Harm Reduction Database Wales: Take Home Naloxone 2015-16
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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25,767
Estimated opioid users in Wales

10,492
Estimated opioid injectors in contact with NSP services in Wales

10,552
Total Take Home Naloxone kits issued in Wales (since July 2009)

4,851
Unique individuals supplied THN

3,470
THN re-supply events

1,065
Reported uses of THN during drug poisonings

11
Fatalities (where THN was known to have been used)

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*a Reading Between the Lines: The Annual Profile of Substance Misuse in Wales, Health Protection Division, Public Health Wales (2015)*

*b Harm Reduction Database Wales, Public Health Wales (2014-15)*
1 Executive Summary

The supply of ‘Take Home Naloxone’ (THN) was initiated (pilot project) in 2009 as a harm reduction tool used to prevent fatal opioid poisonings, and has since been fully implemented across all health boards in Wales. This report provides data on the training and provision of THN kits from 49 registries across Wales recorded on the Harm Reduction Database Wales (HRD) during the period 1st April 2015 to 31st March 2016. See Appendix 1 & 2 for further information and links to previous reports.

Key findings:

- Since 1st July 2009 10,552 THN kits have been issued to 4,851 unique individuals in Wales – this includes 5,918 kits to new individuals and 4,634 kits as re-supply following the use, loss, or expiry of previous kits.

- A total of 3,186 THN kits were issued (supplied and re-supplied) in Wales during 2015-16 – an increase of over 14 per cent on the previous year.

- During 2015-16, 1,058 new individuals were supplied with THN and 937 existing service users were re-supplied.

- During 2015-16 the use of THN was reported once for every nine individuals registered as a carrier of THN.

THN used in fatal/non-fatal drug poisoning events:

- Since 1st July 2009 THN has reportedly been used during 1,065 drug poisoning events.

- THN was reportedly used in 433 drug poisoning events during 2015-16. The outcome was reported for 392 of uses, of which fatalities occurred in less than 1 per cent of cases.

- In 85 per cent of cases THN was administered to a third party rather than to the owner of the kit, and 60 per cent of all reported drug poisoning events occurred within a private residence.

- Follow-on care (ambulance) was requested and provided in 63 per cent of all cases where THN was used in a drug poisoning event, representing a 5.4 percentage point increase on the previous year.

- As with previous years the demographic profile of those individuals who had used THN included; living in non-secure accommodation, poly-drug use, and having experienced at least one previous non-fatal drug poisoning.


- Of those newly issued with THN (n=1,058), 29 per cent were female and 71 per cent male.

- The mean age for new clients receiving THN was 36 years and 11 months, ages ranged from 17-70. 8 per cent of THN kits were issued to ‘young people’ (under 25 years).
• Amongst the male client group, 17 per cent were issued THN from Welsh prisons. Overall distribution from within the prison estate increased by 14 per cent from the previous year.

**Re-supply of THN:**

• There was a 53 per cent increase in kit re-supply events in Wales (n=1,378) when compared to the previous year. ‘Kit Lost’ accounted for 50 per cent of reasons for re-supply. It is not possible to evidence how many of these kits may have been used in opioid overdose events.

**THN and fatal opioid poisoning prevention training:**

• During 2015-16, 2,171 individuals in Wales were trained in the administration of THN. 56 per cent had never been trained before.

• 94 per cent of individuals accessing training were service users, with the remaining being Family / Partner / Carers or Professionals.

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**Recommendations**

1. In line with the ‘Guidance for Undertaking Fatal and Non-Fatal Drug Poisoning Reviews in Wales’ (Welsh Government, 2014), Area Planning Boards (APBs) and service providers should ensure that all relevant non-fatal poisoning review case individuals are trained and provided with THN.

2. In order to optimise distribution of THN in the community, assertive outreach methods and provision within community pharmacy NSP providers is required. Such methods would substantially increase access to THN for hard to reach groups such as young people, the homeless, Black, Asian Minority Ethnic (BAME) populations, and those not in contact with specialist services.

3. Following changes to the Human Medicines Act (Amendment) (No.3) Regulations (2015) further efforts should be focussed on the delivery of training and provision of THN to parents and wider family members, partners, carers, professionals and peers of those at risk of opioid drug poisoning.

4. In order to ensure provision is fully reflected, all instances of THN supply and re-supply should be recorded on the HRD, including kits provided to Family / Partner / Carers or Professionals. Services should ensure that all members of staff supplying THN are adequately trained in use and recording of data on the HRD, and accounts allocated to the appropriate supply base are used.

5. As of 1st October 2016 the data items *Ethnicity, Housing Status* will become mandatory fields on the HRD. This will support both data quality and compliance.
2 THN used in fatal/non-fatal drug poisoning events

THN was reported to have been used in 433 drug poisonings events Wales-wide between 1\textsuperscript{st} April 2015 and 31\textsuperscript{st} March 2016. The 433 kits were used by 283 unique individuals, 75 of whom used THN during multiple poisoning events. Whilst the rate of reported THN use has increased year on year, use has remained proportionate to the increasing number of individuals in possession of THN (see Chart 1). During 2015-16 the use of THN was reported once for every nine individuals registered as a carrier of THN.

