



# PHARMACY NEEDLE EXCHANGE PROGRAMME

## Review of Performance Indicators

**DRUG INSIGHTS REPORT 4**

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National Social Inclusion Office,  
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# FOREWORD

## Joe Doyle, National Lead, HSE Social Inclusion

I am very pleased to be able to welcome the fourth Drug Insights Report from colleagues in the National Social Inclusion Office entitled, 'Pharmacy Needle Exchange Programme - Review of Performance Indicators'. This programme has been an important element of the HSE harm reduction response to the problems associated with injecting drug use.

A partnership initiative between the Elton John AIDS Foundation, the Irish Pharmacy Union, and the HSE commenced in 2011, providing 65 new locations nationally. At this time, there were limited treatment services in regions outside the metropolitan areas. The Community Pharmacy Needle Exchange Programme provided a real link for people in those areas who were injecting drugs with health interventions, allowing them to access information about services and the provision of sterile injecting equipment. It was a significant additional dimension to the work of the existing services, aimed at preventing the spread of Blood-borne Viruses (BBV) and this further enabled an increase in opportunities to encourage a high-risk group of people to further engage with treatment services. It was also a great example of how the statutory sector can work with the voluntary and private sector to impact in a significant way on a public health threat, while aligning to strategic priorities. This new partnership enabled us to implement actions in a targeted way (using an internationally recognised effective method) to reduce drug injecting and an effective public health intervention which considerably prevents the spread of HIV and hepatitis C.

I would like to extend my thanks to every individual and organisation involved in Pharmacy Needle Exchange Programme and note special thanks to Dr Denis O'Driscoll, Norma Harnedy, Tim Bingham, and Rory Keane, the HSE Addiction Service Manager in CHO Mid-West who enabled the programme to have a national geographical impact.

It is encouraging to see that the Key Performance Indicators (KPIs) for the programme have been utilised to enable the production of this report. As HSE Social Inclusion Lead, I am aware of the importance of appropriate data recording and reporting to ensure that our services operate to the highest level and are underpinned with a strong evidence base. The fact that KPIs need to be reviewed and perhaps reformatted is also important to highlight given the fact that drug trends change and evolve over time. Our opioid using population is aging, treatment services have expanded and other drugs such as 'crack' cocaine have emerged as a problem within this population. As per the recommendations, and with due consideration to the current quarterly monitoring of KPIs, a more in depth review of the HSE Pharmacy Needle Exchange Programme needs to be conducted periodically to obtain feedback from participating pharmacies and people who inject drugs alike, in order to ensure maximum impact.

Congratulations to everyone involved and I look forward to future work on the implementation of the recommendations contained within the report.



# PHARMACY NEEDLE EXCHANGE PROGRAMME REVIEW OF PERFORMANCE INDICATORS



## DRUG INSIGHTS REPORT 4

### WHAT IS A PHARMACY NEEDLE EXCHANGE PROGRAMME?

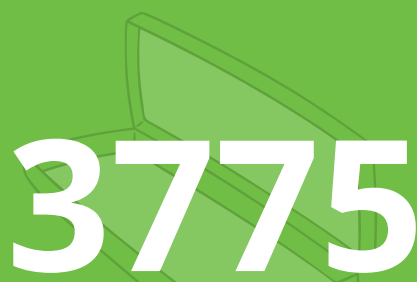
- Provides sterile injecting equipment & safe disposal of used equipment
- Aims to reduce spread of blood-borne viruses
- Refers patients to treatment services
- Promotes access to needle exchange through a network of pharmacies throughout Ireland



Pharmacies providing programme in 2022



People per month used programme in 2022  
(17.9 per pharmacy)



Packs per month provided in 2022



**21,296**

Sterile needles per month provided in 2022

### FUTURE DIRECTIONS

- Receive feedback from pharmacies and people who inject drugs
- Review KPIs on a regular basis
- Ensure the scheme is compatible with current drug trends

# EXECUTIVE SUMMARY

Needle exchange services provide access to sterile injecting equipment to people who inject drugs (PWID), promote safe disposal of used equipment, and facilitate access to other health services. They are a harm reduction measure that aims to reduce the impact of sharing used injecting equipment and reduce the risk of infection from discarded needles. These services were first established in Ireland in 1989 in areas that experienced high levels of substance use. The HSE Pharmacy Needle Exchange Programme was introduced in 2011 to extend coverage to other areas of the country. This study aims to provide an overview of the performance of the HSE Pharmacy Needle Exchange Programme.

Key performance Indicators (KPIs) for the HSE Pharmacy Needle Exchange Programme were obtained from the HSE Planning and Business Information Unit. Yearly totals for each KPI were calculated to show patterns from 2015-2022 with five-year forecasts.

The following represents the key findings emerging from the study:

## Pharmacies

The number of pharmacies providing the programme has reduced by 18% since 2015 with 90 pharmacies enrolled in 2022. KPIs have not been met for every year except 2019. It is forecast that by 2027, the number of pharmacies will decline by a further 25%

## People

There has been a 7% decline in the number of people using the programme since 2015. In 2022, 1,612 people used the programme per month (17.9 per pharmacy). KPI patterns have fluctuated but in 2022 were 7% above target (1500 people), which is forecast to stabilise with an increase of 1% by 2027.

## Packs

In 2022, 3,775 packs were provided per month. There has been a 19% decline in the number of packs provided per month and a 42% decline in the number of packs returned since 2015. KPI targets have not been met with the proportion of packs returned declining from 23% in 2015 to 16% in 2022.

## Needles

In 2022, 21,296 sterile needles per month were provided by the programme, which is a decline of 16% since 2017. There has been a 4.2 percentage point reduction in the average number of needles per individual since 2017. KPI targets for sterile needles have not been met for half of the years included in the analysis.

The review demonstrates the value of the HSE Pharmacy Needle Exchange Programme, yet also raises issues that need to be addressed. The following recommendations are made:

1. The declining usage and the reduction of pharmacies delivering the HSE Pharmacy Needle Exchange Programme should be examined with a view to developing an action plan for the future development of the service.
2. A survey of those pharmacies that have withdrawn from the scheme should be undertaken to quantify the reasons for withdrawal.
3. A profile of PWID, partaking in the programme by HSE Health Region/CHO area should be undertaken to ensure that the service is meeting needs and determine whether additional harm reduction measures should be considered (e.g. the provision of sterile 'crack' pipes).
4. Consideration should be given to extending the number of pharmacies providing the needle exchange service in the HSE Health Region/CHOs that have a large number of PWID per pharmacy (e.g. CHO 4).
5. The enrollment and retention of pharmacies into the HSE Needle Exchange Programme should be prioritised to help ensure that the service is accessible to PWID.
6. Additional training for pharmacies should be provided to ensure to encourage ongoing participation in the programme, particularly in terms of emerging trends and any challenges that these cause in terms of service delivery (e.g. the use of 'crack' cocaine by PWID).
7. An audit of procedures employed by participating pharmacies when dispensing equipment and organising the return of used equipment should be undertaken. This should include feedback from PWID, partaking in the programme. It should identify if there are any barriers in terms of the safe disposal of used equipment, and develop solutions to overcoming barriers.
8. Alternative systems of service delivery need to be considered to improve return rates.
9. The existing KPIs for the HSE Pharmacy Needle Exchange Programme should be reviewed to determine if additional information should be routinely collected to monitor the performance of the programme. This should also examine the current data recording system to ensure that the KPI data is valid and reliable, and can be utilised to compare with other countries and monitor patterns over time.
10. A more detailed review of the HSE Pharmacy Needle Exchange Programme needs to be conducted periodically to obtain feedback from participating pharmacies and PWID partaking in the service, to ensure that the service continues to meet the identified needs and remains relevant.
11. A forum to feedback information and results to participating pharmacies should be established as this may improve retention and highlight the benefits of the scheme.





