The impact of COVID-19 restrictions on needle and syringe programme provision and coverage in England

Mark Whitfield, Intelligence and Surveillance Manager

Howard Reed, Intelligence & Surveillance Systems Manager

Jane Webster, Data Quality Engagement Lead

Vivian Hope*, Professor of Public Health

Public Health Institute, Liverpool John Moores University, 3rd Floor Exchange Station, Tithebarn Street, Liverpool L2 2QP

*Corresponding Author

Competing interest: none.

Word count: 1,998

Abstract 200 Words, max 200

Background:

The restrictions introduced in response to COVID-19 present many challenges, particularly for vulnerable and marginalised populations. These include maintaining access to Needle and Syringe Programmes (NSPs) to reduce the harms associated with injecting drugs. NSPs effectiveness is coverage dependent, but lockdowns and social distancing limit NSP access and availability. The impact on NSP provision in England is explored using enhanced monitoring data.

Method:

Data collected through an established comprehensive monitoring system from five four-week periods, centred on the implementation of restrictions in the UK in mid-March 2020, are examined. Weekly averages are compared to allow for public holidays and weekly variation in activity.

Results:

The restrictions resulted in the number of NSP clients decreasing by 36%, visits by 36%, and needles distributed by 29%. NSP coverage for those injecting psychoactive drugs halved, declining from 14 needles per-week during the 4-weeks to 15th March 2020 to 7 needles per-week by mid-April, and coverage has remained at this level since then.

Conclusions:

Though it is currently unclear if there has been a decline in injecting, the decline in NSP coverage is so marked that it almost certainly reflects decreased utilisation among those in need, indicating increased equipment reuse and risk.

Introduction

The current novel coronavirus (COVID-19) pandemic presents many challenges, the impacts of which are particularly experienced by vulnerable and marginalised populations, including those who use drugs (Marsden, et al., 2020). One of these challenges is maintaining safe injection practice through the sufficient provision of sterile needles and syringes to people who inject drugs (Bartholomew, Nakamura, Metsch, & Tookes, 2020).

Needle and Syringe Programmes (NSP) are key to preventing and controlling many of the harms associated with injecting drug use, such as HIV, hepatitis C (HCV) and skin and soft tissue infections (SSTIs)(ECDC & EMCDDA, 2011). Evidence indicates that, when delivered with sufficient coverage and in parallel with other interventions, such as opioid substitution therapy, they have a core role to play in the elimination of HCV (Turner, et al., 2011; Ward, et al., 2018) and minimising other harms. Delivering NSP to people who inject drugs with sufficient coverage is challenging under normal circumstances (EMCDDA, 2019; Larney, et al., 2017); the social distancing measures introduced in response to COVID-19 make this even harder (Bartholomew, et al., 2020).

NSPs aim to provide clean injecting equipment and advice in order to minimise the sharing of injecting equipment and improve injecting hygiene, and so reduce the risk of blood-borne viral infections, SSTIs and other harms, such as overdose (Jones, Pickering, Sumnall, McVeigh, & Bellis, 2010; NICE, 2014). To be effective they should be available in settings that are easy for people who use drugs to access, with NSP provided through specialist services, mobile units, community pharmacies, vending machines and emergency departments. In the UK NSP provision is widespread, with the predominant mode of delivery being community pharmacies, though provision through stand-alone specialist services for people who use drugs is also common (NICE, 2014).

In March 2020 the UK Government introduced restrictions in response to COVID-19, the implementation of which started during the week commencing the 16th March ("PM statement on coronavirus: 16 March," 2020), and these were fully implemented during following week. The restrictions required people to stay at home, with the exception of essential journeys (i.e. food shopping, daily exercise, for healthcare, or to go to work if a key worker), and to follow social distance guidelines which included maintaining a 2 metre distance from people outside their household when not at home (PHE, 2010; "PM address to the nation on coronavirus: 23 March," 2020; "PM statement on coronavirus: 16 March," 2020). Other measures implemented included housing people living on the streets in hotels and other accommodation (MHCLG, 2020).

To inform actions to limit the negative impacts of the COVID-19 restriction on people who inject drugs, the data set collected by an established regional monitoring system in the North West of England (IMS, 2020) was expanded. Enhanced data from this system was fed back directly to those commissioning services weekly, and fed into COVID-19 response systems including local authority led local resilience forums and regional meetings of the Commissioners and Providers of services for people who use drugs. The impact of the restrictions on NSPs in England are assessed using this data. Changes in the utilisation and coverage of NSP are examined over the 20-week period centred around the implementation of the COVID-19 restrictions.

