



SCCJR

The Scottish Centre
for Crime &
Justice Research

Mapping Drug Use, Interventions and Treatment Needs in Scottish Prisons: A literature review

January 2022

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TABLE OF CONTENTS

3	Executive Summary
5	Introduction
9	Prevalence and patters of drug use in Scottish prisons
13	Drug use support available in Scottish prisons
18	Treatment and harm reduction needs of people in prison
20	Legal and policy landscape during Covid-19
21	Conclusions
23	References



EXECUTIVE SUMMARY

INTRODUCTION AND METHOD

This is a literature review mapping the contemporary picture of drugs and Scottish prisons. It was completed through a grant from the SCCJR.

Three research questions guided the search, relating to: prevalence and patterns of use in prisons; treatment and harm reduction services available in prison; and, the needs of people in Scottish prisons in relation to their drug use.

A total of 85 documents, reflecting latest data available, were gathered using systematic review techniques.

PREVALENCE AND PATTERNS OF DRUG USE IN PRISON

A high number of people have drugs in their system as they enter prison, complete a period in prison and exit prison. Between 40-75% reported a drug problem or tested positive for illegal substances on entering prison. Nearly 40% reported using illegal drugs while in prison. Between one-quarter and one-third of those tested on leaving prison have illegal substances in their bodies.

Most people (83%) change their drug use whilst in prison. This includes decreased use (44%) and switching substances (22%). Slightly more than one in ten started using illegal drugs in prison.

Benzodiazepines, opiates and cannabis were the most commonly used illicit drugs amongst Scottish prisoners. A small number of prisoners report injecting drugs (5%), mainly heroin, in prison.

New Psychoactive Substances (NPS), with synthetic cannabis being the most common, were used by 30% of prisoners responding to the Scottish Prisoner Survey in 2019.

Age and gender: Opiate and alcohol-only users have higher average ages (35 and 37, respectively) than non-opiate and alcohol users (28). Women are overrepresented in drug using and treatment populations in prison.

DRUG USE SUPPORT IN PRISON

Opioid replacement therapy (ORT) is widely used in Scottish prisons. Data suggests between one-fifth and a quarter of the prison population has an ORT prescription. In a 2019 self-report survey, over a quarter of respondents reported ever having used someone else's medication.

There is wide variation between prisons in Scotland in the numbers using ORT, from a high of 35% prisoners in HMP Greenock on methadone/Subutex compared to less than 10% of prisoners in HMPs Castle Huntly, Inverness and HMP/YOI Polmont in 2018.

There are some psychosocial interventions available in prison, including peer-based but little research on the practices or outcomes of these.

A national Naloxone programme exists in Scotland and aims at reducing drug deaths. Some research has noted operational and implementation issues. Take home Naloxone kits are available for those leaving prison, and there is relatively higher take up by women, which further emphasises the need for gender-focused research.

NEEDS OF SCOTTISH PRISONERS

Scotland's drug deaths are high, and its prison drug death rates are even higher. Of those dying after leaving prison, opiates are a key cause; those dying tend to be older than the average prisoner.

This suggests the need of targeting and personalising support before and after liberation. Research has pointed out variation between prisons and lack of connection and coordination between prison-based health care, wider health services, prison, police and social work.

Demand for drugs, which indirectly relates to prisoner treatment needs, often arises from boredom, limited regimes/frequent lock-up, isolation and more. This indicates attention to the general regime of a prison is central to addressing needs of prisoners with drug use issues.

COVID-19 POLICY CHANGES

Buvidal, an alternative to methadone, was rolled out to all prisons in Scotland during Covid, with evidence of positive effects for some, but not all, who were switched to this. More data is needed to assess its effectiveness.

Numerous changes to criminal justice took place during the pandemic, and there were impacts on support resulting from lockdowns. However, there is little available literature documenting all these changes and impacts of these for prisoners with drug use issues.

LIMITATIONS AND CONCLUSIONS

The research is limited and collected data only through July 2021. Of the evidence gathered, Covid-19 has affected some of the regular monitoring needed to gain a comprehensive sense of drug use in prison.

A strong evidence base exists for high prevalence and patterns of drug use among prisoners. Opiate use is common (both prescribed ORT and illicit use) with resort to other substances such as NPS also common.

Drug support services are centred around ORT, though there are a range of medical and psychosocial services in addition to this. These are not evenly spread across prisons, however, and availability was sharply restricted during Covid.

Age, gender and individual factors like dual diagnosis of a mental health issue are areas where urgent attention is needed to develop tailored responses. The research base, which would support development of effective policy responses, is limited especially in relation to qualitative dimensions of drug use in prison and effectiveness of interventions, specifically psychosocial ones.

INTRODUCTION

Problem drug use features prominently in profiles of people entering prison in Scotland and for a considerable percentage, continues while they are in custody while it has also been noted that people start using drugs when they enter prisons.

It is evident then that both upon entering prison but also upon release, drug treatment and harm reduction services are needed to serve the needs of this population group. However, there has been very little research systematically exploring the prevalence of drug use and service provision of people in prison in Scotland. To fill this gap in knowledge, a SCCJR development grant allowed the investigators to recruit a researcher to conduct a literature review and mapping exercise.