# INTRODUCTION

## 1.1 Background

The harm reduction approach underpins drug and alcohol policy in Ireland, Europe, and worldwide (Department of Health, 2017; Rhodes & Hedrich, 2010; Wodak, 2009). In terms of substance use, this approach focuses on interventions that reduce the negative consequence of drug use (e.g. overdose and infectious disease transmission from injection drug use), as opposed to stopping drug use itself. (Hawk et al., 2017). The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) states that:

*“Harm reduction encompasses interventions, programmes and policies that seek to reduce the health, social and economic harms of drug use to individuals, communities and societies.”*

(Rhodes & Hedrich, 2010)

Needle and syringe exchange programmes are a harm reduction measure, which aim to reduce transmission of HIV and Blood-borne Viruses (BBV) among PWID and prevent the sharing of contaminated equipment. These services provide access to sterile injecting equipment and safe disposal of used equipment. They also provide access to disease testing, treatment services and other harm reduction interventions (Sharp et al., 2020). A number of reviews have demonstrated their effectiveness in terms of preventing HIV and other infectious diseases, increasing access to treatment and reducing drug use (Centers for Disease Control and Prevention, 2019; Kåberg et al., 2020).

Needle exchange services were first established in Ireland in 1989. The service expanded from five exchanges in 1989 to 31 in 2008 (Robinson et al., 2008). In 2009, the National Drug Strategy (Department of Community Rural and Gaeltacht Affairs, 2009) recognised that while needle exchanges were available in areas that experience high substance use, there remained significant gaps in the rest of the country. To fill the gap, the strategy recommended the introduction of services in the community pharmacy setting with a plan to introduce services in 65 priority locations. This began in 2011, as a partnership initiative between the Elton John AIDS Foundation, the Irish Pharmacy Union (IPU), and the Health Service Executive (HSE). By 2012 there were 71 pharmacies providing needle exchange services (Long et al., 2014). The 2017 Drug and Alcohol Strategy (Department of Health, 2017) recommended a further expansion of needle exchange programmes (action 2.2.28). In 2022 there were 90 pharmacies providing needle exchange services. The community pharmacies provide sterile equipment for injecting and smoking and also collect used equipment. They also refer patients for treatment for substance use, BBV testing, and hepatitis B vaccinations.

The service is available in most counties outside Dublin, Wicklow, and Kildare where needle exchange programmes are provided through the HSE and community partners (e.g. Non-Government Organisations (NGOs)) via a network of fixed site and mobile services. The use of community pharmacies for the provision of sterile injecting equipment has been recommended by the European Centre for Disease Prevention and Control (ECDC) and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (European Centre for Disease Prevention and Control & European Monitoring Centre for Drugs and Drug Addiction, 2023).

International reviews of community pharmacy services have shown that they have a positive impact on high risk injecting behaviours in addition to a range of other positive health outcomes (Nacopoulos et al., 2010; Sawangjit et al., 2017). In Ireland, a review by Bates et al (2015) noted that the provision of pharmacy based needle exchanges in urban and rural settings was a key step towards achieving broad coverage and reducing the risk of HIV and other BBVs. Irish data showed a significant increase in uptake, with 23,196 needle exchange transactions and referrals to other services (blood testing, Tier 3 and Tier 4 services) in 2023. Positive feedback was also received from clients, staff and key stakeholders. They concluded that the service had successfully engaged with PWID, increasing access to sterile injecting equipment and contact with health professionals. Bingham et al (2015), in a review of all Irish needle exchange services, reported that in 2012, 43% of syringes provided by needle exchanges were from pharmacies. The study identified data collection gaps and recommended a standardised reporting mechanism to monitor all needle exchange transactions.

There has been no published review of the HSE Pharmacy Needle Exchange Programme since 2015. However, key performance data is collected from pharmacies providing the service on a monthly basis. This can be utilised to monitor patterns of use, identify trends in injecting patterns and facilitate the future planning and delivery of the programme. It is within this context that the current review was undertaken.

## 1.2 Aims and Objectives

The aim of the review is to provide an overview of patterns of use of the HSE Pharmacy Needle Exchange Programme in terms of KPIs. More specifically, the objectives of the study are to show patterns in terms of the following:

- Number of pharmacies enrolled and retained to provide a Pharmacy Needle Exchange Programme
- Number of people attending the Pharmacy Needle Exchange Programme
- Number of pharmacy needle exchange packs (containing needles, syringes, swabs, vials, citric acid packs and water) provided and the number returned
- Number of sterile needles provided each month and the average number of needles per person returned

# METHOD

## 2.1 Key Performance Indicators (KPIs)

KPIs for the HSE Pharmacy Needle Exchange Programme from 2015-2022 were obtained from the HSE Planning and Business Information Unit. These included:

- Number of pharmacies enrolled
- Number of individuals attending the programme
- Number of pharmacy needle exchange packs provided
- Number of used needle/syringe packs returned
- Percentage of needle/syringe packs returned
- Number of sterile needles provided each month
- Average number of sterile needles (and accompanying injecting paraphernalia) provided per individual each month

## 2.2 Analysis

Yearly totals for each KPI were calculated with Microsoft Excel 2016 for each Community Health Organisation (CHO) area and disaggregated by CHO area. Five-year forecasts were calculated utilising the forecasting function with exponential smoothing.

## 2.3 Impact of COVID-19

In 2020, the Pharmacy Needle Exchange Programme was affected by the COVID-19 pandemic. Measures introduced to comply with COVID-19 (e.g., restricted entry into community pharmacies and additional Opioid Agonist Treatment (OAT) provided in response to the pandemic) may have had an impact on usage patterns. It is therefore important to interpret 2020 data in the context of COVID-19.

# PHARMACY NEEDLE EXCHANGE KPI PATTERNS 2015-2022

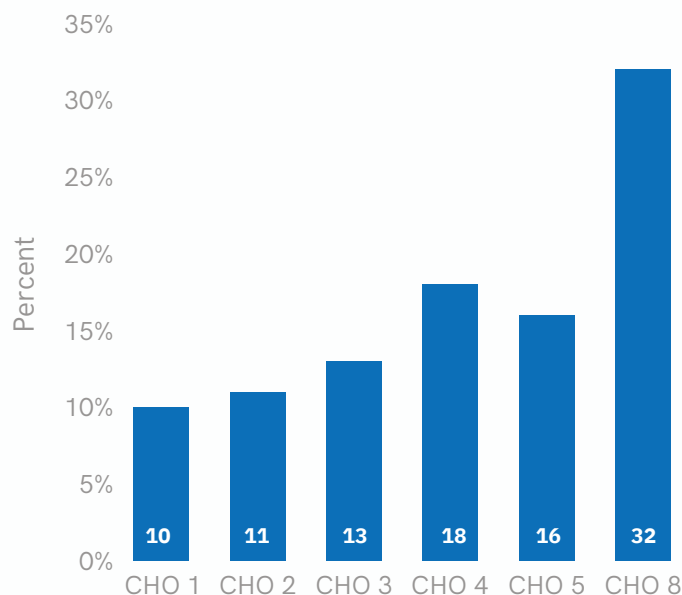
## 3.1 Introduction

The following represents KPIs for the HSE Pharmacy Needle Exchange Programme from 2015-2022 using data obtained from the HSE Planning and Business Information Unit

