Harm Reduction Database Wales:
Needle and syringe provision
2014-15
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’.

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Public Health Wales would like to thank all those that contributed to the Harm Reduction Database Wales: NSP service users, NSP staff and all provider organisations including specialist substance misuse services, Criminal Justice services including DIP and IOIS and specialist housing and hostel/homelessness service providers.

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1. Executive Summary

- Needle and Syringe programmes (NSPs) provide an effective and cost-effective means of reducing transmission of blood borne virus (BBV) infection (including hepatitis B, hepatitis C and HIV).\(^1\)\(^,\)\(^2\) Guidance has been published for the provision of NSP services\(^3\) in Wales. Despite this, blood borne virus infection amongst people who inject drugs (PWID) in Wales is increasing\(^4\).

- The Harm Reduction Database Needle and Syringe programme (NSP) module went live in all 207 pharmacy based NSP services from 1\(^{st}\) April 2014. As such, this is the first report for which data on all transactions in all NSP services across Wales (total 254 sites) has been available and the dataset is therefore considerably larger and more comprehensive than in previous years.

- The total number of individuals recorded as accessing NSP (Needle and Syringe Programme) services in Wales in 2014-15 was 25,421. Of these, 242 individual records were excluded for analysis for reasons including no record of substance used or no use of substances relevant to reporting on psychoactive substance use or use of steroids and image/performance enhancing drugs (SIEDs).

  The final dataset comprised 25,179 unique individuals

- As a proportion of all individuals, the proportion by primary substance type injected was:
  - Steroids and image/performance enhancing drugs: 51.4 per cent (n=12,938)
  - Opioids: 37.6 per cent (n=9,477)
  - Stimulants: 9.5 per cent (n=2,384)
  - New Psychoactive Substances (NPS): 1.5 per cent (n=380)

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\(^1\) NICE. Needle and Syringe Programmes Guidance 2014. Available at: [https://www.nice.org.uk/guidance/ph52](https://www.nice.org.uk/guidance/ph52)

\(^2\) NICE. Costing statement: Needle and syringe programmes Implementing the NICE guidance on Needle and syringe programmes (PH 52). Available at: [https://www.nice.org.uk/guidance/ph52/resources/69237469](https://www.nice.org.uk/guidance/ph52/resources/69237469)


• Of all individuals, 9,069 used a statutory or voluntary NSP and 18,442 used a pharmacy. 84% of pharmacy NSP users, (n=15,570) did not use a statutory or voluntary service.

• In general, those using only pharmacy NSP services are more likely to be male, under 25 and SIEDs users than those also or exclusively using statutory/voluntary NSP services.

• 2,904 (11.5 per cent) of all service users were female. However, this proportion varied by primary drug type – 4.6 per cent (n=589) of all primary SIEDs injectors compared with 18.9 per cent (n=2,215) of primary psychoactive drug injectors

• 4,338 (17.2 per cent) of all service users were aged under 25 years. However, this proportion also varied by primary drug type – 27.4 per cent of primary SIED users (3,542 individuals); substantially more than for primary users of psychoactive substances, where the proportion of users under 25 was 6.5 per cent (796 individuals)

• Where recorded, 17.8 per cent of primary psychoactive substance users (612 individuals) were ‘new initiates’ (i.e. had been injecting for less than three years), whilst 48.1 per cent (1,653 individuals) had been injecting for more than ten years
  o 38 per cent of primary NPS users (52 individuals) were new initiates
  o More than half of primary SIED users (50.5 per cent, 2,499 individuals) were new initiates.

This is consistent with evidence from previous years that primary psychoactive substance users, in particular opioid users, form an aging cohort, but a substantial number of primary SIED and NPS users have begun injecting relatively recently

• Despite all NSP projects using the same recording system, data quality was poor for a range of data items including secondary and other drug use, reuse of injecting equipment and sharing of injecting paraphernalia and needles / syringes. This represents a clear threat both to providing appropriate and sufficient injecting equipment and harm reduction advice to service users but also in evidencing the nature of drug use and injecting risk practices amongst PWID in Wales
2. Summary of recommendations

Recommendation 1

To address the increase in blood borne virus infection and other injecting related harms, Commissioners and service providers should ensure the provision of tailored harm reduction information and interventions alongside optimal NSP provision, to include hepatitis B vaccination and BBV testing and referral, to meet the needs of ALL people who inject substances. This should include proactive outreach and utilisation of a range of health and social care professionals and peer workers, to engage with those at risk of marginalisation by services, in particular:

- young people
- those whose first language is not English
- those primarily injecting stimulants and new psychoactive substances
- those not in contact with specialist substance misuse services
- those only accessing pharmacy based NSP services

Recommendation 2

Research evidence and relevant guidelines\(^1,2,3\) stress the importance of providing at least one set of sterile injecting equipment for every injection, termed ‘coverage rate’. Whilst there is encouraging evidence of increasing coverage rates in Welsh NSP services, Commissioners and service providers should ensure adequate resource to provide at least 100% coverage in their area.

Recommendation 3

In light of the continued rapid evolution of local, national and international drug markets, Commissioners and service providers must ensure that existing data collection systems (Harm Reduction Database Wales) are fully utilised to support the recording of changes in substance use in their area, particularly in relation to injecting and poly-drug use, and adapt services to ensure harm reduction interventions and onward referral pathways remain appropriate, timely and effective.