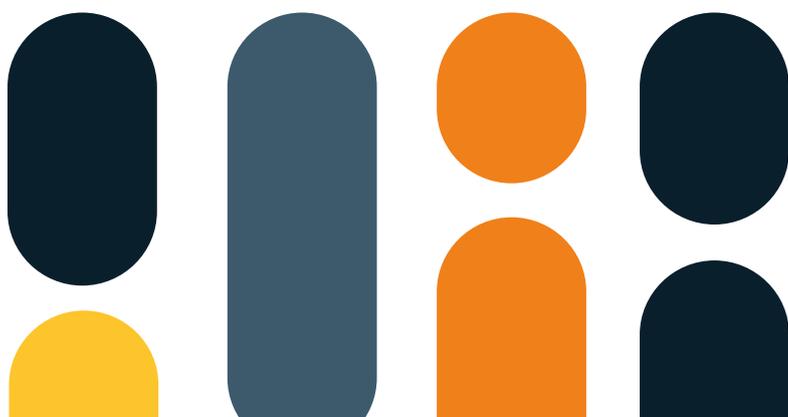
This report summarises a literature review conducted over an 8-week period (between 1st June 2021- 25th July 2021), and addressing 3 key factors:

1. **The prevalence and patterns of drug use in Scottish prisons.**
2. **Current treatment and harm reduction services offered in Scottish prison settings.**
3. **The treatment and harm reduction needs of people in Scottish prisons.**

Changes to laws, regulations, policies, and plans related to Covid-19 restrictions and social distancing (with a focus on Scottish prisons) are briefly addressed. The summary of articles reviewed relating to the mapping of Covid 19 laws and policies, and how these have impacted treatment services in Scotland, are limited to synthesis of the material provided by the lead researchers at the onset of the project, in conjunction with articles deemed relevant (i.e. that could be classified as relating to 'policy context' of drug treatment in Scottish prisons), as identified by the general search strategy, outlined in the following sections (and see also Tables 1 and 2).

The report is structured as follows:

- **The aims and objectives of the summary report**
- **The research questions and search terms (or search criteria) addressed by the literature review**
- **The search strategy used to conduct the literature review**
- **A summary of the literature review results in relation to the research questions and key themes**
- **Discussion of the literature review results, evidence summary, and limitations**
- **Preliminary conclusions**



AIMS & OBJECTIVES

The aims and objectives of this report are:

- a) To document and outline the search strategy used for conducting the literature review.
- b) To begin to summarise, synthesise and draw out a narrative from the literature review results (i.e. academic articles, grey literature, web sources, policy documents), in relation to the main research questions (provided as the brief at the onset of the project).
- c) To discuss the key factors that can be drawn from the literature in relation to answering the research questions, and to address any limitations or barriers encountered, or that hinder drawing definitive conclusions, in relation to the current evidence base, and the research questions.

RESEARCH QUESTIONS

The following section outlines the research questions which form the basis of the literature review:

- i. What are the prevalence and patterns of drug use within Scottish Prisons?
- ii. What drug treatment and harm reduction services are offered in Scottish Prisons?
- iii. What are the treatment and harm reduction needs of people in prison (with a focus on Scotland)?

Mapping of laws, regulations, policies, and plans related to Covid restrictions, policies, and social distancing measures in Scottish prisons, with further exploration of how provision of drug treatment and harm reduction services may have been impacted during this time.

Table 1 outlines the key search criteria (and the associated research questions) used to organise, document and structure the literature review results, as well as determining the inclusion criteria of articles (by theme) in the evidence summary table (presented in Table 2). These themes were provided by the lead researchers at the onset of the project. Themes were used to structure the search strategy, and to organise results into relevant sections of the evidence summary and the summary report.

Table 1 Literature search criteria

THEMES	RELATED QUERY
Prevalence	What is the prevalence of drug use within Scottish Prisons?
Needs	What are the treatment and harm reduction needs of people in prison (with a focus on Scotland)?
Policy Context	Rules, regulations, policies, impact of covid and restrictions?
Interventions	What drug treatment and harm reduction services are offered in Scottish Prisons?
Patterns	What are the patterns of drug use within Scottish Prisons?
Background	Other relevant information that arose in relation to questions and background of the topic

LITERATURE SEARCH STRATEGY & RESULTS

A (semi-)systematic literature search was conducted, alongside a synthesis of articles (provided by the research project lead), at the onset of the project. The source, search criteria, inclusion and exclusion criteria, and the number (and theme) of the articles are presented in Table 2. A supplemental document, *Drugs and prison in Scotland: Literature abstracts and excerpts*, containing abstracts and key points of

relevant literature provides more detail on materials produced in the search.

The literature review searches were kept intentionally broad (see Table 2), in order to capture as many articles as possible in relation to the key themes that address the research questions. Articles with a focus on the UK and Europe were included for review where there were direct references to Scotland. Articles were recorded alongside references, including abstracts and summaries/quotes from key elements of the articles. These were input into a table for further narrative review in the evidence summary and the literature review summary section (see Table 2, and also the supplemental document containing abstracts).

Table 2 Literature review search results

DATABASE/SITES/SOURCES SEARCHED	DATE OF SEARCH	SEARCH TERMS/CRITERIA	RESULTS RETURNED	EXCLUDED - RELEVANCE	EXCLUDED - BASED ON ABSTRACT	INCLUDED FOR REVIEW
"SPS – SCOTTISH PRISON SERVICE" www.sps.gov.uk	17/06/2021	"Drugs" (prevalence)	19	8	6	5
"SPS – SCOTTISH PRISON SERVICE" www.sps.gov.uk	23/06/2021	"NPS" (prevalence)	3	0	0	3
"SCOTPHO" (PUBLIC HEALTH INFORMATION FOR SCOTLAND) www.scotpho.org.uk	23/06/2021	"drugs + prison" (prevalence, needs, policy context, interventions, patterns, background)	117	67	36	14
PUBMED www.pubmed.ncbi.nlm.nih.gov	29/06/2021	"Drugs (+) prison (+) Scotland (or) Drug misuse (+) prison (+) Scotland" (include – Full Text) (prevalence, needs, policy context, interventions, patterns, background)	68	25	24	19
PUBMED www.pubmed.ncbi.nlm.nih.gov	30/06/2021	"NPS (+) prison (or) new psychoactive substances (+) prison" (prevalence, needs, policy context, interventions, patterns, background)	39	23	6	10
GOOGLE SEARCH* www.google.co.uk	08/07/2021, 14/07/2021	'drug use' or 'drug misuse' + 'Scottish prisons' (prevalence, needs, policy context, interventions, patterns, background)	156	72	50	34

*Results from the past 2 years. The reported total results returned, include (only) the results returned once google has removed duplicates and (similar) results. As there were over 200,000 results returned, a custom timescale range of between 2019-2021 was input to narrow the results to recent articles (in the hope of capturing relevant news, grey literature and recent articles to the research questions.) For example, the Google message returned: "In order to show you the most relevant results, we have omitted some entries very similar to the 156 already displayed."