## 3.2 Number of Pharmacies in Programme

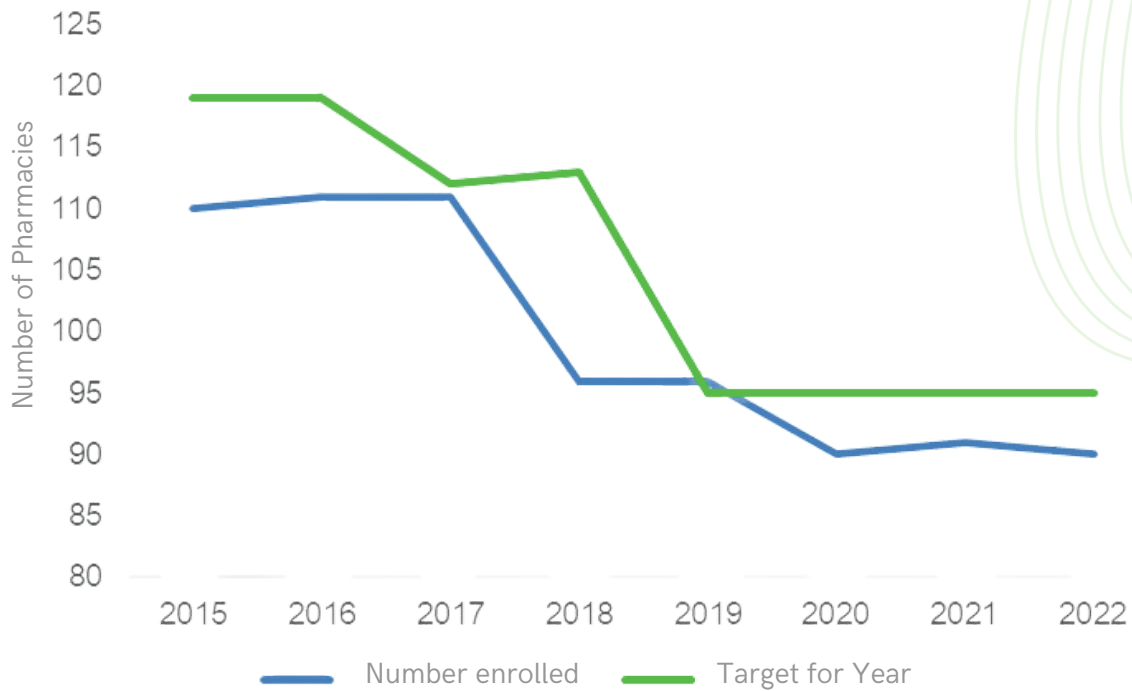
In 2022 there were 90 pharmacies enrolled to provide the Pharmacy Needle Exchange Programme. This is 5% lower than the KPI target set for 2022 (95 pharmacies). Figure 3.1 shows that the greatest proportion of these are located in CHO 8 (32%, n=29), CHO 4 (18%, n = 16), and CHO 5 (16%, n= 14).

**Figure 3.1: Proportion of Pharmacies Providing Programme by CHO 2022**

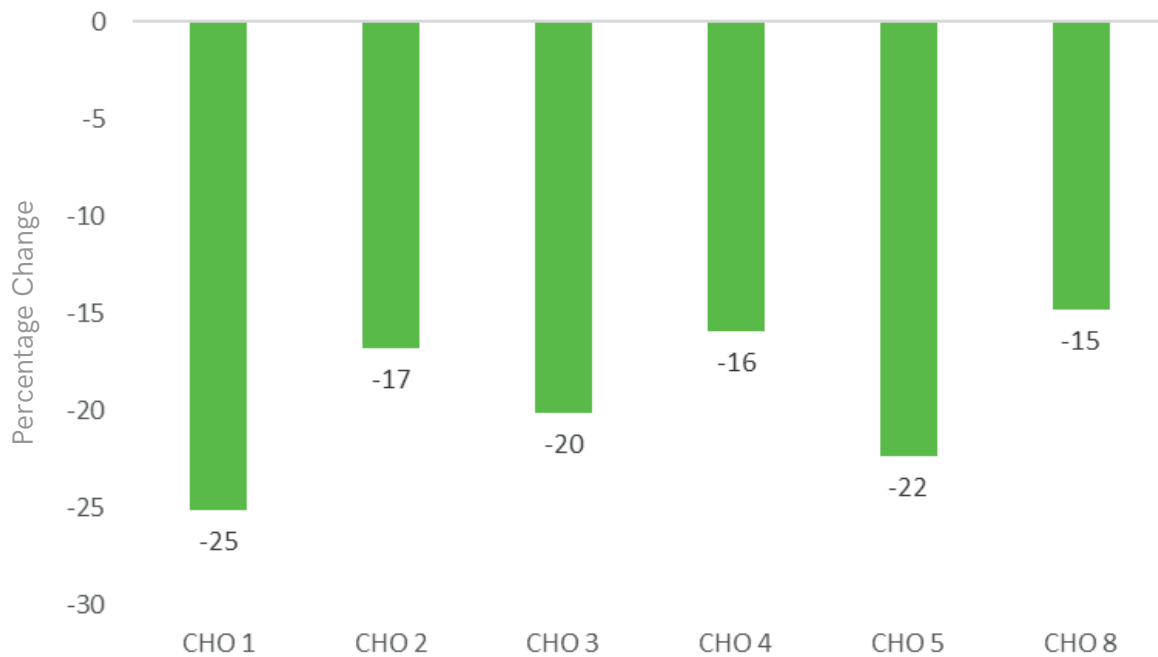


The number of pharmacies providing the programme has reduced by 18% since 2015 (figure 2.2), with a two sharp declines experienced in 2018 and 2020. It is below the KPI target set for every year, except 2019. If this pattern continues it is forecast that by 2027, the number of pharmacies will decline by a further 25% (n = 68, CI = 59.78-76.13). It can be seen from figure 3.3 that all of the CHOs involved in the Programme have experienced a decline in the number of pharmacies participating, with the largest decline experienced in CHO 1 (25%; from 12 to 9), CHO 5 (22%; from 18 to 14), and CHO 3 (20%; from 15 to 12).

**Figure 3.2: Number of Pharmacies Providing Programme 2015-2022**



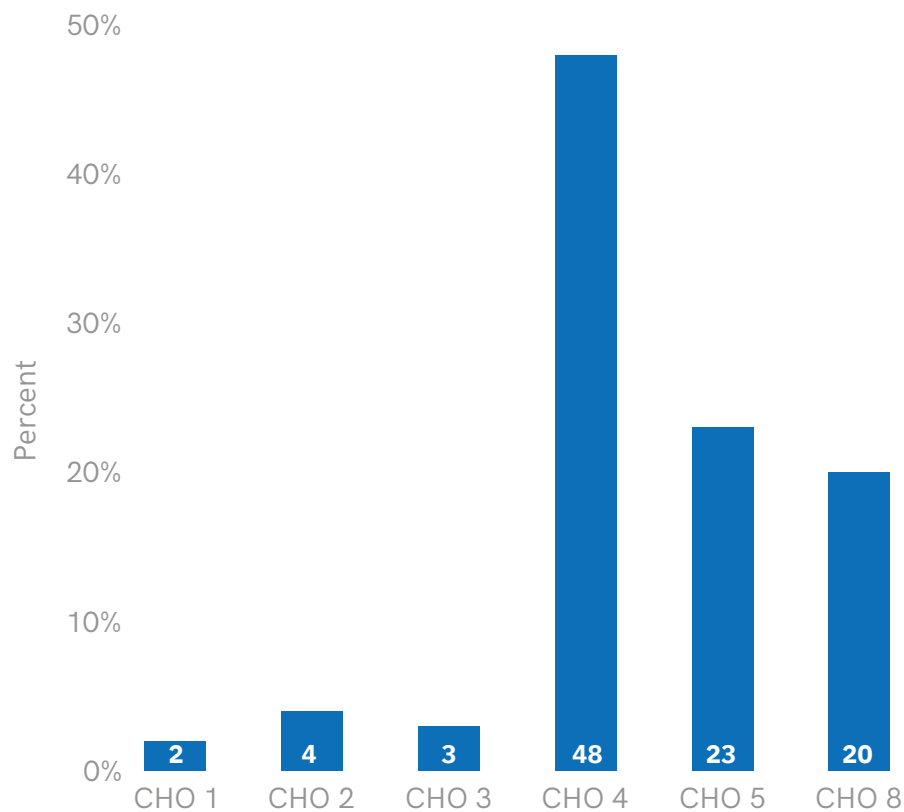
**Figure 3.3: Percentage Change in the Number of Pharmacies Providing Programme 2015-2022 by CHO**



