 to 2018. The lines show the single year EASR for the health board (red) and Wales (black).

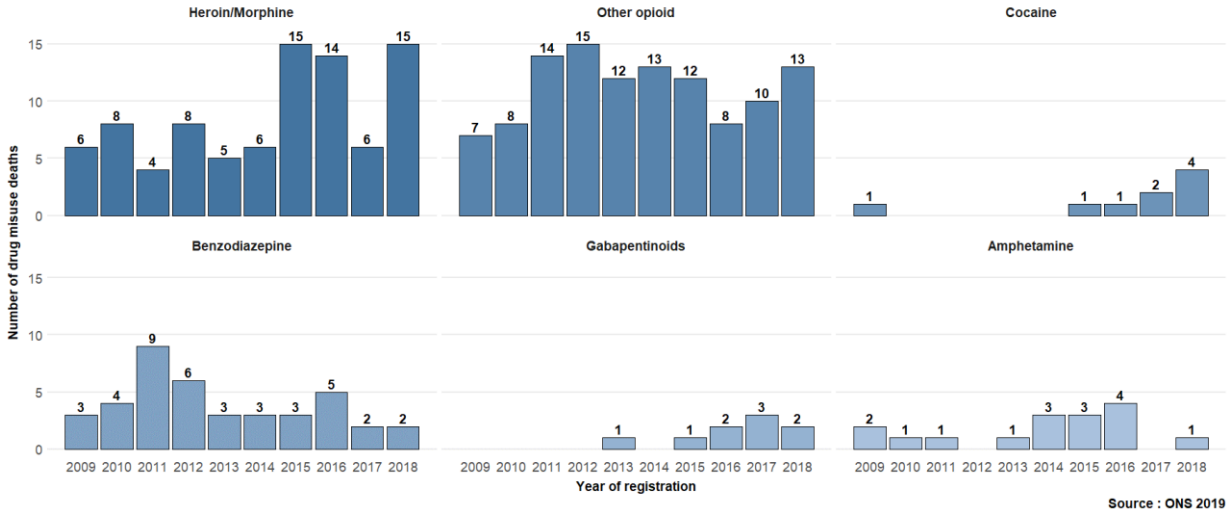

Figure 46 – Drug misuse deaths involving the 6 most reported substance groups in Cardiff and Vale, by year, 2009 to 2018

3.6.5 Cwm Taf University Health Board (CTUHB)

In 2018, the rate of drug misuse deaths was 10 per 100,000 population in Cwm Taf, higher than the Welsh average. Both Merthyr Tydfil and Rhondda Cynon Taf had a higher rate of death then the national average and were in the top 5 highest rates in Wales (see Figure 47). The three year rolling average shows that deaths in Rhondda Cynon Taf have been slowly increasing in recent years.

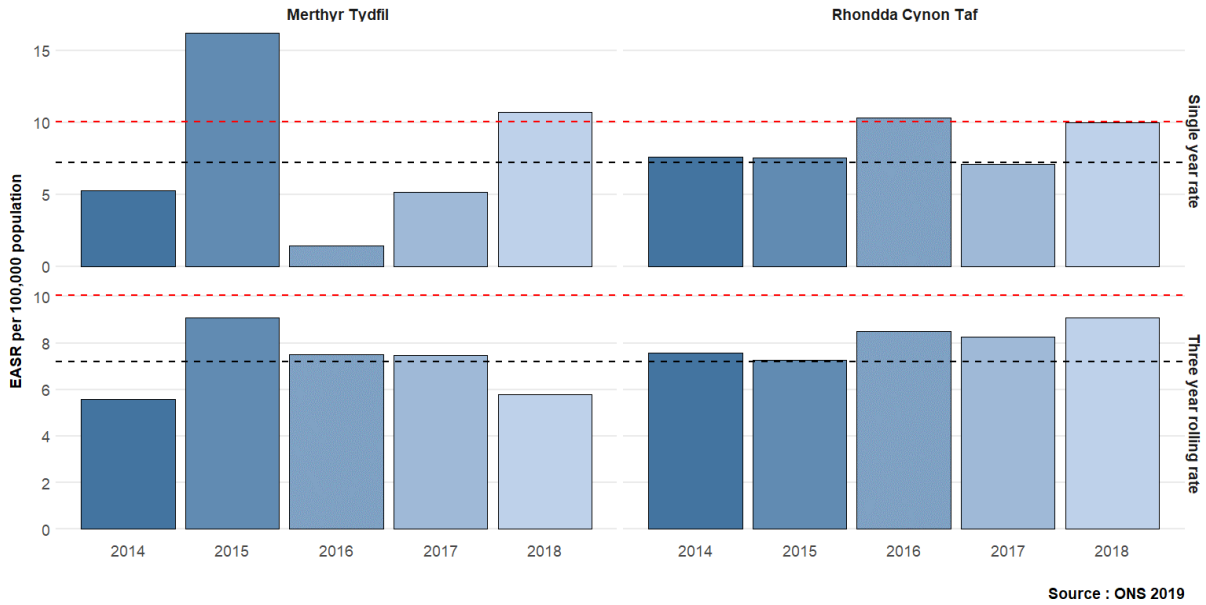

Figure 47 – EASR per 100,000 population of drug misuse deaths in local authorities in CTUHB, by year, calculated using one and three years of data, 2014 to 2018. The lines show the single year EASR for the health board (red) and Wales (black).

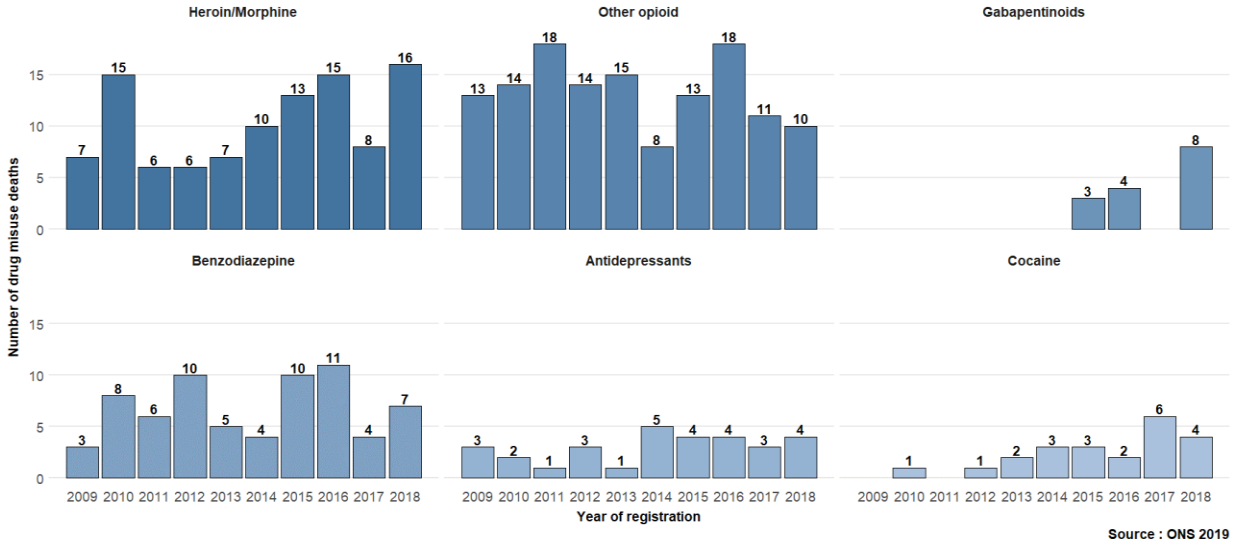

Figure 48 – Drug misuse deaths involving the 6 most reported substance groups in Cwm Taf, by year, 2009 to 2018

3.6.6 Hywel Dda University Health Board (HDUHB)

In 2018, 7.5 drug misuse deaths per 100,000 population were recorded in Hywel Dda, above the Welsh national average. The rolling average of the rate of deaths in all three local authorities in the health board have increased in each of the last 5 years (see Figure 49). Rates in both Ceredigion and Carmarthenshire are in the top 5 highest in Wales.

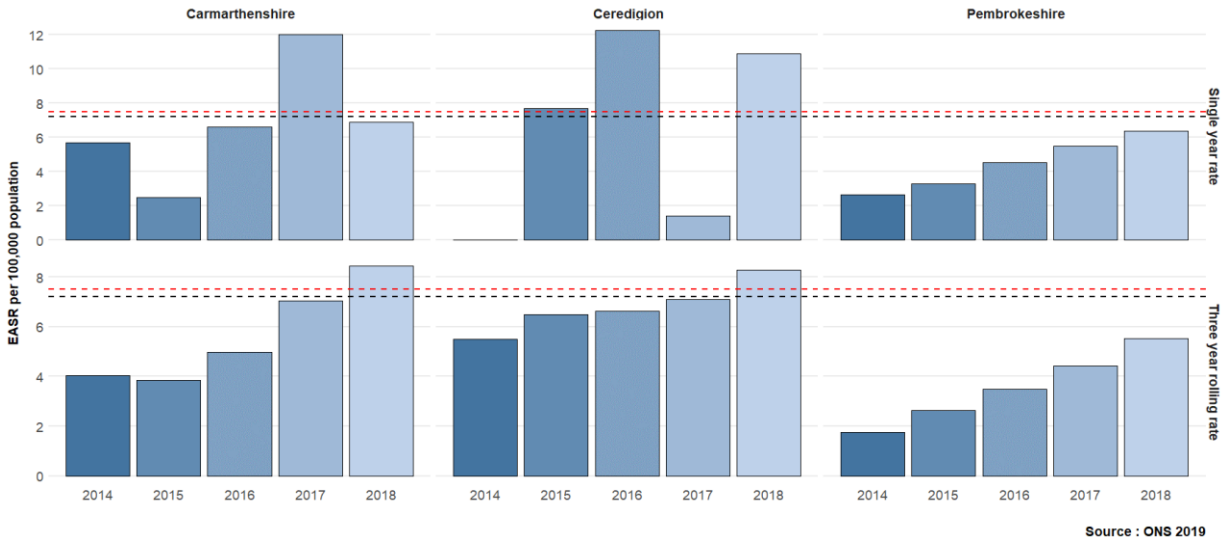

Figure 49 – EASR per 100,000 population of drug misuse deaths in local authorities in HDUHB, by year, calculated using one and three years of data, 2014 to 2018. The lines show the single year EASR for the health board (red) and Wales (black).

