UK Health Security Agency

Shooting Up: infections and other injecting-related harms among people who inject drugs in the UK, 2020

An update
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Public Health Scotland

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

HSC Public Health Agency

Contents

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List of abbreviations

BBV	Blood-borne virus
COVID-19	Coronavirus
CHI	Community Health Index
DAA	Direct acting antivirals
DBS	Dried blood spot
GAS	Group A Streptococcus
HARS	HIV and AIDS Reporting System
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HITT	High Intensity Test and Treat
HIV	Human immunodeficiency virus
HMPPS	Her Majesty's Prison and Probation Service
HRD	Harm Reduction Database
iGAS	Invasive Group A Streptococcus
MRSA	Meticillin-resistant *Staphylococcus aureus*
MSSA	Meticillin-sensitive *Staphylococcus aureus*
NDTMS	National Drug Treatment Monitoring System
NESI	Needle Exchange Surveillance Initiative
NHS	National Health Service
NHSEI	NHS England and NHS Improvement
NIHR	National Institute for Health Research
NSP	Needle and syringe programme
ODN	Operational delivery network
OST	Opioid substitution therapy

PHS	Public Health Scotland
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
RNA	Ribonucleic acid
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
SDMD	Scottish Drug Misuse Database
SGSS	Second Generation Surveillance System
UAM	Unlinked Anonymous Monitoring
UKHSA	UK Health Security Agency
WHO	World Health Organization

Foreword

People who inject drugs (PWID) experience substantially worse health outcomes than the general population. The coronavirus (COVID-19) pandemic has had a significant impact, limiting access to blood-borne virus (BBV) testing and safe injecting equipment, which has likely widened health inequalities. Drug-related deaths are at an all-time high.

However, there is increased awareness of these issues. The independent review by Dame Carol Black sets out concrete proposals on prevention, treatment and recovery and the government in the UK has responded with a new 10-year drugs strategy, that will likely have implications for harm reduction going forward.

Prevention, detection and treatment of infections related to injecting drug use remain issues of public health concern in the UK. This report explores these infections and associated risks and behaviours among PWID in the UK to the end of 2020, presenting data on the impact of COVID-19 on access to services for PWID.

Hepatitis C virus (HCV) continues to be the most common BBV among PWID in the UK. There is encouraging evidence of a reduction in chronic HCV prevalence, most likely due to the scale-up of direct-acting antiviral treatment in this population, but we are yet to see a reduction in new HCV infections. There has been significant investment by the National Health Service into the HCV Elimination Programme that has funded innovative approaches to testing and treatment. As treatment continues to be scaled up, it will be important to understand the characteristics of those who remain unaware of their HCV infection and to ensure that case finding initiatives are tailored to their needs. Hepatitis B virus (HBV) and HIV among PWID remain comparatively low. However, one third of PWID are unvaccinated for HBV and PWID are disproportionately diagnosed late with HIV infection. Concerted effort is required to improve HBV vaccination uptake and HIV testing and linkage to care.

Worryingly, levels of reported sharing and re-use of injecting equipment have increased and one third of PWID report an inadequate supply of needle and syringes, with significant disruption to service provision over the pandemic. This is a concern, as availability of, and access to, sufficient supplies of sterile injecting equipment are critical in preventing further transmission of infections.

In response to the COVID-19 pandemic, holistic approaches to the broader health and wellbeing needs of PWID are being developed; evaluation of the impact of these interventions will help inform service planning as we recover from the impact of the pandemic. This person-centred approach, combined with a collaborative, whole-system approach to the prevention, detection and treatment of infections is crucial in reducing health inequalities among this marginalised group and to meet international elimination goals for HIV, HBV and HCV.

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Main messages and recommendations

COVID-19 has had a significant impact on PWID and service provision

Preliminary bio-behavioural and other surveillance and research data indicates people who inject drugs (PWID) in the UK have been adversely affected by the COVID-19 pandemic in 2020, with access to services severely limited, including access to blood borne virus (BBV) testing and equipment for the safe use and/or injecting of drugs. PWID are particularly vulnerable to infectious diseases due to the extent of poverty, poor physical and mental health and reliance on access to clinical and public health services. It will be crucial to continue to monitor trends in access to services affected by the pandemic, as well as COVID-19 among PWID, to estimate the impact on national HIV and viral hepatitis elimination efforts.

Despite a disruption in services for PWID as a result of COVID-19, novel approaches to service delivery have been implemented to ensure continuity of access to interventions. It is important that these innovations are evaluated to assess the impact on outcomes and health inequalities.

Chronic HCV prevalence has declined significantly, however rates of new infection are unchanged

Hepatitis C virus (HCV) continues to be the most common infection among PWID in the UK, with bio-behavioural data showing no evidence of a reduction in new HCV infections over recent years. However, there is evidence for a reduction in chronic HCV prevalence, concomitant with the scale-up of direct acting antiviral (DAA) treatment, in this population. Self-reported HCV testing among PWID was high in 2020, in line with HCV elimination activities, yet the significant proportion of individuals not tested recently indicates there is scope for improvement. As an increasing proportion of PWID are successfully treated with DAAs, it is important to continue to test those with ongoing risk regularly to identify re-infection and reduce the risk of transmission early. It is essential that diagnostic services and care and treatment pathways for those with HCV continue and are optimised to meet the needs of PWID, ensuring no-one is left behind.

HBV remains rare, but vaccine uptake needs to be improved

Although hepatitis B virus (HBV) vaccination is recommended as high priority for all people who currently inject drugs, around a third of PWID have never been vaccinated. Even though HBV infection among this group is currently rare, it is essential that guidelines on vaccination are followed (1, 2); vaccination should be particularly promoted among PWID of younger age and

recent initiates to injecting, for whom uptake is known to be low. Further work is needed to explore the barriers to uptake of HBV vaccination and strategies for increasing vaccine coverage should be developed and evaluated.

HIV levels continue to be low, but missed opportunities remain

HIV infections and outbreaks continue to occur among PWID, although prevalence in this group remains comparatively low. Most of those with HIV are aware of their infection and uptake of treatment and care for HIV among those diagnosed is high. However, missed opportunities remain, with many PWID not tested recently reporting contact with a range of clinical services. It is important that PWID at ongoing risk are offered a diagnostic test regularly (1). Care pathways for those with HIV need to be optimised and maintained to ensure outcomes for PWID are equitable.

Preventable bacterial infections remain a problem

Cases of bacterial infections among PWID dropped in 2020, although this is thought to be due to limited hospital activity as a result of the pandemic. To prevent rates of bacterial infections increasing, drug and alcohol services should facilitate easy access to needle and syringe programmes (NSP), embed regular opportunities to discuss safe and hygienic injection practices with clients and provide low threshold and outreach wound care services. It is also important to provide prompt treatment for injection site infections and tetanus vaccination.

Risk behaviours have increased

The recent increase in the sharing and re-use of injecting equipment is of concern. A third of PWID in 2020 report inadequate provision of needles and syringes. A range of easily accessible harm reduction services for all PWID, including NSP and opioid substitution therapy (OST), needs to be provided. A better understanding of the range and scope of NSP provision in non-drug service settings is needed. Clients should be supported to use low dead space equipment, including detachable needles and syringes that have lower dead space, to further reduce the risk of BBV transmission. Socially excluded communities, such as PWID experiencing homelessness and those not currently in contact with drug and alcohol services, should be specifically supported to access harm reduction services, regular BBV testing and care.

Patterns of psychoactive drug use are changing

The changing patterns of psychoactive drug injection in the UK also remain a concern, as changes in psychoactive drug preferences can lead to riskier injecting practices. Injection of crack cocaine has increased in England and Wales, and injection of powder cocaine has increased in Scotland. There is a need for local treatment and harm reduction systems that can respond to both the increasing numbers and the specific needs of people who use crack and powder cocaine.

Rates of overdose are at an all-time high

Reports of both fatal and non-fatal overdose have increased in the UK, with overdose most common among people using and/or injecting opiates. This is in the context of improved availability of naloxone, an emergency antidote for opioid overdose and increased self-reported carriage of take-home naloxone among PWID. Services working with PWID should provide materials to increase awareness of, and information about, overdose risks and provide training for peers and family members in overdose prevention, recognition and response, in addition to providing and encouraging consistent carriage of take-home naloxone and providing OST (3).

Introduction

Drug use in the UK is the highest of any country in Western Europe; one in 11 people aged 16 to 59 years report having used an illicit drug in the last year in England and Wales and one in 14 in Scotland (4 to 6). It is estimated over 300,000 people aged 15 to 64 use opiate and/or crack cocaine in England, with approximately 87,000 people injecting (7, 8).

PWID are vulnerable to a wide range of health harms which can result in high levels of morbidity and mortality, including blood-borne viral infections, bacterial infections and overdose. HIV, HBV and HCV are effectively transmitted through the sharing of needles, syringes and other injecting equipment. Unsterile injection practices are also associated with bacterial infections such as *Staphylococcus aureus* and *Streptococcus pyogenes,* also known as Group A Streptococcus (GAS), which are often worsened by poor wound care and delays in PWID seeking healthcare. PWID are at risk of rare but life-threatening infections with spore-forming bacteria such as tetanus, botulism and anthrax, which can be associated with contaminated drugs and poor injecting technique. Infection and other injecting-related harms among PWID are amplified by the existence of structural barriers to accessing prevention, care and treatment services such as homelessness, imprisonment and discrimination.

This annual national report and its accompanying data tables describe infections and other injecting-related harms alongside associated risks and behaviours among PWID in the UK to the end of 2020, in the context of the COVID-19 pandemic (9). PWID are disproportionally vulnerable to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and poor outcomes of COVID-19, due to a high prevalence of underlying health conditions, lifestyle risk factors and structural inequalities (10 to 14). In March 2020, the UK government introduced restrictive public health measures in an effort to reduce SARS-CoV-2 transmission and lessen the burden on the NHS (15). During the following recurring periods of lockdown throughout 2020, healthcare providers, including drug and alcohol services, were faced with the challenge of ensuring continuity of care, while reducing face to face contact and implementing social distancing measures (4).

The full impact of the COVID-19 pandemic and the resulting restricted access to services on the health and wellbeing of PWID in the UK remains to be seen (16). Continued public health monitoring of infectious diseases and other drug-related harms among PWID is critical to understanding the impact of COVID-19 on national HIV and viral hepatitis elimination efforts, as well as on the health inequalities experienced by this marginalised group.

It is important to consider, when interpreting the data presented in this report, that the COVID-19 pandemic also had an effect on surveillance data collection and resulted in reporting delays. Furthermore, it has severely limited recruitment to bio-behavioural surveys among PWID including the Unlinked Anonymous Monitoring (UAM) Survey in England, Wales and Northern Ireland and the Needle Exchange Surveillance Initiative (NESI) in Scotland, which was suspended before completion in 2020. The limitations of the affected data are described within the text where relevant. More details can be found in Appendix 1 – Data sources.

Chronic hepatitis C prevalence has declined significantly, however rates of new infection are unchanged

In 2016, the UK signed up to the World Health Organization (WHO) Global Health Sector Strategy on Viral Hepatitis, committing to an 80% reduction in incidence of HCV infection and a 65% reduction in mortality from HCV by 2030 (17). More recently, interim guidance has been published setting out absolute impact targets for viral hepatitis elimination, aiming for HCV incidence rates of 5 new infections or less per 100,000 population (2 infections or less per 100 PWID) and 2 or less deaths per 100,000 population for HCV-related mortality (18). Action plans to tackle HCV prevalence and incidence are available across the UK and include strategies to enhance case finding and improve access to and uptake of HCV treatment (19).

HCV prevalence

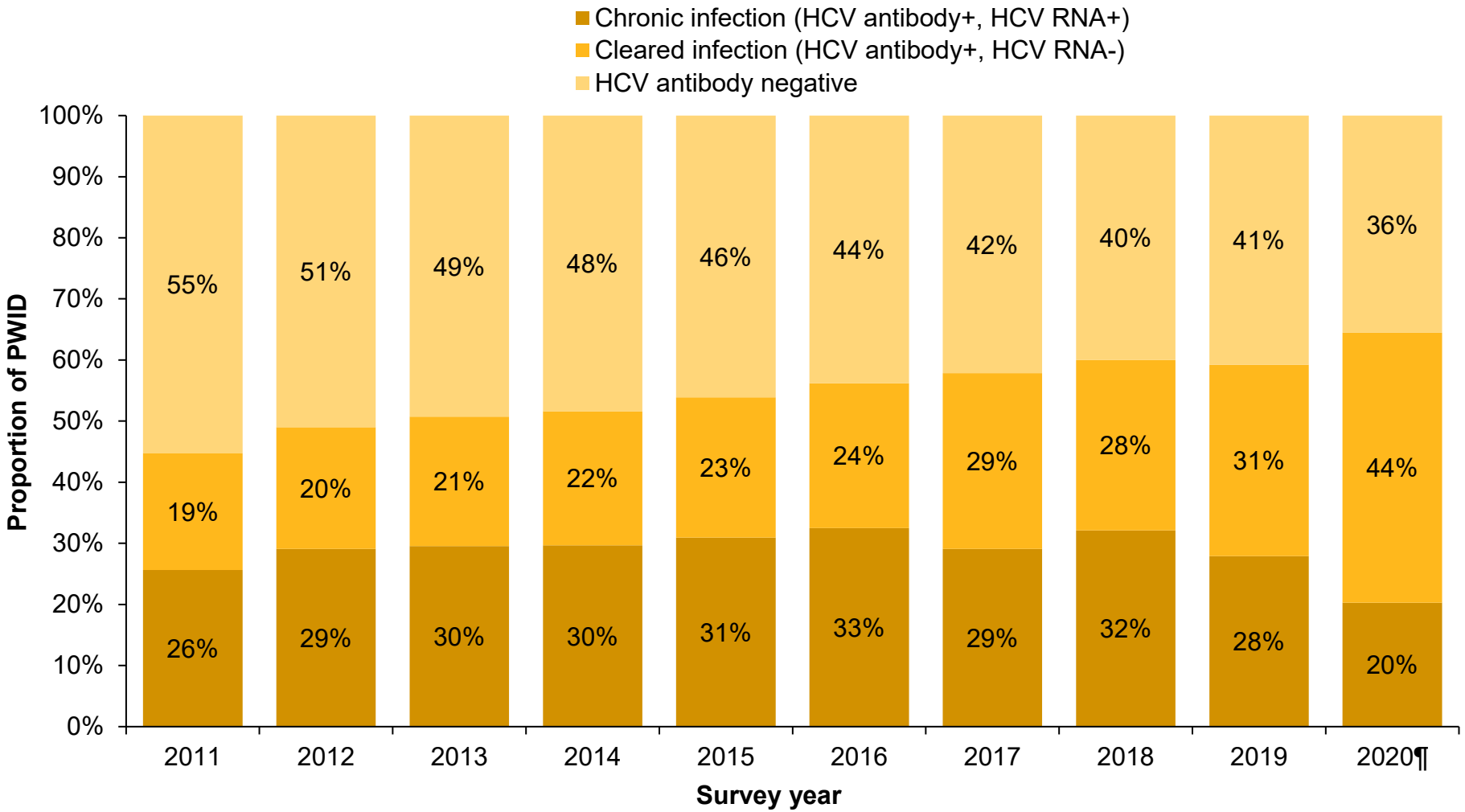
People who have ever injected drugs are the group most affected by HCV in the UK, with over 90% of infections diagnosed in England thought to have been acquired through injecting drug use (19, 20).

In 2020, 60% of UAM Survey participants in England, Wales and Northern Ireland had antibodies to HCV, indicative of being ever infected, an increase of 17% since 2011 (Data Table 1b) (15, 21). HCV antibody prevalence in Scotland has not changed substantially in recent years and was 55% in the 2019 to 2020 NESI survey (Data Table 1b).