### 3.2 Number of Unique Individuals Using Programme

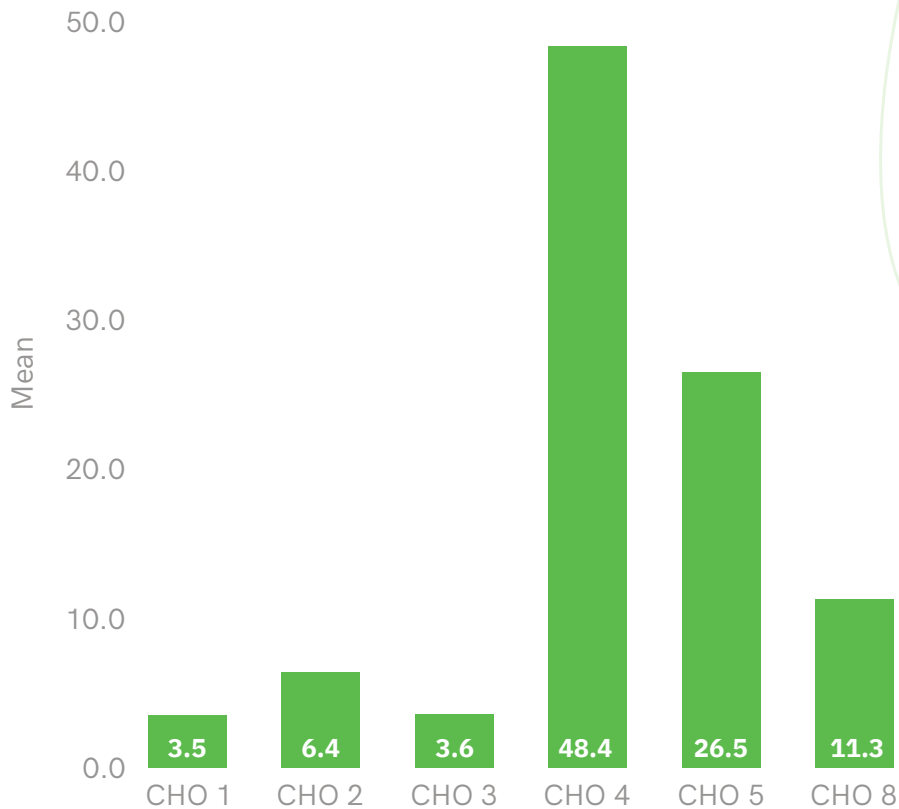
In 2022, 1,612 unique individuals per month used the Pharmacy Needle Exchange Programme. This is 7% higher than the KPI target set for 2022 (1,500 people). Figure 3.4 shows that the greatest proportion of these are located in CHO 4 (48%, n = 774), CHO 5 (23%, n = 372), and CHO 8 (20%, n = 328).

**Figure 3.4: Proportion of Unique Individuals Using Programme by CHO 2022**



In 2022, an average of 17.9 people used the service per pharmacy. Figure 3.5 shows that CHO 4 (mean = 48.4) and CHO 5 (26.5) have the highest average number of people attending per pharmacy.

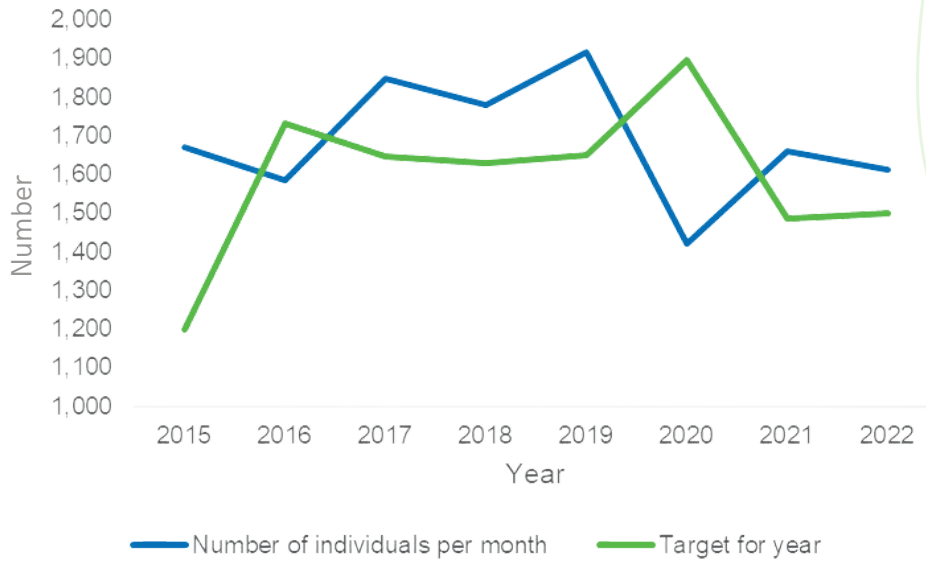
**Figure 3.5: Mean Number of people using the Programme per Pharmacy by CHO**



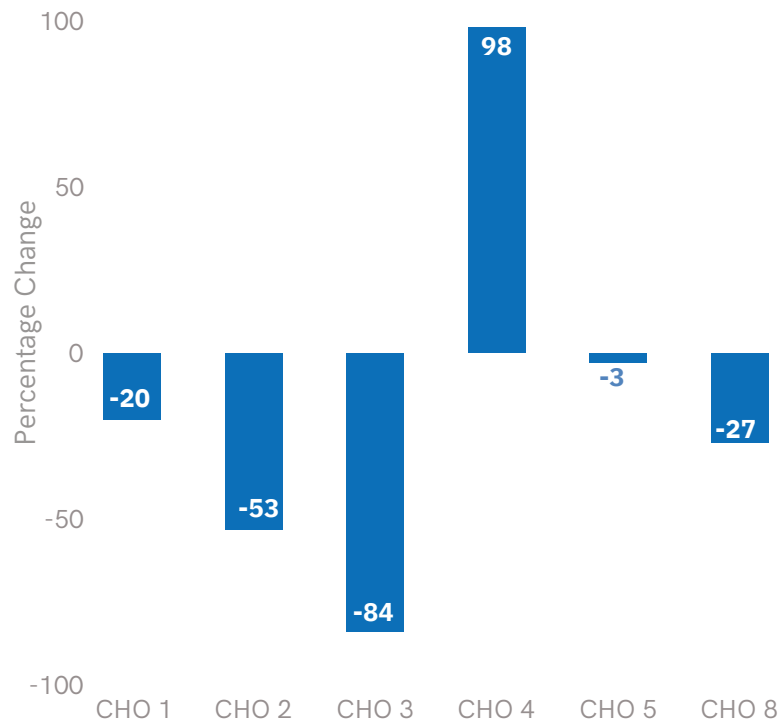
The number of people using the programme increased by 15% from 2015-2019, followed by a decline of 19% from 2019-2022. Overall, between 2015 and 2022, there has been a 7% decline in the number using the service (figure 3.6). In terms of KPI targets, there is a fluctuating pattern, with targets met for five of the years (2015, 2017-2019, 2021), and not met for three of the years (2016, 2020, 2022) included in the analysis. If the overall decline in numbers using the programme continues, it is forecast that by 2027 the number of people using the programme will stabilise with an increase of 1% (n = 1631, CI = 1307-1995).

It can be seen from figure 3.7 that CHO 4 has experienced an increase in people using the programme since 2015 (98%). The number of people using the programme in all other CHOs has declined, with the largest decline experienced in CHO 3 (84%), CHO 2 (53%) and CHO 8.

**Figure 3.6: Number of Unique Individuals Using Programme per Month 2015-2022**



**Figure 3.7: Percentage Change in the Number of People Using the Programme 2015-2022 by CHO**





### 3.3 Packs Provided and Returned

In 2022, 3,775 packs were provided per month. This represents an overall decline of 19% compared to 2015. There has also been a 42% decline in the number of packs returned (figure 3.8).