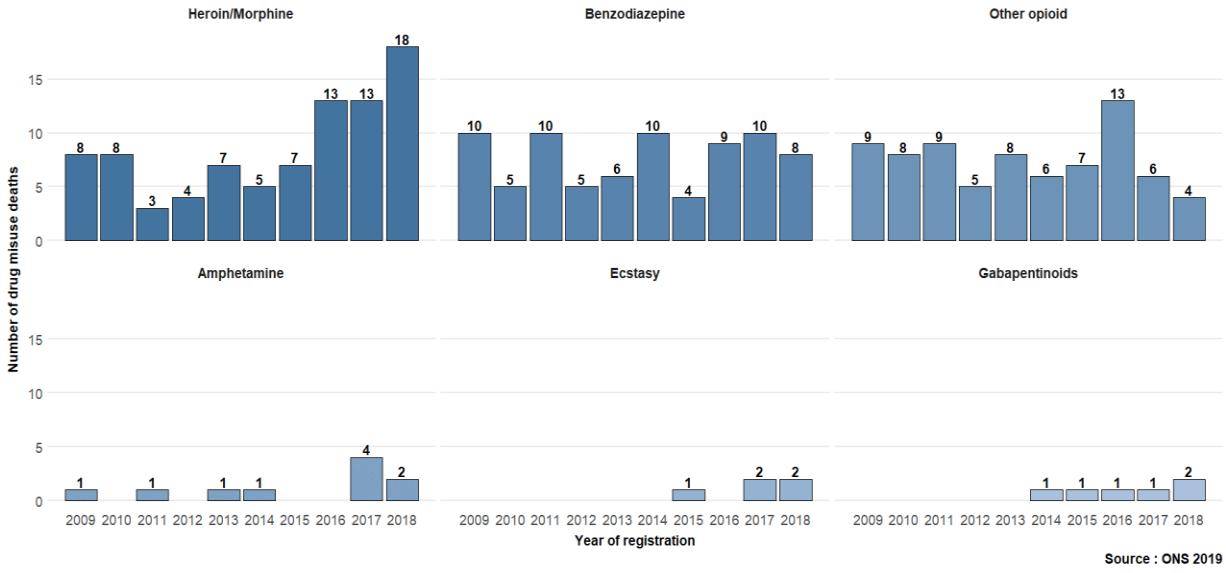

Figure 50 – Drug misuse deaths involving the 6 most reported substance groups in Hywel Dda, by year, 2009 to 2018.

3.6.7 Powys Teaching Health Board (PTHB)

In 2018, 2.9 drug misuse deaths per 100,000 population were recorded in Powys, lower than the national average (see Figure 51). Due to the lower number of deaths reported on Powys compared to other health boards. All deaths involved opioids and poly-drug use.

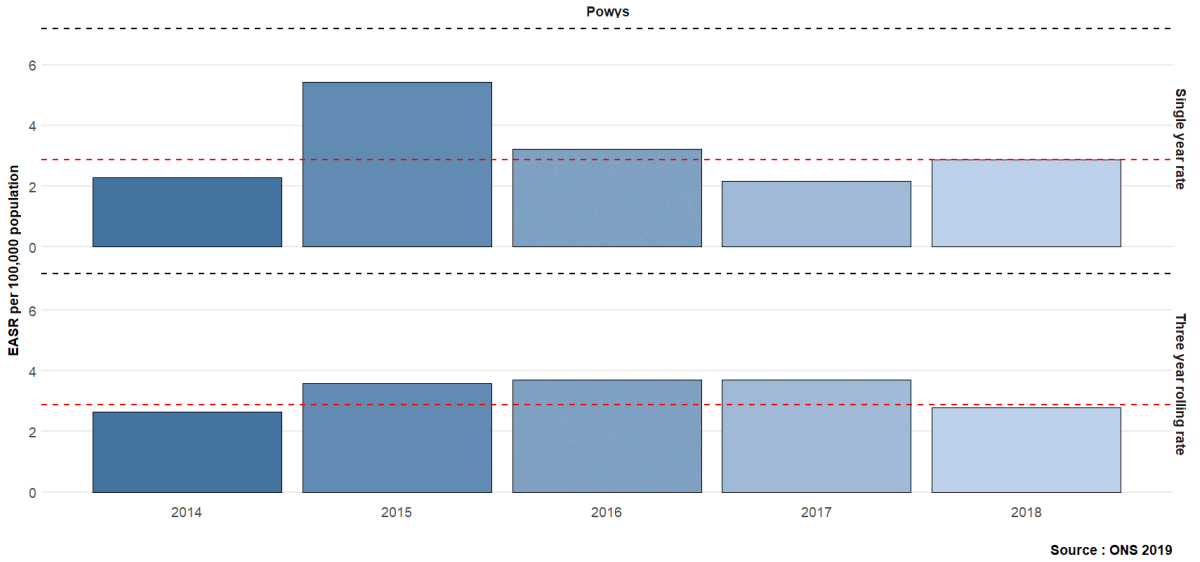

Figure 51 – EASR per 100,000 population of drug misuse deaths in local authorities in PTUHB, by year, calculated using one and three years of data, 2014 to 2018. The lines show the single year EASR for the health board (red) and Wales (black).

Table 13 – EASR per 100,000 population and number of drug misuse deaths by health board, local authority and year of registration of death. Number of deaths are displayed in brackets.

	2014	2015	2016	2017	2018
ABMU	**4.5 (23)**	**9.8 (49)**	**11.4 (57)**	**14 (70)**	**12.7 (64)**
Bridgend	*2.8 (4)*	*3.6 (5)*	*5.1 (7)*	*6 (8)*	*9.9 (14)*
Neath Port Talbot	*5.2 (7)*	*11.7 (15)*	*18 (24)*	*14.3 (19)*	*10.4 (14)*
Swansea	*5.2 (12)*	*12.3 (29)*	*11.5 (26)*	*19.4 (43)*	*15.6 (36)*
Aneurin Bevan	**2.3 (13)**	**4.4 (24)**	**4.1 (22)**	**2.8 (15)**	**4.4 (24)**
Blaenau Gwent	*1.6 (1)*	*8 (5)*	*7.8 (5)*	*3.5 (2)*	*4 (3)*
Caerphilly	*1.6 (3)*	*2.9 (5)*	*3.6 (6)*	*3.5 (6)*	*4.1 (7)*
Monmouthshire	*2.4 (2)*	*3.2 (2)*	*3.9 (3)*	*3.7 (3)*	*1.4 (1)*
Newport	*2.9 (4)*	*6 (9)*	*0.7 (1)*	*2 (3)*	*6.5 (9)*
Torfaen	*3.7 (3)*	*3.4 (3)*	*8.1 (7)*	*1.1 (1)*	*4.8 (4)*
BCU	**2.8 (18)**	**4.2 (27)**	**4.3 (28)**	**5.4 (34)**	**5.5 (36)**
Conwy	*3.5 (4)*	*5.9 (6)*	*7.1 (7)*	*1.3 (2)*	*4.6 (5)*
Denbighshire	*3.5 (3)*	*3 (3)*	*3.6 (3)*	*5.5 (5)*	*9.3 (8)*
Flintshire	*1.7 (2)*	*6.1 (9)*	*2.5 (4)*	*6.5 (9)*	*5.2 (8)*
Gwynedd	*0.7 (1)*	*3.1 (3)*	*6.8 (8)*	*7.7 (9)*	*4.5 (5)*
Isle of Anglesey	*5.5 (3)*	*4.5 (3)*	*3.3 (2)*	*3.9 (2)*	*6.4 (4)*
Wrexham	*3.7 (5)*	*2.2 (3)*	*3.1 (4)*	*5.6 (7)*	*4.6 (6)*
Cardiff & Vale	**5.7 (25)**	**5 (23)**	**7 (34)**	**3.9 (19)**	**6 (27)**
Cardiff	*4.3 (14)*	*4.8 (16)*	*7.9 (27)*	*3.7 (13)*	*4.8 (15)*
Vale of Glamorgan	*8.7 (11)*	*5.7 (7)*	*6.1 (7)*	*4.9 (6)*	*9.8 (12)*
Cwm Taf	**7.1 (20)**	**9.3 (26)**	**8.6 (24)**	**6.7 (19)**	**10 (29)**
Merthyr Tydfil	*5.3 (3)*	*16.2 (9)*	*1.4 (1)*	*5.2 (3)*	*10.7 (6)*
Rhondda Cynon Taf	*7.6 (17)*	*7.5 (17)*	*10.3 (23)*	*7.1 (16)*	*10 (23)*
Hywel Dda	**3.7 (12)**	**3.6 (13)**	**7.1 (23)**	**8.1 (26)**	**7.5 (25)**
Carmarthenshire	*5.7 (9)*	*2.5 (4)*	*6.6 (10)*	*12 (19)*	*6.9 (11)*
Ceredigion	*0 (0)*	*7.7 (5)*	*12.3 (8)*	*1.4 (1)*	*10.9 (7)*
Pembrokeshire	*2.7 (3)*	*3.3 (4)*	*4.5 (5)*	*5.5 (6)*	*6.4 (7)*
Powys Teaching	**2.3 (2)**	**5.4 (6)**	**3.2 (4)**	**2.2 (2)**	**2.9 (3)**
Powys	*2.3 (2)*	*5.4 (6)*	*3.2 (4)*	*2.2 (2)*	*2.9 (3)*
Wales	**3.9 (113)**	**5.8 (168)**	**6.7 (192)**	**6.4 (185)**	**7.2 (208)**