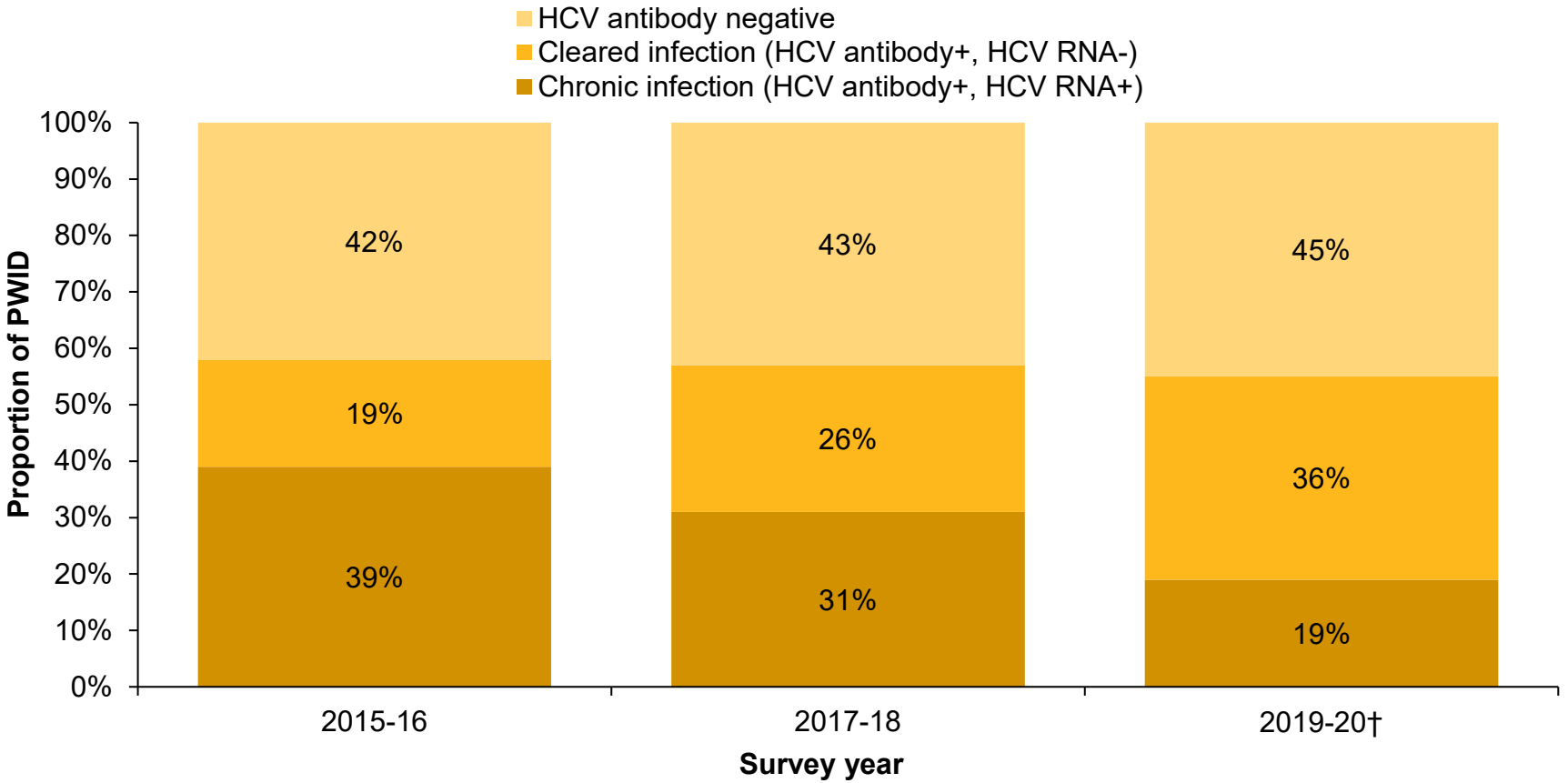
People are considered to have chronic HCV infection when they test positive for HCV ribonucleic acid (RNA) in addition to HCV antibodies. In England, Wales and Northern Ireland in 2020, 20% of people who injected drugs in the last year had chronic HCV. This is a significant decrease from 33% in 2016, when the level of chronic infection was at its highest, during the past decade, and from 28% in 2019 (Figure 1a; Data Table 1b) (15, 21). Conversely, cleared HCV infection increased in England, Wales and Northern Ireland from 19% in 2011 to 44% in 2019 (Figure 1a). Between the 2015 to 2016 and 2019 to 2020 NESI survey rounds, the prevalence of chronic HCV among people reporting injecting drugs in the last year in Scotland dropped from 39% to 19% and cleared infection increased from 19% to 36% (Figure 1b; Data Table 1b). Taken with the increase in HCV antibody prevalence indicating ever infection, the fall in chronic prevalence among PWID in the UK is more likely the result of the scale-up of HCV treatment rather than improved harm reduction (19, 20, 22, 23).

Figure 1. Trends in chronic and cleared HCV prevalence among people who injected drugs in the last year: UK, 2011 to 2020

a) England, Wales and Northern Ireland



b) Scotland



Footnotes for Figure 1:
Data is shown for those years where there is HCV RNA testing data available.
Estimates for chronic and cleared HCV infection have been adjusted to take into account antibody-positive samples with missing HCV RNA status. The ratio of chronic to cleared infection was applied to the antibody-positive samples with missing HCV RNA status by year and by geography (English regions, Wales, Northern Ireland, Scottish health board (Greater Glasgow and Clyde, Tayside and the rest of Scotland).
¶ UAM Survey data for 2020 is preliminary due to limited sampling as a result of the COVID-19 pandemic (15).
† As the 2019 to 2020 NESI survey was suspended before completion due to the COVID-19 pandemic, data presented is provisional.
Data sources for Figure 1: Unlinked Anonymous Monitoring Survey of People Who Inject Drugs (England, Wales and Northern Ireland) and Needle Exchange Surveillance Initiative (Scotland).

Surveillance data on diagnostic testing can also be used to inform estimates of HCV prevalence (Data Table 1a). Sentinel surveillance of blood-borne virus (BBV) testing in England reported an HCV antibody positivity of 20% among people tested in drug services in 2020; 39% had a chronic HCV infection, among those with an RNA test available (98%). In Wales, HCV antibody prevalence in the 2020 to 2021 tax year was 12% among those who had ever injected drugs tested in specialist drug services and included in the Harm Reduction Database (HRD); 5.1% were found to be currently infected with HCV (RNA positive) (Data Table 1b) (24). This is much lower than HCV antibody prevalence measured through the HRD in previous years, as BBV testing within specialist substance misuse services was almost entirely halted across Wales during much of 2020 (24). HCV prevalence measured through the HRD generally is lower than that measured in the UAM Survey, likely due to sampling and regional variation and because those unaware of their infection are not included.

Among people who have ever injected drugs presenting for drug treatment in England in the 2020 to 2021 tax year who had been tested for HCV and were aware of their result, 37% reported they were antibody positive, and 21% reported they were currently infected with HCV (National Drug Treatment Monitoring System (NDTMS)) (Data Table 1b).

HCV incidence

The evidence of a reduction in chronic HCV prevalence among PWID in the UK is likely to be mainly attributable to increased uptake of direct acting antiviral (DAA) treatment rather than a reduction in incidence of new infection. DAA treatment provides an effective, well tolerated, short-term oral treatment regimen for chronic HCV infection. Recent transmission of HCV within the past 3 months can be assessed by describing HCV RNA positivity among those negative for HCV antibodies. These individuals have markers of current infection (RNA) but are yet to mount an antibody response. HCV RNA testing of HCV antibody negative samples has been carried out in Scotland since the 2008 to 2009 NESI survey, and in England, Wales and Northern Ireland for UAM for samples collected between 2011 to 2013 and 2016 to present. This data suggests that the incidence of infection in the UK has remained relatively stable in the range of 10 to 16 per 100 person-years over the last 5 years (19). Other data that can inform HCV incidence estimates include HCV antibody prevalence among recent initiates to injecting or younger PWID; however, this data is not available from the UAM Survey for 2020 because of challenges recruiting participants due to COVID-19.

The overall level of HCV transmission among PWID in the UK appears to have changed little in recent years (19). However, it is important to acknowledge that reductions in chronic prevalence have only been observed over the last couple of years. Therefore, evidence of a reduction in incidence in this population may take further time to emerge, particularly with limited access to harm reduction as a result of the pandemic.

HCV testing

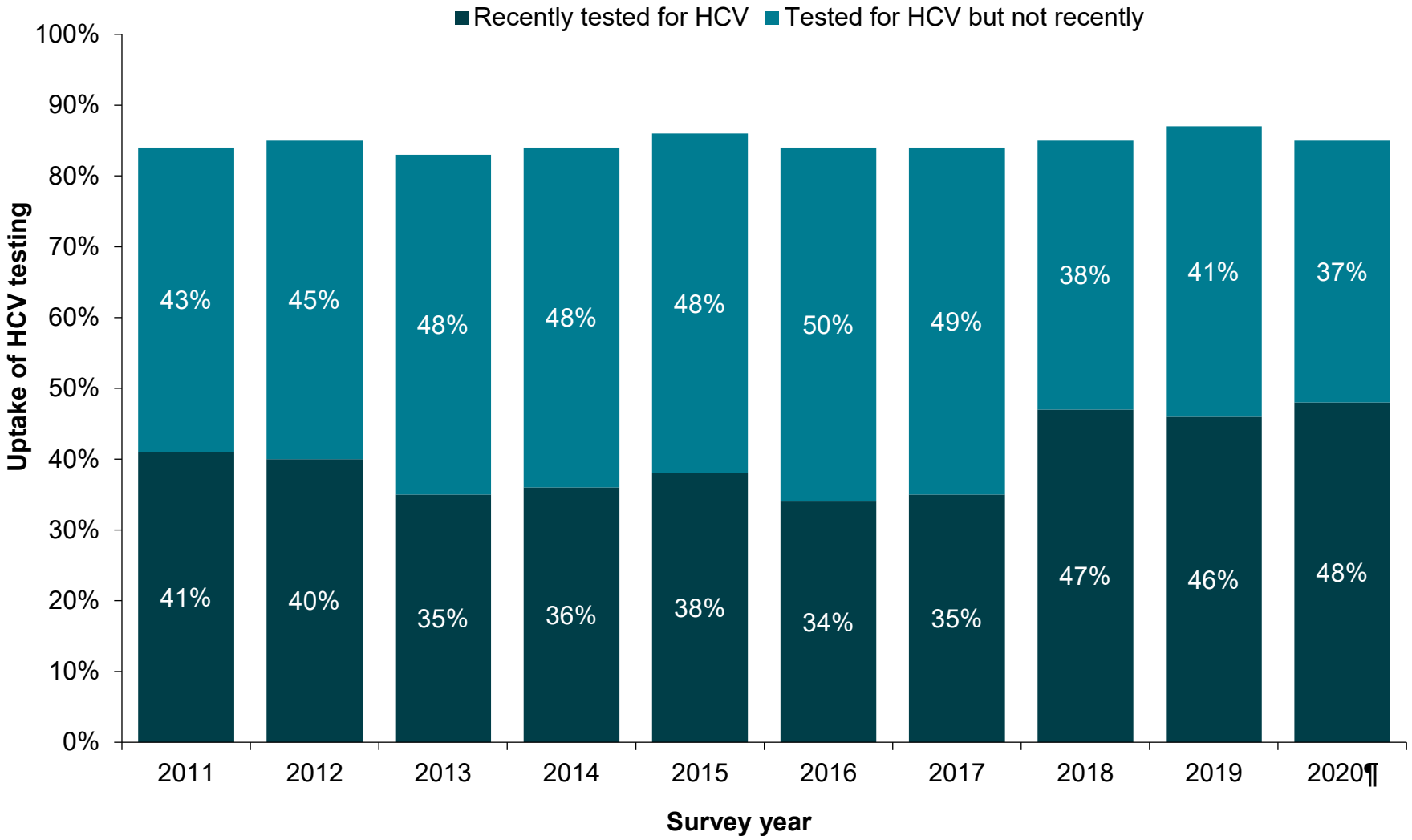
HCV testing was significantly reduced in 2020 as a result of the COVID-19 pandemic and the closure of services. Compared to 2019, HCV antibody and RNA testing in drug services in England dropped by over 60% (Data Table 1a) (25). Furthermore, 22% of PWID surveyed in England, Wales and Northern Ireland reported difficulties accessing testing HIV and/or viral hepatitis in 2020 compared to 2019; 24% of drug and alcohol services participating in the UAM and surveyed in October 2020 reported ongoing interruptions to the provision of HCV testing (15, 26, 27).

In Scotland, time-series analysis of Electronic Communication of Surveillance in Scotland data shows the mean number of HCV tests in drug services and prisons per week dropped by 66% between pre- (1 January 2019 to 22 March 2020) and post-lockdown periods (23 March 2020 to 30 August 2020) (28). In the first weeks of lockdown, there were 96% fewer HCV tests conducted in drug services and prisons compared to the same period in 2019. In August 2020, although there was evidence of recovery, there were 25% fewer HCV tests conducted compared to the same period in 2019. Continued monitoring is needed to understand the impact of COVID-19 on national HCV elimination efforts.

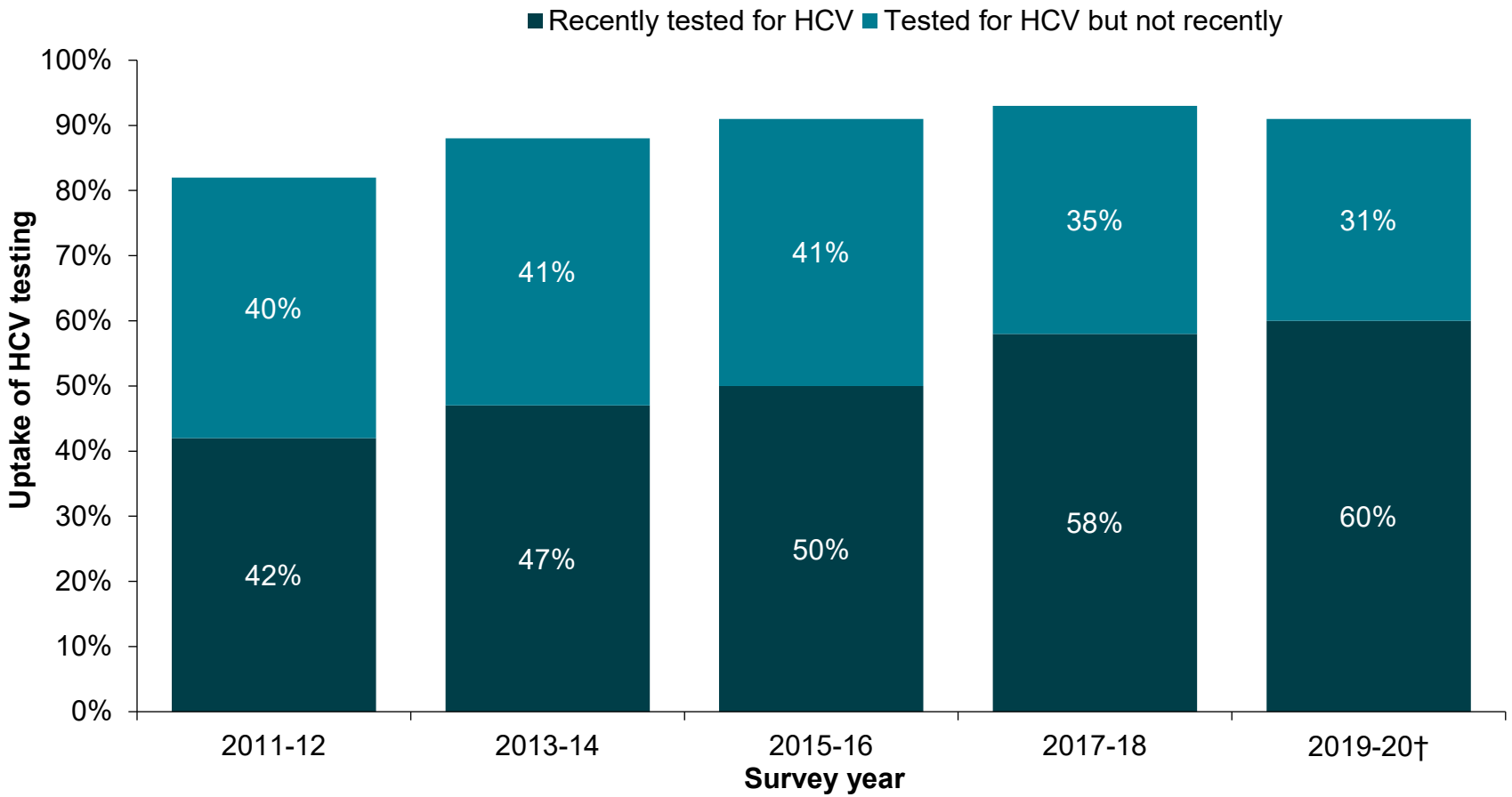
Bio-behavioural data shows the proportion of PWID who reported being tested for HCV has remained relatively stable in England, Wales and Northern Ireland over the last decade. Self-reported uptake of testing for HCV was 85% in 2020, with 48% reporting recently testing in the current or previous year (52% among those injecting in past year) (Figure 2a; Data Table 3b) (15, 21). As recent testing for HCV in the UAM Survey is measured as testing in the current or previous year, any access restrictions to testing as a result of the pandemic will not be reflected in the 2020 data. In Scotland, the proportion of people who injected in the last 6 months reporting ever being tested for HCV increased from 82% in NESI 2011 to 2012 to 91% in 2019 to 2020 (pre-COVID-19) (Figure 2b; Data Table 3b). The proportion reporting testing in the last year also increased from 42% in 2011 to 2012 to 60% in 2019 to 2020 (Figure 2b; Data Table 3b).