DESCRIPTION OF LITERATURE REVIEW RESULTS

Sixteen articles were selected for inclusion in the literature review in relation to exploring the prevalence of drug use in Scottish Prisons. The included articles are a combination of statistical or qualitative surveys including the SPS 2019 Prisoner Survey (Carnie and Broderick 2019); the 2018/19 SPS Addiction prevalence testing figures (SCOTPHO 2021) and the prevalence and potential for non-medical use of antiepileptic drugs (AEDs) among prison populations in Scotland and the UK (Deeb et al. 2020). In addition, a number of academic articles addressing the prevalence of drug use in secure settings more broadly were also included, for example, the prevalence of use of new psychoactive substances (Public Health England 2017) or the prevalence of synthetic cannabinoid receptor agonists (SCRAs) in prison setting, relative to the general population (Norman et al., 2021). Furthermore, a number of Freedom of Information requests were accessed from the Scottish Prison Service website, relating for example to the quantity of substances seized in Scottish prisons or the numbers of seizures within these settings (SPS 2019; SPS 2018).

Nineteen articles were selected for inclusion in the literature review in relation to exploring the patterns of drug use in Scottish Prisons. The included articles are a combination of quantitative and qualitative academic papers, media coverage, reports presented to Scottish and UK government, and review papers that address

changing patterns of drug use in Scottish or UK prison settings. In addition, twenty articles were selected for inclusion in the literature review in relation to exploring the interventions, treatment and harm reduction services offered for people who face a problem with drug use in Scottish Prisons. The included articles are a combination of quantitative and qualitative academic papers, media coverage, reports presented to Scottish and UK government, and review papers that address interventions that tackle problem drug use¹ in Scottish or UK prison settings.

In relation to exploring the treatment and harm reduction needs of people in Scottish Prisons settings, we identified and reviewed seventeen articles. The included articles are a combination of quantitative and qualitative academic papers, media coverage, reports presented to Scottish and UK government, and review papers that address interventions that tackle problem drug use in Scottish or UK prison settings. Finally, sixteen articles were selected for inclusion in the literature review in relation to exploring the 'policy context' for provision of drug treatment and harm reduction services in Scottish Prisons settings, and contextualising the background to Scotland's 'drug problem'. Articles selected related to associated laws, regulations, recent policy initiatives, and interventions associated with the mapping of plans and regulations pertinent to Covid restrictions, and how these have impacted provision of drug treatment and harm reduction services before and during the pandemic. The articles included are a combination of quantitative and qualitative academic papers, media coverage, reports presented to Scottish and UK government, and review papers that address interventions that tackle problem drug use in Scottish or UK prison settings.

1. We use the term problem drug use as defined by the EMCDDA to refer to 'recurrent drug use that is causing actual harms (negative consequences) to the person (including dependence, but also other health, psychological or social problems), or is placing the person at a high probability/risk of suffering such harms' (EMCDDA https://www.emcdda.europa.eu/topics/problem-drug-use_lv)

PREVALENCE AND PATTERNS OF DRUG USE IN SCOTTISH PRISONS

Establishing prevalence of drug use in Scottish prisons is not a straightforward task, mostly because of lack of available data at country level. However, we have identified several studies and reports that provide evidence in relation to the extent of drug use in Scottish prisons.

Carnie and Broderick's (2019) report analysing the Scottish Prisoner Survey outlined a number of key variables that can be determined as indirectly impacting the prevalence of drug use in Scottish prisons. The results of the survey presented in the report suggest that 41% of respondents faced a drug problem before entering the prison system, with just under half (45%) reporting being under the influence at the time of committing their offence. In addition, a large proportion of people in prison reported previous use of NPS (22%), with synthetic cannabis being the most often reported substance, followed by stimulants (43%), hallucinogens (30%) and other unknown substances (14%). Forty percent of people in prison being under the influence of alcohol at the time of their offence (Carnie and Broderick 2019). Whilst these figures alone cannot predict the prevalence of drug use in Scottish prisons, in terms of establishing the quantifiable variables of 'type' or 'access' to drugs in specific prison settings, they do provide a context to the prevalence of drug use, potential mental and physical

health problems and the characteristics of people in prison engaged with Scottish prison services. This same report found that 39% of respondents reported using illegal drugs in prison at some point, a percentage that has remained the same since 2015. The majority of these respondents (83%) stated that their drug use had changed during their current period in prison; with 44% reporting that it had decreased, 20% that it had increased and a similar percentage (22%) reporting that their level of use remained the same but they used different substances. In addition, 12% of respondents reporting starting drug use in prison.

41% OF RESPONDENTS FACED A DRUG PROBLEM BEFORE ENTERING THE PRISON SYSTEM

The figures outlined in Carnie and Broderick's (2019) report are self-reported data in a voluntary survey. The take-up rate of the survey is fairly high (between 30%-40% of those in prison) but more data is needed to clarify the extent to which the 2019 sweep is representative of the population of people in Scottish prisons.² Additionally, due to disruption from Covid-19, it does not appear that the most recent survey has been published to cover the period 2020-2021. This provides a potential barrier in terms of understanding the nature of experiences of people in prison and the prevalence of drug use in prison settings during the pandemic.

Whilst the Scottish Prisoner survey is limited in terms of understanding the tangible prevalence of drug use by people in prison in Scotland, the SPS addiction prevalence testing (APT) figures for 2018/19

2. The number of respondents is not reported in the survey, though in the 2017 sweep of the survey, around 2,400 people in prison completed it (in a prison population that fluctuates between 7500-8000 (see Tweed et al. 2021)).