4 Fatal and non-fatal drug poisoning reviews in Wales

Fatal and non-fatal drug poisoning reviews have been undertaken in Wales since June 2014 in line with publication of guidance by Welsh Government (see 5.2 Appendix B - Guidance on fatal and non-fatal drug poisoning reviews). To date, a total of 452 fatal and 611 non-fatal drug poisoning reviews have been conducted since implementation (see Table 14).

Whilst the fatal drug poisoning review process has been fully implemented across all health board regions, currently only one region, ABMU Health Board, is routinely reviewing non-fatal drug poisoning cases. Pilot projects to develop information sharing protocols and reporting mechanisms have been conducted within several regions including ABUHB, AVUHB and CTUHB. However, introduction of General Data Protection Regulation in May 2018 required further refinement of existing information sharing processes to ensure robust and consistent reporting mechanisms between services. This revision has not yet been completed.

This following section provides data in relation to the fatal and non-fatal drug poisoning reviews conducted across Wales as recorded on the Harm Reduction Database Wales (HRD) during the period 1st January to 31st December 2018.

Table 14 - Total fatal and non-fatal drug poisoning reviews conducted by Health Board (2014 – 2018)

	Fatal DP Reviews	Non-fatal DP reviews
ABMU	79	541
Aneurin Bevan†	80	7
BCU*	40	-
Cardiff & Vale†	65	7
Cwm Taf	121	56
Hywel Dda	63	-
Powys Teaching	4	-
Wales	**452**	**611**

* Fatal drug poisoning review process implemented in 2016

† Non-fatal drug poisoning review pilot to test reporting and response mechanisms

4.1 Fatal drug poisoning reviews

In 2018, 135 fatal drug poisoning reviews were conducted across the seven health board areas in Wales (see Table 15). This represents a 13 per cent increase from the previous year, and the fourth consecutive year since implementation in which the number of fatal drug poisoning reviews undertaken has increased.

Comparisons with Drug Misuse Death (ONS, 2019) data detailed earlier in this report indicate that the proportion of Fatal Drug Poisoning Cases being reviewed across Wales in 2018 is comparable with the last reporting period at 64.5 per cent (see Table 16). Given the parameters of the review process (i.e. all cases reviewed are unconfirmed suspected drug poisoning), it is expected that the number of cases reviewed annually should exceed the number of Drug Misuse Deaths reported by ONS.

Table 15 - Fatal drug poisoning reviews conducted by Health Board, by year

	2014/15*	2016	2017	2018	Total
ABMU	1	30	30	18	79
Aneurin Bevan	21	16	17	26	80
BCU†	-	7	17	16	40
Cardiff & Vale	11	15	11	28	65
Cwm Taf	38	27	29	27	121
Hywel Dda	11	19	16	17	63
Powys Teaching	1	0	0	3	4
Wales	**83**	**114**	**120**	**135**	**452**

* Data entered onto the HRD following back-population exercise

† Fatal drug poisoning review process implemented in 2016

Table 16 - Total Fatal Drug Poisoning Reviews and ONS Drug Misuse Deaths, 2014-18

	2014	2015	2016	2017	2018
Fatal drug poisoning case reviews	29	54	114	120	135
Drug Misuse Deaths reported by ONS (year of registration)†	113	168	192	185	208
Drug Misuse Deaths reported by ONS (actual year of death)†	153	186	181	171	-
% case reviews vs. reported by ONS (year of registration)	**25.6%**	**32.1%**	**59.4%**	**64.9%**	**64.9%**
% case reviews vs. reported by ONS (actual year of death)	**19.0%**	**29.0%**	**63.0%**	**70.2%**	**-**

†Office for National Statistics. (2019) Deaths related to drug poisoning in England and Wales: 2018 registrations

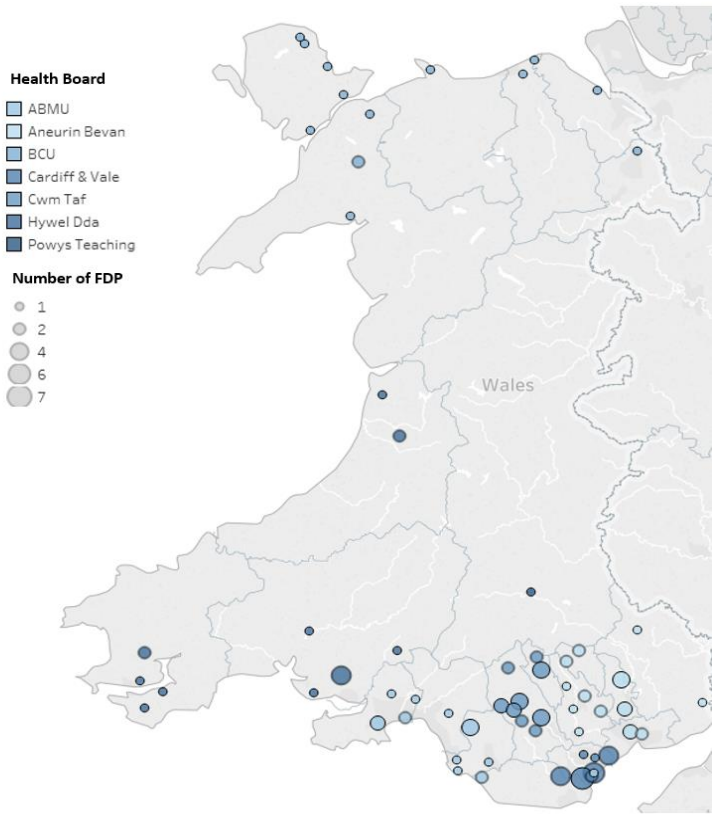

Figure 52 - Locations of fatal drug poisoning cases (January - December 2018)

4.1.1 Demographics

The demographic profiles for the 135 fatal drug poisoning reviews conducted across Wales in 2018 can be viewed in Table 17.

Table 17 - Fatal drug poisoning review demographics: All Wales, 2016-18

	2016	2017	2018
Fatal drug poisonings reviewed	114	120	135
% Male	82%	78%	84%
Median age (years)	37.5	36.5	41
Minimum age (years)	19	16	15
Maximum age (years)	56	78	65
% Under 25 years	9%	9%	7%
% Over 50 years	7%	12%	15%
% Living in non-secure housing / NFA*	37%	24%	30%

* Proportion of individuals where data has been provided by services and recorded on HRD

The most common age band reported overall was the 40-44 years age group, representing 27 per cent (n=36) of cases reviewed. Since 2016, both median age and proportion of cases reviewed aged over 50 years has increased. These findings are consistent with demographic profile of Drug Misuse Deaths (ONS, 2018) detailed earlier in this report.

Comparisons of median ages and age group distribution (see Figure 53) between male and female cases were similar, with median age of 41 years being reported for both sexes.

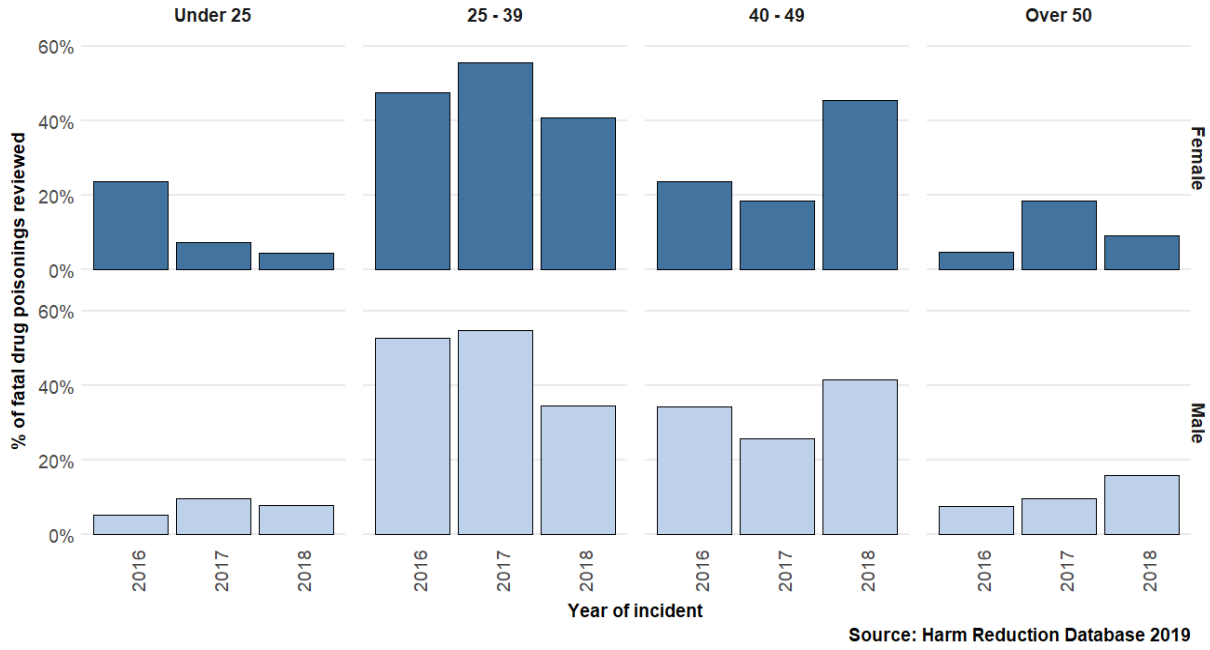

Figure 53 - Gender and age range at time of death for fatal drug poisoning cases reviewed in Wales (January - December 2018)