Recommendation 4

The rapid drug market evolution described in Recommendation 3 can lead to relatively swift entrances (and also exits) of new substances, new networks of substance users and new injecting practices identified in specific localities or regions across Wales. Processes for evidencing and sharing this information in a more timely and effective manner both horizontally (between local service providers) and vertically (between local services and teams and organisations with a national perspective including Public Health Wales) should be implemented.
3. Purpose and background

This report describes findings from the Harm Reduction Database – Needle and syringe programme module, for the period 2014-15. The Harm Reduction Database (HRD) is a web-based system that enables point of contact recording of Needle and Syringe Programme (NSP) activity including transactions, provision of tailored harm reduction and health related support, and onward referrals to unique individuals within Wales. The HRD was introduced into statutory and voluntary Needle and Syringe Programmes (NSPs) in Wales in 2010 and became available in Community Pharmacy NSPs in April 2014. It is currently available in 46 static voluntary and statutory NSP sites and 208 Community Pharmacy NSPs. Further details on the HRD are provided in Appendix 1.

The report is structured to provide key information to policy makers, commissioners / planners, Substance Misuse Area Planning Boards and Harm Reduction Groups, public health practitioners, substance misuse service providers and other key stakeholders. Key issues covered include the scope and trends in injecting substance use in Wales, accessibility of services and their provision of sterile injecting equipment, the reduction of risk behaviours and improving health and wellbeing and data quality.

The main report begins with a ‘snapshot’ giving a brief overview of the gender and age of those who used services in 2013-14 across different categories of substance. Three main sections follow. The first explores demographic data to establish who is using substances and services. The next looks in more detail at use of substances and services to consider how these are being used. The final main section considers a range of indicators including syringes provided and records of blood borne virus testing to determine what is being provided for substance users in those services. Selected comparisons between 2014-15 and previous years are also presented.
4. Data set and quality

This report for the period 2014-15 reflects a significant evolution in the capacity to record and report on data from needle and syringe programmes (NSPs) in Wales. In April 2014, 208 pharmacies providing needles and syringes were connected to the Harm Reduction Database, adding to the 41 statutory and voluntary services already reporting real-time data. The addition of these data sources has resulted in a substantial increase in the number of transactions and unique individuals recorded as using NSPs in Wales.

The total number of individual records on the HRD (excluding 12 individuals for whom no substances of use were reported) for the period 2014-15 was 25,409. It was assumed that all individuals recorded as being under 14 or over 100 years old were entered onto the HRD in error, therefore these records were excluded. This removed five records from the analysis.

The HRD allows for the recording of over 30 different substances and aims to capture all substance use (including alcohol), regardless of route of ingestion, alongside those substances injected. Within this report, these substances are aggregated into the following types which broadly reflect the similarities and differences between substances in terms of chemical profile, typical effects and categories (but not levels) of associated risks.

- **Opioids**, including heroin, methadone and prescribed diamorphine
- **Stimulants**, including cocaine powder, crack cocaine, amphetamines and ecstasy
- **Steroid and image enhancing drugs (SIEDs)**, including anabolic steroids, human growth hormone, melanotan and other peptides
- **New psychoactive substances (NPS)**, including ketamine, MPA and amphetamine-like cathinones including mephedrone, etc

All those who were not using any of these main substances types were removed from the analysis: this excluded a further 153 individuals. Given the importance of being able to compare primary users of different substance categories, the 84 individuals (0.3 per cent of the total once individuals not using any relevance substance had been removed) who did not report a main substance, as defined above, as their primary substance of use were also removed.

**The core dataset for analysis was 25,179.**

4.1. Comparison with previous years

A comparison with previous years raises additional issues that must be highlighted. The addition of pharmacy NSPs to the HRD has brought data from a substantial number of service users who have not previously been recorded on the database. In 2014-15, 9,609 individuals were recorded as accessing any statutory and voluntary NSP service and a further 15,570 accessed pharmacy NSP services only. Analysis suggests that these populations are structurally different. To give one example, under 25s made up 14 per cent of all those accessing statutory...
or voluntary services, but 19 per cent of those accessing only pharmacy-based services. Therefore, comparisons with the previous year exclude those using only pharmacy services in 2014-15. The number 9,609 individuals accessing statutory/voluntary services in 2014-15 represents a notable increase on the 9,137 individuals whose data was analysed in 2013-14. However, 589 individuals were removed from the 2013-14 analysis as no substance of use was recorded.

Analysis of the primary substance of use of those accessing NSP services suggests that the difference in the numbers recorded as using statutory/voluntary services is largely due to an increase in the number of primary opioid users being registered on the HRD. Whilst the number of primary stimulant, NPS and SIED users registered and accessing only statutory/voluntary services rose by 57, two and zero respectively in 2014-15 compared with 2013-14. The number of primary opioid users rose by 413, accounting for 87.5 per cent of the additional registrations by primary substance of use. This change in the structure of the statutory/voluntary NSP population as recorded on the HRD should be borne in mind when reviewing all analyses of differences between years described in this report.

Figure 1 shows the total numbers accessing the different categories of service (statutory/voluntary and pharmacy services) and the overlap between them.
5. **Snapshot: key figures**

Of the 25,179 individuals recorded on the HRD in 2014-15, 88.5 per cent (22,271 individuals) were male. As shown in Table 1, there was considerable variation in gender profile by primary substance type. Research undertaken in Wales and elsewhere in the UK\(^5\)\(^6\)\(^7\) would suggest that the gender profile of people who inject psychoactive drugs (PWID) is around 3:1 male to female. Once SIEDs, which are not psychoactive drugs, are excluded, the gender profile for NSP users of psychoactive substances is closer to this frequently observed gender profile, with 81.1 per cent (9,925 individuals) male. When only those access statutory or voluntary services are included, this figure is 79.9 per cent (4,176 individuals), comparable with the gender profile recorded for 2013-14 (78.1 per cent). The data in Table 1 also indicate that SIED users are on average younger and more likely to be male compared with those using psychoactive substances, and those indicating primary use of NPSs are more likely to be under 25 compared with those primarily using opioids and stimulants.