(SCOTPHO 2021), provide a useful snapshot of this missing data in relation to drug use in Scottish prison settings. Addiction prevalence testing is conducted annually across all prisons in Scotland, with all people in prison entering and leaving custody (during one month in the year) required to provide a sample to be tested for the presence of 'illegal' drugs (SCHOTPHO 2021). The latest available figures published by SCOTPHO highlight that:

“Of the 1017 tests carried out when entering prison in 2018/19, 75% (compared to 80% in 2017/18) were positive for drugs (which included drugs prescribed as part of a treatment programme), and 71% (78% in 2017/18) were positive for illegal drugs (including illicit use of prescribed drugs).”

At the same time, and indicative of prevalence of drug use in Scottish prisons,

“Of the 522 tests carried out at prisoner liberation in 2018/19, 26% (31% in 2017/18) were positive for illegal drugs.”

When discussing prevalence of drug use in prison, several factors need to be taken into account. Cooper and colleagues (2017) have highlighted that individual characteristics such as age, gender, socio-economic factors, community makeup of local drug problem, and availability of drugs in the secure setting impact drug use prevalence (Cooper et al. 2017). It needs to be noted here that their study reported on data collected for the National Drug Treatment Monitoring System (NDTMS) from NHS England commissioned-healthcare services. However, their findings will have some relevance in the Scottish context. Cooper et al.'s (2017) study found that 'Alcohol only' clients had the highest median age (37), followed by opiate clients (35), non-opiate and alcohol clients (28), and non-opiate only clients (27). Most prison systems are characterised by overrepresentation of men; in Scotland women make up roughly 5-6% of the total prison population (i.e. it is 95% composed of men) (SPS 2021). However, women

are overrepresented in the treatment population given that problem opiate use was recorded among 47% of men in prison, relative to 65% of women (Cooper et al. 2017). This suggests a higher proportion of women in prison face an issue with opiate use relative to men in prison, adding further context to age related differences in both type of drug use, and outcomes in secure settings (Id.).

A number of Freedom of Information requests available on the SPS website were included for review, which outline data relating to the number of drug related incidents (on record) at HMS Perth in Scotland between the years 2014-2017. The figures identified ranged between 80 and 354 (SPS 2017a; 2017b; 2018). However, in the three separate FOI requests pertaining to Perth Prison, the figures released were not consistently reported, with large discrepancies between the figures reported year on year for the same time period. In addition, in two separate Freedom of Information requests where information was requested regarding incidents involving NPS substances (or seizure of NPS substances), the SPS reported no instances of NPS incidents or seizures reported for the fifteen prisons in Scotland in the previous three years prior to the request (SPS 2018). Additionally, with regards to drug seizures of substances classified as NPS, the SPS stated that they did not have access to the records pertaining to the number of NPS seizures (as these were held by the Police Scotland and were not always fed back to the Scottish Prison Services). Records for seizure of cannabis, heroin and cocaine were provided for the period between 2013 – 2018, which showed large discrepancies in the type of drug seized based on the geographical area and prison (SPS 2018).

With regards to tracking the prevalence of drug use in Scottish prisons, it is evident that there are a number of limitations with the information held on record by the Scottish Prison Service. This may be due to a lack of follow up between Scottish Prison Services, Health Services and Police Scotland in relation to



tracking the 'types' of drugs seized, tracking incidents, administrative errors, or alternative classifications of NPS drug seizures as 'unknown', which may obscure the prevalence figures SPS have on record. This can be fed back into decision making processes in terms of future policy change.

A study involving urine analysis of samples provided by people admitted and released from prison over a month-long period in 2013 and focusing on prison populations in Scotland discussed both prevalence of drug use but also specific substances used (Deeb et al. 2020). The study set out to evaluate the prevalence and potential for non-medical use of antiepileptic drugs (AEDs) among prison populations in Scotland and indeed concluded that there is high prevalence of AEDs within the Scottish prison system, although the anonymity of the sample collection did not allow the research team to reach safe conclusions on whether these substances were prescribed or illicitly obtained. However, Deeb and colleagues highlighted that illicit or non-prescribed drugs were detected in 81% of urine samples, of which 80% were from admitted prisoners and 20% from released prisoners.

DRUGS WERE DETECTED IN 81% OF URINE SAMPLES, OF WHICH 80% WERE FROM ADMITTED PRISONERS AND 20% FROM RELEASED PRISONERS

In this study, benzodiazepines, opiates and cannabis were the most frequently detected drugs, which shows a shift in trends relative to the SPS addiction prevalence testing (APT) figures for 2018/19 (SCOTPHO 2021). More specifically, according to SCOTPHO, the drugs most commonly detected in people leaving prison in Scotland, were buprenorphine (12%) (14% in 2017/18), opiates (8%) (8% in 2017/18) and benzodiazepines (6%) (7% in 2017/18).

As evidenced by SCOTPHO (2021; 2020), opiate use remains a significant problem in both community and prison settings in Scotland. The results observed in SCOTPHO (2021) suggest that the second most common drug, detected in people exiting Scottish prison settings, are opiates (8%). However, it does not identify whether these tests are from people in prison actively undergoing Opioid Substitution Therapy (OST) in a prison setting and, therefore it is not possible to accurately determine the method of ingestion of these opiates. However, according to the last Prisoner Survey – and acknowledging the limitations of this injecting drugs is reported by a small minority of respondents – 5% (Carnie and Broderick, 2019), with heroin the most commonly injected substance. Of particular note, the majority of those respondents indicated sharing injecting equipment. It is evident then that despite this group of respondents being a small minority, the public health implications of sharing injecting equipment cannot be overlooked.

The literature in relation to patterns of drug use in Scottish prisons has been dominated increasingly in recent years by evidence suggesting a shift in patterns (in Scottish prisons and globally) towards New Psychoactive substances (NPS) such as SPICE, including synthetic cannabinoid receptor agonists (SCRAs).

Indeed, data from the 2019 Scottish Prisoner Survey suggest that three in ten respondents said they had used NPS in prison, with synthetic cannabis again being the most commonly used (62%) (Carnie and Broderick, 2019).