Housing status information was sought for all cases reviewed in 2017. Where known to services[37] just under a third of cases were listed as living in non-secure housing (e.g. hostel accommodation) or having no fixed abode (e.g. street homeless, 'sofa surfing') (see Table 17). The proportion of cases listed as living in non-secure housing or NFA has fluctuated year on year since implementation of fatal drug poisoning review processes. As such it is currently difficult to ascertain the association of homelessness on fatal drug poisoning using this data set. Recent publication of experimental statistics by ONS (2018) have, however, indicated high incidence of drug poisonings within homelessness populations - accounting for nearly a third of deaths across England and Wales annually[38].

4.1.2 Circumstances and nature of death

Location of fatal drug poisoning

Location of death was recorded for 83 per cent (n=112) of all fatal drug poisonings reviewed during 2018. Private residences remain the most common location of fatal drug poisonings, representing 79 per cent of cases reviewed across Wales. Compared to previous years, the occurrence of fatal drug poisonings within private residences and hostel settings has declined, with increases being reported in public spaces over the last three reporting periods (see Figure 54). These findings are consistent with increases of THN uses taking place in public spaces as detailed earlier in this report (see 2.2.1 Outcome, setting, recipient and administrator of THN).

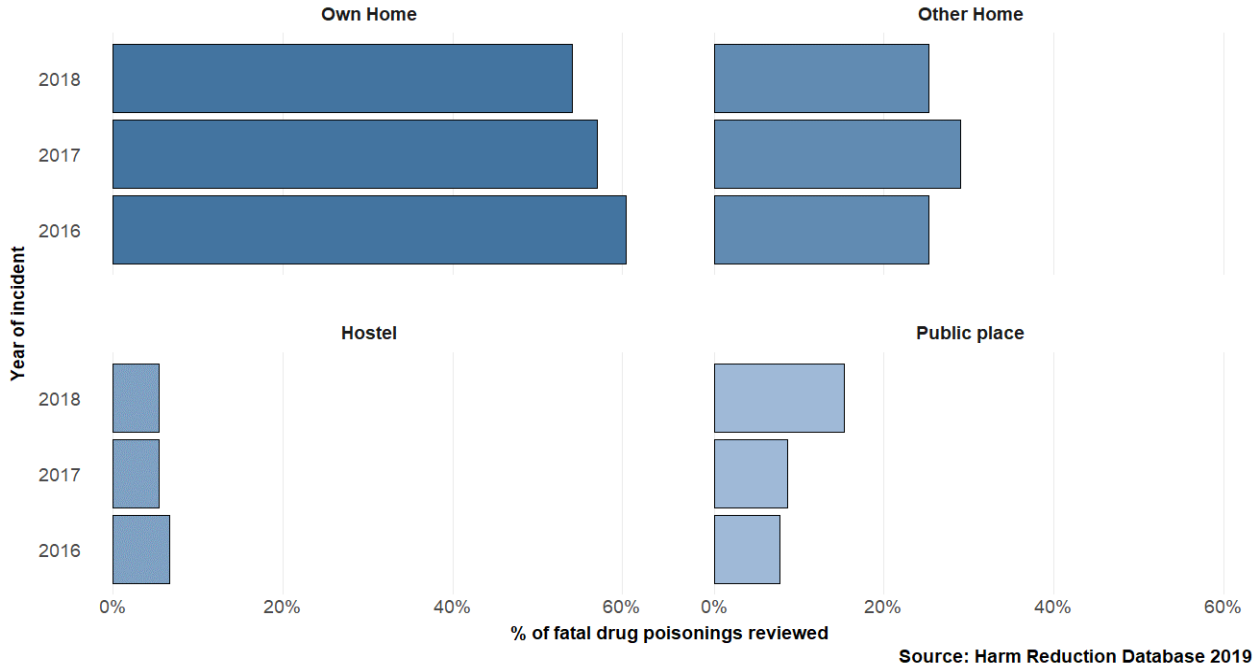

Figure 54 - Location of death for fatal drug poisoning cases reviewed (January - December 2018)

[37] See 4.1.3 Feedback from services
[38] Office for National Statistics. (2018) Deaths of homeless people in England and Wales: 2013-2017 https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsofhomelesspeopleinenglandandwales/2013to2017

Where reported, 85 per cent (n=95) of fatal drug poisoning cases were pronounced dead at the scene consistent with previous year. The remaining 15 per cent of cases were pronounced dead in a secondary location such as A&E or in hospital.

Resuscitation attempts

During 2018, data in relation to resuscitation attempts was available for 73 per cent of cases (n=99), see Table 18. Of which:

- Resuscitation was attempted in 58 per cent (n=57) of the fatal drug poisoning cases reviewed. This represents a decline from the previous year where resuscitation was attempted in 77 per cent of cases
- Where resuscitation was provided, Take-home Naloxone (THN) use was reported in 21.1 per cent (n=12) of cases, an increase from previous years
- Where details of resuscitation were not reported (either 'not known' or 'no resuscitation attempted' (n=78), 98 per cent were pronounced dead at scene, indicating that resuscitation attempts may have been ineffective at time of discovery

Currently no data collection method exists in order to measure the proportion of fatal drug poisoning cases that occurred subsequent to using substance(s) alone or in the company of others. Drug use in the company of others and within settings accessible to others has long been identified as protective factors in reducing fatal drug poisonings[39] through enabling the rapid use of THN and emergency care.

Table 18 - Proportion of fatal drug poisoning cases where resuscitation was attempted, 2016-18

	2016	2017	2018
Fatal drug poisonings reviewed	114	120	135
% cases where resuscitation attempts was reported	**67.5%**	**70.0%**	**73.3%**
% where resuscitation was attempted	74.0%	77.4%	57.6%
% THN was used (where resuscitation provided)	14.0%	12.3%	21.1%

Substances found at scene

As part of the review process information in relation to both suspected substances and paraphernalia found at scene is collected at time of initial reporting. During 2018, this information was collected and recorded for 83 per cent of cases (see Table 19). Where substances were found at the scene, multiple substances were reported in 64 per cent (n=27) of events indicating possible poly-drug toxicity, an increase from that reported in the previous year.

[39] Holloway K R, Bennett T H, & Hills R. (2016) Non-fatal overdose among opiate users in Wales: A national survey. *Journal of Substance Use*; Available at: https://www.tandfonline.com/doi/abs/10.3109/14659891.2015.1063718

Table 19 - Fatal drug poisoning review cases where substances and/or paraphernalia were found at the scene, 2016-18

	2016	2017	2018
Fatal drug poisonings reviewed	114	120	135
% cases where presence of substances was recorded	**81.6%**	**77.5%**	**83.0%**
% where substances were found at scene	44.1%	51.6%	46.4%
% Multiple substances found	56.1%	52.1%	63.5%
Suspected substances found at scene			
% Heroin / Morphine	34.2%	27.1%	13.0%
% Methadone / Buprenorphine	19.5%	14.6%	3.9%
% Benzodiazepines	22.0%	18.8%	17.3%
% White powder / pills	12.2%	39.6%	23.1%
% Perscription Only Medicines (POMs)	56.1%	33.3%	44.2%
% cases where presence of paraphernalia was recorded	**81.6%**	**77.5%**	**83.0%**
% where paraphernalia was found at scene	53.8%	48.4%	41.1%
% Injecting paraphernalia found	88.0%	64.4%	52.2%

Whilst a wide range of substances continue to be reported as found at scene, Prescription Only Medicines (POMs) continue to be reported more frequently than any other substance group as they may easier to identify and report due to availability of drug packaging. Increases in drug poisonings (including POMs) have been observed over the last 5 years. Other substances found at the scene included alcohol, cannabis, unconfirmed heroin samples and white powders and pills, benzodiazepines and opiate substitution medication e.g. methadone, buprenorphine.

Injecting paraphernalia (e.g. needles, syringes, spoons, and filters) was reported in over half of cases where paraphernalia was found at scene.

4.1.3 Feedback from services

As part of the fatal drug poisoning review process, information requests are sent to local services by the Case Review Coordinator (CRC) in order to establish history of contact and engagement history, and information that aids in the undertaking of the review (see 5.3.2 HRD: Drug poisoning database module).