**Figure 3.8: Number of Packs Provided and Returned per Month (2015-2022)**

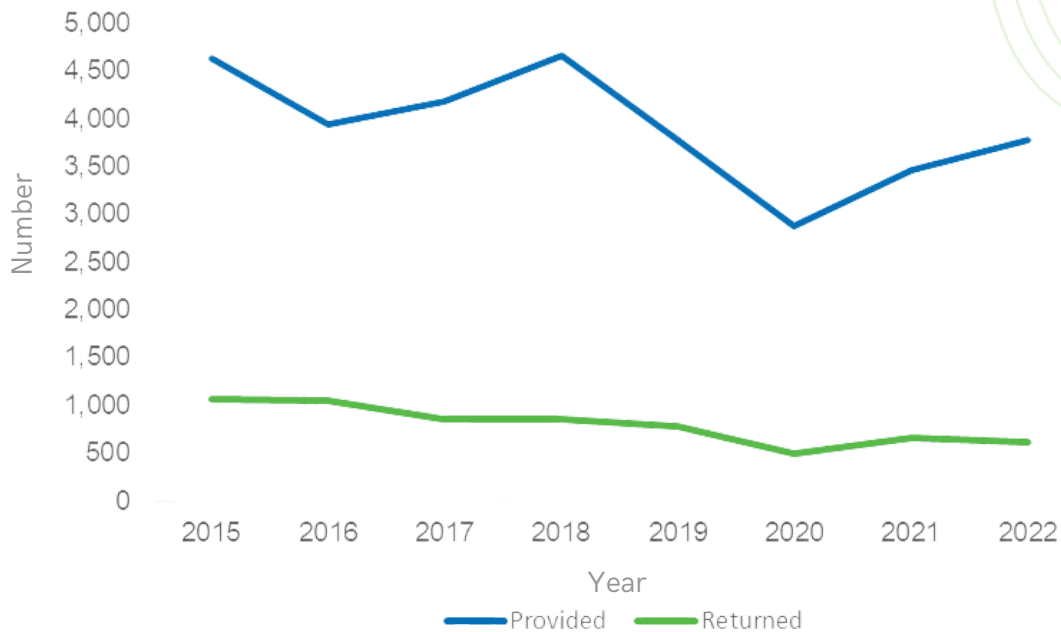
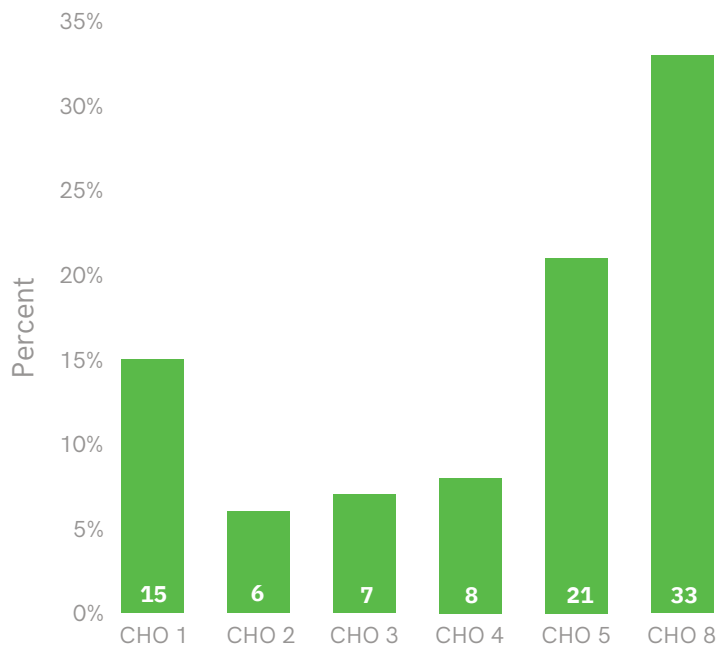


Table 3.1 shows that in 2022, the greatest proportion of packs were provided in CHO 4 (46%), CHO 8 (22%) and CHO 5 (22%). In terms of returned packs (figure 3.9), the CHO with the largest proportion of packs returned was CHO 8 (35%), CHO 5 (21%), and CHO 1 (15%). The KPI target of 19% has been met in 2022 by two CHOs (CHO 8, CHO 5). Overall 16% of packs were returned in 2022.

**Table 3.1: Number of Packs Provided per Month by CHO (2022)**

CHO	Number of packs provided	% of total packs
CHO 1	99	2.6
CHO 2	122	3.2
CHO 3	130	3.4
CHO 4	1734	45.9
CHO 5	844	22.4
CHO 8	846	22.4
Total	3,775	100.0
*KPI target = 19% packs returned. No targets are set for the number of packs provided.		

**Figure 3.9: Proportion of Packs Returned per Month by CHO (2022)**



The overall proportion of packs returned has declined from 23% in 2015 to 16% in 2022. This represents a 28% decline in the proportion of packs returned. Overall KPI targets have not been met from 2015-2022 (figure 3.10).

**Figure 3.10: Proportion of Packs Returned per Month (2015-2022)\***

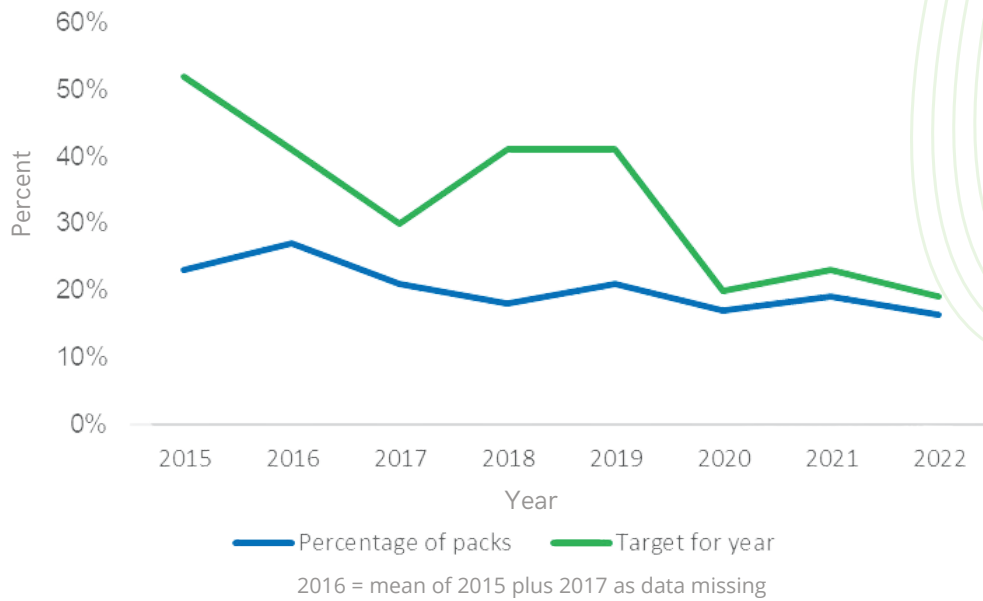
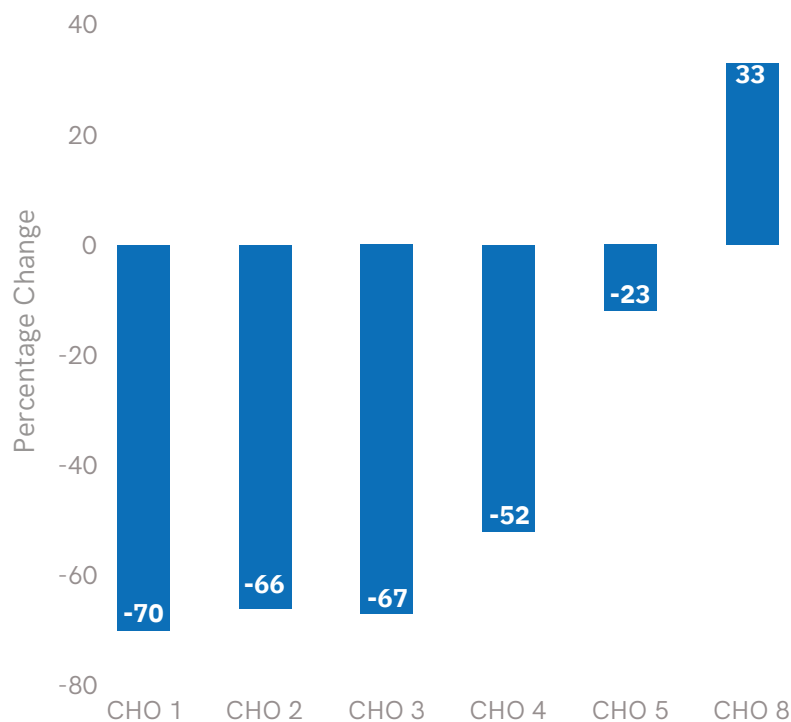


Figure 3.11 shows the change in the proportion of packs returned since 2015 by CHO. It can be seen that with the exception of CHO 8 (which has increased the proportion returned by 33%), all CHOs have experienced a decline in the proportion of packs returned (23-70%).