Figure 2. Uptake of HCV testing among people who have ever injected drugs in England, Wales and Northern Ireland and people who injected in the last 6 months in Scotland, 2011 to 2020

a) England, Wales and Northern Ireland



b) Scotland



Footnotes for Figure 2:
In England, Wales and Northern Ireland, having a recent HCV test was defined as being tested in the current or previous year. For Scotland, having a recent test was defined as being tested in the last month.
¶ UAM Survey data for 2020 is preliminary due to limited sampling as a result of the COVID-19 pandemic (15).
† As the 2019 to 2020 NESI survey was suspended before completion due to the COVID-19 pandemic, data presented is provisional.
Data sources for Figure 2: Unlinked Anonymous Monitoring Survey of People Who Inject Drugs (England, Wales and Northern Ireland) and Needle Exchange Surveillance Initiative (Scotland).

In 2020, only 35% of UAM Survey participants in England, Wales and Northern Ireland were aware of their chronic HCV infection, which is a drop in the level of awareness from previous years (51% aware in 2017). However, this most recent figure should be interpreted with caution due to the smaller UAM Survey sample in 2020 and change in the demographic profile and geographical distribution of participants (Data Table 3b) (15, 21). Data from future survey years will help to confirm these trends. In Scotland, 49% of participants in the 2019 to 2020 NESI survey (pre-COVID-19) with chronic infection were diagnosed (Data Table 3b).

In England, NDTMS data shows that among those who have ever injected drugs presenting for drug treatment, the proportion who had been offered and accepted an HCV test was 65% in the 2020 to 2021 tax year (Data Table 3b).

HCV treatment

In the UK, the introduction and scale up of DAA drug availability since 2015 has transformed the HCV treatment landscape. Among UAM Survey participants testing positive for HCV antibodies who were aware of their infection in 2020, 62% had seen a specialist nurse or hepatologist for their HCV infection and been offered and accepted treatment. This is a substantial increase from 20% in 2011 and 39% in 2019 (15). Given the difference in geographical distribution of the UAM Survey sample in 2020, the change in risk profile of participants and the smaller sample size, the extent of this increase should be interpreted with caution. However, this increase in HCV treatment uptake seen from 2017 onwards corresponds with the timing of the scale-up of DAA treatment for HCV among PWID (22, 23). In the Scottish 2019 to 2020 NESI survey, 70% of those who self-reported as being of having been eligible for treatment, that is, those who answered they have HCV or had cleared HCV through treatment, reported ever having received therapy for their HCV infection. This is a marked increase from 28% reported in the 2015 to 2016 NESI survey and 50% in the 2017 to 2018 survey. Of those who had ever received therapy, 49% had received it in the last year in NESI 2019 to 2020. These increases in self-reported HCV treatment uptake are encouraging (22), and it will be important to monitor the impact of ongoing initiatives aiming to ensure equitable access to treatment for all PWID living with HCV, particularly in the era of COVID-19. Overall, 8.9% of PWID surveyed in England, Wales and Northern Ireland reported some form of HCV treatment disruption in 2020, either missed doses or treatment not being available (15).

Prisons can provide an opportunity to engage with individuals at high risk of HCV infection for HCV testing and treatment. Two-thirds (65%) of PWID surveyed in 2020 reported ever being in prison or a young offender's institution in England, Wales and Northern Ireland. Information on the impact of the COVID-19 response on HCV elimination in prisons can be found in Box 1.

Box 1. Progress towards HCV elimination in prisons in England and the impact of the COVID-19 pandemic

During late 2020, prisons in England observed a rise in COVID-19 cases and outbreaks, as well as increased case and age-standardised mortality rates compared with community metrics (29). To protect residents and staff, the Ministry of Justice implemented measures across the prison estate which included restricting regimes to implement social distancing, stopping all visits, limiting movement of prisoners between prisons and compartmentalising prisons to isolate symptomatic prisoners, shield the vulnerable and quarantine new entrants (30). COVID-19 reception testing of prisoners and mass testing of prison residents during outbreaks were also introduced during the second wave of the pandemic in England. The overall prison population also decreased during this time as fewer new receptions were made as a result of COVID-19.

Despite the challenging context, BBV (HIV, HBV and HCV) opt-out testing of people in prison continued across the estate during the COVID-19 pandemic with preliminary data indicating no material difference in testing uptake reported between the 2019 to 2020 (pre-pandemic) and 2020 to 2021 (post-pandemic) tax years. In the 2019 to 2020 tax year, 47% of prisoners were tested for HIV, 45% for HBV and 45% for HCV, compared with 47%, 46% and 43% respectively in the 2020 to 2021 tax year (preliminary data).

To eliminate HCV in prisons, DAA treatment should be offered alongside repeat testing. The UK Health Security Agency (UKHSA) will continue to work in partnership with NHS England, Her Majesty's Prison and Probation Service (HMPPS), the Hepatitis C Trust and Gilead Sciences UK to deliver the High Intensity Test and Treat (HITT) initiative to screen over 95% of all residents in prisons for HCV infection and initiate treatment within 7 days of a positive HCV RNA test. As HCV is eliminated from the prison estate, opt-out testing of new receptions will be important in maintaining the elimination status of individual prisons. Delivery of the HITT initiative was disrupted by COVID-19; however as of July 2021, some prison sites are planning to recommence. Micro-elimination of HCV has also recently been reported in 15 English prisons, defined as 95% of people tested in the last 12 months and 90% of those diagnosed starting HCV treatment in the last 12 months. The UKHSA is working with the NHS and HMPPS to support re-initiation of the programme alongside other public health programmes as part of wider pandemic recovery in prisons.

Looking to the future, data reporting and monitoring for BBV testing will be improved through use of the new Health and Justice Information System, allowing assessment of individual prison performance on BBV testing offer, uptake and referral to treatment and visualisation of rolling data trends and assessment of inequalities in these indicators by age and ethnicity. There is also a need to ensure continuity of care into the community for those who start HCV treatment in prison.

HBV remains rare, but vaccine uptake needs to be improved

In addition to the targets for tackling HCV, the WHO Global Health Sector Strategy on Viral Hepatitis sets out targets to reduce HBV incidence by 95% and HBV-related mortality by 65% by 2030 (17).

HBV prevalence

Data from the UAM Survey indicates that the proportion of PWID ever infected with HBV, with antibodies to HBV core antigen, declined from 15% in 2011 to 9.5% in 2019, but remained stable in 2020 at 12% (Data Table 1c) (15, 21). Due to the small UAM sample size in 2020, data on the proportion currently infected with HBV, with detectable levels of HBV surface antigen, is not available (0.28% in 2019) (Data Table 1c). The decline in HBV likely reflects a decline in exposure to, and transmission of, HBV over time, as a result of increased uptake of HBV vaccination. However, rates in HBV vaccination uptake should be improved to maintain this decline.

HBV vaccination

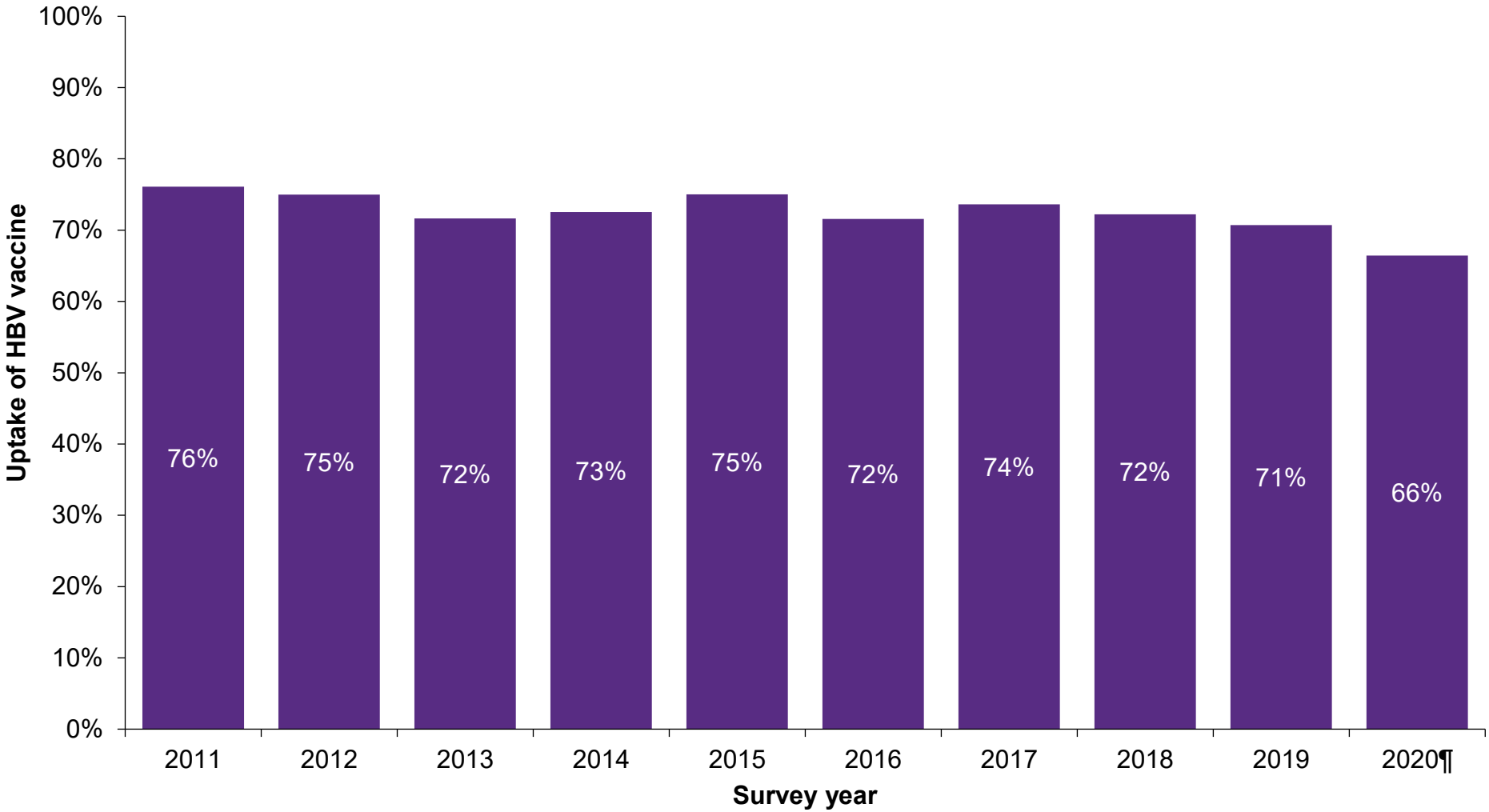
HBV vaccination is recommended for all people who currently inject drugs and those who are likely to 'progress' to injecting, for example those who are currently smoking heroin and/or crack (1, 2). Immunisation is also recommended for all sentenced prisoners and all new inmates entering prison in the UK (2).

In England, Wales and Northern Ireland, self-reported uptake of at least one dose of the HBV vaccine among PWID has plateaued, if not slightly declined, over the past decade to 66% in 2020 (Figure 3a; Data Table 3b) (15, 21). HBV vaccine uptake is known to be particularly low among younger PWID and recent initiates to injecting; however UAM Survey data shows that these individuals report recent contact with services, such as general practice, prison health services and drug treatment, highlighting missed opportunities for HBV vaccination (27, 31). Data from NDTMS in England indicates that, 42% of PWID at risk of HBV and who presented for drug treatment were offered and accepted vaccination against HBV in the 2020 to 2021 tax year (Data Table 3b). Thirty-nine percent of drug and alcohol service providers participating in the UAM and surveyed in October 2020 reported 'current' interruptions to the provision of HBV vaccination to their clients (26, 27). The implication of reduced vaccination on HBV transmission is still to be determined.