![Chart 1: Annual number of THN kits reportedly used in opioid poisoning events and the cumulative total of unique individuals issued with THN by year 2009-2016](image)

### 2.1 Outcome of poisoning

Poisoning event outcome was reported for 90.5 per cent (n=392) of cases where THN was used. Death occurred in less than 1 per cent of cases in 2015-16. All kits used during these fatal poisonings were used within their expiry time period\(^1\).

\(^1\) THN has an expiration period of approximately 24 months post-manufacture
2.2 The recipient of THN

In 85 per cent (n=368) of reported cases THN was administered to a third party (friend, partner, family member). Therefore, where issued, THN was administered to the prescribed owner by another person in 15 per cent (n=65) of cases.

2.3 Location of opioid poisoning events

In order to reduce future fatal and non-fatal poisonings it is important to recognise and identify the common location of opioid poisoning events to better identify appropriate interventions and targeting of services. Chart 2 indicates the location in which all 433 kits of THN were administered during drug poisoning events. In line with previous years the majority, 60.1 per cent (n=263), of all reported poisonings occurred within a private residence.

![Chart 2: Location of opioid poisoning events 2015-16](image)

Source: Harm Reduction Database (HRD), 2016
2.4 Follow-on care

Of the 433 events where THN was used during a drug poisoning, paramedic teams were called in 63.3 per cent (n=274) of cases. This is a slight increase on the previous year where in 2014-15 access to follow-on care was sought in only 57.6 per cent of drug poisoning cases. Where paramedic assistance was requested, 58 per cent (n=159) of individuals were taken to hospital, and the remaining 42 per cent (n=115) refused hospital admission.

2.5 Demographics

The following data refers to the unique individuals (n=283) whose THN kit was used during fatal/non-fatal opioid poisoning events. As indicated in Section 3.2, 85 percent of THN kits used in a poisoning event were administered to a third party. By understanding the demographic profile of those individuals whose kit has been used services are better equipped in identifying potential ‘first-responders’ who may prevent future fatal drug poisonings.

Gender profile

34.3 per cent (n=97) were female, and 65.7 per cent (n=186) male. This differs from the gender profile found in those presenting as new clients (see section 3.3 – Demographics), with greater representation of female clients reporting the use of THN.

Age profile

The mean age of those reporting kit use was 36 years and 5 months, and ranged from 19-57 years. The most common age group was 30-34 years, accounting for 23.3 per cent (n=66) of all individuals. 6 per cent (n=17) of individuals were under the age of 25.

Ethnicity

Ethnicity was reported by 75.6 per cent of individuals who had used THN during a drug poisoning event. 94.4 per cent (n=202) were White Welsh or White British. For the remaining 5.6 per cent (n=12) ethnic groups included Black British, Asian: Other, Mixed: White & Asian, Mixed: Other, and White Other and White Irish.

Housing status

Housing status was recorded for 66 per cent of individuals who had used THN during a drug poisoning event. Over 52 per cent (n=96) of individuals lived in secure accommodation (see Table 1). The remaining 48 per cent were reported as living in non-secure / non fixed accommodation.
Table 1: Self-reported housing status of unique individuals who used THN during fatal/non-fatal opioid poisonings (1st April 2015 – 31st March 2016)

<table>
<thead>
<tr>
<th>Housing Status</th>
<th>Total</th>
<th>% by housing type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>2</td>
<td>52% in secure accommodation</td>
</tr>
<tr>
<td>Private rented</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Council rented</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Housing Association rented</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Live with family</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Hostel (inc probation)</td>
<td>22</td>
<td>14% in non-secure accommodation</td>
</tr>
<tr>
<td>Live with friends</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>NFA – Friends / Relatives House</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>NFA – Mixed</td>
<td>22</td>
<td>34% with no fixed accommodation</td>
</tr>
<tr>
<td>NFA – Street Homeless / Squat</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

As with previous reports\(^2\) an increased representation of individuals living in non-secure accommodation was observed when use of THN is reported compared to the number of new clients issued with kits (see section 3.3 – Demographics of new clients). The last report indicated that this trend may reflect the level of training, and exposure to THN awareness raising materials found within non-secure accommodation environments (such as hostels) where clients are routinely encouraged to present for re-supply especially in instances where a drug poisoning and use of kit is observed. Further engagement should be carried out to encourage all individuals supplied with THN to present for re-supply following use. Instances should be supported by local review and support procedures developed in line with Welsh Government’s ‘Guidance for Undertaking Fatal and Non-Fatal Drug Poisoning Reviews in Wales’\(^3\)


Risk behaviour & non-fatal opioid poisoning history

Poly-drug use was reported as the primary risk factor by 79.1 per cent (n=159) of individuals who used THN during a drug poisoning event. Recent release from prison was reported as the primary risk factor by 13.4 per cent of individuals. Compared with the overall demographic profile of THN distribution (see section 3.3 – Demographics), representation of poly-drug use as primary risk factor is greater amongst those clients reporting the use of THN.