Method

The Integrated Monitoring System (IMS) is an established system for monitoring the provision of low threshold interventions, including NSP, across Cheshire and Merseyside (pop 2,482,336), in the North West of England (IMS, 2020). The system collects NSP activity data from nine local authorities, where NSP are provided through either community pharmacies or by specialist services. In January 2020, there were 92 community pharmacies and 25 specialist service sites providing NSP.

Data collection was enhanced in response to COVID-19 to inform mitigation of the impacts of restrictions imposed. This enhancement had two components. Firstly, additional data collection was established to monitor the accessibility of services; collecting data on whether sites were still providing NSP, opening hours and access restrictions. The existing data collection was also enhanced to collate and report weekly activity where possible, with data obtained via weekly extracts provided directly by the specialist services, and through two software packages used by pharmacies. Data was returned each Monday on activity recorded up to the preceding day. An extract of all quarterly activity was provided each week to permit updates to account for any lags in entering data. Data on number of NSP visits (transactions), client numbers and amount of equipment are available by main type of substance used (psychoactive or image and performance enhancing [IPED]).

Changes in NSP activity over time were examined using five 4-week periods, with the base period being the four weeks ending the 15th March 2020 (i.e. the period just before implementation of the restrictions). Changes in number of clients, visits and needles distributed over time are examined using weekly averages. Weekly averages are used as activity fluctuates from week-to-week, reflecting that some individuals do not collect equipment every week and this can be further impacted by public and other holidays. Data was examined overall and by drug type (psychoactive or image and performance enhancing). Number of clients and visit during 2020 were also compared with comparable 4-week periods in 2019. Finally, using the most recent published estimates the size

of the population injecting opiates and/or crack, the most commonly injected psychoactive drugs in England (Hay, Rael dos Santos, & Millar, 2013), the impact on NSP coverage was assessed.

Results

In April 2020, 105 (91%) of the 115 sites providing NSP services that could be contacted remained open with social distancing measures in place. Of these sites, 45% had reduced hours or had additional access restriction in place (such as queuing systems). Service also reported adopting new approaches to providing NSP to people resident in hostels in response to social distancing and the measures introduced to house those living on the streets.

Monitoring of NSP activity data shows that the number of clients, visits, and number of needles all dropped substantially from mid-March 2020, see figure. In the 4-week period ending 12th April these were down by 36% (from a mean of 662 clients per week to 426), 36% (from a mean of 1,424 visits per week to 913), and 29% (from a mean of 59,026 needles per week to 41,772) respectively when compared to the 4-week period ending 15th March 2020. The impact was greatest on people attending because of IPED use; for example, mean number of clients reporting IPED use per week was down by 52% (232 to 111), whereas the number of clients using psychoactive drugs was down by only 27% (430 to 316).

In the period prior to 16th March 2020 the average number of clients and visit were slightly higher than in the same period during 2019 (number of clients by 8% and number of visits by 6%, see figure). Since 16th March 2020, these have both been down by around one-third on the comparable periods in 2019 (number of clients by 34% and number of visits by 32%).

There were an estimated 3,590 people who injected opiate and crack across the nine local authorities in 2010/11 (the most recent estimates available). Using this as an estimate of the population size and the average number of needles provided to those using psychoactive drugs, NSP coverage for this group was estimated. The number of needles distributed per person injecting psychoactive drugs has halved, with the estimated coverage having declined from 14 needles per-week during 4-week period ending 15th March 2020 to 7 needles per-week by mid-April, and coverage has remained at that level since then.

Discussion

The marked changes in the utilisation of NSP reported here are a concern. Caution is needed, as the impact of the COVID-19 restrictions on the levels of drug use and routes of drug administration remain unclear; however, any reductions in injecting drug use are unlikely to explain such a substantial decline. Our findings indicate that NSP coverage may have halved in an area where

monitoring was enhanced to provide timely data to inform action to mitigate negative impacts from the COVID-19 restrictions. Most areas of England, and many locations elsewhere globally, have more limited or minimal NSP monitoring. The falls in coverage might be greater in those areas without timely monitoring, and reduced provision has been reported in the USA (Bartholomew, et al., 2020) where NSP provision is less extensive than in the UK.

Our analysis is based on enhanced data collation by an established monitoring system. IMS is well establish and covers all NSP sites in the region, with data quality assurance in place; however, data had not previously been collated and reported on a weekly basis. Some of the services could provide this data easily, while for others this was not the case. Where the underlying data recording does not take place in real-time, it is possible activity might be recorded in a different week to that in which it took place. We used mean values for four-weekly periods to minimise the possible impact of this, and to allow for public holidays (of which there were four in four different weeks during the period considered) which may cause peaks and troughs in service use. A second limitation is that the most recent estimate of the size of the psychoactive drug injecting population is 10-years old, and is only for the injection of heroin and crack. However, the overall size of the heroin and crack using population has changed little since then (Hay, Rael dos Santos, Reed, & Hope, 2019). Heroin and crack are by far the most commonly injected psychoactive drugs in the area, though other psychoactive drugs are injected. The estimate of the population sized used is thus probably a conservative one, and therefore may result in overestimation of coverage.