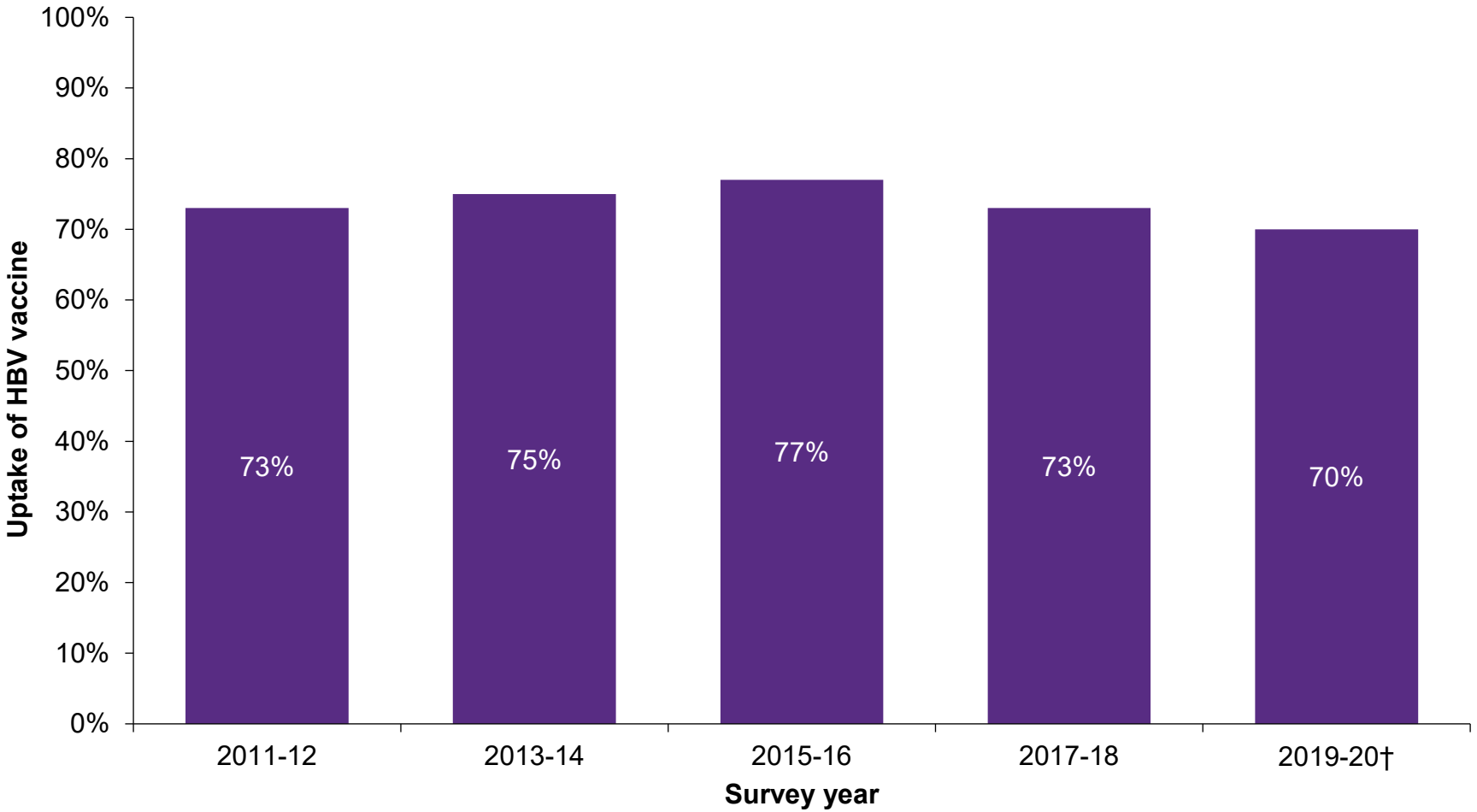
Vaccination uptake among people participating in the 2019 to 2020 NESI survey (pre-COVID-19) who reported injecting in the previous 6 months was 70% (Figure 3b; Data Table 3b). Uptake of HBV vaccination among PWID in the community in Scotland has increased since the introduction of universal prison vaccination in 1999 (32).

Figure 3. Uptake of the HBV vaccine among people who have ever injected drugs in England, Wales and Northern Ireland and in people who injected in the last 6 months in Scotland, 2011 to 2020

a) England, Wales and Northern Ireland



b) Scotland



Footnotes for Figure 3:
¶ UAM Survey data for 2020 is preliminary due to limited sampling as a result of the COVID-19 pandemic (15).
†As the 2019 to 2020 NESI survey was suspended before completion due to the COVID-19 pandemic, data presented is provisional.
Data sources for Figure 3: Unlinked Anonymous Monitoring Survey of People Who Inject Drugs (England, Wales and Northern Ireland) and Needle Exchange Surveillance Initiative (Scotland).

HIV levels continue to be low, but missed opportunities remain

In 2019, the UK government committed to end HIV transmission, AIDS diagnoses and HIV-related deaths by 2030 and a cross-sector HIV Commission was formed in England to support delivery. In response to the Commission's recommendations made in 2020 (33), the UK government released an HIV Action Plan on World AIDS Day 2021, outlining the actions needed across the health system and committing over £23 million in funding to achieve the 2030 ambition (34). A summary of the action plan in relation to eliminating HIV transmission among PWID can be found in Box 2.

Box 2. Towards Zero – An action plan towards ending HIV transmission, AIDS and HIV-related deaths in England – 2022 to 2025

The HIV Action Plan sets out 4 objectives to: i) ensure equitable access and uptake of HIV prevention programmes, ii) scale up HIV testing in line with national guidelines, iii) optimise rapid access to treatment and retention in care and iv) improve the quality of life for people living with HIV and address stigma (34). The plan outlines a number of actions to be implemented to achieve these objectives; those that are particularly relevant to elimination of HIV transmission among PWID are described below.

Opt-out HIV testing in accident and emergency departments in the highest prevalence local authorities will be expanded by NHS England and NHS Improvement (NHSEI), including people attending for drug toxicity or overdose. Local authorities, NHS and other commissioners must consider and strengthen HIV testing in a wider range of services, such as prisons, drug and alcohol services and pharmacies.

The current sexual health service specification will be reviewed to strengthen pathways with other services, including drug and alcohol, domestic abuse and mental health services. Sexual health promotion messages will be endorsed outside of sexual health services.

HIV pre-exposure prophylaxis (PrEP) provision will be considered in settings beyond sexual and reproductive health services, based on the findings of work to explore the acceptability of delivering HIV PrEP in other settings, such as drug and alcohol services and pharmacies. NHSEI are also developing a pilot project to assess the provision of PrEP in prisons.

HIV prevalence

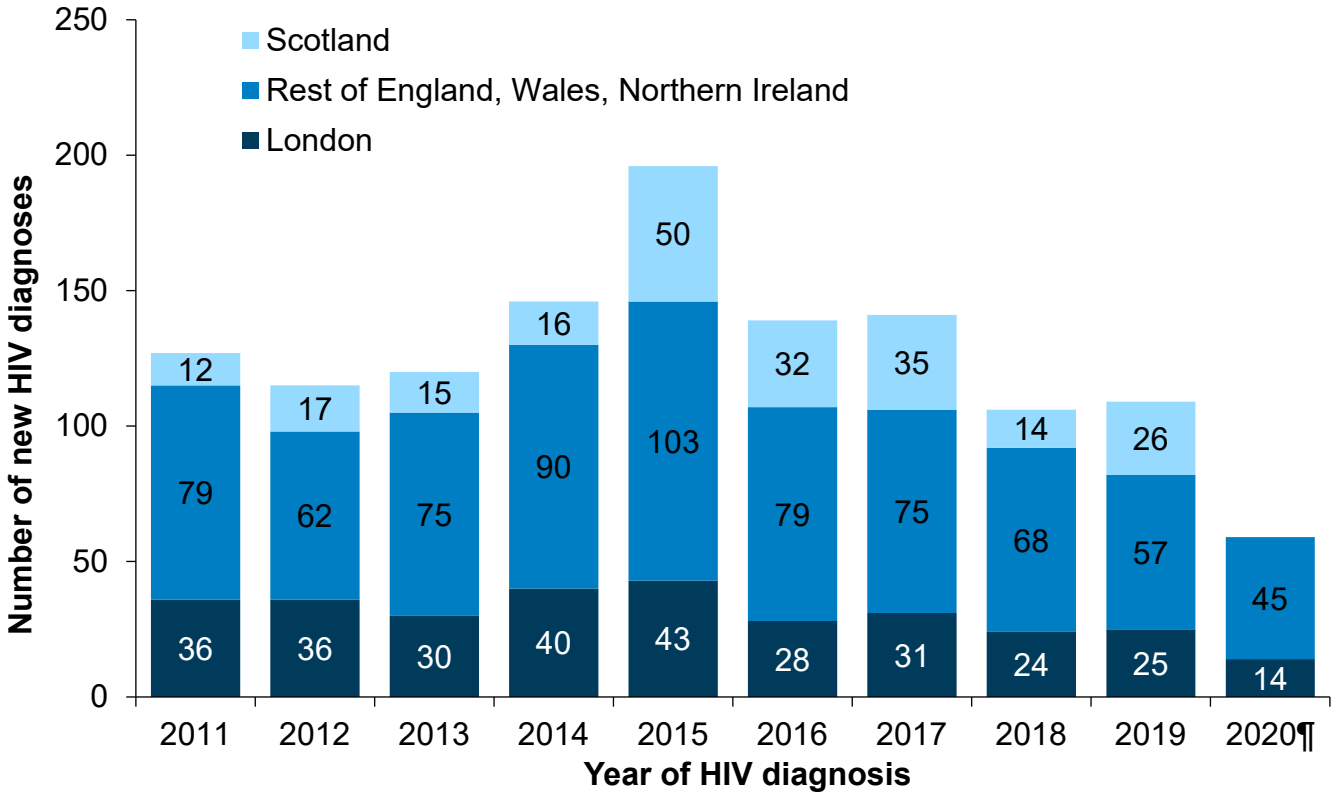
Overall, HIV infection remains uncommon among PWID in the UK, with prevalence much lower than in many other European countries (35). In England, Wales and Northern Ireland, 1.1% of

the people who inject psychoactive drugs surveyed in 2020 were living with HIV (Data Table 1d) (15, 21). The latest data from Scotland, collected prior to COVID-19 through the 2019 to 2020 NESI survey, found HIV prevalence among those attending needle and syringe programmes (NSPs) in Scotland and injecting in the last 6 months to be 3.8%. The impact of the COVID-19 pandemic on HIV transmission and the ongoing HIV outbreak among PWID in Greater Glasgow and Clyde remains to be seen (Data Table 1d) (36).

HIV diagnosis

New diagnoses acquired through injecting drug use have remained low over the past decade (Figure 4; Data Table 1d) (37, 38). In 2020, there were 59 new HIV diagnoses in England, Wales and Northern Ireland which were likely to have been acquired through injecting drug use. Scottish HIV surveillance data for 2020 was not available. Late HIV diagnosis (CD4 cell count <350 cells per µL) among people who acquired their infection through injecting drugs in England, Wales and Northern Ireland was 38% in 2020, which is similar to the 42% diagnosed late overall (37, 38). The impact of late HIV diagnosis can be seen in mortality rates one-year post-diagnosis, with PWID disproportionately affected. One-year mortality among people who acquired HIV through injecting drug use diagnosed late in 2019 was 63 per 1,000, twice as high as one-year mortality among people diagnosed late overall (31 per 1,000) (37).

Figure 4. New HIV diagnoses acquired through injecting drug use: UK, 2011 to 2020



Footnote for Figure 4:
¶ Data for Scotland not available for 2020.
Data source for Figure 4: HIV and AIDS Reporting System.

HIV testing

HIV testing was significantly reduced in 2020, during the early months of the COVID-19 pandemic in particular, with a shift to internet testing (25, 37). In 2020, the majority (80%) of PWID in England, Wales and Northern Ireland reported ever being tested for HIV, but only 32% having been tested in the current or previous year (Data Table 3b) (15, 21). Missed opportunities for HIV testing and prompt diagnosis remain; many PWID who reported never having had an HIV test or not having been tested in the last 2 years reported attending a range of clinical services in the last year (37). Furthermore, 22% of PWID surveyed in England, Wales and Northern Ireland reported difficulties accessing testing for HIV and/or viral hepatitis in 2020 compared to 2019 and 32% of drug and alcohol services participating in the UAM and surveyed in October 2020 reported ongoing interruptions to the provision of HIV testing due to the COVID-19 pandemic (15, 26, 27). In Scotland, 86% of people who had injected drugs in the last 6 months reported ever being tested for HIV in the 2019 to 2020 NESI survey, prior to COVID-19. Future UAM and NESI survey rounds should provide more insight into the implications of the closure of services and difficulties accessing testing on underlying HIV transmission, diagnosis and linkage to care and whether there were any subgroups of PWID particularly affected.

Although the majority of the 2,400 PWID (95% credible interval: 2,200 to 2,700) estimated to be living with HIV in the UK in 2020 were diagnosed and are aware of their infection, an estimated 4% (95% credible interval: 1% to 14%) were living with undiagnosed HIV. Overall, 5% (credible interval: 4% to 7%) of all people with HIV were unaware of their infection in 2020.

HIV care and treatment

Access to HIV care services was also restricted in 2020, with many routine patient appointments being offered via telephone (25, 37). There were 1,379 PWID accessing NHS HIV outpatient services in England, Wales and Northern Ireland in 2020 (Data Table 1d) (37, 38). This is a 5.1% drop from 1,453 attending HIV services in 2019. Among those in HIV care in 2020, antiretroviral therapy coverage and viral suppression (<200 copies per mL) were high at 97% and 94% respectively (37, 38).

Preventable bacterial infections remain a problem

Serious bacterial infections in PWID increased in the UK between 2013 and 2019 (Data Table 2). The cause of the rise in injection sites infections is not clear and there are likely to be several factors involved, including barriers associated with homelessness, such as a lack of access to safe and hygienic injecting environments and resources to support general hygiene, and injecting into the groin and other high risk sites.

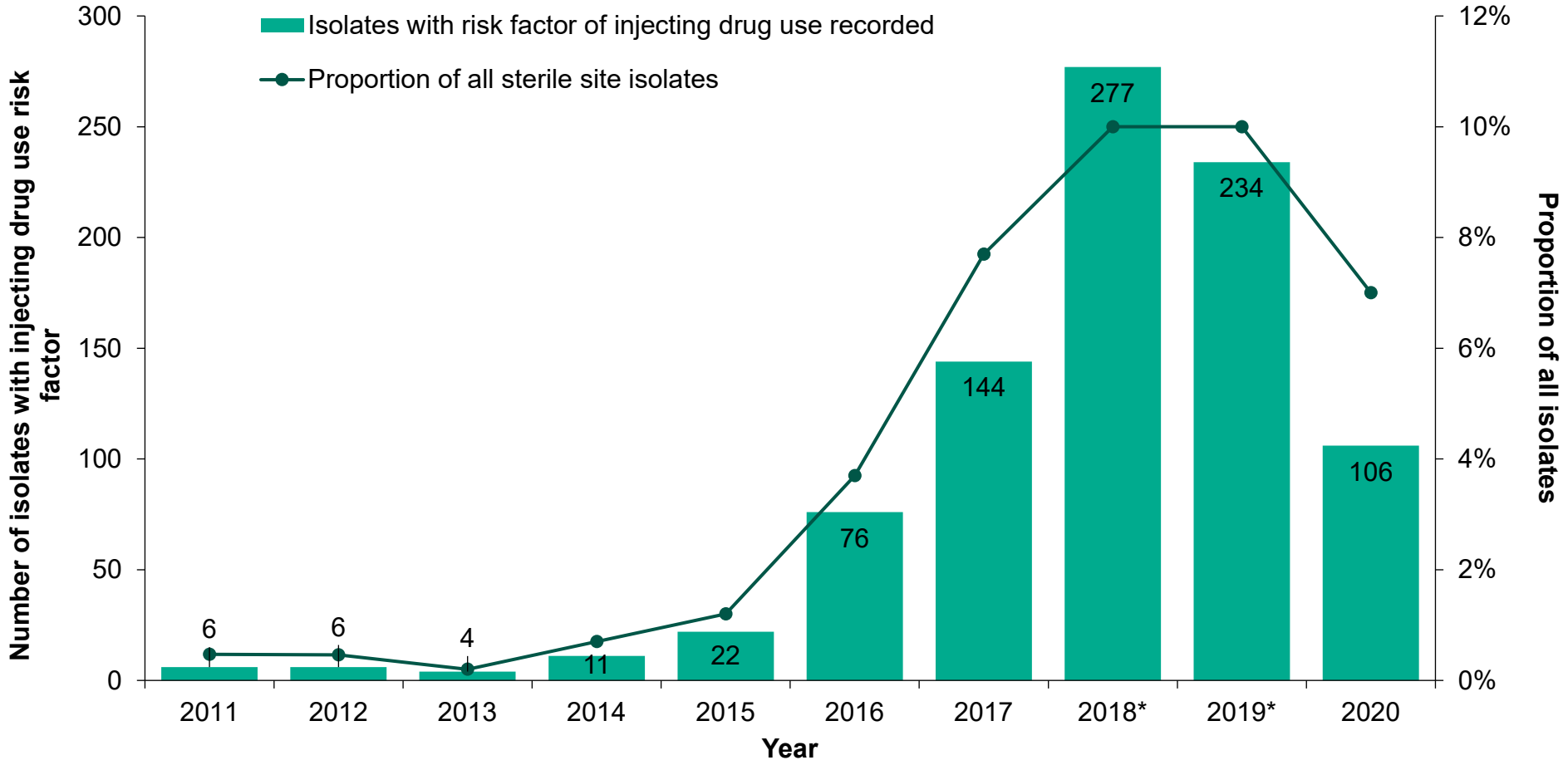
The proportion of PWID reporting homelessness in the last year has increased in England, Wales and Northern Ireland over the last decade, from 28% in 2011 to 49% in 2020 (15, 21). The 7% increase in the proportion reporting recent homelessness between 2019 and 2020 is likely due to changes in sampling, as during the pandemic, participation in the UAM Survey was being offered alongside outreach services to people re-housed in hostels and hotels (39). In Scotland, the proportion of PWID reporting recent experience of homelessness has been largely unchanged and was 24% in the 2019 to 2020 NESI survey (pre-COVID-19). More than a third (37%) of people who had injected in the preceding month in England, Wales and Northern Ireland reported injecting into their groin in 2020 (15, 21) and in Scotland 45% reported mainly injecting into this site in the 2019 to 2020 NESI survey.