### Table 1: Profile of substance use by gender and percentage of users under 25 for all NSP

<table>
<thead>
<tr>
<th></th>
<th>Number (% of total)</th>
<th>% male</th>
<th>% under 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary SIED users</td>
<td>12,938 (51.4%)</td>
<td>95.4%</td>
<td>27.4%</td>
</tr>
<tr>
<td>Primary opioid users</td>
<td>9,477 (37.6%)</td>
<td>81.1%</td>
<td>6%</td>
</tr>
<tr>
<td>Primary stimulant users</td>
<td>2,384 (9.5%)</td>
<td>81.7%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Primary NPS users</td>
<td>380 (1.5%)</td>
<td>77.4%</td>
<td>14.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25,179 (100%)</td>
<td>88.5%</td>
<td>17.2%</td>
</tr>
</tbody>
</table>

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\(^7\) Needs assessment of harm reduction and health care services for substance misusers across Wales, National Public Health Service for Wales, 2006, [http://www2.nphs.wales.nhs.uk:8080/BloodBorneVirusesDocs.nsf/7c21215d6d0c613e80256f490030c05a/c662fce951549dd880257355004ccbbf/SFILE/Needs%20assessment%20of%20harm%20reduction%20and%20health%20care%20services%20for%20substance%20misusers%20across%20Wales.pdf](http://www2.nphs.wales.nhs.uk:8080/BloodBorneVirusesDocs.nsf/7c21215d6d0c613e80256f490030c05a/c662fce951549dd880257355004ccbbf/SFILE/Needs%20assessment%20of%20harm%20reduction%20and%20health%20care%20services%20for%20substance%20misusers%20across%20Wales.pdf), viewed 20 May 2014
6. Demographics
This section details the demographic data derived from the HRD, including profiles of age, gender, ethnicity and housing and employment status, to establish who is using substances and accessing NSP services in Wales and detailing the specific risk indicators for those accessing NSP. All these variables are recorded to ensure the provision of a tailored NSP and harm reduction service to individual service users.

6.1. Age and gender in relation to primary substance injected
Across all NSP sites in 2014-15, the mean age of service users was 33 years and 11 months; the proportion of service users who were under 25 was 17.2 per cent. Those reporting primary stimulant injecting had the highest mean age, at 44 years and 9 months, and primary SIEDs injectors the lowest mean age at 31 years and 8 months. When categorised by age band, the 25-29 and 30-34 age bands were the most commonly recorded: each accounted for 20.4 per cent of all NSP users (5,142 and 5,131 individuals respectively). Chart 1 shows NSP users in Wales by primary substance of use and age band.

![Chart 1: Primary substance use by age group for individuals accessing NSP services in Wales 2014-15](image)

Across all core substance types, 11.5 per cent (2,904 individuals) of all users were female; however, there was substantial variation between substance type, with 589 women reporting primary use of SIEDs (4.6 per cent of all primary SIED users), compared with 2,315 women primarily injecting opioids, stimulants and NPS, representing 18.9 per cent of all PWID in those
An age pyramid for NSP service users in Wales by gender and primary substance of use is shown in Chart 2.

Chart 2: Numbers of NSP users by age, gender and primary substance type, 2013-14

Males were older than females across all primary substance types except for primary SIED injectors, amongst whom women were a mean of 3 months older than men. For other primary substance types, the mean age difference varied from 3 years and 11 months for primary stimulant injectors to 2 years and 11 months amongst primary opioid injectors.

Young people aged under 25 years
Across all service types, 4,338 individuals aged under 25 were recorded, representing 17.2 per cent of all those accessing NSPs in 2014-15; however, as described in section 4.1 above, relevant comparisons with previous years can only be made by including those who accessed a statutory or voluntary service in 2014-15. The proportion of those aged under 25 was 13.3 per cent, based on the 1,279 individuals under 25 accessing statutory or voluntary services in 2014-15 representing a fall of 2.4 percentage points compared with the previous year. By specific substance type, the greatest fall was seen amongst primary NPS injectors - from 16.5 per cent recorded in 2013-14 to 10.7 per cent in 2014-15.

6.2. Ethnicity
Ethnicity was recorded for 11,663 service users, 46.3 per cent of the core dataset. Of those reporting ethnicity, 6,671 described themselves as ‘white Welsh’ and 4,269 as ‘white British’; taken together, these categories represented 93.8 per cent of all those reporting ethnicity. Of the remaining 723 individuals, the largest category was ‘white unknown’ (293 service users,
40.5 per cent of those reporting who did not self describe as ‘white Welsh’ or ‘white British’), followed by ‘white Eastern European’ (114 individuals, 15.8 per cent); no other ethnicity accounted for more than 6 per cent of the total reporting non-white Welsh/British ethnicity.

There were fewer non-white Welsh/British women (8.6 per cent, 62 individuals) compared with those reporting as white Welsh/British. There appear to be no meaningful differences in the proportions of those aged under 25 - 123 individuals (17 per cent) reporting an ethnicity not white Welsh/British, compared with 1,807 (16.5 per cent) stating white British/Welsh. The greatest variation between these two categories in terms of primary substance of injecting was those reporting primary opioid injecting: 299 individuals (41.4 per cent) of those not of white Welsh/British compared with 3,949 individuals (36.1 per cent) of white Welsh/British individuals. Chart 3 shows the self reported ethnicity of NSP service users in Wales by primary substance of use.

![Chart 3: Self reported ethnicity of NSP users across Wales, excluding White Welsh/British, by primary substance use, 2014-15](chart)

6.3. Employment and housing

Employment details were reported by 10,930 individuals and housing details were recorded for 10,168, representing 43.3 per cent and 40.2 per cent respectively of all those recorded as accessing NSP services in 2014-15.