Detection methods have fast been adapting in order to track points of entry to prison, through delivery methods such as letters and infused papers (Ford and Berg 2018; Norman et al. 2020; Antonides et al. 2021). Attention is being increasingly drawn to increased use of NPS in Scotland generally (Davies 2017; McAuley et al. 2015) as well as specifically in Scottish prisons (Norman et al. 2020). Such concerns are by no means

confined in Scotland. Results from the Public Health England (2017) questionnaire confirmed that NPS use is an ongoing problem in both prison settings and secure mental health settings, and may be a contributing factor for admission to the units.

Given the high number of prisoners reporting use of NPS at some point during their imprisonment, this class of substances is a focus of concern and attention among policy makers, prison authorities and researchers. Existing research identifies several relevant issues for consideration. For example, analysis of all NPS deaths in Scotland in 2012 (McAuley et al. 2015) showed most people had multiple substances in their systems (e.g. alcohol, cocaine, methadone), and that these deaths were among younger people compared to drug deaths generally.

‘SUPPLY’ FOCUSED STRATEGIES WERE BOTH INEFFECTIVE ON THEIR OWN AND INCONSISTENTLY APPLIED ACROSS THE PRISON ESTATE. THE AUTHORS URGED A ‘WHOLE PRISON APPROACH’

No research has yet analysed strategy for tackling NPS in prisons in Scotland, but research in this area for prisons in England is instructive. A thematic report by the prisons inspectorate in England (Prime et al. 2015) noted that NPS use is rising dramatically and needs to be addressed urgently. However, it noted that ‘supply’ focused strategies were both ineffective on their own and inconsistently applied across the prison estate. The authors urged a ‘whole prison approach’ that involved in addition to tactics targeting supply, those targeting demand as well as provision of effective drug treatment, including harm reduction (Id.). They conclude on this point:

‘Effective drug treatment also needs to address the wider issues that affect drug use, including adequate purposeful activity, and to include joint working between agencies and prison departments to address all the wider issues, including housing, employment, physical health and mental health. Poor performance in these areas in some prisons undermines effective treatment’ (Id.: 13).

Duke analysed the English prisons NPS strategy observing it was organised largely around a ‘law and order and control’ understanding of the problem. This followed a similar approach to a prior drugs surge that was seen as ineffective and had to be abandoned:

‘From the response to NPS in prisons thus far, there appears to have been no learning from the previous problem representations that resulted in imbalances in prison drug policy which were subsequently altered through greater emphasis on demand reduction. (Id.: 7).

Norman et al. (2020) offer the most recent Scottish-based information on NPS and prison. Their research established the success of various existing techniques for analysing NPS presence in samples of letters and infused papers. This shows that for supply targeting, there are currently effective technologies available to test for NPS, though changing forms of NPS require a continuing need to innovate. However, prevalence of NPS is difficult to assess from this article. It notes that its analysis was on ‘354’ samples seized from three Scottish prisons during 15 months over 2018-19 which in fact represented 168 seizures (of which 101 were analyzable) so it appears to count, for example, multiple pages of a single letter as separate samples. This article also makes a claim about NPS being associated with increased violence in prison, though its only source for this is an SPS annual report making a speculative claim that a rise in prisoner on prisoner assaults was due to NPS. This underlines the need for research by social scientists (the authors in Norman et al. 2020 appear to be chemists) on the relationship of NPS to misbehaviour and violent conduct.

DRUG USE SUPPORT AVAILABLE IN SCOTTISH PRISONS

This part of the report reviews literature on an array of services offered in Scotland. The first section relates to the provision of Opioid Substitution Treatment (OST, also called Opioid Replacement Treatment or ORT) in prison settings (Low et al. 2016; Guyoncourt 2021; MacNeill 2021; BBC News 2021; Alam et al. 2019; Zurhold and Stover 2015). We then discuss the psychosocial interventions offered in Scottish prisons. Subsequently, the National Naloxone programme is discussed, an intervention implemented in both community and prison settings in Scotland (NHS Scotland 2018; McAuley et al. 2016; Horsburgh and McAuley 2018; Bird and McAuley 2019; Bird et al. 2015) with the primary aim of reducing drug related deaths due to opioid overdoses in Scotland. The report then focuses on treatment and harm reduction needs of people in prison, with a focus on Scotland.

In prison settings worldwide, one of the most widely used interventions and harm reduction strategies implemented is OST (Zurhold and Stover 2015; Alam et al. 2019; MacNeill 2021). OST therapies are considered largely to be beneficial (as especially harm reduction strategies) in prison and community-based settings, including promoting an improved uptake of cross-treatment for associated risk factors (such as blood borne viruses) (Low et al. 2016; Stone et al. 2017). It should be noted here that critique has been raised as to whether the predominance of OST provision in prisons (as well as in the community) actually restricts rather than increases treatment choice. A study into the view of people in prison and prison staff on methadone provision in two local prisons in England – accommodating people on remand, people awaiting sentencing and people serving relatively short sentences – certainly highlighted such views

(Asher 2013). At the same time, OST and specifically methadone treatment has been discussed as a social control mechanism, a disciplinary mechanism to produce docile bodies (Bourgeois 2000) a suggestion which can be highly pertinent to prison environments; however, full discussion of this issue is outwith the scope of the current report.

In the latest available data from the Scottish Prisoner Survey, it was reported that around one-fifth of respondents (18%) were being prescribed methadone in prison (Carnie and Broderick 2019). According to the report, “[o]f these, over half were on a maintenance dose (57%), over a quarter were on a stabilising dose (28%) and 15% on a reducing dose.” (Id. 2019: 13). Of note here is the significant percentage of people reporting ever having taken another person’s prescribed medication (26%).