The reduction in cases of bacterial infections among PWID in 2020 coincides with a period of decreased hospital activity at the height of the COVID-19 pandemic. Over a third (35%) of PWID surveyed in England, Wales and Northern Ireland reported difficulties accessing healthcare services and/or medicines other than opioid substitution therapy (OST) in 2020 compared to 2019.

Group A Streptococcus

Invasive Group A streptococcal infection (iGAS) has been notifiable since 2010. Reports of iGAS in England and Wales indicating drug injection as a risk factor increased between 2013 and 2019 (Figure 5; Data Table 2). In 2020, there were 106 isolates of iGAS for which injecting drug use was recorded as a risk factor. This represents 7.0% of all invasive isolates reported from England and Wales (Data Table 2), with the most common *emm* types identified being *emm* 108.1, 66.0, 33.0 and 77.0 encompassing 66% of such isolates. iGAS notifications and referrals have dramatically reduced post lockdown (in March 2020), which could reflect reduced contact between individuals, and thereby a reduction in opportunity for transmission, as well as the potential impact of the pandemic on testing and reporting of cases by diagnostic laboratories.

Figure 5. iGAS isolates with injecting drug use recorded as a risk factor: England and Wales, 2011 to 2020



Footnotes for Figure 5:
*Enhanced case finding occurred for 2018 and 2019 in response to the increase in reports from prisons, PWID and homeless populations.
Data labels refer to the number of isolates with injecting drug use as a risk factor (bars).
Data on infection exposure is often incomplete or missing. Proportions are calculated for those where risk is known.
Data source for Figure 5: UKHSA Respiratory and Vaccine Preventable Bacteria Reference Unit and Antimicrobial Resistance and Healthcare Associated Infections.

In Scotland, there were 34 iGAS reports received through Public Health Scotland's (PHS) national iGAS enhanced surveillance system in 2020 for which a risk factor of injecting drug use was indicated. This represents 20% of all cases, a proportion which has been increasing in recent years (Data Table 2).

As a result of an increase in GAS and iGAS cases in people in prison in the UK in early 2019, specific guidance was published to support stakeholders to manage and control cases and outbreaks in this setting (40).

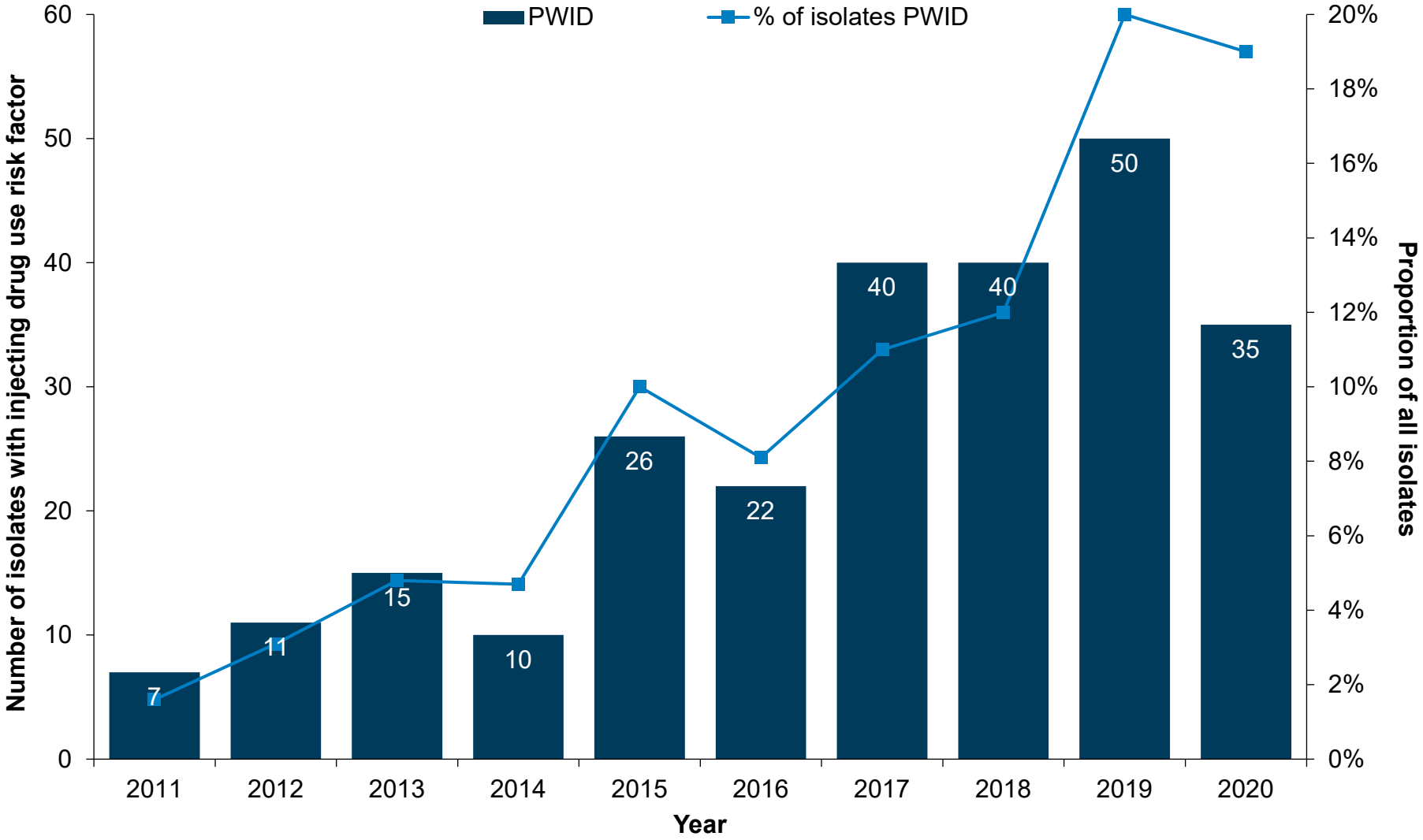
Meticillin-sensitive and -resistant *Staphylococcus aureus*

Data from the mandatory enhanced surveillance of MRSA and MSSA bacteraemias in England indicates that in 2020, there were 35 MRSA and 319 MSSA bacteraemias reported which were associated with injecting drug use, where risk information was available (Figure 6a; Figure 6b; Data Table 2). Case numbers were lower than in 2019. This reduction is likely an artefact of the decrease in total MRSA and MSSA bacteraemias observed in 2020, which has been linked to limited hospital activity during the height of the pandemic. However, compared to previous years, the percentages of all reported MRSA and MSSA cases in 2020 associated with injecting drug use are relatively high after accounting for the decline in cases. There has been an increase in the proportion of MRSA cases for which injecting drug use was indicated as a risk over the last 9 years (Figure 6a). It is important to note that the numbers of cases associated with injecting drug use for both MRSA and MSSA are likely an underestimation, as a large proportion of cases are missing risk information (66% of MRSA and 73% of MSSA isolates).

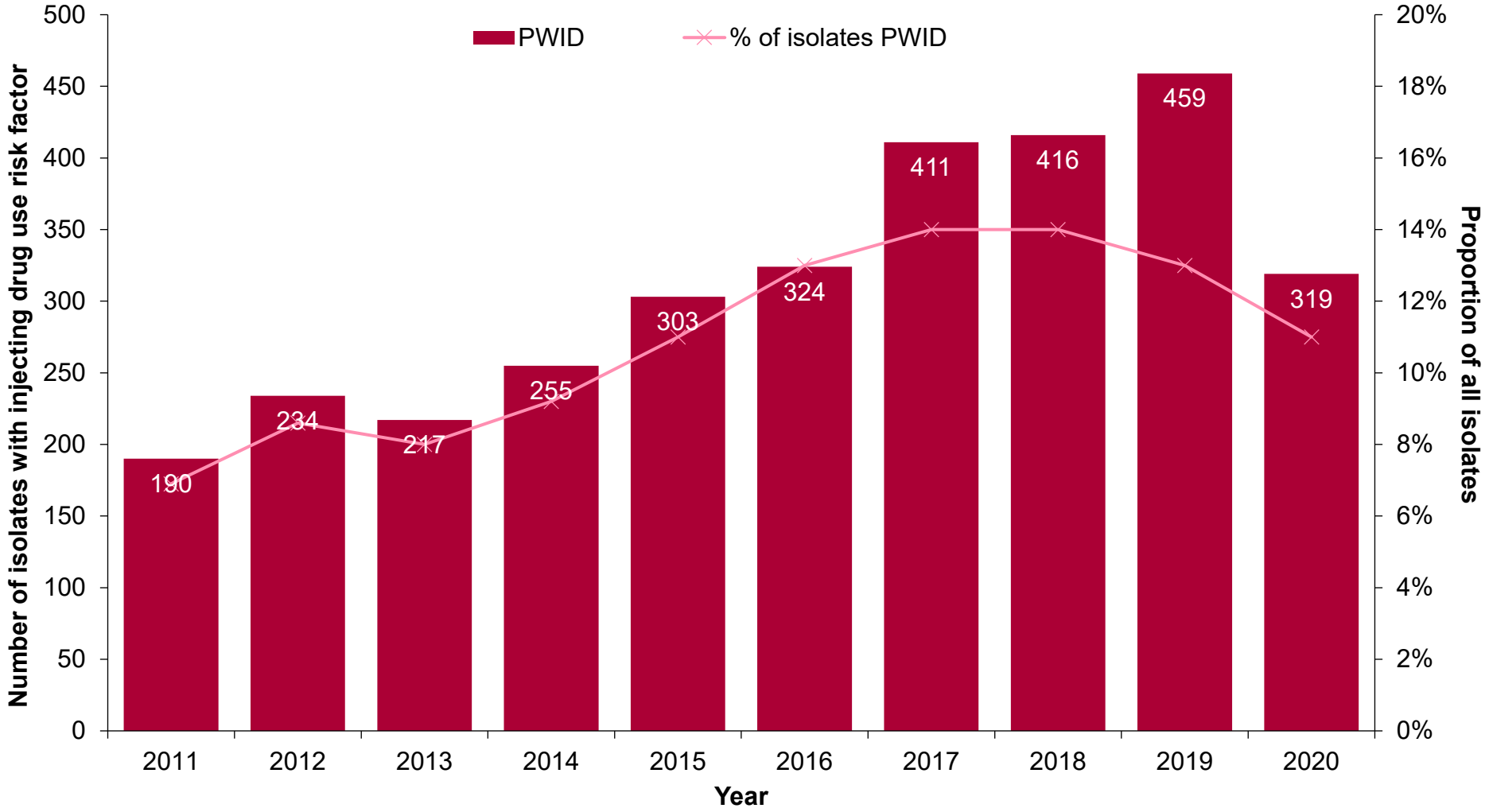
In 2020, there was one MRSA and 111 MSSA bacteraemia cases associated with injecting drug use reported in Scotland. This represents 2.6% and 7.6% % of all MRSA and MSSA bacteraemia cases reported in Scotland, respectively (Data Table 2).

Figure 6. Reported MRSA and MSSA bacteraemias with injecting drug use as a risk factor: England, 2011 to 2020

a) MRSA



b) MSSA



Footnote for Figure 6:
Data labels refer to the number of isolates with injecting drug use as a risk factor (bars).
Data on infection exposure is often incomplete or missing. Proportions are calculated for those where risk is known.
Data source for Figure 6: UKHSA mandatory enhanced surveillance of MSSA and MRSA.

Toxin-producing bacteria (botulism, tetanus, anthrax)

The potential for cases and outbreaks of illnesses among PWID caused by the toxins produced by spore-forming bacteria, such as botulism, continues to be a concern. Spores produced by these bacteria are found in the environment and can contaminate drugs at any point in the supply chain. Although these infections are usually rare, they can be life-threatening, and there have been previous outbreaks (41). In 2020, there were no cases of wound botulism in PWID in the UK and no cases of clinically confirmed tetanus or anthrax with a history of recent drug injection (Data Table 2).

Symptoms of an injecting site infection

In 2020, 38% of individuals who reported injecting psychoactive drugs in the last year in England, Wales and Northern Ireland reported having a sore, open wound or abscess at an injection site, possible symptoms of a bacterial infection, in that year (Data Table 2) (15, 21). This is no different to the proportion of PWID reporting symptoms of an injecting site infection in 2019, highlighting an unmet need for wound management to improve skin and soft tissue infection diagnosis and treatment. In 2020, the UAM Survey included a question on hospitalisation from injection site infections for the first time. Of the 59 people reporting symptoms of an injection site infection in the last year and treated in hospital (32%), 80% reported staying overnight in hospital and 56% reported requiring surgery.

In Scotland, among people who reported injecting drugs in the past 6 months surveyed between 2019 and 2020, pre-COVID-19, 22% reported having an abscess or open wound at an injection site in the past year, down from 27% among those surveyed between 2017 and 2018 (Data Table 2).