Employment status
Of those reporting employment:

- 5,747 individuals (52.6 per cent) reported being unemployed
• 4,663 individuals (42.7 per cent) reported full time employment
• 437 individuals (4 per cent) reported part time employment, and
• 83 individuals (0.8 per cent) reported sex working.

Women were substantially more likely to report unemployment than men (78.4 per cent, 1,007 women, compared with 49.1 per cent, 4,739 men); some of this difference is accounted for by the greater proportion of men using SIEDs, with full or part time employment rates amongst those using any SIED at 74.1 per cent compared with 12.9 per cent of those not using SIEDs.

**Housing status**

Responses of those providing data on their housing have been aggregated to create three housing categories:

• ‘secure’ (including owners, secure tenants and those living with their family),
• ‘non-secure’ (including those in bed and breakfast accommodation and hostels)
• ‘No fixed accommodation (NFA)’ (including those staying temporarily with friends, ‘sofa surfing’ or street homeless).

Primary SIED users had the highest rate of secure housing, with 95.1 per cent of those reporting housing data (5,188 individuals) in secure accommodation. The rate of secure housing amongst users of other substances was lower, ranging from 72.1 per cent (2,559 individuals) amongst those primarily using opioids to 75.5 per cent (748 individuals) for primary stimulant users. Unsurprisingly, these figures are mirrored in rates of those providing details on housing who declared no fixed accommodation. ‘NFA’ was most frequently reported by primary NPS users (17.8 per cent, 31 individuals), primary opioid users (16.7 per cent, 594 individuals) and stimulant users (14.4 per cent, 143 individuals), with 2.1 per cent of primary SIED users (117 individuals) reporting NFA as their housing status. Considering subcategories of housing, a much higher proportion of primary SIED users report living with family (35.2 per cent; 1,917 individuals); almost three times the rate reported in the other primary drug categories (13.7 per cent).

In terms of absolute numbers, primary opioid Injectors formed the largest group of those reporting no fixed accommodation, with 67.1 (594 individuals) per cent of those reporting NFA being primary opioid injectors. Proportions of NSP service users reporting secure housing and full or part time employment are shown in Chart 4.
Chart 4: Proportions of NSP users reporting data in secure housing and in full or part time employment by primary substance

Considering only those who accessed statutory or voluntary services in 2014-15, there were differences of less than 2 percentage points in the proportions reporting unemployment across all primary substance use categories and within each category, with the exception of SIEDs. Amongst primary SIED service users, the proportion reporting unemployment rose from 22.1 per cent (680 individuals) to 24.5 per cent (772 individuals); a rise largely accounted for by those aged over 25 amongst whom unemployment rose from 420 to 549 individuals. There were no notable changes in the proportions of those in different housing categories between the two time periods, with only primary stimulant injectors showing a change of more than two percentage points in any housing status category; a change that equates to an additional 30 service users reporting as homeless between the two periods.

6.4. Geographic variation

The health board areas with the largest number of service users accessing NSPs are ABMU and BCU, with 23.2 per cent of service users accessing services in each of these health board areas; 5,836 and 5,829 individuals respectively. Total numbers of NSP service users by health board area (using the location of the most frequently used service as and primary substance of use to classify NSP users by health board) are shown in Chart 5.
Primary SIED users accounted for the largest proportion of service users in five health board areas, with the proportion reporting primary SIED use ranging from 52.5 per cent (AMBU, 3,062 individuals) to 62.7 per cent (Aneurin Bevan, 2,645 individuals). In BCU and Cardiff and Vale primary opioid use was most commonly reported, at 48.3 per cent (2,815 individuals) and 55.8 per cent (1,812 individuals) respectively.

6.5. Rates of NSP service use (per 1,000 population) and primary substance use

Given the different population sizes across the Health Boards, meaningful comparisons between areas require calculating a population based rate. European age standardised rates (EASR) allow comparison between areas where the age structure of the population may differ. EASR per 100,000 population for all users of NSPs within Health Board areas and for different categories of substances are presented in Chart 6.\(^8\) It should be noted that the rates described here are of those using NSP services, not the underlying rate of problematic substance use.

Across Wales, the EASR of NSP use was 857 per 100,000 population. Cwm Taf, AMBU and BCU have higher rates of NSP use than this national average, with 1,279, 1,138 and 941 NSP users per 100,000 population respectively. Powys teaching recorded the lowest rate of NSP access at 294 per 100,000 population.

However, population rates of NSP use by primary substance of use shows considerable variation by health board. Cwm Taf has the highest EASR of NSP use by SIED and stimulant users, with 731 and 325 per 100,000 population respectively. These rates are considerably

\(^8\) Calculated using mid-year population estimates provided by the Office for National Statistics for mid-2014 and the European Standard Population 2013
higher than the comparable national rates of 425 per 100,000 population (primary SEID users) and 84 per 100,000 population (primary stimulant users. The highest rates of NSP use by primary opioid users were found in BCU (EASR of 460 per 100,000 population) and AMBU (459 per 100,000 population); these figures compare with a EASR across Wales of 335 primary opioid users accessing NSP per 100,000 population. Chart 6 shows the EASR of primary substance users accessing NSPs in Welsh health boards.