More recent data highlight an increase in the percentage of people receiving methadone prescriptions as part of a treatment regime. According to the latest available data collected by The National Prison Care Network, a quarter (25.3%) of people in Scottish prisons were receiving OST on the day of data collection (SCOTPHO, 2021). It should be noted here that the National Prison Care Network collects data twice a year on numbers of people in Scottish prisons who receive OST (in June and December, see Tables 3 and 4, excerpted from the report). More specifically, of the 8,005 people in custody on one day in June 2018, “21% (1,707) were prescribed methadone, 2.1% (170) were prescribed Buprenorphine tablets, and 0.06% (5) were prescribed Suboxone (buprenorphine & naloxone) on that day (21%, 1.8% and 0.4% respectively on 6 June 2018)” while “2.1% (169) were prescribed Espranor (a substance containing buprenorphine)” (SCOTPHO, 2021). In relation to the breakdown of OST provision by prison, the Scottish Public Health Observatory (2021) reports that the highest percentage of methadone prescriptions was observed in the women’s prison, HMP Cornton Vale (42.6%), followed by HMP Greenock (32.5%)

and HMP Shotts (31.3%). On the contrary, the lowest percentages were reported in HMP Polmont, HMP Dumfries and HMP Castle Huntly (7.6%, 12.2% and 14% respectively). In relation to other substances used in OST treatment, Subutex/buprenorphine was most prescribed in HMP Addiewell (6.4%), followed by HMP Grampian (4.1%) and HMP Barlinnie (3.6%). Finally, according to the SCOTPHO (2021), Suboxone - a combination of buprenorphine and naloxone - was only prescribed

to people in HMP Inverness. A note needs to be made here about the variability of approaches adopted across Scotland in relation to OST and the implications this may have for people who have to transfer from one prison establishment to another. The SPHO tables below, showing opiate replacement prescribing in two sweeps of data 2017-18, convey the significant variability between prisons.

Opiate Replacement Therapy snapshots - 6th June 2018

HMP/YOI	HMP Perth	HMP Castle Huntley	HMP / YOI Grampian	HMP / YOI Compton Vale	HMP / YOI Polmont	HMP Glenochil	HMP Low Moss	HMP Kilmarnock	HMP Barlinnie	HMP Shotts	HMP Addiewell	HMP Edinburgh	HMP Greenock	HMP Dumfries	HMP Inverness	Total
Total no of prisoners receiving Methadone	171	18	162	17	44	94	172	170	196	152	128	175	81	17	11	1608
Total no of prisoners receiving Suboxone	0	0	5	0	0	0	0	0	0	0	0	18	0	0	4	27
Total no of prisoners receiving Subutex/ buprenorphine	32	2	0	0	2	6	26	5	26	8	24	0	6	3	0	140
Total no of prisoners in custody	669	186	458	155	451	683	780	501	1192	532	69	859	232	164	111	7667
% of Methadone users	25.6%	9.7%	35.4%	11.0%	9.8%	13.8%	22.1%	33.9%	16.4%	28.6%	18.4%	20.4%	34.9%	10.4%	9.9%	21.0%
% of Suboxone users	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	3.6%	0.4%
% of Subutex/ buprenorphine users	4.8%	1.1%	0.0%	0.0%	0.0%	0.9%	3.3%	1.0%	2.2%	1.5%	3.5%	0.0%	2.6%	1.8%	0.0%	1.8%

N.B. All data provided by individual prison health centres

Opiate Replacement Therapy snapshots - 4th December 2017

HMP/YOI	HMP Perth	HMP Castle Huntley	HMP / YOI Grampian	HMP / YOI Compton Vale	HMP / YOI Polmont	HMP Glenochil	HMP Low Moss	HMP Kilmarnock	HMP Barlinnie	HMP Shotts	HMP Addiewell	HMP Edinburgh	HMP Greenock	HMP Dumfries	HMP Inverness	Total
Total no of prisoners receiving Methadone	178	24	166	14	35	97	187	158	218	157	132	185	72	27	18	1668
Total no of prisoners receiving Suboxone	0	0	10	1	1	4	0	7	0	0	24	0	0	0	5	52
Total no of prisoners receiving Subutex/ buprenorphine	21	5	0	0	0	1	22	0	26	12	0	17	5	2	0	111
Total no of prisoners in custody	616	219	439	83	448	662	751	503	1138	522	696	882	246	174	98	7477
% of Methadone users	28.9%	11.7%	37.8%	16.9%	7.8%	14.7%	24.9%	31.4%	19.2%	30.1%	19.0%	21.0%	29.3%	15.5%	18.4%	22.3%
% of Suboxone users	0.0%	0.0%	2.3%	1.2%	0.2%	0.6%	0.0%	1.4%	0.0%	0.0%	3.4%	0.0%	0.0%	0.0%	5.1%	0.7%
% of Subutex/ buprenorphine users	3.4%	2.3%	0.0%	0.0%	0.0%	0.2%	2.9%	0.0%	2.3%	2.3%	0.0%	1.9%	2.0%	1.1%	0.0%	1.5%

N.B. All data provided by individual prison health centres

Source: <https://www.scotpho.org.uk/population-groups/prisoners/data/prisoner-health/> [Accessed 1/10/21]

COVID-19 CHANGES TO OST

Furthermore, in response to the Covid-19 restrictions, and due to limited resources in Scottish prison settings during the pandemic, the Scottish Government introduced Buvidal as a rapid roll out and OST therapy mitigation strategy (MacNeill 2020). MacNeill's (2021) follow up report found a number of positive indicators for people in prison that had moved over to Buvidal from daily OST treatment, evidenced by reduced drug seeking behaviour³, and improved health and wellbeing relative to previous experience of OST therapies. However, the perceived benefits were deemed to be limited for those that were dealing with trauma and would struggle with the cognitive clarity experienced with Buvidal versus Methadone OST therapies (MacNeill 2021). Since MacNeil's (2021) article was published, the Scottish Government have approved the roll out of Buvidal nationwide (Guyoncourt 2021; BBC News 2021). However, there have (at the time of writing this report) been no publications monitoring outcomes of the roll out to the wider population.

PSYCHOSOCIAL INTERVENTIONS

Although academic literature on psychosocial interventions in Scottish Prisons is not readily accessible, we have been able to identify the following psychosocial interventions offered to people in prison in Scotland by reviewing grey literature. SISCO ("Sustainable Interventions Supporting Change Outside") have been developing and delivering recovery initiatives within the Scottish Prison Service in the form of Recovery Cafes. Recovery Cafes are peer-led interventions, where people in recovery support others in their recovery journey. The intervention utilises a whole-person approach, trauma informed approach. The following prisons in Scotland are also identified as

have operational Recovery Cafes: Polmont (Women); Glenochil; Perth; Barlinnie; Shotts; Corton Vale; Dumfries; Kilmarnock; Inverness.