Risk behaviours have increased

Sharing and re-use of injecting equipment

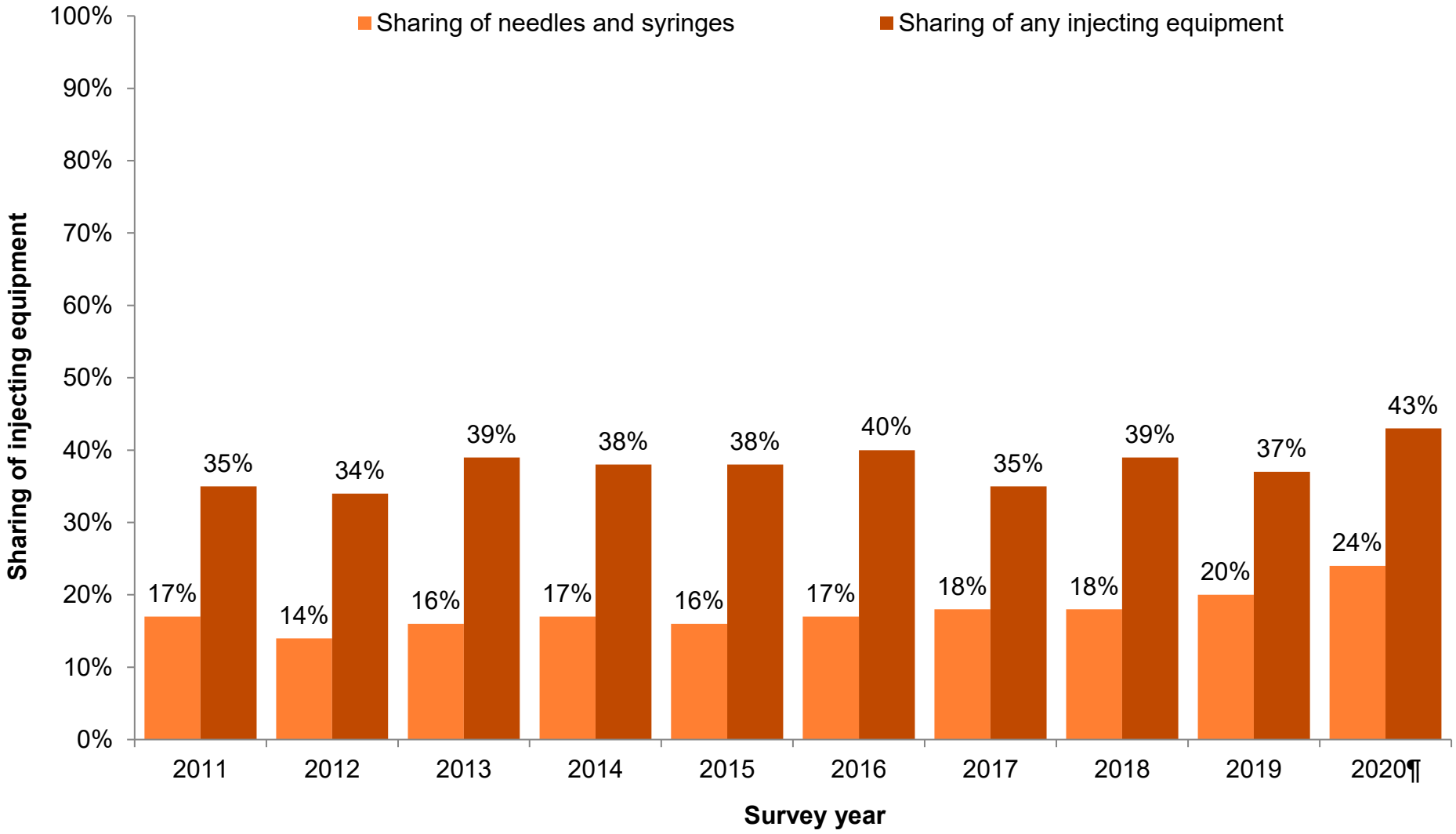
Sharing of equipment used for injecting drugs is an important contributor to BBV transmission (42, 43). During the COVID-19 pandemic, many harm reduction services, including NSPs, were reduced or suspended to redeploy staff or facilitate social and physical distancing measures (44). A quarter (25%) of PWID surveyed in England, Wales and Northern Ireland reported greater difficulties accessing equipment for the safer use and/or injection of drugs in 2020 compared to 2019 (15).

The level of needle and syringe sharing (known as ‘direct’ sharing) reported by people in England, Wales and Northern Ireland who had injected drugs in the last month was 24% in 2020, an increase of 7% compared to 2011 and 4% compared to 2019 (Figure 7a; Data Table 3a) (15, 21). Sharing of needles, syringes and other injecting paraphernalia such as filters and spoons (known as 'direct and indirect' sharing) was reported by 43% of people who had injected in the last month in 2020, an increase of 8% from 2011 and 6% from 2019 (Figure 7a; Data Table 3a) (15, 21). The rise in 2020 may be a result of the reduced access to injecting equipment reported by PWID but also due to UAM Survey sampling, as anecdotal evidence from participating drug and alcohol services suggests face to face appointments were being reserved for emergencies or for clients experiencing chaotic lifestyles.

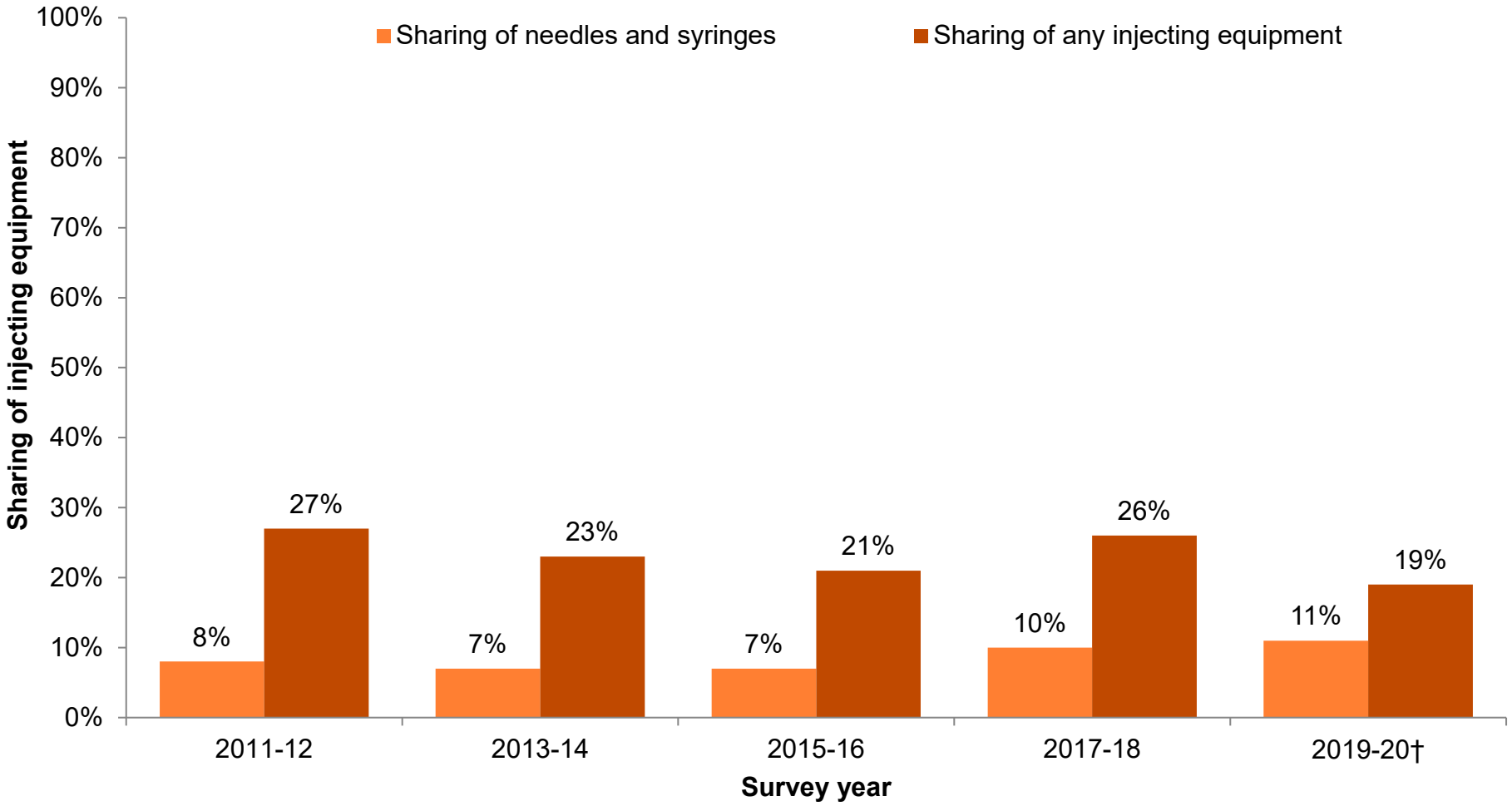
In Scotland, 11% of the 2019 to 2020 NESI survey respondents who had injected in the last 6 months sampled prior to COVID-19 reported 'direct' sharing, and 19% reported sharing any injecting equipment, including needles, syringes, filters, spoons or water (Figure 7b; Data Table 3a). Self-reported sharing of needles and syringes in Scotland has increased slightly over the last 2 NESI survey rounds (Figure 7b; Data Table 3a). The impact of the first wave of the COVID-19 pandemic on NSP provision in Scotland is described in Box 3.

Figure 7. Sharing of injecting equipment among people who injected drugs in the last month in England, Wales and Northern Ireland and in the last 6 months in Scotland, 2011 to 2020

a) England, Wales and Northern Ireland



b) Scotland



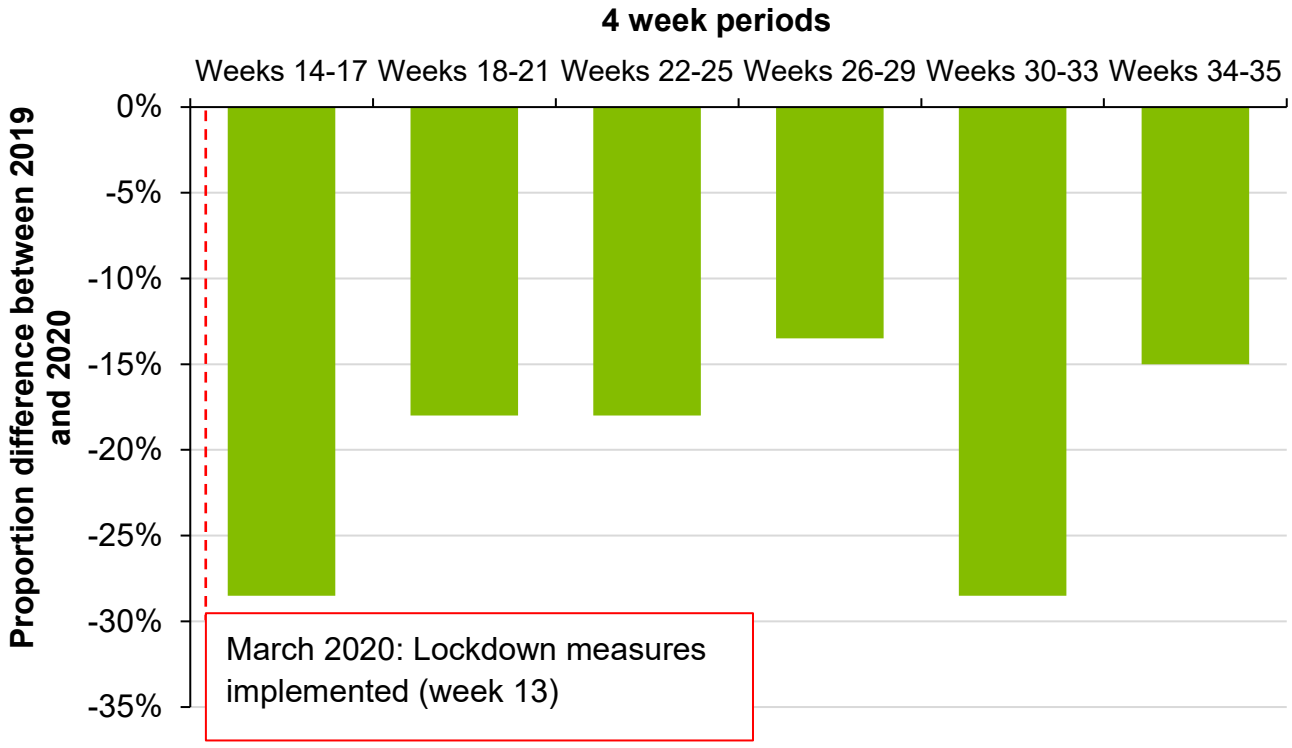
Footnotes for Figure 7:
¶ UAM Survey data for 2020 is preliminary due to limited sampling as a result of the COVID-19 pandemic (15).
† As the 2019 to 2020 NESI survey was suspended before completion due to the COVID-19 pandemic, data presented is provisional.
Data sources for Figure 7: Unlinked Anonymous Monitoring Survey of People Who Inject Drugs (England, Wales and Northern Ireland) and Needle Exchange Surveillance Initiative (Scotland).

Box 3. Impact of the first wave of COVID-19 on needle and syringe provision for PWID in Scotland (28)

The COVID-19 pandemic has presented many challenges for PWID, including disrupting access to BBV prevention services, such as sterile needles and syringes. To assess the impact of the first wave of COVID-19 on the provision of needle and syringes in Scotland, data from the neo360® database was used. neo360® is a commercial database used by NSP sites across mainland Scotland to record NSP attendance and injecting equipment distribution. Data was extracted from April 2019 to August 2020 (6 months after the first case of COVID-19 was reported in Scotland on the 1 March 2020), allowing for the comparison of the provision of services pre-lockdown and post-lockdown (on 23 March 2020). Data covered the following NHS Health Board areas: NHS Greater Glasgow and Clyde, NHS Lothian, NHS Grampian and NHS Tayside. These regions represent 57% of the total Scottish population and 63% of people with problematic drug use in Scotland (45, 46).

The mean number of needles and syringes distributed per week decreased by 18% between pre- and post-lockdown periods. At the start of the first lockdown, in April 2020 (weeks 14 to 17), the number of needles and syringes distributed was 29% lower when compared to the equivalent period in 2019. By the end of August 2020 (weeks 34 to 35), the number of needles and syringes distributed had increased relative to April 2020 but was 15% lower when compared to the same period in 2019 (Figure 8).

Figure 8. Percentage difference in the total number of needles and syringes distributed between equivalent 4-week periods in Scotland, 2019 versus 2020



Footnote for Figure 8:

Time period: 1 April 2019 to 30 August 2020; Lockdown: 23 March 2020 (week 13)

Data is not included before April 2019 due to data quality issues.

Weeks 34 to 35 only included 2 weeks of data.

Data source for Figure 8: neo360® database

The first wave of COVID-19 in Scotland severely impacted the delivery of essential BBV prevention services for PWID. While there is evidence of service recovery, the continued surveillance of intervention coverage is important in the context of subsequent waves of COVID-19. Further work is required to ensure that the coverage of interventions is maintained at sufficient levels to ensure previous gains made in relation to the prevention and control of BBVs in both Scotland and other countries globally are not eroded (28).

In Wales, self-reported risk behaviours have increased over the last 7 tax years according to data recorded on the HRD; in the 2020 to 2021 tax year, 26% and 32% of PWID reporting ever 'direct' and ‘indirect’ sharing respectively, as compared to 20% and 24% in the 2014 to 2015 tax year (Data Table 3a) (24).

Re-use of one’s own injecting equipment can also put an individual at risk of infections, particularly from bacterial infections acquired through contamination when handling equipment, but also from BBVs acquired as a result of accidental sharing in situations where people store injecting equipment together (47). Two-thirds (64%) of people injecting drugs in the last month in England, Wales and Northern Ireland reported reusing their injection equipment in the preceding 4 weeks (Data Table 3a); data collection on re-use was introduced to the UAM Survey in 2020. Data from the NESI survey shows the proportion reporting re-use of their own equipment in the last 6 months in Scotland has declined in recent years, from 58% in the 2017 to 2018 survey to 44% in the 2019 to 2020 survey (Data Table 3a). In Wales, 50% of individuals injecting psychoactive substances reported ever reusing injecting equipment through the HRD in the 2020 to 2021 tax year, a proportion which has remained stable since 2014, when data was first collected (Data Table 3a) (24).

Adequate provision of new, sterile injecting equipment is vital to reduce sharing and reuse, as well as easily accessible information on the associated risks (48, 49). Needle and syringe provision is considered ‘adequate’ when the reported number of needles and syringes received met or exceeded the number of times the individual injected. In 2020, 63% of people who reported injecting drugs during the preceding month in England, Wales and Northern Ireland had adequate needle and syringe provision; this is comparable to previous years. In Scotland pre-COVID-19, the proportion of people who had injected drugs in the past 6 months who reported adequate needle and syringe provision was 66% in the 2019 to 2020 NESI survey.

Adequate needle and syringe provision may be even lower than reported above, as this data does not account for the fact that an individual may take multiple attempts to insert a needle before successfully accessing a vein, also known as achieving a ‘hit’ (50). Missed hits resulting in subcutaneous injecting are associated with injection site infections. In 2020, 62% of people in

England, Wales and Northern Ireland who injected in the last year reported that they needed to insert the needle more than once before getting a 'hit', and 23% reported that it took 4 or more attempts before achieving a 'hit'.

Future bio-behavioural survey data should provide more insight into the impact of the closure of harm reduction services and difficulties accessing NSP during the COVID-19 pandemic on underlying BBV transmission in the injecting population. There have also been a number of recent developments in UK drug policy that will likely have implications for infection prevention and harm reduction among PWID going forward (Box 4.)