For those fatal drug poisonings reviewed in 2018, the median number of services contacted by CRCs to provide information was 16 services per case, an increase on the previous year. However, the number of services contacted for information continues to vary across APB regions (see Table 20).

The ability to undertake meaningful and robust drug poisoning reviews is dependent upon the quality of information provided surrounding both the circumstances surrounding the incident and individual's personal history that may have influenced a drug poisoning event from occurring. As such, the

maintenance of well-structured service networks as part of each review panel is essential in ensuring the return of timely and accurate information.

Table 20 - Median number of services contacted via the HRD for information per case by APB region, 2016-18

	2016	2017	2018
	Median (range)	*Median (range)*	*Median (range)*
ABMU	11 *(7-14)*	13 *(8-16)*	18 *(10-19)*
Aneurin Bevan	22 *(20-24)*	19 *(16-22)*	17 *(16-19)*
BCU	9 *(8-12)*	11 *(7-14)*	8 *(6-13)*
Cardiff & Vale	19 *(16-20)*	21 *(18-21)*	23 *(1-27)*
Cwm Taf	7 *(4-8)*	7 *(5-8)*	7 *(4-8)*
Hywel Dda	5 *(4-6)*	5 *(5-10)*	6 *(5-7)*
Powys Teaching	-	-	33 *(33-34)*
Wales	**9 *(4-24)***	**12 *(5-22)***	**16 *(1 - 34)***

Known service contact

For those 135 fatal drug poisoning cases reviewed in 2018:

- Individuals were known to have been in **contact with any service within 12 months** prior to death in 67 per cent of cases (n= 90), consistent with previous years
- Individuals were known to have been in **contact with any services within 1 month** prior to death in 62 per cent of cases (n=56)
- **'No known contact'** or no contact with services within 12 months prior to death was reported in approximately a third of cases
- Where known to local services, 80 per cent (n=72) had received **contact with a substance misuse service** (including Integrated Offender Service (IOS)) **in the 12 months** prior to death

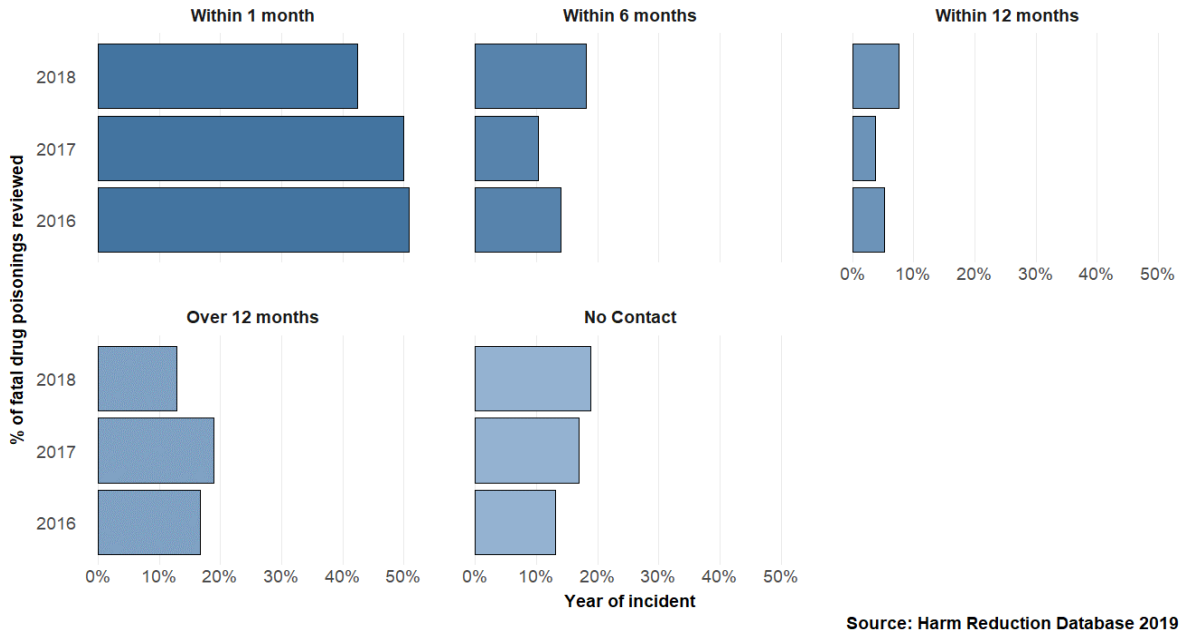

Figure 55 - Length of time since last known contact with any service for fatal drug poisoning cases, 2016-18

Known substance history

History of substance use was known and reported for 92 per cent (n=66) of fatal drug poisoning review cases in contact with services in the 12 months prior to death (see Figure 56). Similarly to previous years, histories of poly-drug use was frequently reported, with heroin being recorded as the most commonly used substance. Known history of injecting drug use was reported in less than half of cases reviewed (44 per cent).

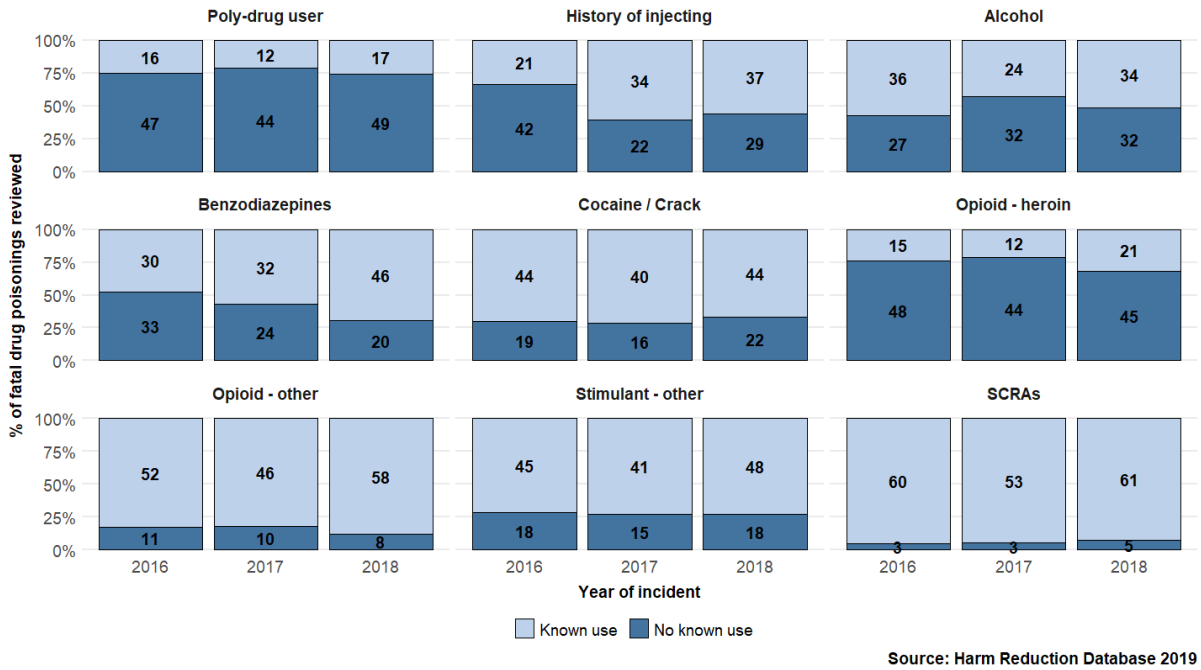

Figure 56 - Proportion of fatal drug poisoning cases where substance history reported, by substance

Mental health

In 2018, histories of mental health and psychiatric disorder were reported in 100 per cent (n=90) of fatal cases in contact with services 12 months prior to death. Of which 60 per cent (n=59) were reported as having had a history of mental illness or diagnosed psychiatric disorder. Known attempts of suicide, self-harm and suicidal ideation were reported amongst a third of cases with history of mental illness.

Due to the structure and qualitative nature of reporting via the HRD currently no further information can be provided within this report in relation to the nature and recency of reported mental illness / reported self-harming behaviour. It should be noted that this information is used to aid in the review of fatal drug poisonings and development of recommendations at a local and regional level in Wales on a case by case basis.

4.1.4 Coroner's conclusion and findings

In line with the Fatal / Non-Fatal Drug Poisoning Review guidance[40], the HRD: Drug Poisoning Database provides functionality for the recording a final coroner's findings for each fatal drug poisoning review. The rapid nature of the drug poisoning review process (i.e. initiated prior to notification of any toxicological or coroners verdict) requires each case to be treated as a 'suspected drug poisonings' until otherwise confirmed. As such the process of pairing review findings alongside coroners conclusions are an integral part of developing robust recommendations, and better understanding the nature of drug poisonings in Wales.

Since 2016, 48 per cent (n=177) of fatal drug poisoning cases had a record of coroner's findings recorded on the HRD (see Table 21). Such records have increased year on year from 41 per cent of cases in 2016 to 61 per cent in 2018, demonstrating increased collaboration between local drug poisoning review teams and coroner's offices.

Table 21 - Number of fatal drug poisoning review cases with record of coroner's findings recorded on HRD, by year

	2016	2017	2018	Total
Fatal drug poisonings reviewed	114	120	135	369
Cases with coroner's findings recorded	47	48	82	177
% of cases with coroner's findings recorded	**41.2%**	**40.0%**	**60.7%**	**48.0%**

Where coroner's findings were listed on the HRD, a 'drug related' conclusion was confirmed in 68 per cent (n=121) of cases (see Table 22). Natural causes, accidents/misadventure, suicide, and unclassified conclusions made up the remaining 32 per cent (n=56) of cases. Such findings confirm the notion that in order to maximise review coverage, the annual number of case reviews should exceed the number of Drug Misuse Deaths as reported by ONS.