Self-reported lifetime history of non-fatal opioid poisoning was reported by 63.9 per cent (n=154) of individuals who had used THN. Comparisons with the overall profile of individuals issued with THN (see section 3.3 – Demographics) shows that those who had experienced a non-fatal opioid poisoning prior to being issued THN were more likely to use THN. Of those who had experienced lifetime history of non-fatal opioid poisoning (n=154), 31.2 per cent (n=48) had experienced 2 or more poisonings within the last year.

Recommendation 1

Following publication of new ‘Guidance for Undertaking Fatal and Non-Fatal Drug Poisoning Reviews in Wales’ (Welsh Government, 2014), APBs and service providers should ensure that all non-fatal opioid poisoning review cases where the individuals is identified as an opioid user are trained and provided with THN.
3 THN distribution Wales-wide

3.1 Number of THN kits issued

From 1st July 2009 until 31st March 2016, 10,552 THN kits were issued Wales wide. Chart 3 indicates this level of kit distribution to new clients compared to re-supplies. Amendments to the HRD since 31st March 2013 have enabled the recording of multiple kit distribution to individuals presenting as either new clients or for re-supply of THN. The number of kits issued (new clients and re-supply) within Wales in 2015-16 increased by 14.4 per cent on the previous year.

Whilst the provision of THN kits increased again in 2015-16 it is worth noting that the level of growth was at a lower rate than that observed in the previous year (54.6%). This may be explained by the transition from standard ‘Welsh Kit’ to Prenoxad from April 2015 within the ABMU APB region. In previous years ABMU has been one of the highest distributing APB regions, with over 1,300 kits supplied in 2014-15. During 2015-16 the number of THN kits supplied within ABMU region fell by 30.5 per cent to 916, whereas in comparison to the previous year the supply of kits had nearly doubled. Typical provision of THN within this region prior to April 2015 included the supply of multiple ‘Welsh Kits’ to ensure availability of additional doses for use where required. The availability of five doses found within the Prenoxad prefilled syringe has since modified such practice.

![Chart 3: Total number of THN kits issued and re-supplied in Wales by year 2009-2016](image)

Source: Harm Reduction Database (HRD), 2016
The remainder of this report will focus upon the individuals to whom THN was supplied and the events in which THN was re-supplied.

### 3.2 New clients issued THN (2015-16)

In response to a public consultation undertaken by the Medicines and Healthcare Products Regulatory Agency (MHRA) in 2014 and ACMD’s recommendations a legislative change was passed at the beginning of October 2015 to ensure THN is more widely available. As such THN can now be supplied by services commissioned in the provision of drug treatment services provided by, on behalf of or under arrangements made by an NHS body; a local authority; or Public Health Agency.

The number of new unique individuals supplied with THN in Wales increased in 2015-16 by 23.6 per cent compared to the previous year. Since the introduction of THN in Wales in July 2009, over 4,850 unique individuals have received THN (see Chart 4 for figures).

![Chart 4: Number of new unique individuals issued THN kits in Wales by year 2009-2016](source)

Estimates of problem drug use indicate that there are approximately 25,767 opioid users in Wales (including all methods of use i.e. smoking, injecting etc.). The HRD Wales: Needle and Syringe Programme (NSP) module indicates that for 2014-15 there were 10,492 unique individuals accessing specialist and community

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6. Reading Between the Lines: The Annual Profile of Substance Misuse in Wales, Health Protection Division, Public Health Wales (2015)
pharmacy NSPs where any use of an opioid was reported. This highlights that saturation of THN amongst the opioid using population has yet to be achieved.

**Recommendation 2**

In order to ensure wider distribution of THN in the community, assertive outreach methods and provision within community pharmacy NSP providers is required. Such methods would substantially increase access to THN for hard to reach groups such as young people, the homeless, Black, Asian and Minority Ethnic (BAME) populations, and those not in contact with specialist services.

In addition to improving the supply base in which THN could be obtained, the amendments in legislation also provide opportunity for a wider range of individuals to receive kits. Prior to October 2015, family / partner / carers or professionals working with those at risk of an opioid poisoning could only be provided THN with the consent of a specific individual at risk. Under the new amendments THN may now be supplied to anyone in the course of lawful drug treatment services where required for the purpose of saving life in an emergency. This would include family / partner / carers likely to be at hand in the event of an opioid poisoning, or professional working in a hostel or project where opioid users may gather and may be at risk of overdose.

Of those new unique individuals supplied with THN, 10.6 per cent (n=113) were listed as family / partner / carers or professionals. Further analysis identified that all but two instances occurred following 1st October 2015 i.e. post amendment of legislation. In the years preceding 2015-16 only 11 cases of THN supply to family / partner / carers or professionals was recorded on the HRD. This provides early indication of the effectiveness legislative change has upon broadening the distribution of THN.