Box 4. The Dame Carol Black Review and UK government drug strategy

In early 2019, Professor Dame Carol Black led an independent review of drugs which aimed to inform measures to address drug related harms, improve effectiveness of drug treatment and prevention and better support recovery from drug dependence (51, 52). The review, published in 2 parts in 2020 and 2021, made a number recommendations relevant to reducing infections and other drug-related harms through improvement of the drug treatment system, including: creation a central drugs unit to develop a national outcomes framework, an increase in funding for drug treatment and wider recovery support, creation of a national commissioning quality standard, adaptations to commissioning including longer cycles and the development of action plans to improve physical and mental health services for PWID.

In response, the UK government published "From harm to hope: A 10-year drugs plan to cut crime and save lives" a new national drugs strategy in 2021 (53). The strategy is backed by a £780 million investment in drug treatment and recovery, with every local authority in England set to receive extra funding over the next 3 years, starting with the areas in greatest need. The funding will go towards improving access to treatment and increasing the capacity of services to help reverse the upward trend in drug use which disproportionately impacts the most vulnerable and poorest communities. Local areas will be supported to expand and improve the quality of a full range of evidence-based harm reduction and treatment interventions. This will include interventions to reduce harm and save lives through the provision of naloxone, and NSP, effective talking therapies or psychosocial interventions to support people to understand their addiction, make changes and develop coping strategies and a full range of medicines to reduce harm and support detoxification. The strategy will increase accountability and transparency through a new commissioning quality standard and local and national outcome frameworks.

Areas covered in the strategy such as healthcare, education, housing and social care only apply to England. However, funding for peer mentoring covers England, Wales and Scotland, and funding to support offenders will include provision of treatment through HMPPS in Wales. The areas relating to the work of the police and the criminal justice system apply to England and Wales. The Welsh Government, the Scottish Government and Northern Ireland Executive have their own strategies to tackle the harms from drug use in areas where responsibility is devolved, and this new UK government strategy does not infringe on devolved policies.

Sexual behaviour

PWID are also at risk of acquiring and transmitting BBVs through sexual transmission. In 2020, 58% of PWID surveyed across England, Wales and Northern Ireland reported anal or vaginal sex in the last year and of these, 46% reported 2 or more sexual partners (15, 21). Of those with 2 or more sexual partners during the preceding year, only 19% reported always using condoms (15, 21). In 2020, 16% of PWID participating in the UAM Survey reported ever having traded sex for money, goods or drugs. The proportion of men participating in the UAM Survey who reported sex with men during the preceding year was 3.1% in 2020.

Despite restrictions being put in place as a result of the COVID-19 pandemic to reduce social mixing, there was no marked change in self-reported sexual behaviour among PWID recruited to the UAM Survey in 2020 compared to previous years. The proportion reporting sex in the last year was lower by 3% in 2020 compared to 2019; however, this has been steadily declining over the last decade (74% in 2011).

Patterns of psychoactive drug use are changing

The COVID-19 pandemic has impacted the drug market, causing local fluctuations in the price, purity and availability of drugs in England in 2020, especially of heroin and both crack and powder cocaine; although, overall, drug supply was maintained (27). PWID surveyed in England, Wales and Northern Ireland in 2020 reported an increase in their substance use compared to 2019, with 17% injecting drugs more frequently and 27% reporting a change in their primary drug or drug combination (15).

Heroin injection

In 2020, heroin remained the most commonly injected drug in the UK, reported by 94% of people who had injected drugs in the previous month in England, Wales and Northern Ireland. In Scotland, 89% of participants in the 2019 to 2020 NESI survey who injected drugs in the past 6 months reported injecting heroin.

Cocaine injection

Crack cocaine injection is associated with behaviours known to increase the risk of BBVs and skin and soft tissue infections, including the sharing of injecting equipment, groin injection and higher injection frequency (54, 55). Data from the UAM Survey indicates that injection of crack remained high in 2020 in England and Wales, with 58% of those who had injected in the last month reporting crack injection (Figure 9a) (15, 21). In England, Wales and Northern Ireland, injection of cocaine (other than crack cocaine) has doubled over the last decade, with 20% of those who had injected in the last month reporting cocaine injection in 2020, compared to 8.5% in 2011 (15, 21). In Scotland, injection of crack was reported by only 5.0% of those who injected in the last 6 months participating in NESI 2019 to 2020. Injection of powder cocaine is more common in Scotland and has increased in recent years to 37% in the 2019 to 2020 NESI survey from 11% in the 2011 to 2012 survey (Figure 9b). Powder cocaine injecting has been identified as an important driver in the outbreak of HIV among PWID in Glasgow (36).

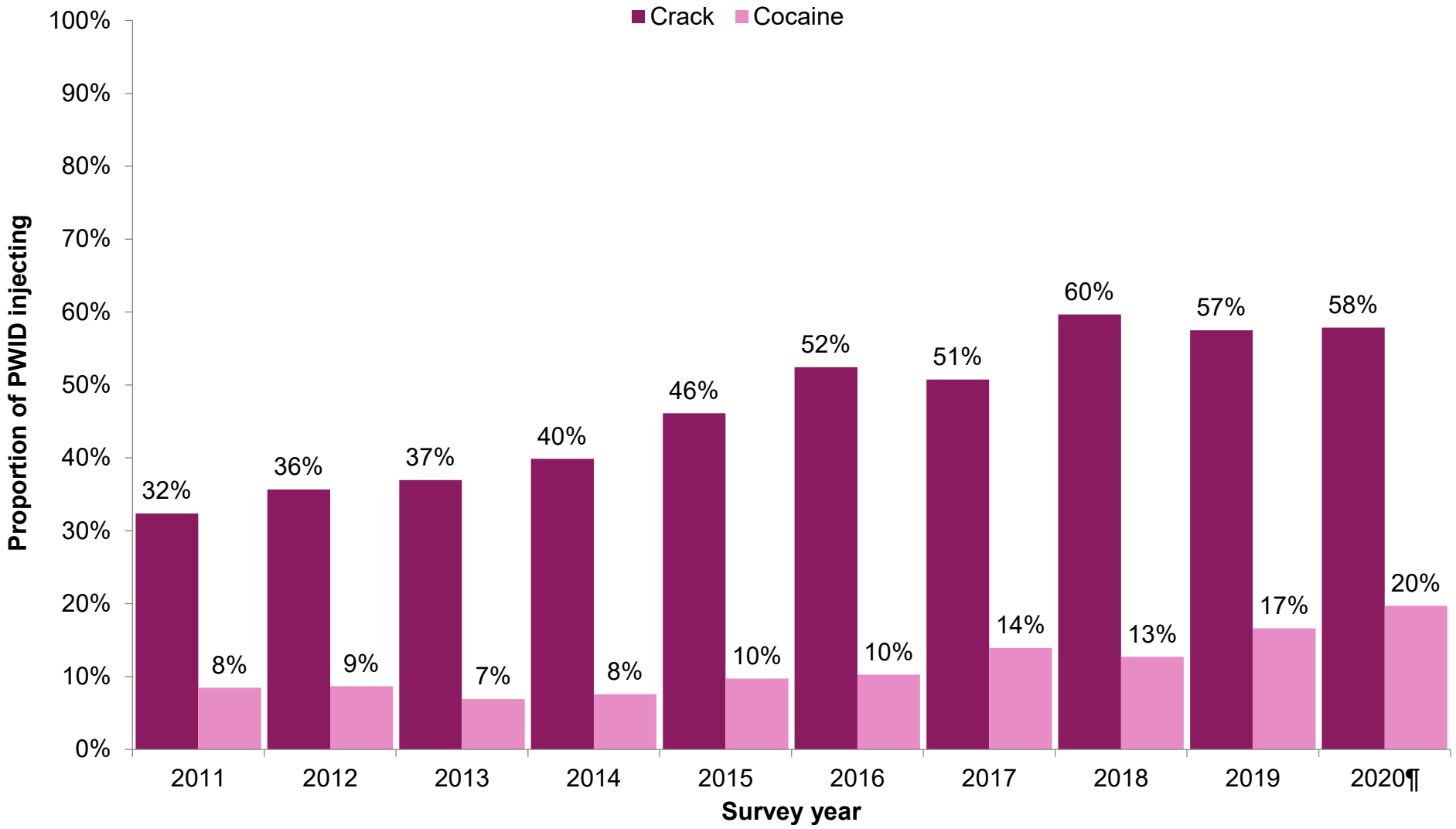
Stimulant injection

The injection of amphetamine and amphetamine-type drugs among those who injected drugs in the last month continued to decrease from a high of 24% in 2014 to 9.5% in 2020 in England, Wales and Northern Ireland (15, 21). In Scotland, injection of amphetamines was reported by 2.5% of those who injected in the last 6 months participating in NESI 2019 to 2020.

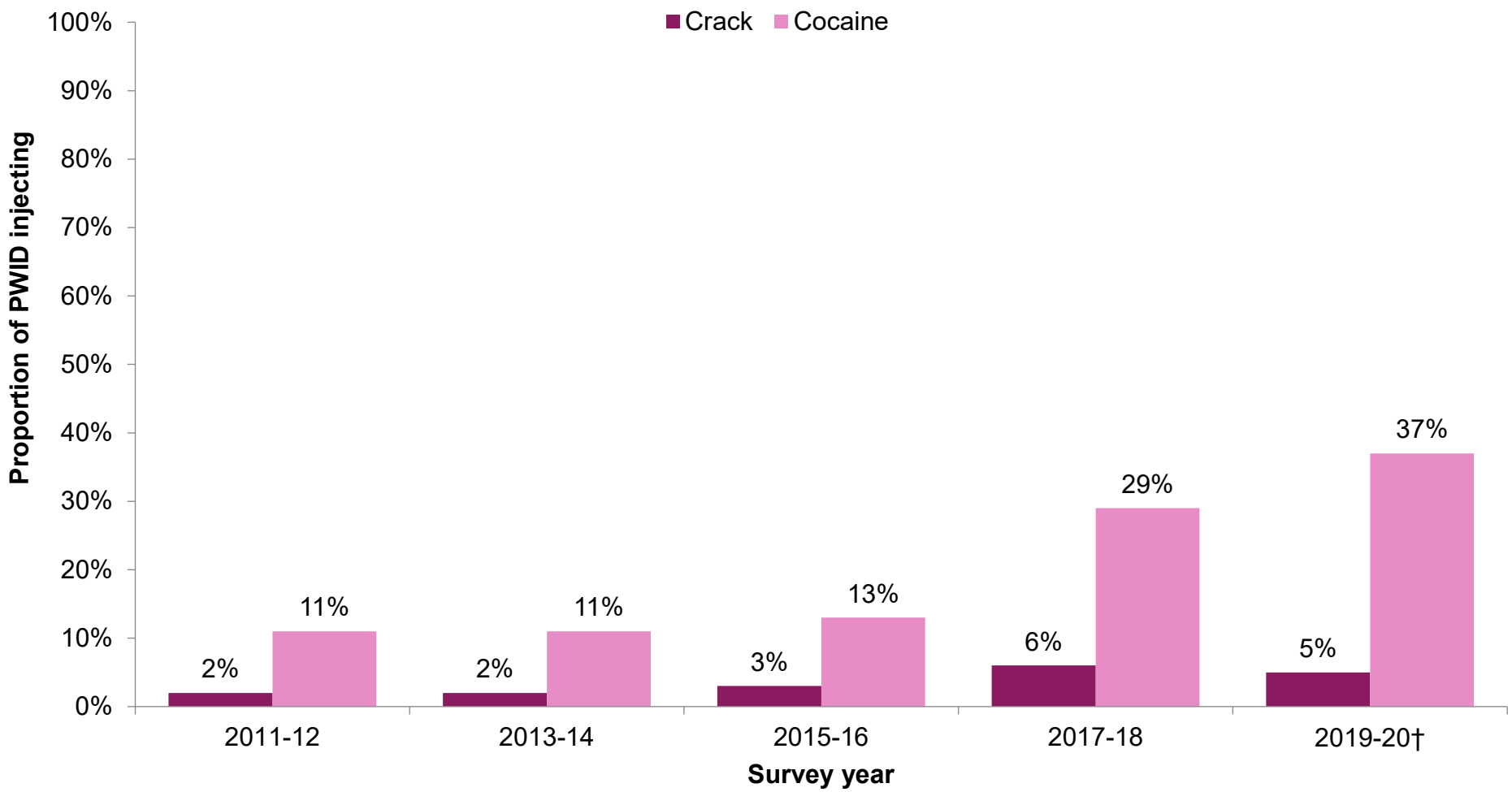
Injection of mephedrone in 2020 continued to decrease; 1.2% of PWID surveyed in England, Wales and Northern Ireland reported injecting mephedrone in the last year, which is a year-on-year decrease from 9.0% in 2014, when reported use was highest. Injection of mephedrone is not collected separately in Scotland but included in the ‘legal highs’ category of the NESI survey; just 0.30% of 2019 to 2020 NESI participants reported injecting drugs in this category.

Figure 9. Crack and powder cocaine injection in the last month in England, Wales and Northern Ireland and in the last 6 months in Scotland, 2011 to 2020

a) England, Wales and Northern Ireland



b) Scotland



Footnotes for Figure 9:
¶ UAM Survey data for 2020 is preliminary due to limited sampling as a result of the COVID-19 pandemic (15).
† As the 2019 to 2020 NESI survey was suspended before completion due to the COVID-19 pandemic, data presented is provisional.
Data sources for Figure 9: Unlinked Anonymous Monitoring Survey of People Who Inject Drugs (England, Wales and Northern Ireland) and Needle Exchange Surveillance Initiative (Scotland).

Rates of overdose are at an all-time high

Fatal overdose

In 2020, there were 4,561 deaths related to drug poisoning registered in England and Wales (79.5 deaths per million), a new record high and a 3.8% increase from 2019 (4,393) (56). Two-thirds were related to substance misuse (52.3 per million). Drug-related deaths increased by 5% in Scotland in 2020 to 1,339, also a record high (212 per million) (57). The upward trend in drug-related deaths in the UK is being driven mainly by drug misuse involving opioids (56, 57). In Scotland, there have been large increases in the numbers of deaths for which 'street' benzodiazepines were implicated in recent years (Box 5) (57).

Possible explanations for the increase in opioid deaths include: polydrug use (for example, heroin use with benzodiazepines and/or gabapentinoids) or disengagement or non-compliance with OST (56). Of concern, data from NDTMS shows a 27% increase in deaths among those in contact with drug treatment services in England in the 2020 to 2021 tax year compared to the previous year (58).

Box 5. National mission to reduce drug-related deaths and harm in Scotland (59)

In January 2021, the First Minister of Scotland announced a new national mission to reduce drug-related deaths and harm, supported by £50 million in funding per year (59). The mission aims to save and improve lives through: fast and appropriate access to treatment and support through all services, improved frontline drugs services, services in place that work together to react immediately and maintain support for as long as needed, increased capacity in and use of residential rehabilitation and a more joined-up approach across policies to address underlying issues. The mission focuses on a number of areas including emergency life-saving interventions (for example naloxone), implementation of drug treatment standards, the support of evidence-led harm reduction, addressing stigma, the support of the complex needs and improving services.

Non-fatal overdose and naloxone

Naloxone is an opioid antagonist which temporarily blocks opioid receptors and reverses life-threatening respiratory depression and sedation. With training, naloxone can be safely administered as an emergency antidote for opioid overdose (1, 60). Wales, Northern Ireland and Scotland all have national naloxone programmes, whereas in England, naloxone provision is the responsibility of local areas. UK regulations introduced in 2015 and 2019 enabled injectable and nasal take-home naloxone, respectively, to be supplied by drug treatment

services without a prescription, and extended supply to family, friends and peers of those at risk (61).