[40] Welsh Government (2014). Guidance for undertaking fatal and non-fatal drug poisoning reviews in Wales. Available at: http://gov.wales/docs/dhss/publications/140701substanceen.pdf

Table 22 - Proportion of fatal drug poisoning review cases with record of coroner's findings, and proportion where 'drug related' conclusion confirmed, by health board, 2016-18

	Fatal Drug Poisoning Cases reviewed (2016-18)	% with record of coroner's findings	% confirmed 'drug related' conclusion
ABMU	78	21.8%	82.4%
Aneurin Bevan	59	69.5%	65.9%
BCU	40	32.5%	100.0%
Cardiff & Vale	54	44.4%	45.8%
Cwm Taf	83	98.8%	68.3%
Hywel Dda	52	0.0%	-
Powys Teaching	3	0.0%	-
Wales	**369**	**29.0%**	**68.4%**

4.2 Non-fatal drug poisoning reviews

Prior non-fatal drug poisonings / drug overdoses are predictive of subsequent fatal drug poisonings. Rapid non-fatal drug poisoning multidisciplinary reviews provide a mechanism to those who have experience a non-fatal poisoning and support offered to engage in drug treatment services.

In 2018, 144 non-fatal drug poisoning reviews were conducted across participating health boards in Wales (see Table 23), representing a 14 per cent increase from the previous year. It is not currently possible to determine whether this increase is due to changes in reporting structures or the occurrence of non-fatal drug poisonings.

Table 23 - Non-fatal drug poisoning reviews conducted by Health Board, by year

	2014/15*	2016	2017	2018	Total
ABMU	146	132	121	143	541
Aneurin Bevan†	0	3	3	1	7
BCU	-	-	-	-	-
Cardiff & Vale†	0	7	0	0	7
Cwm Taf	28	26	2	0	56
Hywel Dda	-	-	-	-	-
Powys Teaching	-	-	-	-	-
Wales	**174**	**168**	**126**	**144**	**611**

* Data entered onto the HRD following back-population exercise

† Non-fatal drug poisoning review pilot to test reporting and response mechanisms

4.2.1 Demographics

The demographic profiles for the 144 non-fatal drug poisoning reviews conducted in 2018, alongside previous years, can be viewed in Table 24.

Table 24 - Non-fatal drug poisoning review demographics: All Wales, 2016-18

	2016	2017	2018
Non-fatal drug poisonings reviewed	168	126	144
% Male	74%	77%	82%
Median age (years)	35	33	35
Minimum age (years)	18	18	19
Maximum age (years)	57	56	65
% Under 25 years	11%	9%	6%
% Over 50 years	5%	6%	12%
% in non Stable housing /NFA	55%	52%	48%

* Proportion of individuals where data has been provided by services and recorded on HRD

Age profile

Demographic comparisons between drug poisoning cases would indicate that non-fatal drug poisoning cases reviewed were consistently younger than fatal drug poisoning cases (median age 35 years compared to 41 years respectively). Research indicates that on average, the rate of non-fatal drug poisonings amongst individuals who had a lifetime history of drug poisoning events was 2 survived events per year[41]. As such fatal drug poisoning cases would likely have a preceding history of non-fatal drug poisoning events.

Whilst median age of non-fatal drug poisoning cases has remained consistent over the last three years, the proportion of cases under the age of 25 years has declined alongside increases in the over 50 years age category (see Table 24).

Housing status

Housing status information was sought for all cases reviewed in 2017. Where known to services just under half of cases were listed as living in non-secure housing (e.g. hostel accommodation) or having no fixed abode (e.g. street homeless, 'sofa surfing'). The proportion of cases listed as living in non-secure housing or NFA has declined over the last three years. Currently it is difficult to ascertain whether this change is a result in increases in reporting amongst populations living in stable housing or demographic shift.

[41] Holloway K R, Bennett T H, & Hills R (2016). Non-fatal overdose among opiate users in Wales: A national survey. *Journal of Substance Use*; Available at: https://www.tandfonline.com/doi/abs/10.3109/14659891.2015.1063718

5 Appendices

5.1 Appendix A - Definitions and notes on data interpretation

5.1.1 'Drug related deaths' and 'drug misuse deaths'

'Drug related deaths' typically encompasses two measures. Deaths related to both licit and illicit drugs are typically described as 'drug poisoning deaths.' 'Drug misuse deaths', which is the preferred measure for analysis of drug related deaths in the context of substance misuse strategies, include only illicit drugs (i.e. those controlled under the 1971 Misuse of Drugs Act and not prescribed to the individual). Drug misuse deaths are therefore a subset of both 'drug poisoning deaths' and 'drug related deaths. All figures in this document refer to drug misuse deaths unless otherwise indicated.

Drug poisoning and drug misuse deaths are identified using the 10th edition of the International Classification of Disease codes (ICD-10 codes). Where the underlying cause of death is classified by a code indicating:

- Mental and behavioural disorders due to drug use (excluding alcohol and tobacco)
- Accidental poisoning by drugs, medicaments and biological substance
- Intentional self-poisoning by drugs, medicaments and biological substances
- Poisoning by drugs, medicaments and biological substances, undetermined intent
- Assault by drugs, medicaments and biological substances

The Office for National Statistics (ONS) classifies the death as 'drug related'. 'Drug poisoning deaths' include all deaths so classified; 'drug misuse deaths' include those deaths in which a substance controlled under the Misuse of Drugs Act 1971 (MDA) is identified. Note that since substances can be added to the definitions included in the MDA via secondary legislation, previously published numbers of deaths are subject to revision. Further, it is not typically possible to distinguish between heroin and morphine in toxicology tests on deceased persons, and therefore deaths involving these substances are conventionally described as 'heroin/morphine'. Note also that intentional poisoning and poisoning of undetermined intent are categorised by the ONS as 'suicides'.

Figures for drug related deaths are typically reported by year of registration of the death. All deaths where use of illicit drugs is considered a possible factor are referred to a Coroner, leading to a delay between death and registration. This delay in turn means that a substantial number of deaths are registered in a different year to that in which they occurred. Whilst reporting by year of registration enables a comprehensive list of deaths to be analysed and allows comparison between UK countries, changes in the length of time taken to register drug misuse deaths may suppress or enhance annual trends in the data.

Further details of the methods used by the ONS to identify drug related deaths can be found at: http://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2015registrations#quality-and-methodology

The ONS publishes annual figures for drug related deaths, with the most recent report available at: http://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2015registrations

Most of these figures are presented for England and Wales, with only a small number of headline figures broken down annually by UK country. The Mortality team at the ONS provide Public Health Wales with detailed figures for Wales by special arrangement. Where detailed in this document, figures for England have been calculated by subtracting figures for Wales from figures for England and Wales. This method is expected to provide accurate figures but has not been cross-checked with the ONS.

5.1.2 Named 'New Psychoactive Substances' for drug misuse death analysis by Office for National Statistics

1-(benzofuran-5-yl)-N-methylpropan-2-amine	Clephedrone
1-(Benzofuran-5-yl)-propan-2-amine	Desoxypipradrol
1-(Benzofuran-6-yl)-propan-2-amine	Diclazepam
2-aminoindane	Diphenidine
2-(1H-Indol-5-yl)-1-methylethylamine	EAPB
25B-NBOMe	Ethylphenidate
25C-NBOMe	Etizolam
25I-NBOMe	Flubromazepam
2-diphenylmethylpyrrolidine	Flubromazolam
3-methoxyphencyclidine	Fluoromethamphetamine
3f-phenmetrazine	Fluoromethcathinone
4,4'-DMAR	Fluorophenmetrazine
4-Fluoroephedrine	GHB
4-Fluoromethcathinone	Khat
4-Methoxymethcathinone	MDDA
4-Methylamphetamine	MDMB-CHMICA
4-Methylethcathinone	Mephedrone
5-EAPB	Methiopropamine
5F-ADB	Methoxetamine
5F-AKB-48	Methoxphenidine
5F-PB-22	Methylenedioxypyrovalerone
AB-CHMINACA	Methylethcathinone
Acetylfentanyl	Methylone
AH-7921	Mexedrone
Alpha-methyltryptamine	N-Methyl-3-phenyl-norbornan-2-amine
Alpha-PVP	Phenazepam
APB	Pyrazolam
APDB	Synthetic cannabinoid
Butylone	TFMPP
BZP	U-47700
Cathinone	

5.1.3 Drug deaths: year of registration and year of death

Drug misuse deaths are typically reported by year of registration. This is because deaths identified as possibly involving drugs are referred to a coroner and may require an investigative process including inquest. Therefore, reporting by year of death may not include deaths which have occurred but not been registered and reporting by year of registration may include deaths that occurred one or more years previously. In 2018, the median delay was 181 days for England and 168 days for Wales.[42]

Figure 57 shows that the number of deaths by year of registration mirrors the number of deaths by year of death, with a small delay. As the number of deaths in 2018 may be incomplete, drug deaths by year of registration was the measure used throughout this document.