Chart 6: European age standardised rate per 100,000 population of primary substance use by individuals accessing NSPs, by Health Board, 2013-14

As in previous sections, meaningful comparisons with the previous year can only be made using the 9,609 service users who accessed statutory/voluntary NSPs over 2014-15. The EASR of those accessing NSP across Wales in 2014-15 was 331 per 100,000, an increase of 19 per 100,000 on the period 2013-14. The EASR was almost identical for SIEDs (145 per 100,000 population in 2013-14, 146 in 2014-15) and stimulants and (26 per 100,000 population in 2013-14 rising to 28 per 100,000 population in 2014-15) and was 7 per 100,000 population for NPS in both time periods. The EASR of primary opioid users accessing NSPs in Wales was 149 per 100,000 population in 2014-15 compared with 132 per 100,000 population in 2013-14; however, as discussed in section 4.1, this difference is likely to be a result of improved recording of this specific group of service users, rather than a reflection of an actual change in
the population. Whilst overall the rates of statutory and voluntary sector NSP access for all substance categories across Wales appear to have remained stable, within specific health boards there have been some notable changes in these rates. The recorded rate of access by SIED users has fallen markedly in some health boards (down 10 per cent in Aneurin Bevan) but risen in a number of others (notably rising 20 per cent in Powys, 23 per cent in BCU and 69 per cent in Hywel Dda). EASR rates for NSP access in Wales in 2014-15 are shown by local authority quartile in Figure 2.

EASR rates for NSP access in Wales in 2014-15 are shown by local authority in Figure 2; detailed rates by substance type are shown in Table 2.

Figure 2: European age standardised rate of NSP access, all NSP users, by local authority area, Wales 2014-15

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It should be noted that the baseline EASRs for primary SIED use in these health board areas were all below the all Wales average.
7. Secondary and other substance use
This section considers evidence from the HRD regarding the use of substances by those accessing NSPs: in other words, how these substances and services are being used.

In the HRD report for 2013-14, it was noted that secondary substance use was under-reported, given both published and anecdotal evidence from services and service users on the extent of poly-drug use. Overall, use of two or more substances was only recorded for 16.4 per cent (4,142 individual service users) in 2014-15. This represents a serious data quality issue. When considering only those accessing statutory/voluntary services using the same criteria for analysis 26.7 per cent (2,555 individuals) reported secondary substance use and increase of 4.7 per cent on the previous year.

To simplify analysis of the limited data available on poly-drug use by substance type, a subset of individuals was identified who reported using two or more substances where the primary substance used was a SIED, opioid, stimulant or NPS and the second most frequently used substance also fell into one of these categories. This subset comprised 3,984 individuals. A total of 1,918 individuals (48.1 per cent) reported a second substance of use of the same category as their primary substance of use. Those poly-drug users using SIEDs were most likely to be using a second substance of the same type as their primary substance of use, with 1,612 (76.2 per cent) reporting use of two SIEDs. The comparable figures for opioids were 23.3 per cent, with 2.2 per cent of primary stimulant users and 5.6 per cent of those reporting primary NPS use. The data is presented in Table 2.

Table 2: Primary and second most frequently reported substances of use, where those substances are SIEDs, opioids, stimulants or NPS

<table>
<thead>
<tr>
<th>Primary substance of use</th>
<th>Second most frequently reported substance of use</th>
<th>SIEDs</th>
<th>Opioids</th>
<th>Stimulants</th>
<th>NPSs</th>
<th>Total</th>
</tr>
</thead>
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<td>SIEDs</td>
<td></td>
<td>1621</td>
<td>396</td>
<td>92</td>
<td>19</td>
<td>2128</td>
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<td>Opioids</td>
<td></td>
<td>337</td>
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<td>Stimulants</td>
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<td>Total</td>
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<td>1144</td>
<td>564</td>
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</tbody>
</table>

Each of these patterns of psychoactive poly-drug use carry specific risks, for example risk of overdose (poly-opioid use) and more frequent, riskier injecting (stimulant and NPS). The relatively high numbers of those reporting use of both SIEDs and opioids (733 individuals) merits further analysis.
8. Injecting history and practices
The HRD enables the capture of a range of information on injecting experience and practices of public health concern, including trends in routes of injection and direct and indirect sharing of injecting equipment that may impact on health risks such as infection with blood borne viruses (BBVs).

8.1. Injection initiation and length of time injecting
Information on date of first injection was provided by only 33.3 per cent (8,388 individuals) of those accessing NSP services. Of these, the mean length of injecting career was 7 years and 8 months. There was considerable variation in length of time injecting by primary substance of use. These differences are reflected in the numbers of users of different primary substances categorised into different bands representing the length of time injecting, as shown in Chart 7.

Of particular interest are the numbers and proportions of those categorised as ‘new initiates’; that is, those who have been injecting for less than three years. Across all those reporting date of first injecting, 37.1 per cent (3,113 individuals) reported first injection within the previous three years. However, for primary SIED injectors, the group with both the largest number and the greatest proportion of new initiates, the equivalent proportion was 50.5 per cent (2,501 individuals), whilst only 16.1 per cent (412 individuals) reporting primary opioid injecting had been using for less than three years.

This analysis provides further evidence that, as discussed in previous HRD reports, Wales has both a cohort of ageing, long term opioid users and a substantial number of SIED users who are relatively new to injecting.
Analysis of this data, including pharmacy data available for the first time, suggests additional trends that may not have been visible in previous years. Considering only those who access statutory/voluntary sites, the proportion of all service users reporting date of first injection classified as recent initiates is 29.3 per cent (1,458 of 4,985 individuals reporting injecting history); a fall on 2013-14, when the proportion was 33.1 per cent (1,600 of 4,830 reporting injecting history). However, when pharmacy NSP data are included, the proportion of recent initiates amongst 2014-15 service users reporting date of first injecting rises by 7.8 percentage points and the proportion of recent initiates is higher across all primary substance use categories. This rise is particularly striking amongst primary SIED users, where it increases from 42.4 per cent (1,142 of 2,695 SIED users reporting injecting history to statutory/voluntary services) to 50.5 per cent (2,501 of 4,953 individuals in data including pharmacy NSP). Therefore, a considerable number of relatively inexperienced SIED injectors are only in contact with pharmacy based NSP services.