**Recommendation 3**

Following the changes to the Human Medicines Act (Amendment) (No.3) Regulations (2015) further emphasis should be based upon the delivery of training and provision of THN to professionals, peers, and the family members of those at risk and the provision of THN. Where training and/or provision is provided service providers should ensure training completion logs are recorded as evidence on the HRD.
3.3 Demographics of new clients

Gender profile:

Of the 1,058 unique individuals newly issued with THN, 28.6 per cent were female (n=303) and 71.4 per cent male (n=755).

Age profile

The mean age for new clients receiving THN was 36 years and 11 months, where ages ranged from 17-70 years. The most common age group, 30-34 years, accounted for 22.3 per cent (n=236) of individuals. See Chart 5 for age/gender differences.

Young people: Those under 25 years of age accounted for 7.8 per cent of the total issued with THN. There were six individuals aged 18 to 19 years, and a further 73 aged 20-24 years. Less than 1 per cent of individuals supplied with THN were under the age of 18 years. HRD: Needle and Syringe Programme data (2015) currently indicates less than 1 per cent of unique individuals accessing Welsh NSP services and reporting the use of opioids as being under the age of 18 years. Commissioners and service providers should be aware that this is not representative of the number of young people using opioids as it does not account for those not in touch with services and accessing NSP equipment via secondary sources.

Older people: Those aged 50+ years accounted for 9.8 per cent (n=104) of the overall population. Less than 5 per cent individuals were aged 60 or above.

Chart 5: Age and gender profile of new unique individuals issued THN across Wales 2015-16
Ethnicity

Where reported, 90.4 per cent (n=348) of individuals issued with THN were White Welsh or White British. Of the remaining 9.6 per cent (n=37) the largest group (n=16) were recorded as White Eastern European, or White Other. Commissioners and service providers should be aware that these figures only represent those individuals accessing THN services only and not the demographic population of opioid users as a whole. As such considerations should be made surrounding accessibility and potential barriers for ethnic and hard to reach groups in accessing current THN services, including training.

Housing status

Housing status has implications for an injecting drug user in relation to the amount of help and assistance available during the event of a drug poisoning and potential access barriers to emergency services. For those new individuals issued with THN in 2015-16 housing status was recorded for 33.6 per cent of cases (n=356), the detail of which is presented in Table 2. Whilst the majority of individuals, 62.3 per cent, reported living within secure accommodation, over 37.4 percent reported having no fixed accommodation and as such were likely to experience barriers in obtaining rapid medical support in the event of an emergency. Furthermore, additional support and engagement will be required to such individuals in order to ensure regular re-supply following use or in the event of kit loss/expiry.

Table 2: Self-reported housing status of new unique individuals issued THN (2015-16)

<table>
<thead>
<tr>
<th>Housing Status</th>
<th>Total</th>
<th>% by housing type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>5</td>
<td>62.3% in secure accommodation</td>
</tr>
<tr>
<td>Private rented</td>
<td>69</td>
<td></td>
</tr>
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<td>Council rented</td>
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<td></td>
</tr>
<tr>
<td>Housing Association rented</td>
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<td></td>
</tr>
<tr>
<td>Live with family</td>
<td>56</td>
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<td>B &amp; B</td>
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<td>10.4% in non-secure accommodation</td>
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<td>Hostel (inc probation)</td>
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<td>Live with friends</td>
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<tr>
<td>NFA – Friends / Relatives House</td>
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<td>27.3% with no-fixed accommodation</td>
</tr>
<tr>
<td>NFA – Mixed</td>
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<td></td>
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<tr>
<td>NFA – Street Homeless / Squat</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>
Risk behaviour

Risk behaviour was recorded for 65.9 per cent (n=623) of new individuals identified as ‘person at risk’ (n=945). Amongst those new unique individuals who received THN, the majority, 56.5 per cent, reported poly-drug use as their primary risk behaviour (see Chart 6).

Chart 6: Primary risk behaviour of new unique individuals prior to receiving THN 2015-16

History of non-fatal poisoning

For those new individuals receiving THN and identified as a ‘person at risk’ history of non-fatal poisoning was recorded in 81.2 per cent of cases (n=767). 43.3 per cent (n=332) reported at least one previous non-fatal opioid poisoning prior to issue. Of which 76.5 per cent (n=254) were male, mean age was 36 years and 7 months, 92.4 per cent were white British/Welsh, and 84.9 per cent reported current opioid use. Chart 7 indicates the frequency of non-fatal opioid poisonings amongst all unique individuals prior to receiving THN.
Chart 7: Frequency of self-reported non-fatal opioid poisoning (NFP) prior to issue of THN 2015-16
3.4 New clients issued THN by APB

The following section explores THN distribution by Substance Misuse Area Planning Board (APB). Comparisons between annual APB activity have been made using European Age Standardised Rate per 100,000 population (see Table 3 & Chart 8).