**Figure 3.11: Percentage Change in the Proportion of Packs Returned per Month 2015-2022 by CHO**



### 3.4 Sterile Needles Provided

KPIs for sterile needles have been collected since 2017. Table 3.2 shows that in 2022, 21,296 needles per month were provided by the programme, with each person attending receiving 9.8 needles on average each month. The greatest proportion of needles were provided in CHO 4 (41%), CHO 8 (26%), and CHO 5 (22%), while the average number of needles per individual was greatest in CHO 1 (13.4), CHO 5 (11.9) and CHO 4 (11.4).

**Table 3.2: Number of Sterile Needles and Accompanying Injecting Paraphernalia Provided Each Month (2022)**

CHO	Number of needles provided	Average Number per individual each month
CHO 1	766	13.4
CHO 2	786	2.4
CHO 3	798	9.2
CHO 4	8647	11.4
CHO 5	4768	11.9
CHO 8	5532	10.4
Total	21,296	9.8

\* KPI target = 18,229 sterile needles and an average of 15 per individual

Compared to 2017, the number of sterile needles provided has declined by 16%. There has been a 4.2 percentage point reduction in the average number of needles per individual since 2017 (figure 3.12). KPI targets for the average number of needles have not been met for half of the years included in the analysis (2019, 2020, and 2022).

**Figure 3.12: Average Number of Needles per Individual per Month (2015-2022)**

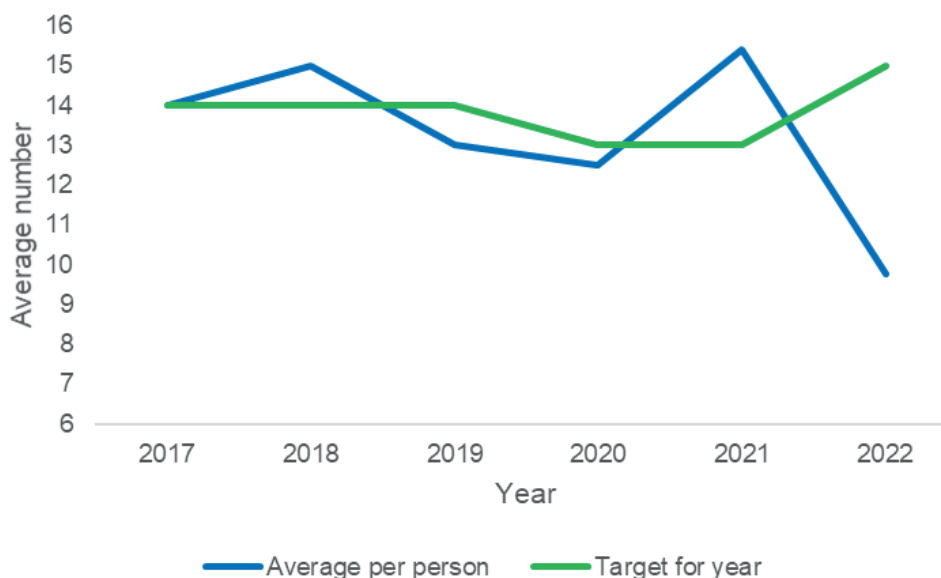
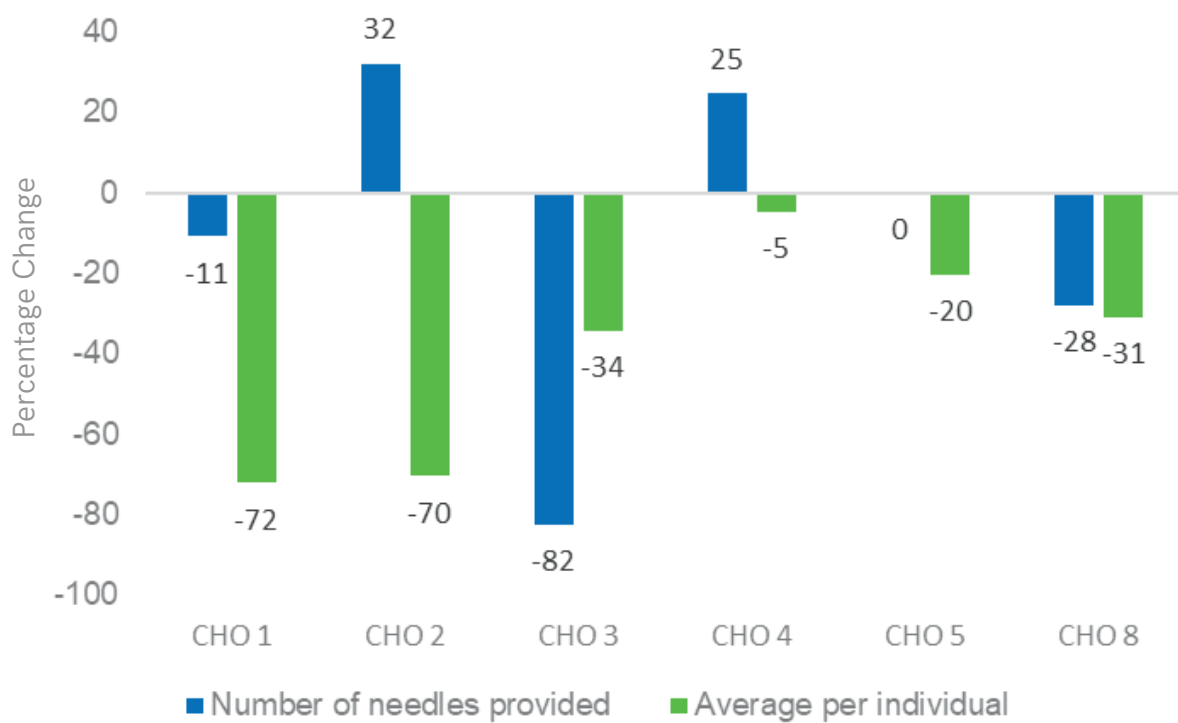


Figure 3.13 shows that, in terms of needles provided, three CHOs have experienced a decrease since 2017 (CHO 3 82%, CHO 8 28%, CHO 1 11%) with CHO 5 experiencing no change, while CHO 2 and CHO 1 have experienced an increase (32% and 25% respectively). Figure 3.8 also shows that the average number of clean needles per individual has declined in all CHOs with CHO 1 and CHO 2 experiencing the largest decline (72% and 70% respectively).

In comparing the number of needles provided and the average number of needles per individual it can be seen that in two CHOs (CHO 2, CHO 4), the pattern for these indicators contrast. In CHO 2, there has been an increase in the number of needles provided (32%) and a decrease in the average number of needles per individual (70%) while in CHO 4 there has been a 25% increase in the number of needles provided and a 5% decrease in the average number of needles per individual.

**Figure 3.13: Percentage Change in the Number of Needles Provided and the Average Number of Needles per Individual by CHO (2015-2022)**



# DISCUSSION

## 4.1 Introduction

The review examines patterns of use of the HSE Pharmacy Needle Exchange Programme from 2015-2022. It utilised a series of KPIs for the programme, which are routinely collected and recorded by the HSE Planning and Business Information Unit. The data provides an overview of performance, and raises issues in terms of the future planning and delivery of the programme. Key issues emerging from the review will now be discussed.