Also of note when pharmacy data are included is the increase in the number of primary opioid injectors who have been injecting for less than three years. Excluding pharmacy data, recent initiates form proportionately the smallest injecting period band amongst primary opioid injectors. This is consistent with previous years, in which there is a clear increase in the number of users in each age band for this primary substance: suggesting, as mentioned, a generally aging cohort. However, when pharmacy data is included, the number of primary opioid recent initiates almost doubles from 220 to 421 individuals representing a proportionate increase from 12.3 per cent to 16.8 per cent. The possibility that a new cohort of primary opioid injectors is not in contact with no specialist NSP services is one that deserves further and urgent investigation.

8.2. Injecting routes

Injecting route was recorded for 77.8 per cent (19,600 individuals) of NSP service users. As in previous years, primary SIED users accounted for the vast majority of subcutaneous and intramuscular injecting (86.5 per cent, 438 individuals and 96.1 per cent, 3,443 individuals respectively).

In addition, and for psychoactive drugs, location of intravenous (IV) injecting site is recorded to address specific risk patterns of injecting. Sites include arms or legs, neck and femoral/groin. Overall, injecting site varied by primary substance injected, as shown in Chart 8.
The data on injecting routes are consistent with previous years in showing that primary opioid injectors are more likely than others to inject in relatively higher risk sites such as the groin and neck, with 9.4 per cent (624 individuals) reporting these injecting sites. However, this proportion represents a decrease from 13 per cent (432 individuals) from the previous year. This trend remains – although the difference is less marked – when analysis of the 2014-15 data is restricted to those accessing statutory/voluntary services only with the proportion of primary opioid users injecting in groin or neck at 11 per cent (399 individuals). The fall is mirrored in primary NPS and stimulant users. It may be, therefore, that changes in reporting injecting route reflect both a difference in practice and a difference between those who use different types of service. Further analysis is necessary to establish whether these differences are meaningful.

8.3. Blood borne viruses; risk factors: sharing and reuse of injecting equipment

Sharing injecting equipment, both directly (sharing needles and syringes) and indirectly (sharing other injecting paraphernalia) represents a clear risk for transmission of blood borne viruses and infections. Reusing one’s own injecting equipment can also result in health problems including bacterial infections and vein damage.
Data quality in relation to sharing and reuse of equipment is generally not good. Direct sharing practice was reported for only 31.3 per cent (7,820 individual) NSP service users; indirect sharing practice was reported of 30.4 per cent (7,648 individuals) and equipment reuse practice by 34.7 per cent (8,724 individuals). However, it should be noted that data quality for these measures has improved when compared directly (including only statutory/voluntary attendance) with the previous year.

Figures and proportions for direct and indirect sharing, and equipment reuse are shown in Table 2. Given the poor levels of data completion on these measure, and in light of increases in transmission of blood borne viruses including hepatitis C and HIV, rapid improvements in these data items are required to better evidence and address risky injecting practices. In addition, the data presented in Table 3 do not reflect evidence provided by Welsh NSP service users in other studies. Data from the Unlinked Anonymous Monitoring survey, an annual cross-sectional survey describing self-reported risk factors for blood borne virus infection amongst people who inject drugs accessing NSP services. For 2014, the most recent year for which data is available, direct sharing was reported by 22 per cent of respondents in Wales (34 of 158 respondents), with 41 per cent reporting either direct or indirect sharing (66 of 162 respondents).

Table 3: Self reported direct sharing of injecting equipment 2014-15

<table>
<thead>
<tr>
<th>Shared / reused:</th>
<th>Never</th>
<th>Occasionally (once month)</th>
<th>Often (once a week or more)</th>
<th>Regularly (once a day or more)</th>
<th>In last year but not currently</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct sharing</td>
<td>7,185 (91.9%)</td>
<td>141 (1.8%)</td>
<td>14 (0.2%)</td>
<td>10 (0.1%)</td>
<td>470 (6%)</td>
<td>7,820</td>
</tr>
<tr>
<td>Indirect sharing</td>
<td>6,909 (90.3%)</td>
<td>244 (3.2%)</td>
<td>32 (0.4%)</td>
<td>26 (0.3%)</td>
<td>437 (5.7%)</td>
<td>7,648</td>
</tr>
<tr>
<td>Equipment reuse</td>
<td>6,910 (79.2 %)</td>
<td>867 (9.9%)</td>
<td>201 (2.3%)</td>
<td>106 (1.2%)</td>
<td>640 (7.3%)</td>
<td>8,724</td>
</tr>
</tbody>
</table>

From the Wales data, when analysing variation by primary drug type, reported reuse of injecting equipment was substantially lower amongst SIED users, with 96.5 per cent (5,121 individuals) reporting never reusing equipment. For primary psychoactive drug injectors, the rates of those ‘never reusing injecting equipment’ was 52.4 per cent (1,789 individuals) –

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meaning that 47.6 per cent had reused injecting equipment either occasionally, often or regularly.

8.3.1. Blood borne viruses; protective factors: vaccination and testing

The reduction in transmission of blood borne viruses such as hepatitis and HIV remains one of the key rationales for engaging with people who inject drugs through NSPs. In addition to the provision of sterile injecting equipment, NSPs should provide specialist and tailored harm reduction advice, regular testing and provision of HBV vaccinations where available or referrals to specialist services that offer these services. The Harm Reduction Database allows staff in NSPs to record self-reported testing and vaccination status for hepatitis B, hepatitis C and HIV, any HBV vaccinations carried out, as well as onward referrals to specialist BBV services.