Unless there has been a very marked and sudden decline in the injection of heroin and crack-cocaine, the halving of NSP coverage probably indicates a rise in the re-use of injecting equipment. Thus, there is likely to have been an increase in the sharing of needle and syringes and so harm. As a consequence, the potential for outbreaks of HIV and HCV is now greatly elevated. The detection of such outbreaks would be unlikely as testing activity for HIV and HCV in the UK, as elsewhere, has been substantially reduced due to social distancing and the focus on testing for COVID-19 (Bartholomew, et al., 2020; DHSC & PHE, 2020). A more immediate impact of any increased risk may be seen in injection related SSTIs. Monitoring of care seeking and admissions for SSTIs could be used as an indicator for any changes in risk and harm.

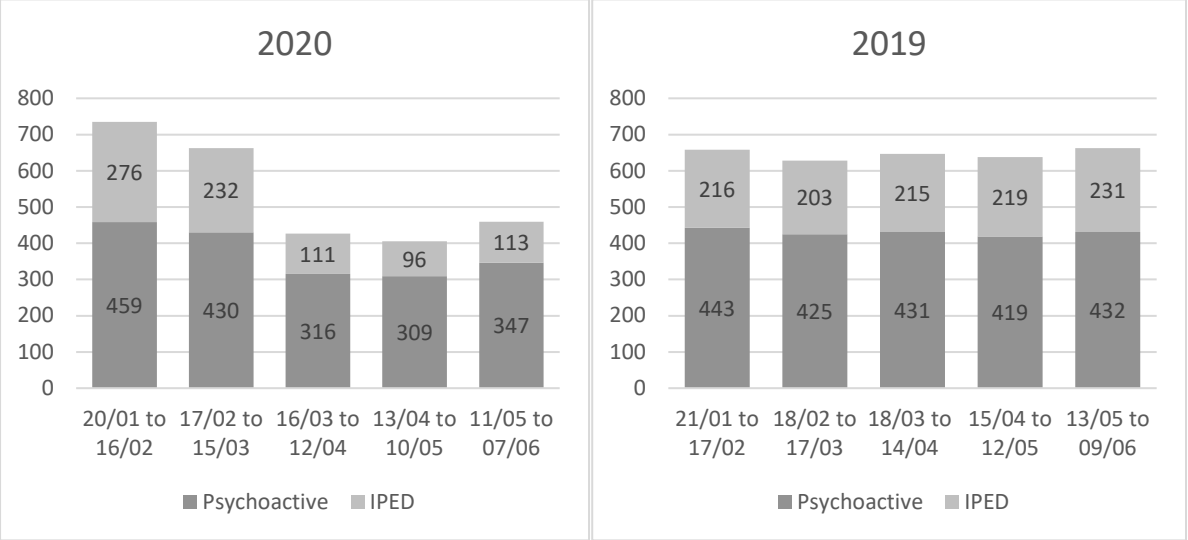
As social distancing measures are likely to remain in place for some time, albeit modified, further action is required to ensure that those who need sterile needles and syringes can easily access these. Improved awareness of the continuation of the existing NSP provision and improvements to access are part of this. As the restrictions are lifted access to services should improve, but even with modified social distancing measures (e.g. a reduction from 2 metres to 1 metre) delivery of these will

pose challenges. Therefore, other approaches, such as, home delivery, provision by post, peer supported distribution, and vending machines need to be considered to improve equipment availability. Vending machines may be challenging to get in place quickly because of their sourcing and installation, but the other approaches could be implemented in a shorter time frame. Home delivery and peer distributions schemes already exist in some areas (NHS-SMPA, 2020) and have been expanded, but they require careful management to maintain social distancing. There are already direct postal sales of injecting equipment to some people who inject IPEDs (Exchange Supplies, 2020b). By utilising existing postal and courier services, establishing free postal NSP provision to all people who inject drugs could be achieved relatively quickly whilst maintaining social distancing, and such a service has been just set up in the UK (Exchange Supplies, 2020a).