In addition, the Scottish Recovery Consortium (SRC) the organisation representing and connecting recovery across Scotland, has established a collaboration with the Scottish Prison Service in the form of 'Recovery from Within' activities. SRC have supported with advice, capacity building through training and coordinating other support to these established and emerging recovery initiatives within the following prison establishments: Polmont; Addiewell; Glenochil; Perth; Barlinnie; Castle Huntly; Shotts; Grampian; Cornton Vale. SRC also co-facilitate the SPS National Recovery Network which has a membership of SPS staff from every prison in Scotland and support the existing recovery cafes operating within the Scottish prison estates.

Further mutual aid support is offered by Narcotics Anonymous who provide a prison sponsorship service involving 12 step NA sponsorship by post, to NA members in prisons across the United Kingdom including Scotland. Finally, The Scottish Prison Service collaborates with UK SMART Recovery (UKSR) an organisation promoting recovery through a national network of mutual aid meetings and online training programmes. UKSR offer 'InsideOut', a psycho-educational group work programme, designed to be led by prison officers, probation officers, drug workers, education staff or other professionals who have some experience of group-work and have completed the UK SMART Recovery Facilitator Training. To date a peer facilitator training course for nine volunteers and service users in recovery, from the community, in addition to five people in prison actively engaged with the prison's

3. We wish to clarify that we do not agree with the term 'drug seeking behaviour' as it is an ill-defined term, often used in stigmatising ways. However, we acknowledge that this is a term widely used in the literature including the paper just cited.

own SMART group has been delivered in HMP Inverness and a SMART recovery group operates in MHP Perth, within the context of the prisons' recovery workstream which in 2017 also included: recovery workshops for patients, a recovery café previously mentioned, mutual aid support; mindfulness and serenity as well as yoga sessions (NHS Scotland, 2017). It should be noted here that HMP Perth introduced the first prison-based peer support group, recovery college, recovery walk and recovery café⁴.

As noted in the beginning of this section, academic literature on psychosocial interventions in Scottish prisons is scarce; as such there is an identifiable gap in knowledge regarding the availability but most crucially effectiveness of such approaches within prison settings.

INTERVENTIONS AIMED AT REDUCING DRUG-RELATED DEATHS

Alongside OST therapies in prison settings, Scotland's National Naloxone programme is a key harm reduction strategy implemented both in the community, and in prison to promote harm reduction for people in prison, who are at increased risk of drug related death in the first few weeks after leaving prison and re-entering the wider community (NHS Scotland 2018; McAuley et al. 2016; Bird and McAuley 2019). In 2010, Scotland became the first country to implement a National Naloxone Programme (NNP), with the aim to make naloxone – an opioid antagonist which reverses the effects of opioid overdose – available to anyone at risk of opioid overdose. The National Naloxone programme was introduced in Scottish prisons in 2010/2011 when SPS nursing staff were trained to administer Naloxone in emergency opiate overdose incidents in prison. In addition, people in prison who test positive for opiates at reception, or advise prison staff of recent/current

opiate use (including opiate replacement therapy), are made aware of the NNP and invited to take part in training in the use of Naloxone during their sentence (Horsburgh and McAuley's, 2018). However, Horsburgh and McAuley's (2018) report outlined a number of barriers encountered in relation to the implementation of the National Naloxone programme across Scottish prisons with regard to prisoner uptake, operational issues, and individual factors affecting delivery of the service and engagement with the program. These factors remain pertinent particularly in terms of maintaining engagement of people in prison with the programme upon exit from prison services and the secure setting. The Take-Home-Naloxone (THN) program currently implemented in Scotland involves provision of naloxone kits upon release from custody (ISD 2018). In 2017/18, 664 THN kits were issued in prisons, a 5% decrease compared with 2016/17 and the lowest annual number of THN kits issued in prisons since the beginning of the National Naloxone Programme (ISD 2018). However, latest available data suggest a significant increase (27%) of THN kits issued in 2018-2019 compared to the previous year.

IN 2010, SCOTLAND BECAME THE FIRST COUNTRY TO IMPLEMENT A NATIONAL NALOXONE PROGRAMME

In relation to specific prisons, the number of THN kits supplied between 2016/17 and 2017/18 increased in five prisons and decreased in ten prisons (ISD 2018: 10). HMP Polmont issued the highest number of kits in 2017/18 followed by HMP Grampian. The variation of kits issues across prisons in Scotland could be attributed to various factors however, this is another aspect of service delivery which deems further consideration by research.

4. Source: 'Breaking down barriers in prison' Available at : <https://healthandcare.scot/default.asp?page=story&story=550>

Of particular interest is the finding that there a relatively higher uptake of THN among women in prison compared to men (ISD, 2018). The authors of the report suggest that this disproportionately high percentage of kits supplied to female prisoners may be partly explained by the high level of engagement with the National Naloxone Programme at Scotland's only all-female establishment (HMP Cornton Vale); however there are indicators that other prisons holding women are recording increased uptake of the programme (e.g. HMP Polmont), highlighting the need for further research into the engagement of women in prison with this particular harm reduction intervention.

SCOTLAND'S DRUG RELATED DEATHS ARE HIGH RELATIVE TO THE REST OF THE UK AND EUROPE WITH A DOCUMENTED INCREASE OF 27% BETWEEN 2018 AND 2019, AND A FURTHER, SHARP INCREASE IN 2020, DURING COVID-19.