In 2020, 19% of PWID surveyed across drug and alcohol services in England, Wales and Northern Ireland reported overdosing to the point of losing consciousness in the preceding year and of those, 61% reported receiving naloxone (Data Table 4) (15, 21). This is similar to self-reported overdose and naloxone use in 2019 (16% and 57% respectively). Equivalent figures for 2013 when the data was first collected are 13% and 45% (Data Table 4) (15, 21). In Scotland, 16% participants in the 2019 to 2020 NESI survey sampled prior to COVID-19 reported overdosing in the last year, with 56% of those reporting receiving naloxone. Data from the NDTMS in England indicates that 3.0% of people initiating drug treatment reported having ever received naloxone for an overdose in the 2020 to 2021 tax year (Data Table 4).

Information on naloxone carriage has been collected by the UAM Survey since 2017. Naloxone carriage among PWID in England, Wales and Northern Ireland has increased by 22% since then to 76% in 2020 (Data Table 4) (15, 21). Naloxone carriage in Scotland was 21% in the 2019 to 2020 NESI survey, an increase from 6.2% in the 2015 to 2016 survey year (Data Table 4). However, it is important to note that the definition of naloxone carriage differs between the 2 surveys, with the UAM Survey asking about whether the participant carries naloxone and NESI asking about naloxone carriage ‘today’.

Non-fatal overdoses in the UK have not declined in recent years, while overdose deaths have increased. In addition, 13% of PWID surveyed in England, Wales and Northern Ireland reported difficulties accessing naloxone and 22% difficulties accessing substitute drug treatment in 2020 compared to 2019 (15). Future UAM and NESI survey rounds should provide more insight into the implications of the restrictions of services during the COVID-19 pandemic and resulting difficulties accessing harm reduction interventions on rates of non-fatal overdose.

Local areas should ensure that they commission readily accessible OST, NSP and take-home naloxone services for all who need them. In addition, services working with PWID should provide materials to increase awareness of, and information about, overdose risks and provide training for peers and family members in overdose prevention, recognition and response (3). Older PWID, those who inject multiple drugs, those with a recent overdose and those with co-existing alcohol and mental health problems are all known to be at higher risk (1, 62). Additionally, those who have recently been released from prison, discharged from hospital or stopped treatment have a lower opioid tolerance and are the main risk groups to identify and engage in harm reduction interventions and overdose prevention initiatives (1).

COVID-19 has had a significant impact on PWID and service provision

The COVID-19 pandemic has exacerbated existing health inequalities (63). As PWID are a marginalised group disproportionately affected by infectious diseases and poor service access, it is crucial to monitor the burden of COVID-19 and the concurrent impact of pandemic restrictions on access to services for this population.

Prevalence

Twenty-three percent of PWID participating in the UAM Survey in England, Wales and Northern Ireland self-reported being tested for SARS-CoV-2 between June and December (15). Self-reported test positivity was 4.0% at the time of questionnaire completion. There were 44 people (12%) that reported developing common symptoms of COVID-19, including a high temperature or a new continuous cough, at any point in 2020. A third (31%) of this group attended hospital for these symptoms. Overall, considering both test positivity and symptoms, an estimated one in 9 PWID surveyed in England, Wales and Northern Ireland may have had COVID-19 in 2020. This is difficult to compare to rates of COVID-19 in the general population, as some PWID participated in the UAM Survey later in the year than others.

COVID-19 vaccination

The first vaccine against SARS-CoV-2 (COVID-19) was approved in the UK in December 2020. Vaccination rollout began immediately, with the priority given to healthcare workers, those of older age groups and those clinically vulnerable. People were not prioritised for vaccination based on their drug use or injecting behaviour, but many PWID would have been vaccinated early on due to age, homelessness and/or co-morbidities.

Data from bio-behavioural surveys on vaccination for COVID-19 among PWID is not available for 2020; a question on the uptake of vaccination was included in the 2021 UAM Survey questionnaire. A description of the uptake of COVID-19 vaccination among people prescribed OST in Scotland can be found in Box 6.

Box 6. Uptake of COVID-19 vaccination among people prescribed OST in Scotland

PWID are disproportionately affected by the COVID-19 pandemic and measures in place to address it, due to the extent of poverty, poor physical and mental health, and reliance on access to clinical and public health services. To examine the uptake of COVID-19 vaccination in this potentially vulnerable population, an initiative was established at PHS linking records on individuals prescribed OST – including methadone, buprenorphine and buprenorphine-naloxone – in Scotland (during 2015 to 2020) to COVID-19 and other healthcare data.

Records on individuals prescribed OST in Scotland, and for whom a Community Health Index (CHI) number (enabling linkage to other healthcare data) could be retrieved, were sourced from the Prescribing Information System at PHS and linked to data on COVID-19 vaccination for the period up to 10 November 2021. To enable comparisons to be drawn on vaccine coverage, up to 10 general population controls were sampled from the CHI database for each individual in the OST cohort matched for age, sex, Scottish Index of Multiple Deprivation quintile and past SARS-CoV-2 diagnosis.

The OST cohort involved 34,781 individuals not known to have died by the start of the Scottish vaccine programme in December 2020. The majority of the cohort had received an OST prescription during 2021 (70%), were last prescribed methadone (80%), were men (67%), aged over 40 years (67%) and resided in the 2 most deprived quintiles (78%). By 10 November 2021, 64% of those in the OST cohort had been vaccinated with a first dose, compared to 77% among general population matched controls. By the same date, 48% of those in the OST cohort had received a second dose, compared to 72% among general population matched controls. Of the 20,965 individuals who had received a first dose of vaccination and with at least 12 weeks of follow-up, 65% had received a second dose of vaccination by 12 weeks, compared to 90% among general population controls. Thus, this data suggests that considerable progress has been made in vaccinating people in contact with drug services in Scotland, but further efforts will be required to achieve COVID-19 vaccine coverage comparable to that of the wider population.

Response to the pandemic

There have been a number of interventions and novel service delivery models implemented in response to the COVID-19 pandemic to reach PWID and ensure continuity of care (27). The UK government introduced an ‘Everybody In’ policy in early 2020 to house people experiencing homelessness and rough sleeping (39). Drug services in England, Wales and Northern Ireland participating in the UAM Survey reported employing novel approaches to NSP provision, including home delivery, provision by post and/or peer supported distribution, new ways of offering BBV testing, such as self-testing or home delivery of testing kits, and carrying out new or enhanced community outreach, such as engagement with people re-housed in hostels and

hotels (26, 27). Examples of novel interventions for service delivery implemented during the COVID-19 pandemic can be seen in Box 7 and in the Shooting Up report for 2019 (27).

Box 7. Examples of novel service provision for PWID during the pandemic

Online provision of NSP and the creation of a drug treatment network by Change Grow Live

Change Grow Live, a drug and alcohol service provider in England, Wales and Scotland, has implemented a range of harm reduction initiatives in response to the pandemic. In August 2020, in partnership with Exchange Supplies, they launched NSP Direct (direct postal order facility for service users), allowing people to order free NSP equipment, which is discreetly packed and delivered by post to their home address. As a matter of ongoing development and partnership, the Hepatitis C Trust has been given a login and access permissions for their peer leads to act as secondary suppliers of NSP to people in need of access to injecting equipment. It is anticipated that the added benefits of this approach will be: an improved service offer for stigmatised and often 'hidden' populations who may face barriers when looking to access and seek new equipment, increased engagement opportunities for wider harm reduction brief interventions, the opportunity to encourage and facilitate access into more structured support, increased access to injecting equipment, reducing the risk around BBV infections and re-infections and increased opportunities to test for BBVs. Evaluation of this service is planned for 2022.

Change Grow Live in North Yorkshire and Humber, alongside the local operational delivery network (ODN), have taken a novel approach to HCV treatment by bringing together drug treatment providers across the region to share their expertise and resources and deliver HCV treatment directly (Changing Lives, Humankind, Spectrum Community Interest Company, East Riding Trust, Hepatitis C Trust and We Are With You). This new way of working is underpinned by the belief that drug treatment services have a unique and established relationship with the people they support. People will now receive their HCV treatment as a part of their overall support, in a setting they are generally comfortable with and from people they tend to know and trust.

Wessex Clinical Van by NHS Inclusion

NHS Inclusion is a drug service provider in England. In April 2021, Wessex ODN, in partnership with NHS Inclusion, was commissioned to provide a clinical van service in the South East, to ensure continuity of care for service users at risk of HCV and all those already engaged in the treatment pathway. There are currently 2 vans providing services in the community, which have been fully operational since June 2021. The first van is run by the Inclusion Hampshire Substance Misuse service; the second van is rented from Liver 4 Life, a local charity. The 2 vans work in unison and have regular meetings to ensure consistency and full coverage of the

ODN. Both vans have use of Cepheid GeneXpert machines to provide rapid testing for HCV and linkage to care and treatment.

Since the vans were introduced, there has been a total of 1,206 contacts made, equivalent to 857 individuals. There have been 405 point-of-care HCV antibody tests completed, with all positive results followed up with confirmatory testing. Of the 440 Cepheid screens carried out, 119 were positive. Among those positive, 25 people were newly diagnosed with HCV, 35 were retreated due to re-infection or issues with treatment compliance and 104 achieved sustained virological response. The van was also used to carry out Fibroscans and liver assessments, as well as provide peer support, naloxone, needle exchange and health care referrals. In 2021, the vans have been used to recruit 208 PWID to the UAM Survey across 4 difference centres.

The project is led by community drug services and Wessex ODN in partnership with The Hepatitis C Trust. This ensures access to those at risk of HCV, including those not usually in contact with services, who may be known by peers.

Overall, while the COVID-19 pandemic may be driving innovative models of service delivery, if face to face services are not adequately re-instated, systematic under-diagnosis of BBVs, interruption of vaccination, structured and unstructured counselling and psychosocial interventions could lead to increased adverse health outcomes and disparities. Due to a number of structural and personal barriers, PWID may find it more challenging to access healthcare and engage with virtual models of care due to their complex needs. If models of access to services change, there is a risk of widening health inequalities. It is important that novel delivery methods are evaluated to assess the impact on outcomes and health inequalities. Guidance from the Office for Health Improvement and Disparities for drug and alcohol services on ‘Getting the Balance Right’ is due to be released in early 2022 and is described in Box 8.

Box 8. 'Getting the Balance Right'

This guidance will be aimed at commissioners and providers of drug and alcohol services in England and will outline how to balance in-person and remote approaches in the light of practice innovations made in the COVID-19 pandemic. Services were forced to cut in-person contact with service users in the early stages of the pandemic and many were able to develop innovative, remote approaches that benefitted service users. These included more take-home medicines, postal delivery of injecting equipment, streamlined and remote assessments and phone or video individual contacts and group meetings. However, all of these alternative approaches carry risks as well as benefits. As services return to normal, services will need to assess the risks and benefits of in-person and remote approaches to ensure that service users get the most effective and the safest interventions that suit their circumstances and needs. The full 'Getting the Balance Right' report is due to be released in early 2022.

Appendix 1: Data sources

The data for this report is extracted from various national surveillance systems:

Unlinked Anonymous Monitoring (UAM) Survey

This annual cross-sectional survey monitors BBVs and associated risk and protective behaviours in people ever injecting psychoactive drugs in contact with specialist services in England, Wales and Northern Ireland. Those who agree to participate provide a dried blood spot (DBS) sample, which is tested for HIV, HBV and HCV, and self-complete a behavioural questionnaire. Participation in the UAM Survey is anonymous. From June 2020 onwards, eligible PWID were given the option to complete a short second questionnaire on COVID-19 rather than, or in addition to, providing a DBS sample. Sampling to the UAM Survey was limited in 2020 as a result of the COVID-19 pandemic; not only were fewer people recruited in total, but the demographic and risk profile of participants was slightly different to previous years. As such, 2020 UAM Survey data is provisional and trends including this data should be interpreted with caution. Additional information on the sample of PWID recruited can be found in the annual UAM Survey data tables and Health Protection Report (15, 21).

Needle Exchange Surveillance Initiative (NESI)

This survey monitors the prevalence of BBVs and injecting risk behaviours among PWID in Scotland. Participants are mainly recruited from selected NSPs and pharmacies that provide injecting equipment. Participants complete a short interviewer-administered questionnaire and provide a voluntary DBS sample for anonymous HCV and HIV testing. The 2019 to 2020 NESI survey was suspended before completion due to the COVID-19 pandemic. As a result, the sample includes pre-COVID-19 data from 8 of 11 mainland NHS Boards originally included in the sampling framework. The 3 missing NHS Boards in the 2019 to 2020 survey account for just 10% of the total NESI sampling framework. Data is provisional.

Harm Reduction Database Wales (HRD)

A BBV module was implemented in 2017 in all substance misuse services, as well as selected enhanced service community pharmacy providers across Wales to support ongoing surveillance of BBV infections and treatment among individuals accessing these services. The HRD collects information on demographics, risk behaviours, vaccination history, BBV screening and results, onward referral to treatment and treatment milestones and outcomes. Client details are collected so repeated records can be identified.

Scottish Drug Misuse Database (SDMD)

SDMD was set up in 1990 to collect information about people who were in contact with specialist drug treatment services in Scotland. Services contributing to the SDMD include specialist drug services and some medical services. Data is collected when individuals contact services providing tier 3 and 4 interventions (structured community and residential treatment), or reinitiate contact following a gap of at least 6 months since last attendance. This provides insights into drug treatment needs and the social circumstances and behaviours of people at the point when they contact services for treatment. Data for 2020 from SDMD was not available at the time of publication of this report.

Second Generation Surveillance System (SGSS)

Laboratory-confirmed infections in England, Wales and Northern Ireland are statutorily notified and routinely reported to the UKHSA. Data on HBV and HCV infections was extracted from the SGSS. These reports contain demographic and sometimes risk information. For acute HBV infections, laboratory surveillance data for England is combined with risk factor data collected by Health Protection Teams.

Sentinel Surveillance of BBV Testing

BBV testing data, including both negative and positive test results, is reported to the UKHSA from sentinel laboratories in England. The place of sample collection is reported for each test. Data on trends in testing in drug services and prisons is presented to December 2020.

National Drug Treatment Monitoring System (NDTMS)

NDTMS collects patient-level information about those using drug and alcohol treatment services across England. All services that provide structured treatment for drug and/or alcohol users are asked to submit data.

HIV and AIDS Reporting System (HARS)

Data on new HIV diagnoses is submitted to the UKHSA from diagnosing laboratories and clinicians in England, Wales and Northern Ireland, while data on patients accessing care is reported by NHS specialist HIV outpatient clinics. Scottish data is collected separately by PHS and incorporated with data from England, Wales and Northern Ireland to create a UK dataset.

Scottish data on HIV diagnosis and care in 2020 was not available at the time of publication of this report.

Surveillance of clinical and laboratory reports of bacterial infections

Information on bacterial pathogens is available through surveillance of clinical and laboratory reports, which may include risk factor data on injecting drug use. Reporting of meticillin-resistant *Staphylococcus aureus* (MRSA) and meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemias has been mandatory for NHS Trusts since 2005 and 2011, respectively. Data on MRSA and MSSA infections in PWID is also available through referral of isolates for reference microbiology. Isolate referrals are also one of the primary sources of data on GAS infections. For tetanus, wound botulism and anthrax among PWID, enhanced surveillance involves the follow up of laboratory or clinical reports with a surveillance questionnaire.

Investigations of infectious disease outbreaks

During investigations of infectious disease outbreaks, additional data is often collected to understand the cause and extent of the outbreak. This is done by collecting details from affected individuals using questionnaires and additional laboratory investigations, such as molecular typing or whole genome sequencing, which can help to determine whether cases in an outbreak are linked to each other.

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UKHSA is responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats. We provide intellectual, scientific and operational leadership at national and local level, as well as on the global stage, to make the nation health secure.

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