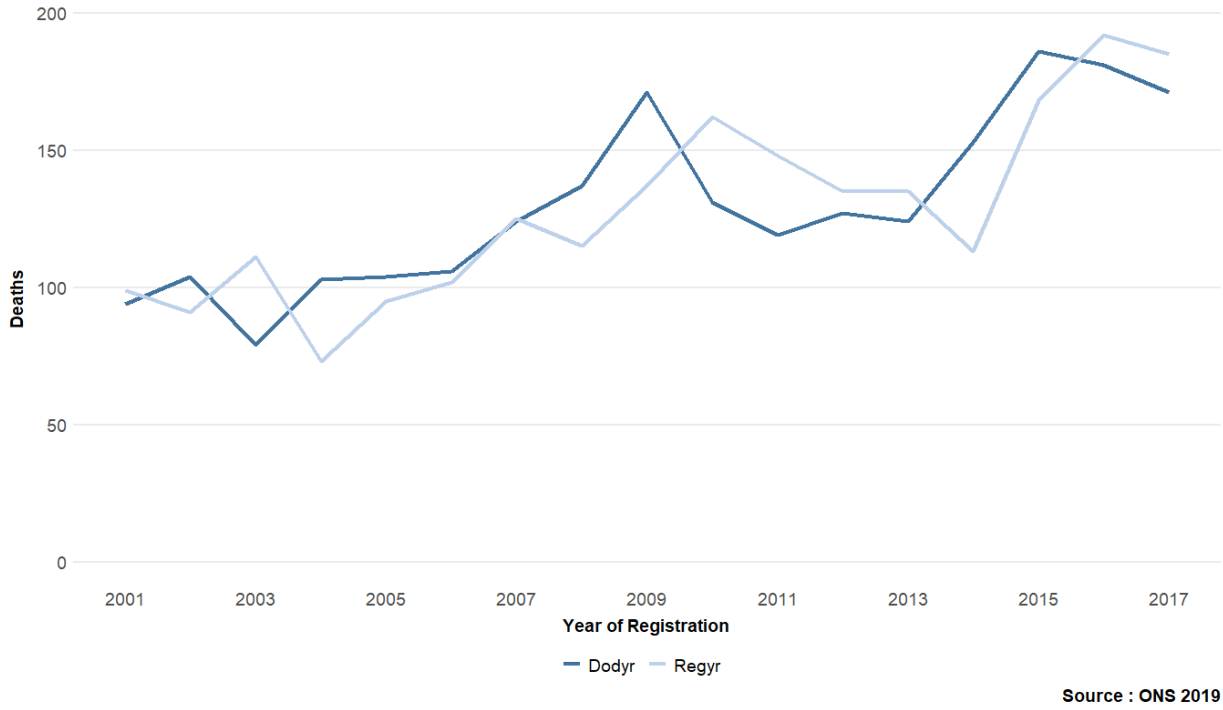

Figure 57 – Number of drug misuse deaths by year of registration of death and year of death, 2001-2017

5.1.4 Health Boards and Local Authorities

- When referring to a local authority or a health board, an individual was included in **every** geographical region where they had at least one NSP interaction. This was to ensure that individuals were all allocated using a single methodology.
- Bridgend counted under ABMU during reporting period

[42] Office for National Statistics (2019). Deaths related to drug poisoning in England and Wales: 2018 registrations. Available at: https://www.ons.gov.uk/releases/deathsrelatedtodrugpoisoninginenglandandwales2017registrations

- Individuals accessing NSP services solely though mobile NSP units in BCUHB were assigned to Wrexham (East), Denbighshire (Central) and Gwynedd (West). Consequently, the numbers of unique individuals injecting drugs in Anglesey, Conwy and Flintshire may be under-reported.

5.2 Appendix B - Guidance on fatal and non-fatal drug poisoning reviews

In June 2014 Welsh Government published guidance outlining the framework and procedures in relation to the review of fatal and non-fatal drug poisonings in Wales[43]. The guidance, developed in line with the key aims of the Welsh Government Substance Misuse Strategy Delivery Plan 2013-15 (Outcome 3.1)[44], provides guidance for all stakeholders within Wales who have a remit for reducing fatal and non-fatal drug poisonings related to substance misuse. This encompasses all stages for effective review including: initiation, multidisciplinary working and data collection, and the identification, implementation and dissemination of recommendations and lessons learned.

Implementation of the guidance supersedes the previous confidential review process[45] where fatal drug poisonings were reviewed post coroner's inquest. Under the new guidance 'case reviews' are undertaken locally and initiated as soon after the fatal drug poisoning as possible. Thus providing more timely information in relation to circumstances related to death and where best evidence indicates lessons could be learned (see Figure 58). The confidential review process highlighted the requirement for Drug Related Death Review Panels, where community and partnership working can support the identification of recommendations aimed at reducing both fatal and non-fatal drug poisonings locally and nationally.

Unlike the historic guidance, the new guidance stipulates not only the review of fatal drug poisonings but also the addition of non-fatal drug poisonings (case definitions of which are defined within the guidance). Responsibility for the review of both poisoning types sits with a nominated Case Review Co-ordinator (CRC) as identified by the local Area Planning Board's (APB) Harm Reduction Group. The CRC co-ordinates partnership and collaborative working, between the Coroners service and support services within the locality in order to underpin circumstances related to death and ensuring accurate information is available for analysis. This includes the dissemination and collation of information requests, and establishment of multi-agency review meetings to assess evidence, and establish lessons learned.

In order to monitor progression of the guidance across Wales the National Implementation Board for Drug Poisoning Prevention (NIBDPP) was established and provided with responsibility for ensuring that Health Boards / APBs and all other stakeholders progress to full implementation of both existing and emerging recommendations as per the reviews. Furthermore it is the NIBDPP's role to work alongside professional membership bodies e.g. Royal Collage of General Practitioners Wales, and liaise with other relevant UK and European bodies with a remit for reducing drug related deaths and non-fatal poisonings.

To ensure both timely and accurate collection of data in relation to fatal and non-fatal drug poisoning reviews, both Welsh Government and Public Health Wales have supported the development of a robust database via the Harm Reduction Database (HRD) Wales (see 5.3 - Appendix C – What is the

[43] Welsh Government (2014). Guidance for undertaking fatal and non-fatal drug poisoning reviews in Wales. Available at: http://gov.wales/docs/dhss/publications/140701substanceen.pdf
[44] Welsh Government (2013). Working Together to Reduce Harm Substance Misuse Delivery Plan 2013–2015 (Outcome 3.1). Available at: www.wales.gov.uk/docs/substancemisuse/publications/130219StrategyDeliveryPlan13-15en.pdf
[45] Welsh Assembly Government (2005). Guidance on developing local confidential reviews into drug related deaths in Wales. Available at: www.wales.gov.uk/dsjlg/publications/commmunitysafety/guidancedrugdeaths/guidancee?lang=en

Harm Reduction Database? for more information). The HRD provides a central system for the secure storage and collation of data, along with a mechanism in which information can be requested by the CRC from all stakeholders involved in the review of a drug poisoning event.