In order to adjust for geographic population differences in problematic opioid users, crude rates per 1000 population of new unique individuals issued with THN have also been calculated using PDU estimate for each APB (see Chart 9). Both analyses indicate a great degree of geographic variance in the supply of THN to new individuals throughout Wales.

Table 3: New Unique individuals (UIs) trained and issued with THN by Area Planning Board area, European Age Standardised Rate (EASR) per 100,000 population

<table>
<thead>
<tr>
<th>Area</th>
<th>UIs Issued THN 2013-14</th>
<th>Mid-Year Population (2013)a</th>
<th>EASR Rate Per 100,000 Population</th>
<th>UIs Issued THN 2014-15</th>
<th>Mid-Year Population (2014)b</th>
<th>EASR Rate Per 100,000 Population</th>
<th>UIs Issued THN 2015-16</th>
<th>Mid-Year Population (2015)c</th>
<th>EASR Rate Per 100,000 Population</th>
<th>Change in Rate Per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABMU</td>
<td>196</td>
<td>520,710</td>
<td>38.70</td>
<td>321</td>
<td>523,001</td>
<td>62.92</td>
<td>305</td>
<td>525,466</td>
<td>61.01</td>
<td>-1.91</td>
</tr>
<tr>
<td>Aneurin Bevan</td>
<td>147</td>
<td>579,101</td>
<td>27.20</td>
<td>116</td>
<td>580,401</td>
<td>21.36</td>
<td>113</td>
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<td>BCU</td>
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<td>694,473</td>
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<td>2.47</td>
</tr>
<tr>
<td>Cardiff and Vale</td>
<td>203</td>
<td>478,869</td>
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<td>185</td>
<td>481,979</td>
<td>37.99</td>
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<td>484,752</td>
<td>70.01</td>
<td>32.02</td>
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<td>Cwm Taf</td>
<td>57</td>
<td>295,135</td>
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<td>29</td>
<td>295,953</td>
<td>10.16</td>
<td>100</td>
<td>296,735</td>
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<td>25.17</td>
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<td>Hywel Dda</td>
<td>79</td>
<td>383,906</td>
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<td>68</td>
<td>383,989</td>
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<td>69</td>
<td>383,229</td>
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<td>0.39</td>
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<tr>
<td>Wales</td>
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<td>29.70</td>
<td>1058</td>
<td>3,099,086</td>
<td>37.18</td>
<td>7.48</td>
</tr>
</tbody>
</table>

a, b, c Calculated using on mid year population estimates (ONS, 2013-15)

7 Reading Between the Lines: The Annual Profile of Substance Misuse in Wales, Health Protection Division, Public Health Wales (2015)
Chart 8: New unique individuals issued THN by Area Planning Board (APB), European Age Standardised Rate per 100,000 population

Chart 9: New unique individuals issued THN by Area Planning Board (APB), Crude Rate per 1000 population of PDU Estimate

Source: Harm Reduction Database (HRD), 2016
3.5 Re-supply of THN – any reason

In addition to the supply of THN to new individuals, 1,378 re-supply events took place across Wales from 1st April 2015 to 31st March 2016 involving 937 unique individuals. 72.5 per cent were male (n=679), mean age; 35 years and 8 months, 6.3 per cent (n=59) were aged under 25 years (none younger than 18 years), and of those reporting their ethnicity, 93.9 per cent (n=705) were White Welsh or White British.

Since implementation of the THN pilot in Wales, re-supply of THN has increased annually (see Chart 10). The number of re-supply events for 2015-16 was 52.9 per cent greater than in the previous year.

![Chart 10: Number of re-supply events across Wales by year 2009-2016](source: Harm Reduction Database (HRD), 2016)

Of those unique individuals whom were re-supplied, Chart 11 indicates the number of individuals who were re-supplied THN throughout 2015-16 on multiple occasions (n=253) for any reason.
Chart 11: Number of unique individuals who were re-supplied THN on multiple occasions for any reason 2015-16

Source: Harm Reduction Database (HRD), 2016
3.6 Reasons for re-supply

Reason for re-supply is indicated in Chart 12 for all 1,378 re-supply events that took place across Wales between 1st April 2015 and 31st March 2016. As indicated ‘Kit Loss’ represented the largest proportion of reasons presented for re-supply. Due to the self-report nature of this question it is currently not possible to evidence how many of these kits may have been used in opioid overdose events and not reported as such. As such this data should be treated with caution and the 31% of kits reportedly used in drug poisoning events represents the minimum figure.