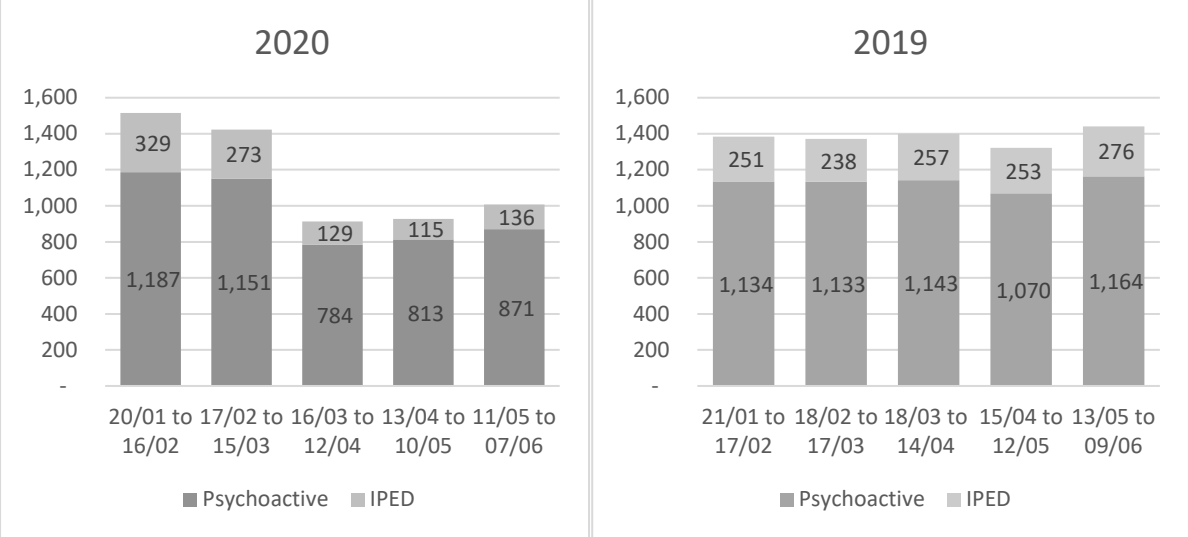
The decline in NSP utilisation could reflect changes in drug use practice. Those using IPEDs may have moved to oral drugs or rescheduled their cycles of use; though the decline for this group might reflect a move to online purchasing of needles. For those who inject psychoactive drugs, it is as yet unclear if there has been a decline in injecting, for example, due to people switching to use of oral drugs or abstaining. The decline in NSP use is marked and will, in part at least, reflect decreased utilisation rather than need, and so increased reuse of equipment. The decline requires further investigation to better understand its impacts on risk and harms and measures to improve coverage, such as alternative forms of provision, are urgently needed.

Figure:
Number of clients, visits and needles distributed by NSP in Cheshire and Merseyside: January to May, 2019 and 2020

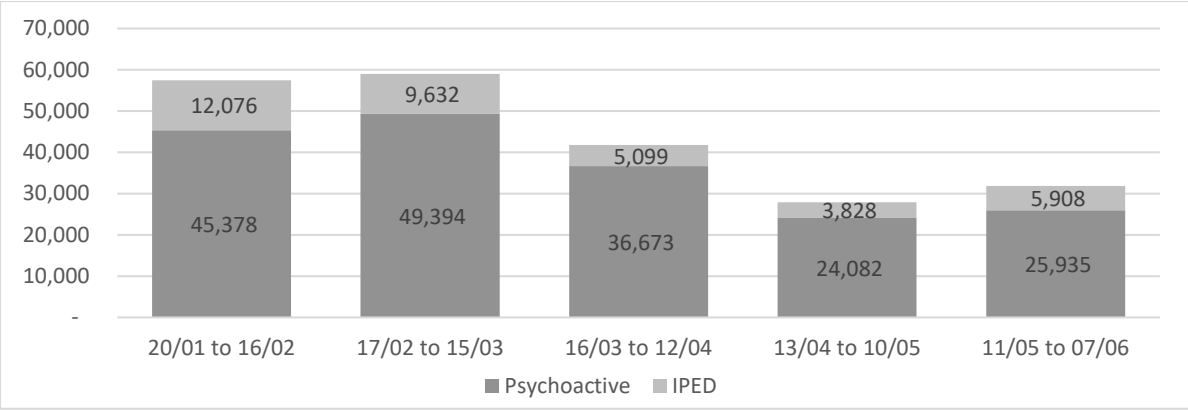
a) Mean number of clients per week



b) Mean number of visits per week



c) Mean number of needles distributed per week: 2020 (data not available for 2019)



References

Bartholomew, T. S., Nakamura, N., Metsch, L. R., & Tookes, H. E. (2020). Syringe services program (SSP) operational changes during the COVID-19 global outbreak. *International Journal of Drug Policy*, 102821.