## 4.2 Size and Location of Services

There were 90 pharmacies providing the programme to six CHOs in 2022, with 1,612 individuals using the service. KPI targets in this regard were not met for 2022. There has been an overall decline in the number of pharmacies (18%) and the number of people (3%) using the programme from 2015-2022. During this period, KPI targets have not been met for numbers of pharmacies in seven of the eight years investigated, with targets met for six years and not met for two years in terms of the number of individuals using the service. Forecasts show that if these patterns continue, the number of pharmacies will further reduce by a quarter by 2027 with usage only increasing by 1%. The reasons why the programme has declined in terms of the number of pharmacies participating and the level of usage warrants further investigation. During this period there has been a decline in estimates of problematic opioid use in Ireland (Hanrahan et al., 2022), but this decline has not been significant, suggesting that there may be other factors which explain these patterns. For example, does this represent a reduction in the number of people injecting drugs or are PWID choosing to obtain injecting equipment elsewhere (such as accessing low threshold local needle exchange services or travelling to the larger needle exchange programmes in Dublin), for reasons such as to get other drugs or for anonymity? A survey of those pharmacies that have withdrawn from the scheme may provide useful insights in this regard. In addition, a profile of PWID of the programme by CHO area, (or the near future, by respective HSE Health Regions) should be undertaken, to ensure that the service is meeting needs. Anecdotal evidence for Ireland suggest that negative experiences of providing sterile needles to people who use 'crack' cocaine may have contributed to the withdrawal of some pharmacies from the programme in 2019. Recent prevalence studies have highlighted the increase in cocaine use in Ireland and identified the emergence of 'crack' cocaine use among a marginalised population that may previously have used heroin (HRB National Drugs Library, 2023). If PWID are also using cocaine, additional harm reduction initiatives may be required (such as the provision of sterile 'crack' pipes). The provision of additional training for pharmacies may also encourage ongoing participation in the programme, particularly in terms of emerging trends such as the use of 'crack' cocaine by PWID, as the needs of people who inject 'crack' may present additional challenges.

In examining the programme by CHO, it can be seen that there is considerable variation. CHO 6, CHO 7, and CHO 9 do not have any pharmacies included in the programme. These CHOs cover Dublin City and surrounding counties and have other needle exchange services, which were established prior to the introduction of the pharmacy service due to the large number of PWID. For example it is estimated that up to three quarters of PWID live in Dublin (Hanrahan et al., 2022; Health Protection Surveillance Centre, 2018). A range of fixed site and mobile needles exchanges operate in these areas with the mobile exchange more common in the surrounding counties, with the fixed site services mainly in the Dublin region.

In 2022, the largest proportion of pharmacies that provide needle exchange are located in CHO 8 (32%), CHO 4 (18%), and CHO 5 (16%). As would be expected, these CHOs also have the largest proportion of people using them. However, CHO 4 and CHO 5 are used by a larger proportion of individuals compared to CHO 8, yet have fewer pharmacies. On average there are 48 people using each pharmacy in CHO 4, which almost double that of CHO 5 (n= 27), and four times that of CHO 8 (n =11). The number of pharmacies in the programme has declined in all CHOs since 2015, including CHO 4, CHO 5, and CHO 8. While there may be a rationale to reduce the number of pharmacies providing the service in CHOs with low take-up of the service, for CHOs with large numbers of PWID (e.g. CHO 4), there may be a need to consider expanding the service to more pharmacies. This approach could spread the burden on existing pharmacies that provide the service, and may also help to reduce the distance for people to travel (particularly in rural areas). Expansion plans would also need to investigate issues such as the recruitment of pharmacies, to help ensure that sufficient numbers of pharmacies apply to provide the service.

### 4.3 Packs Provided and Returned

The Pharmacy Needle Exchange Programme provides packs to PWID containing needles, syringes, swabs, vials, citric acid packs and water. PWID are also encouraged to return used items; particularly needles (Bingham et al., 2015). In 2022, 3,775 packs were provided which represented an overall decline of 19% compared to 2015. The largest proportion of packs were distributed in CHO 4 (46%), CHO 5 (22%), and CHO 8 (22%). These patterns are consistent with the number of pharmacies and individuals using the services. What is concerning about the KPI data on packs is the low proportion of packs returned and the considerable variation by CHO. In 2022, only 16% of packs were returned which represents a 28% decline compared to 2015 and falls below the KPI target of 19% that was set for 2022. An examination of data for the programme in 2012 found that 39% of packs were returned (Long et al., 2014), which shows that rates for 2015-2022 are considerably lower than those achieved in 2012. With the exception of CHO 8, all CHOs have experienced a decline in the proportion of packs returned since 2015. Only two CHOs have met the KPI target of 19%. Low return rates were also highlighted in a review of the service by Bates et al (2015). It noted that feedback from stakeholders emphasised the need to advise PWID about safe disposal of used needles and equipment. It is unclear why there is such variability in returns by CHO.



Data for Northern Ireland needle and syringe exchange services for 2019-2020 shows that 31% of Cin-Bins (container for safe disposal of needles which is included in every pack) were returned (Health and Social Care Board & Public Health Agency, 2021). A review (although somewhat dated) of 26 studies of needle exchange programmes reported an overall return rate of 90% (Ksobiech, 2004b), while a study in a Spanish prison (Ferrer-Castro et al., 2012) gave a return rate of 71%. Unpublished data from needle exchange services in Mandura in Western Australia shows an overall return rate of 94% from 2021 to date. The Centers for Disease Control and Prevention (CDC) in reviewing studies state that PWID may not return needles to exchange programmes due to concerns about being arrested for the possession of syringes, a lack of sharps containers, needles taken by other PWID due to low supply and high demand, homelessness and living conditions (Centers for Disease Control and Prevention, 2020). PWID, partaking in the programme have to enter the pharmacy and put used equipment (in a sealed container) into secure bins. This may deter returns if PWID perceive this process as inconvenient. In addition, studies have shown that stigma can have a significant negative impact on syringe access, particularly in pharmacies (Paquette et al., 2018; Tung et al., 2023). If people feel stigmatised for being a PWID, they may try to minimise the number of times they use such facilities.

Clearly, there is a need to improve the return rate for the Pharmacy Needle Exchange Programme. A standardised procedure in terms of the administration of the programme should be in operation in all pharmacies and across all HSE Health Regions/CHOs. This should include procedures to inform PWID about safe disposal, and to record any packs returned to the service. The programme pack in 2022 contained information leaflets to give to PWID, partaking in the programme. This provided advice about safe injecting and avoiding overdose, but did not provide information about the return of packs (Health Service Executive, 2022). The degree to which the return of equipment is emphasised by pharmacies is not known. An audit of participating pharmacies should be undertaken to determine if protocols are employed and adhered to (including information on the return of packs), identify if there are any barriers in terms of the safe disposal of used equipment, and develop solutions to overcoming barriers. This should also include feedback from PWID. In addition, alternative systems of service delivery do need to be considered to improve return rates. Tung et al (2023) outline a number of initiatives, such as the use of sharps containers that remove the needle barrel from the needle (potentially preventing crimination), drop boxes and one-way disposable bins in a wider range of locations, the use of vending machines to dispense needles, mail slots in bathrooms and disposal bins designed to look like post boxes (to be less conspicuous). In Mandura in Western Australia, one of the programme's characteristics that contributes to their 94% return rate is the supply of free needles only on the return of used items (Government of Western Australia, 2022).