Chart 12: Reasons for re-supply of THN across Wales (1st April 2015 – 31st March 2016)

Since implementation of THN in Wales the number of re-supply events where ‘Kit Loss’ was reported has increased (see Chart 3). Conversely the number of individuals returning to replace an ‘Out of Date’ kit has declined and ‘Use for Overdose’ over the last 4 years have remained relatively consistent. Service providers should continue to work with those returning for re-supply in order to encourage and promote open discussion around use of THN.
Chart 13: Proportion of Reported Reasons for THN Re-supply by Year of Re-supply

Source: Harm Reduction Database (HRD), 2016
3.7 Re-supply of THN by APB

Similarly, to ‘Section 4.4 – New Clients Issued THN by APB’, comparisons between APB re-supply activity have been made using European Age Standardised Rate per 100,000 population. For the majority of APBs an increase in annual THN re-supply can be observed (see Table 4 & Chart 14), however, much like the supply of THN to new individuals geographic variance can be observed in re-supply rates across Wales.

Table 4: Number of THN re-supply events by by Area Planning Board area, European Age Standardised Rate (EASR) per 100,000 population

<table>
<thead>
<tr>
<th>Area Planning Board area</th>
<th>Ui's Issued THN 2013-14</th>
<th>Mid-Year Population (2013)</th>
<th>EASR Rate Per 100,000 Population</th>
<th>Ui's Issued THN 2014-15</th>
<th>Mid-Year Population (2014)</th>
<th>EASR Rate Per 100,000 Population</th>
<th>Ui's Issued THN 2015-16</th>
<th>Mid-Year Population (2015)</th>
<th>EASR Rate Per 100,000 Population</th>
<th>Change in Rate Per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABMU</td>
<td>164</td>
<td>520,710</td>
<td>31.69</td>
<td>411</td>
<td>523,001</td>
<td>80.14</td>
<td>478</td>
<td>525,466</td>
<td>95.22</td>
<td>15.08</td>
</tr>
<tr>
<td>Aneurin Bevan</td>
<td>81</td>
<td>579,101</td>
<td>15.34</td>
<td>139</td>
<td>580,401</td>
<td>26.27</td>
<td>148</td>
<td>581,789</td>
<td>27.32</td>
<td>1.05</td>
</tr>
<tr>
<td>BCU</td>
<td>106</td>
<td>691,986</td>
<td>17.60</td>
<td>89</td>
<td>694,038</td>
<td>14.63</td>
<td>67</td>
<td>694,473</td>
<td>10.89</td>
<td>-3.74</td>
</tr>
<tr>
<td>Cardiff and Vale</td>
<td>117</td>
<td>478,869</td>
<td>22.46</td>
<td>196</td>
<td>481,979</td>
<td>38.54</td>
<td>482</td>
<td>484,752</td>
<td>98.79</td>
<td>60.25</td>
</tr>
<tr>
<td>Cwm Taf</td>
<td>39</td>
<td>295,135</td>
<td>13.46</td>
<td>19</td>
<td>295,953</td>
<td>6.81</td>
<td>120</td>
<td>296,735</td>
<td>42.37</td>
<td>35.56</td>
</tr>
<tr>
<td>Powys Teaching</td>
<td>4</td>
<td>132,705</td>
<td>4.32</td>
<td>7</td>
<td>132,675</td>
<td>7.01</td>
<td>6</td>
<td>132,642</td>
<td>6.69</td>
<td>-0.32</td>
</tr>
<tr>
<td>Wales</td>
<td>538</td>
<td>3,082,412</td>
<td>18.68</td>
<td>907</td>
<td>3,092,036</td>
<td>31.59</td>
<td>1378</td>
<td>3,099,086</td>
<td>48.80</td>
<td>17.21</td>
</tr>
</tbody>
</table>

a, b, c Calculated using on mid year population estimates (ONS, 2013-15)

Rates in re-supply were also calculated as a proportion of those individuals issued with THN from within each APB (see Chart 15). This continues to highlight a variance in the level of re-supply amongst Health Board areas in Wales.
Chart 14: THN re-supply events by Area Planning Board (APB) area, European Age Standardised Rate per 100,000 population

Chart 15: Proportion of re-supply events compared to the number of new unique individuals issued with THN, by Area Planning Board and by Year
4 THN distribution - Prison vs. Community

Following release from prison, opioid users are at increased risk of drug poisoning. Currently there are five male-only prisons located within Wales and no female-only prisons. Therefore, data on female clients has been excluded from comparisons within this section.

Since its implementation in Wales in 2009, THN has been supplied to either new clients or as a re-supply in 1,019 instances. During 2015-16, 17 per cent (n=146) of male unique individuals were issued with THN on release from prison. When compared to national APB provision, prisons appear to be amongst the highest distributors of THN nationally (see Chart 16). The issue of THN to new individuals represents 44.2 per cent of prison based supplies, an increase of 14 per cent on the previous year (see Chart 17 & Table 5).