All data in this section relates only to the 9,609 individuals accessing statutory/voluntary services:

- Hepatitis B (HBV) status was recorded for 36.7 per cent in 2014-15 compared to 35.6 per cent in 2013-14.
- Hepatitis C (HCV) status was recorded for 34.2 per cent (33.7 per cent in 2013-14)
- Information on BBV testing was provided for 33 per cent of those accessing NSPs in 2014-15 and increase of 0.3 per cent on the previous year
- Data for HBV vaccination status was recorded for 37.9 per cent of those accessing statutory/voluntary NSPs in 2014-15, a decrease of 1.6 per cent on the previous year.

In light of ongoing data quality issues and given the potential impact of BBV infection on individuals, providers and the wider health service, Public Health Wales are developing a dedicated Blood Borne Virus Module on the Harm Reduction Database (HRD) Wales with the support of Welsh Government and as part of the Welsh Government Liver Disease Delivery Plan. This module can be used by all current relevant users of the HRD Wales and additional health professionals and specialist clinicians for the testing, diagnosis, treatment and outcomes of the BBVs: hepatitis C, hepatitis B and HIV. Expected implementation of the BBV module is April 2016.

8.3.2. Hepatitis B (HBV): status, testing and vaccination history

HBV testing history was recorded for 33 per cent (3,173 individuals) of NSP service users. Of these, 34.7 per cent (1,102 individuals) reported never having had a test. The proportion who had been HBV tested in the past 12 months fell slightly from 29.7 per cent in 2013-14 to 28.2 per cent (894 individuals) in 2014-15.

In relation to HBV vaccination, 33.5 per cent (3,221 individuals) provided data. SIED users were substantially less likely to report current engagement in, or completion of, a programme of

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vaccination within NSP services, with 5.8 per cent (91 individuals) of SIED injectors engaged in or completing NSP-based vaccination compared with 16.7 per cent (275 individuals) primary psychoactive substances injectors. SIED users were also considerably less likely than psychoactive drug injectors to report having completed a programme of vaccination elsewhere (801 individuals, 51.1 per cent compared with 1,110 individuals, 67.2 per cent) and more likely to refuse a vaccination when offered (311 individuals, 19.8 per cent compared with 79 individuals, 4.8 per cent). Vaccination details are reported by primary substance type in Table 4.

Table 4: Self reported Hepatitis B vaccination status by primary substance use – overall data complete for 33.5 per cent of NSP service users (statutory and voluntary NSP services only)

<table>
<thead>
<tr>
<th>Hepatitis B vaccination status</th>
<th>NPSs</th>
<th>Opioids</th>
<th>SIEDs</th>
<th>Stimulants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number for whom HBV vaccination data was recorded</td>
<td>59</td>
<td>875</td>
<td>801</td>
<td>176</td>
</tr>
<tr>
<td>Course completed elsewhere</td>
<td>64.1%</td>
<td>68.0%</td>
<td>51.1%</td>
<td>64.2%</td>
</tr>
<tr>
<td>Vaccination 1 given</td>
<td>4.3%</td>
<td>3.3%</td>
<td>1.5%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Vaccination 2 given</td>
<td>3.3%</td>
<td>3.2%</td>
<td>1.1%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Vaccination 3 given</td>
<td>4.3%</td>
<td>5.6%</td>
<td>1.7%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Vaccination 4 given</td>
<td>1.1%</td>
<td>4.6%</td>
<td>1.5%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Vaccination offered and referral for vacc made</td>
<td>10.9%</td>
<td>11.3%</td>
<td>23.3%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Vaccination offered and refused</td>
<td>12.0%</td>
<td>4.0%</td>
<td>19.8%</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

8.3.3. Hepatitis C (HCV): status and testing history
Overall, self-report data on HCV status was available for 34.2 per cent (3,283 individuals) of those accessing statutory and voluntary sector NSP services. Of these, 6.2 per cent (182 individuals) reported a positive diagnosis for HCV, a rise of 22 individuals on the previous year, when the comparable rate was 6 per cent. There were substantial differences on this measure between primary SIED injectors and those who primarily inject psychoactive substances. 0.2 per cent of primary SIED injectors reported a positive HCV diagnosis compared with 11.9 per cent (201 primary psychoactive drug injectors). A considerably higher proportion of primary SIED users (56.5 per cent, 900 individuals) also reported their HCV status as ‘unknown’ compared with primary psychoactive drug injectors (27.9 per cent, 471 individuals). These proportions have remained relatively stable year on year.
Data on HCV testing history was recorded for 30.8 per cent (2,963 individuals). Differences between primary SIED and primary psychoactive drug injectors were again substantial on a couple of measures:

- In respect of HCV testing within the previous 12 months – 16.7 per cent (252 individuals) primary SIED injectors reported having a test compared with 42.5 per cent (618 individuals) primary psychoactive drug injectors

- The proportion of primary psychoactive substance users who reported never having had an HCV test was 15 per cent (218 individuals); for primary SIED users the comparable figure was 55.6 per cent (840 individuals)
9. Service coverage and provision

It is a principle of NSP services in Wales\textsuperscript{12}, supported by UK-wide guidance\textsuperscript{13}, to provide people who inject substances with sufficient sterile injecting equipment for every injection. The term ‘coverage rate’ refers to the proportion of injecting events where sterile injecting equipment is available.

The HRD records all the equipment provided at every transaction at each NSP. The requirement for sterile injecting equipment can be calculated from NSP users’ reports of injection frequency, whilst coverage is calculated as the proportion of equipment actually provided in relation to NSP users’ requirements. Coverage analyses use syringes, including ‘all-in-one’ syringes with fixed head needles, as the basis for calculation. This avoids the double counting that can occur if a count of needles is used, as SIED injecting typically involves two needles per injection.