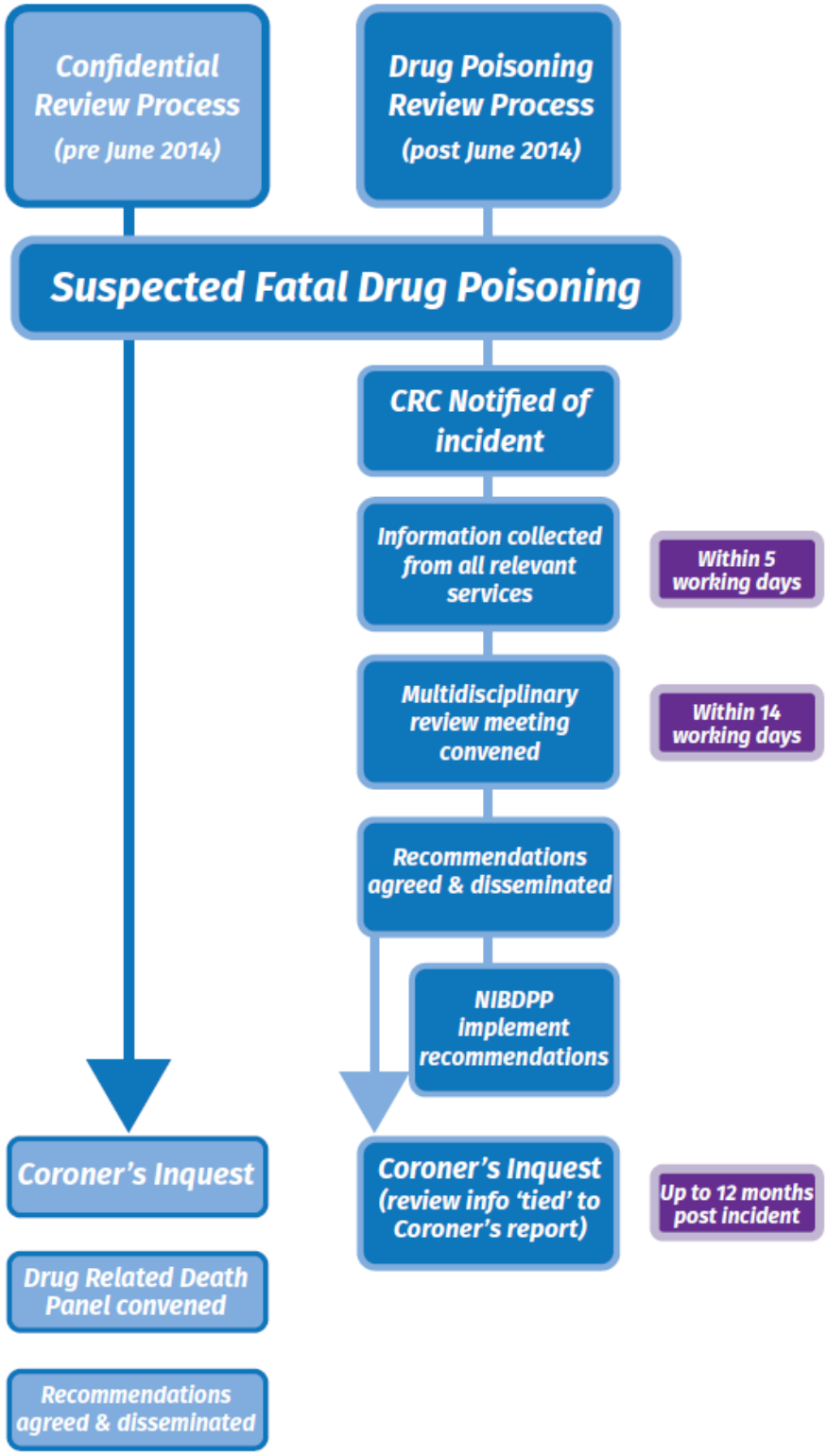

Figure 58 - Comparisons of process and timeline between the Confidential Review Process (pre June 2014) and the new Drug Poisoning Review Process (post June 2014)

5.3 Appendix C – What is the Harm Reduction Database?

In 2010 the Substance Misuse Programme, Public Health Wales implemented the national Harm Reduction Database Wales (HRD), funded by Welsh Government. The HRD is a web-based modular tool for the recording of demographic, substance use, risk and outcome data on a range of interventions, including:

- Needle and Syringe Programmes (NSPs)
- Take-home Naloxone (THN)
- Long Acting and Reversible Contraception (LARC)
- Blood Borne Viruses (BBV)
- Fatal and Non-Fatal Drug Poisoning Reviews

The HRD represents the sole system in Wales for evidencing the nature and scale of these community interventions amongst those with substance misuse issues and complements the data derived from the Welsh National Database for Substance Misuse (WNDSM) for substance misuse treatment services.

5.3.1 HRD: Take Home Naloxone module

About

From 1st April 2012 the 'HRD – Naloxone' module was implemented to record THN-related activity. A back population exercise was also completed to ensure that all of the data from the pilot project and first year of implementation was securely stored on the HRD. This development allows the recording of all unique individual activity relating to the training and issue of THN, and provides clinicians with the ability to obtain live data relating to THN activity. For each individual accessing services, the database allows the recording of: referral to THN services, completion of training sessions (recognising overdose and how to use THN) and details relating to the supply and re-supply of THN.

Data captured

Client Details

The 'client details' section is a profile of an individual's demographic and health status information (as indicated by the individual) for each person accessing THN services, and includes:

- **Demographics** including – ethnicity, housing status
- **Referral details** including – non fatal poisoning (NFP) history, risk behaviour that lead to referral, current engagement in substance misuse services
- **Onward referrals** – details of referrals to other specialist health and social care services offered to the client by staff issuing THN and training. This section allows the recording of referrals declined as well as accepted by the client.

Naloxone training:

This section records information relating to the training provided to the client in administering THN, recognising opioid poisoning, and basic life support/CPR. Training is delivered to every client prior to the initial issue of THN, and a refresher session is delivered on a yearly basis. The training section is completed during every event where training is delivered to a service user, their family/friends, or a working professional. This enables service users to evidence completion of training prior to being administered THN. Details contained within this section include date of training, date of next training due, trainer's details and training elements provided.

Consent:

Prior to the issue of THN, every client is required to complete an online consent form where they declare no knowledge of adverse effects to THN, that satisfactory information and training was provided in the use of THN, that they will adhere to appropriate use of THN and the equipment issued and that their information may be stored on the HRD.

Naloxone supply/re-supply:

The supply/re-supply section contains details for all kits issued to the client, and is split into the following sections:

- **Supply/re-supply** including – date of supply, batch number, expiry date, name of prescriber
- **Reason for re-supply** including – batch recall, confiscated by the police, kit lost, out of date, used for poisoning
- **Who was supplied & additional detail** including – individual THN was supplied to, details of follow-on care, outcome of poisoning (if applicable), free text box to record additional information.

5.3.2 HRD: Drug poisoning database module

About

To better support the collection, recording and management of data relating to the review of both fatal and non-fatal drug poisonings in Wales the HRD was developed during 2014/15 to include a distinct and separate module known as the HRD: Drug Poisoning Database. The development of which has provided a robust mechanism in data collection, enabling a better understanding of the circumstances underpinning drug poisonings and processes/interventions required to prevent future events.

Configuration and access to the HRD: Drug Poisoning Database is securely managed by Public Health Wales, with area specific recording and reporting permissions issued to Case Review Co-ordinators (CRCs) and drug poisoning leads across the 7 Area Planning Boards in Wales. The HRD: Drug Poisoning Database provides CRCs with the following functionality:

- **Disseminate electronic information requests** as per the Welsh Government guidance to sentinel contributors and local services via the system's secure network

- **Development of local service networks** for the review of drug poisonings and manage/support/audit services in responding to information requests
- **Review key milestones** e.g. multi-disciplinary review meeting dates
- **Record findings** relating to toxicology, pathology, histology, and final coroners verdict
- **Consolidate and collate information** provided by services to support development of recommendations and lessons learnt for APB and NIBDPP review
- **Generate time defined local aggregate reports**

Implementation of HRD: Drug Poisoning Database

The HRD: Drug Poisoning Database was implemented by Public Health Wales in full in June 2015 following system configuration and development in line with the Welsh Government Guidance for the undertaking of fatal and non-fatal drug poisoning reviews.

Previous reports detailing drug poisoning reviews conducted throughout Wales can be obtained from: www.publichealthwales.org/substancemisuse

Data captured

The data captured via the HRD: Drug Poisoning Database can be categorised by the means in which it is entered onto the database; either via the CRC, or via local services. As such the following data items can be recorded:

By the Case Review Co-ordinator: The following information is collected and populated on the HRD: Drug Poisoning Database by the reviewing APB CRC from notification of a drug poisoning incident up until close of review.

1) Case Details

The 'case details' section is a profile of a case individual's demographic information and key contacts as indicated by the Case Review Coordinator following notification of a drug poisoning incident, as such it includes:

- **Individual details** including – NHS number, home address, home postcode, and registered GP
- **Demographics** including – age at time of incident, gender, ethnicity
- **Incident details** including – date of incident, location of incident, coroner (if fatal)

2) Circumstances and nature of death (fatal drug poisonings only)

The 'circumstances and nature of death' section provides an overview of information relating to early findings and circumstances surrounding a fatal drug poisoning as reported to the Case Review Coordinator, as such it includes:

- **Location details** including – location individual was discovered, location individual was pronounced dead
- **Items found at the scene** including – substances and paraphernalia found at the scene
- **Resuscitation attempts provided**

3) Investigative tests including – Toxicology (samples taken and result), pathology, and histology findings

4) **Coroners verdict (fatal drug poisonings only)** including – medical cause of death, outcome of inquest, and date of inquest

By local services: Information is collected and populated onto the HRD: Drug Poisoning Database by the local services following the issue of an information request by the reviewing CRC of a drug poisoning incident. Upon receipt of the information request, local services are given the opportunity to state whether the case individual was 'known' or 'not known' to the service. Where 'known', the service is asked to provide further details surrounding the reason for contact and key information relating to the individual in order to aid the multidisciplinary review and support the development of lessons learnt. As such the following information may be provided:

- **Contact details** including – date of first contact, date of last contact, reason for contact
- **Mental health and physical/medical conditions**
- **Substances used (non-prescribed)** including – substance (drugs and alcohol), frequency, route of administration, length of use
- **Opiate prescribed medication** including – type of medication, dose, frequency, date issued, prescribed by
- **Other prescribed medication** including – type of medication, dose, frequency, date issued, prescribed by
- **Custodial history (Prison and Police services only)** including – custody within one month prior to incident, location, duration, date of discharge
- **Interventions offered**
- **Onward referrals made by the service, and other known service contacts**
- **Known barriers to support**

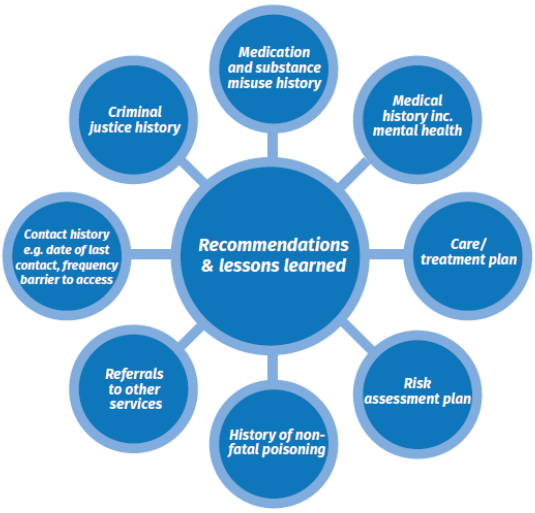

Figure 59 - Types of information fed into Multidisciplinary Review Panels for development of local and national recommendations