![Chart 16: Comparisons of male THN distribution between APBs and Prison (New Clients)](image-url)
Chart 17: Comparisons between community and prisons of male THN distribution by year

Table 5: Comparisons of THN distribution between prison sites 2015-16

<table>
<thead>
<tr>
<th></th>
<th>Unique Clients supplied THN</th>
<th>New Clients issued with THN</th>
<th>Number of subsequent Re-Supplies</th>
<th>Total Supply Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMP Cardiff</td>
<td>129</td>
<td>59</td>
<td>93</td>
<td>152</td>
</tr>
<tr>
<td>HMP Parc</td>
<td>36</td>
<td>23</td>
<td>14</td>
<td>37</td>
</tr>
<tr>
<td>HMP Swansea</td>
<td>111</td>
<td>64</td>
<td>77</td>
<td>141</td>
</tr>
<tr>
<td>Grand Total</td>
<td>276</td>
<td>146</td>
<td>184</td>
<td>330</td>
</tr>
</tbody>
</table>
5 THN & fatal poisoning prevention training

Since 1st July 2009, 6,154 unique individuals have been trained in the administration of THN and fatal poisoning prevention. These individuals include service users, their families / partners / carers, and professionals. Chart 18 indicates an increase of 25.1 per cent in the number of unique individuals newly trained in the administration of THN and fatal poisoning prevention in 2015-16 than in the previous year. The number of individuals presenting for refresher training in 2015-16 nearly doubled on the previous year.

![Chart 18: Number of unique individuals in Wales trained in the administration of THN and the prevention of fatal poisoning by year 2009-2016](source: Harm Reduction Database (HRD), 2016)

Training requirements indicate that individuals provided with THN should complete follow-up training on an annual basis to ensure maintained knowledge of THN administration and fatal poisoning prevention. Current records on the HRD indicate that 3,653 service users who have been trained since implementation have not received follow-up training.

In addition, of those attending training 2015-16 approximately 6 per cent of individuals were registered as family / partner / carers or professionals working with those at risk of an opioid poisoning.
6 Data Quality

At present, demographic information gathered is incomplete across all Substance Misuse Area Planning Boards (APBs). Table 6 provides the data completion rates across all seven APBs for demographic fields during the period 1st April 2015 – 31st March 2016. For all other demographic fields and data items the HRD has been configured to impose mandatory data recording prior to the completion of subsequent sections of the database.

Since the 2014-15 reporting period data quality has declined substantially across all APBs for non-mandated data items. This is likely to have resulted following the amendments made to the Human Medicines Act (Amendment) (No.3) Regulations (2015) which were introduced in October 2015. The introduction of which has substantially increased the number of professionals eligible to provide THN and as such those responsible for collecting data in relation to its provision.

Table 6: Percentage of completed demographic data for unique individuals supplied THN (N=1853) by APB (1st April 2015 – 31st March 2016)

<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 Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>60%</td>
<td>69%</td>
<td>54%</td>
<td>52%</td>
<td>64%</td>
<td>49%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>(n=332)</td>
<td>(n=155)</td>
<td>(n=92)</td>
<td>(n=304)</td>
<td>(n=108)</td>
<td>(n=59)</td>
<td>(n=5)</td>
</tr>
<tr>
<td>Housing Status</td>
<td>53%</td>
<td>60%</td>
<td>47%</td>
<td>48%</td>
<td>56%</td>
<td>28%</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>(n=294)</td>
<td>(n=138)</td>
<td>(n=80)</td>
<td>(n=282)</td>
<td>(n=94)</td>
<td>(n=34)</td>
<td>(n=5)</td>
</tr>
<tr>
<td>Risk Behaviour</td>
<td>61%</td>
<td>74%</td>
<td>90%</td>
<td>64%</td>
<td>61%</td>
<td>67%</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>(n=336)</td>
<td>(n=172)</td>
<td>(n=154)</td>
<td>(n=380)</td>
<td>(n=102)</td>
<td>(n=81)</td>
<td>(n=5)</td>
</tr>
<tr>
<td>Non-Fatal Poisoning (Overdose) History</td>
<td>70%</td>
<td>84%</td>
<td>93%</td>
<td>78%</td>
<td>80%</td>
<td>97%</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>(n=389)</td>
<td>(n=194)</td>
<td>(n=160)</td>
<td>(n=460)</td>
<td>(n=135)</td>
<td>(n=117)</td>
<td>(n=10)</td>
</tr>
</tbody>
</table>

Recommendation 4

In order to ensure provision is fully reflected all instances of THN supply and re-supply should be recorded on the HRD, including kits provided to Family / Partner / Carers or Professionals. Services should ensure that all members of staff supplying THN are adequately trained in use and recording of data on the HRD, and accounts allocated to the appropriate supply base are used.