In previous years, we have calculated coverage by dividing the number of syringes dispensed in a given year by the recorded injection requirements of individuals registered on the HRD as accessing NSP services in that year. However, for the current period we are able to assign syringes dispensed to individuals. This means that we can relate the number of syringes used by individuals to the specific needs of these individuals by aspects such as primary substance use, gender, etc.

A further development of the HRD, as described above, is that pharmacies are now registered on the system. Data on frequency of use was not recorded (i.e. “not recorded” was selected by the provider) for 39.3 per cent (9,896 individuals) of the total number of NSP service users accessing in 2014-15, again representing a serious data quality issue. There was substantial variation in data quality by site: this data item was not recorded for 49.3 per cent of pharmacy NSP service users compared with 23.7 per cent of statutory and voluntary sector NSP service users. Given the biases this introduces into analyses in relation to year-on-year comparisons, it is not possible to provide accurate estimates of coverage across Wales.

By restricting analysis of syringes required and dispensed to those reporting their frequency of use gives us a figure of 19,600 individuals, to whom 2,709,603 syringes were dispensed to meet a requirement of 5,525,702 syringes. This suggests a coverage rate of 49 per cent across Wales. However, given the under-reporting of secondary and other drug use, including potentially injecting drug use, this figure is likely to be an overestimate of coverage and as such should not be relied upon.

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\textsuperscript{13} NICE. Needle and syringe programmes. NICE public health guidance 52. London: NICE; 2014, http://www.nice.org.uk/Guidance/PH52
Appendix 1: The Harm Reduction Database

In 2010 Public Health Wales, supported by Welsh Government, introduced the Harm Reduction Database (HRD) in all statutory and voluntary sector Needle and Syringe Programmes (NSPs; previously referred to as Needle Exchanges) across Wales.

Although NSP have been proven to be cost effective in reducing injecting related harms for people who inject drugs (PWID), including prevention of transmission of blood borne viruses, prior to the development of the HRD there was no means to audit or evaluate provision in Wales within existing systems.

The HRD is web-based, allowing NSP staff to record NSP activity for unique individuals, live at point of contact. Unique identifier information is utilised to ensure that access to NSP services remains anonymous. In order to improve the quality of services, to reduce harm and to better understand the nature and scale of injecting drug use in Wales, the data collected for individual NSP users includes:

- Demographics
- Historical and current substance use
- Health and risk behaviours including sharing and reuse of injecting equipment and blood borne virus vaccination and testing status
- Onward referral to specialist health and social care providers
- Transactions and activity including injecting equipment provided and harm reduction information and advice issued

As at 31st March 2015, the HRD web-based system was routinely utilised in 46 statutory/voluntary sites (including 5 mobile units) and 208 pharmacies.
Appendix 2: Data quality

The HRD requires staff in community, statutory, mobile and pharmacy NSPs to complete a series of fields on a web-based form at the time service users register and at every transaction. Details such as date of birth and other demographic information, substances used and related information such as frequency and route of use and risk behaviours and blood borne virus status and testing history are expected to be captured at initial registration and updated at future presentations.

Table 5 details the extent to which data was recorded across a number of demographic and substance misuse categories, by Health Board.

Table 5: Percentage of missing data variables for all NSP service users by key statistics and Health Board (The higher the proportion/percentage – the poorer the data quality)

<table>
<thead>
<tr>
<th></th>
<th>ABMU</th>
<th>Aneurin Bevan</th>
<th>BCU</th>
<th>Cardiff and Vale</th>
<th>Cwm Taf</th>
<th>Hywel Dda</th>
<th>Powys Teach.</th>
<th>WALES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number accessing</td>
<td>5836</td>
<td>4218</td>
<td>5829</td>
<td>3248</td>
<td>3760</td>
<td>1982</td>
<td>306</td>
<td>25179</td>
</tr>
<tr>
<td>No ethnicity recorded</td>
<td>40.6%</td>
<td>47.6%</td>
<td>73.6%</td>
<td>67.2%</td>
<td>39.0%</td>
<td>55.0%</td>
<td>35.6%</td>
<td>53.7%</td>
</tr>
<tr>
<td>No housing status recorded</td>
<td>47.1%</td>
<td>53.2%</td>
<td>78.4%</td>
<td>74.3%</td>
<td>42.0%</td>
<td>66.0%</td>
<td>48.0%</td>
<td>59.6%</td>
</tr>
<tr>
<td>No home postcode recorded</td>
<td>56.2%</td>
<td>56.4%</td>
<td>80.5%</td>
<td>78.0%</td>
<td>51.1%</td>
<td>70.7%</td>
<td>49.7%</td>
<td>65.0%</td>
</tr>
<tr>
<td>No date of first injecting recorded</td>
<td>54.6%</td>
<td>54.6%</td>
<td>87.0%</td>
<td>80.7%</td>
<td>56.1%</td>
<td>65.0%</td>
<td>67.6%</td>
<td>66.7%</td>
</tr>
<tr>
<td>No employment status recorded</td>
<td>42.2%</td>
<td>51.0%</td>
<td>75.9%</td>
<td>71.1%</td>
<td>40.5%</td>
<td>63.1%</td>
<td>43.1%</td>
<td>56.6%</td>
</tr>
<tr>
<td>No substance route recorded</td>
<td>20.0%</td>
<td>20.3%</td>
<td>29.8%</td>
<td>22.0%</td>
<td>19.0%</td>
<td>18.4%</td>
<td>8.2%</td>
<td>22.2%</td>
</tr>
</tbody>
</table>

Following the initial launch of the HRD in 2010, Public Health Wales has continued to liaise with NSP providers and commissioners to support accurate, timely and comprehensive information recording. This support has included additional advice and training on using the system and development of the HRD.