DHSC, & PHE. COVID-19: guidance for commissioners and providers of services for people who use drugs or alcohol. Retrieved 25/06/20 from https://www.gov.uk/government/publications/covid-19-guidance-for-commissioners-and-providers-of-services-for-people-who-use-drugs-or-alcohol/covid-19-guidance-for-commissioners-and-providers-of-services-for-people-who-use-drugs-or-alcohol#what-else-commissioners-and-providers-of-drug-and-alcohol-treatment-services-can-do.

ECDC, & EMCDDA. (2011). Prevention and control of infectious diseases among people who inject drugs. . In. Stockholm: Eurpean Centre for Diseaes Control.

EMCDDA. (2019). Harm reduction, Country Drug Report 2019: United Kingdom, . In. Lisbon.

Hay, G., Rael dos Santos, A., & Millar, T. (2013). Estimates of the Prevalence of Opiate Use and/or Crack Cocaine Use, 2010/11: Sweep 7 report. . In. Liverpool: LJMU.

Hay, G., Rael dos Santos, A., Reed, H., & Hope, V. (2019). Estimates of the Prevalence of Opiate Use and/or Crack Cocaine Use, 2016/17: Sweep 13 report. In. Liverpool: LJMU.

IMS. Intregrated Monitoring System. Retrieved 25/06/20 from https://ims.ljmu.ac.uk/about.

Jones, L., Pickering, L., Sumnall, H., McVeigh, J., & Bellis, M. A. (2010). Optimal provision of needle and syringe programmes for injecting drug users: A systematic review. *International Journal of Drug Policy, 21*, 335-342.

Larney, S., Peacock, A., Leung, J., Colledge, S., Hickman, M., Vickerman, P., Grebely, J., Dumchev, K. V., Griffiths, P., Hines, L., Cunningham, E. B., Mattick, R. P., Lynskey, M., Marsden, J., Strang, J., & Degenhardt, L. (2017). Global, regional, and country-level coverage of interventions to prevent and manage HIV and hepatitis C among people who inject drugs: a systematic review. *Lancet Glob Health, 5*, e1208-e1220.

Marsden, J., Darke, S., Hall, W., Hickman, M., Holmes, J., Humphreys, K., Neale, J., Tucker, J., & West, R. (2020). Mitigating and learning from the impact of COVID-19 infection on addictive disorders. *Addiction, 115*, 1007-1010.

MHCLG. (2020). Letter from Minister Hall to local authorities on plans to protect rough sleepers. In C. L. G. Ministry of Housing (Ed.): UK Government.

NHS-SMPA. The Provision of Needle and Syringe Programmes During the Covid-19 Lockdown. Retrieved 25/06/20 from https://nhssmpa.org/blog/needle-programmes-during-covid-19.

NICE. (2014). PH52: Needle and syringe programmes. . In. London.

PHE. COVID-19: guidance on social distancing and for vulnerable people. Retrieved 25/06/20 from https://www.gov.uk/government/publications/covid-19-guidance-on-social-distancing-and-for-vulnerable-people.

PM address to the nation on coronavirus: 23 March. Retrieved 25/06/20 from https://www.gov.uk/government/speeches/pm-address-to-the-nation-on-coronavirus-23-march-2020.

PM statement on coronavirus: 16 March. from https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-16-march-2020

Supplies, E. NSPdirect: postal equipment supply. Retrieved 30/06/20 from https://www.exchangesupplies.org/shopdisp_E100.php.

Supplies, E. Steriod Injecting Equipment. Retrieved 25/06/20 from https://www.exchangesupplies.org/shopsect_steroid_injecting.php.

Turner, K. M., Hutchinson, S., Vickerman, P., Hope, V., Craine, N., Palmateer, N., May, M., Taylor, A., De Angelis, D., Cameron, S., Parry, J., Lyons, M., Goldberg, D., Allen, E., & Hickman, M. (2011). The impact of needle and syringe provision and opiate substitution therapy on the incidence of hepatitis C virus in injecting drug users: pooling of UK evidence. *Addiction, 106*, 1978-1988.

Ward, Z., Platt, L., Sweeney, S., Hope, V. D., Maher, L., Hutchinson, S., Palmateer, N., Smith, J., Craine, N., Taylor, A., Martin, N., Ayres, R., Dillon, J., Hickman, M., & Vickerman, P. (2018). Impact of current and scaled-up levels of hepatitis C prevention and treatment interventions for people who inject drugs in three UK settings-what is required to achieve the WHO's HCV elimination targets? *Addiction, 113*, 1727-1738.