Recommendation 5

As of 1st October 2016 both the data items Ethnicity, Housing Status will become mandatory fields on the HRD. This will support both data quality and compliance.
7 Appendix I: Background

In July 2009 the Take Home Naloxone (THN) pilot project was launched by Welsh Government (WG) in selected areas of Wales. The key aim of the project was to reduce drug-related deaths in Wales. In addition, the project aimed to promote harm reduction and to improve the health and social wellbeing of drug users. The evaluation report is available at:

http://wales.gov.uk/about/aboutresearch/social/latestresearch/naloxoneproject/?lang=en

Full national implementation of THN projects throughout Wales was approved by WG in May 2011. Full reports indicating the provision of THN throughout Wales from 1st July 2009 – 31st March 2015 can be obtained from:

www.publichealthwales.org/substancemisuse

7.1 What is THN?

Naloxone is a competitive opioid antagonist and has been commonly named a ‘Heroin Antidote’. It works by temporarily binding to opioid receptors in the brain and body and counteracting the effects of opioids. This has been proven to bring a patient experiencing poisoning through opioid use to consciousness in minutes following administration, thus restoring breathing and preventing fatal poisoning. The effects of Naloxone last approximately 20 minutes following administration and follow-on care is vital to ensure the prevention of subsequent poisoning. What Naloxone does is provide time prior to the arrival of emergency services and follow-on care.

Further information and publications available at: www.naloxonesaveslives.co.uk.

7.2 Harm Reduction Database Wales (HRD)

HRD Wales is a web-based data collection system used to record a range of activity related to harm reduction interventions, including needle and syringe provision and reduction of opioid deaths through THN.

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. Details surrounding the type of information recorded are outlined in Appendix I.
### 7.3 Data definition

This report details the THN activity data recorded on the HRD from 1\textsuperscript{st} April 2014 until 31\textsuperscript{st} March 2015. During this time period THN training and distribution was recorded on the HRD by 49 registries throughout Wales. This includes statutory/voluntary substance misuse services, homelessness hostels, and public/private sector prisons (see Table 7 for details).

**Table 7: List of sites where THN training and/or supply has been recorded since 1\textsuperscript{st} April 2015 – 31\textsuperscript{st} March 2016**

<table>
<thead>
<tr>
<th>ABMU</th>
<th>GDAS – Torfaen</th>
<th>Cwm Taf</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDAT - Bridgend</td>
<td>GDAS - Newport</td>
<td>CDAT – Merthyr Tydfil</td>
</tr>
<tr>
<td>CDAT - Swansea</td>
<td>GSSMS</td>
<td>CDAT – Mountain Ash</td>
</tr>
<tr>
<td>DASH</td>
<td></td>
<td>CDAT - Pontypridd</td>
</tr>
<tr>
<td>Drugaid - Swansea</td>
<td>BCU</td>
<td>IOIS – Merthyr Tydfil</td>
</tr>
<tr>
<td>HMP Parc</td>
<td>CDAT – Mobile Unit (x 3)</td>
<td>Drugaid – Merthyr Tydfil</td>
</tr>
<tr>
<td>HMP Swansea</td>
<td>CDAT – Rhyl</td>
<td>RISMS</td>
</tr>
<tr>
<td>IOIS – Bridgend</td>
<td>CDAT – Shotton</td>
<td>TEDS</td>
</tr>
<tr>
<td>IOIS - Neath</td>
<td>CDAT - Wrexham</td>
<td></td>
</tr>
<tr>
<td>IOIS - Swansea</td>
<td></td>
<td>Hywel Dda</td>
</tr>
<tr>
<td>WCADA – Bridgend</td>
<td><strong>Cardiff and Vale</strong></td>
<td>CDAT – Aberystwyth</td>
</tr>
<tr>
<td>WCADA - Neath</td>
<td>CAU – Barry</td>
<td>CDAT – Carmarthen</td>
</tr>
<tr>
<td>WCADA - Port Talbot</td>
<td>CAU – Cardiff</td>
<td>CDAT – Pembroke Dock</td>
</tr>
<tr>
<td>WCADA - Swansea</td>
<td>IOIS – Cardiff and Vale</td>
<td>DDAS - Carmarthenshire</td>
</tr>
<tr>
<td></td>
<td>HMP Cardiff</td>
<td></td>
</tr>
<tr>
<td><strong>Aneurin Bevan</strong></td>
<td>The Huggard</td>
<td><strong>Powys Teaching</strong></td>
</tr>
<tr>
<td>GDAS – Blackwood</td>
<td>Taith – Barry</td>
<td>Kaleidoscope – Brecon</td>
</tr>
<tr>
<td>GDAS – Blaenau Gwent</td>
<td>Taith – Cardiff</td>
<td>Kaleidoscope – Newtown</td>
</tr>
<tr>
<td>GDAS – Caerphilly</td>
<td>Wallich Hostel</td>
<td>Kaleidoscope – Welshpool</td>
</tr>
<tr>
<td>GDAS – Monmouthshire</td>
<td></td>
<td>Kaleidoscope – Ystradgynlais</td>
</tr>
</tbody>
</table>
Data relating to re-supply and poisonings

The data contained within the subsequent section 3 - THN used in fatal/non-fatal opioid poisoning events reflects only the information provided by those individuals who have returned for THN re-supply. Currently there is no method of recording data relating to the use of THN should the client not present for re-supply.
Appendix II: Data recorded on HRD – Naloxone

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.