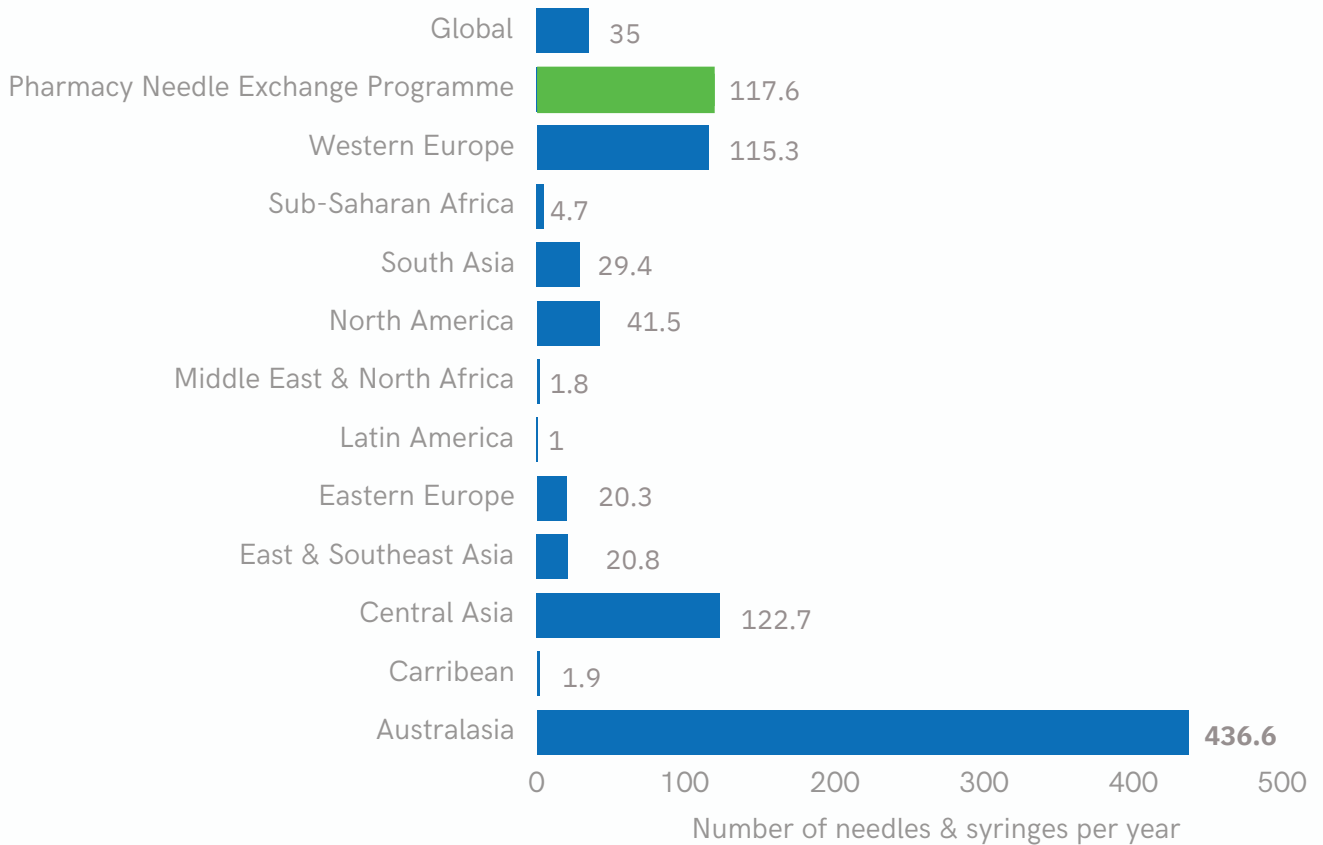
#### 4.4 Sterile Needles Provided

KPIs for sterile needles has been provided since 2017. In 2022, 21,296 needles per month were provided by the programme. The appropriate use of these needles should help reduce the risk of BBV infections such as hepatitis and HIV. However, as with the provision of packs, there has been a decline in the number of needles provided. Another issue that has been identified is the decline in the average number of needles provided per person. In 2022, the average number of needles provided per individual is 9.8 per month, and represents a 16% decline compared to 2017. It is also lower than the KPI target of 15 per month that has been set for the programme for 2022. Those using drugs such as heroin can inject multiple times a day and are at high risk of reusing or sharing needles due to craving if they do not have access to an adequate supply of sterile injecting equipment (Wang & Maher, 2019). It has been estimated that person who injects heroin needs to inject 2.8 times a day (Tempalski et al., 2008) which equates to 85 times a month. This is over eight times higher than the number of sterile needles provided per individual using the Pharmacy Needle Exchange Programme in 2022. Although the proportion of active heroin injectors that use the programme is not known, this does nevertheless suggest that to minimise this risk, it would be important to increase the number of needles provided per individual.

The decline in the number of needles provided and the average number of needles per individual has not been consistent across CHOs. For example, CHO 2 and CHO 4 have increased the number of needles provided yet the number of needles per person has decreased. CHO 5 experienced no change in the number of needles provided with a decrease in the average number per individual. For all other CHOs, both the numbers of needles provided and the average per individual has declined. This suggests that patterns of usage vary by CHO. It is not clear what the key factors are which explain this variation. A better understanding of the profile of PWID plus an examination the way pharmacies administer the programme is required to ensure that the service is optimised for each HSE Health Region/CHO.

Although the decline in the number of needles provided shows scope for improvement, comparisons with other countries show that the needle KPIs for Pharmacy Needle Exchange Programme are broadly comparable, and indeed better than many countries. A review by Colledge-Frisby et al (2023) showed that the average number of sterile needles per individual for countries in western Europe was 115.3 per year, which compares to 117.6 for the Pharmacy Needle Exchange Programme (see figure 4.1). Using WHO criteria employed by this review ('low', 'moderate', 'high'), the level of provision for the programme would be classified as 'moderate'. In addition, the European Drug Report 2023 (European Monitoring Centre for Drugs and Drug Addiction, 2023) shows that Ireland ranks 15th out of 27 countries in terms of the number of syringes distributed through specialised programmes (although this does not control for population size or prevalence levels). Thus, while improvements can be made, the programme's KPIs for needles are broadly favourable when compared to other countries.

**Figure 4.1: Comparison of the Number of Needles and syringes provided in Worldwide Regions\* with the Pharmacy Needle Exchange Programme\*\***



\*(Colledge-Frisby et al., 2023) \*\* data for Pharmacy Needle Exchange programme is for Needles Only

#### 4.5 Study Limitations

The review is limited as it only examines the KPI data collected for the Pharmacy Needle Exchange Programme and does not include information about Dublin and the surrounding counties covered by CHO areas 6, 7 and 9. The KPIs studied are broad and do not provide detailed information in terms of the operation of the programme, nor feedback from those administering and those using it. Ksobiech (2004a) has noted that to improve needle exchange programmes, there is a need to record more than ‘the basics,’ such as needles distributed and returned. In addition, the landscape of drug use is continually evolving, and KPIs need to be able to monitor these patterns. The existing KPIs should be reviewed to determine if additional information should be routinely collected to monitor the performance of the programme. This review should also examine the current data recording system to ensure that the KPI data is valid and reliable, and can be utilised to compare with other countries and monitor patterns over time. In addition, consideration should be given to conducting a more detailed review periodically to obtain feedback from participating pharmacies and PWID, participating in the programme. Detailed reviews have previously been undertaken (Bates et al., 2015; Bingham et al., 2015), and it is suggested that an up to date detailed review is now required.

# CONCLUSIONS & RECOMMENDATIONS

The programme makes a significant contribution in terms of providing sterile injecting equipment throughout Ireland. This review of performance data that is collected for the programme helps to demonstrate the value of this service, yet also shows the need for further investigation to ensure that the needs of those that use it are met. The report has raised a number of important issues, in terms of both data collection and the future development of services. The following recommendations are made:

1. The declining usage and the reduction of pharmacies delivering the HSE Pharmacy Needle Exchange Programme should be examined with a view to developing an action plan for the future development of the service.
2. A survey of those pharmacies that have withdrawn from the scheme should be undertaken to quantify the reasons for withdrawal.
3. A profile of PWID, partaking in the programme by HSE Health Region/CHO area should be undertaken to ensure that the service is meeting needs and determine whether additional harm reduction measures should be considered (e.g. the provision of sterile 'crack' pipes).
4. Consideration should be given to extending the number of pharmacies providing the needle exchange service in the HSE Health Region/CHOs that have a large number of PWID per pharmacy (e.g. CHO 4).
5. The enrollment and retention of pharmacies into the HSE Needle Exchange Programme should be prioritised to help ensure that the service is accessible to PWID.
6. Additional training for pharmacies should be provided to ensure to encourage ongoing participation in the programme, particularly in terms of emerging trends and any challenges that these cause in terms of service delivery (e.g. the use of 'crack' cocaine by PWID).
7. An audit of procedures employed by participating pharmacies when dispensing equipment and organising the return of used equipment should be undertaken. This should include feedback from PWID, partaking in the programme. It should identify if there are any barriers in terms of the safe disposal of used equipment, and develop solutions to overcoming barriers.
8. Alternative systems of service delivery need to be considered to improve return rates.
9. The existing KPIs for the HSE Pharmacy Needle Exchange Programme should be reviewed to determine if additional information should be routinely collected to monitor the performance of the programme. This should also examine the current data recording system to ensure that the KPI data is valid and reliable, and can be utilised to compare with other countries and monitor patterns over time.
10. A more detailed review of the HSE Pharmacy Needle Exchange Programme needs to be conducted periodically to obtain feedback from participating pharmacies and PWID partaking in the service, to ensure that the service continues to meet the identified needs and remains relevant.
11. A forum to feedback information and results to participating pharmacies should be established as this may improve retention and highlight the benefits of the scheme.

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