TREATMENT AND HARM REDUCTION NEEDS OF PEOPLE IN PRISON

Scotland's drug related deaths are high relative to the rest of the UK and Europe (SDDT 2020; Audit Scotland 2019) with a documented increase of 27% between 2018 and 2019 (SDDT 2020). Scottish Prison Service published data on deaths in custody show there was a further increase in 2020, during Covid-19, with seven deaths attributed to drugs (compared to an annual average of 2.4 deaths attributed to drugs across the decade prior to this).⁵ A large proportion of drug-related deaths in Scotland generally occur in those aged over 35 (76%), with the greatest proportion of drug related deaths in those aged 45 and over (Audit Scotland 2019). In 2017, opioid related deaths among recently released prisoners accounted for 4.4% of all such deaths in Scotland; this is a sharp decrease, as the proportion of Scottish opioid deaths accounted for by recently liberated prisoners between 2006-10 was 9.8% (Id.). This reduction coincides with the introduction of the National Naloxone Programme and distribution of kits to 'at risk' prisoners on release (SCOTPHO, 2021). At the same time, the high percentage of people in prison who are estimated to be HEP C positive (19% according to SCOTPHO, 2021) cannot be overlooked.

A number of needs can be identified from the current evidence, based on the individual differences and characteristics of people in prison entering the prison system. The extent of the problem can be drawn out (loosely) from current data sources, including higher levels of drug-related death associated with age (Cooper et al. 2017; Audit Scotland 2019); patterns of drug use; and poorer outcomes associated with gender

(Tweed et al. 2020; Praxxis Women 2019; Prison Reform Trust 2019; Cooper et al. 2017).

The reviewed literature suggests the need for appropriate through-care and management of prisoner aftercare, including engagement with community-based health, alcohol and drug services to ensure treatment is consistent, during and upon exiting prison settings (Bird and Hutchinson 2003; Seaman, Brettle and Gore 1998; Parkes et al. 2010; Jasmin et al. 2021; Long 2021; Dundee Drugs Commission 2019; Public Health England 2014). In addition, we have identified a need for more tailored treatment options based on individual difference variables such as age and gender (Tweed et al. 2020; Praxxis Women 2019; Prison Reform Trust 2019), which carry different associated risks factors, prevalence and patterns of drug use in Scottish prison settings (Cooper et al. 2017). Finally, limitations of drug testing in prison settings were discussed, and the importance of addressing dual diagnosis and the prevalence of co-existing mental health problems with problem drug users (Young et al. 2017). It also relates to an analysis of whether rigid testing strategies may demotivate people in prison from seeking help, and might even potentially drive people in prison towards the use of less detectable drugs (such as NPS) in prison settings (Lines, Howells and Webb 2020).

Whilst a number of intervention strategies have been implemented in prison settings in Scotland, including provision of OST therapies, alcohol treatment (Low et al. 2016; Guyoncourt 2021; MacNeill 2021; BBC News 2021; Alam et al. 2019; Zurhold and Stover 2015) and aftercare provision, such as the National Naloxone programme (NHS Scotland 2018; McAuley et al. 2016; Horsburgh and McAuley 2018; Bird and McAuley 2019; Bird et al. 2015), there is still a worrying trend in relation to increased levels of drug use (year on year) upon leaving prison settings (SCOTPHO 2021), and consistently high levels of drug related deaths in Scotland (SDDT 2020; Audit Scotland 2019).

5. <https://www.sps.gov.uk/Corporate/Information/PrisonerDeaths.aspx> [accessed 8/11/2021]



Potentially precipitating this issue is a lack of adequate communication between prison health care services and the broader NHS services – a ‘digital divide’ in data recording and management systems, which may slow down, or hinder provision of care in a consistent manner from within a prison setting (Hard and Fryer 2019). Furthermore, services are often inconsistently applied with a lack of conformity across different prison settings and services (HMIPS 2019).

Finally, although full discussion is beyond the scope of this mapping exercise, it is important to consider why people use drugs in prison, which tangentially relates to the issue of what people in prison need. Research that centres the perspectives of prisoners (e.g. User Voice 2020) continually emphasises common themes in drug use: to alleviate boredom, isolation, cell lock-ups as well as to self-medicate for a range of reasons. These motivations for drug use make clear that a dominant need of prisoners is having activities that can keep people busy, connected and hopeful during their sentences. In addition, prisoners describing recovery journeys in prison commonly note the challenges that the prison environment entails even for those committed to recovery (Prison Service Journal 2019). Hence, treatment and harm reduction needs go beyond interventions relating directly to drug use itself and encompass wider issues of prison management and prison conditions generally. The prison drug strategy of England and Wales explicitly acknowledges this, but offers little specificity in addressing wider conditions (HM Prison & Probation Service 2019; Prime et al. 2015). It is worth repeating the point above that, Duke (2020) notes, in relation specifically to NPS, that this drug problem has been framed in terms of a security problem, which focuses attention on stopping supply (e.g. as can be seen in Scotland, Philips 2019), rather than as a health or regime problem which would focus attention on demand as well as on the conditions that create demand. These issues deserve greater attention in research.

LEGAL AND POLICY LANDSCAPE DURING COVID-19

This section maps the laws, regulations, policies, and plans related to Covid restrictions, policies, and social distancing measures in Scottish prisons to further explore how provision of drug treatment and harm reduction services may have been impacted during this time.

The literature review for this project, identified policy material providing background policy context to the drug problem in Scotland and government approaches prior to the onset of the Covid 19 pandemic (Kolind and Duke 2016; Public Health England 2016; Van Amsterdam, Van den Brink and Pierce 2021; Burns and Beeston 2020; HM Prison & Probation Service 2019; House of Commons Scottish Affairs Committee 2019; HMIPS 2019). We have also identified literature relating to initiatives implemented at regional levels in Scotland and how government laws, regulations and policies are fed down to local level services, including: Glasgow City Alcohol and Drug Strategy 2020-2023 (Glasgow City Alcohol and Drug Partnership 2020); Ayrshire and Arran NHS Board Drug Related Deaths: emerging threat (Tomlinson et al. 2020); Orkney Alcohol and Drugs Partnership Strategy 2021-31 (Morrison, Bradford and Spence 2020); and Forth Valley Alcohol & Drug Partnerships (Forth Valley Alcohol and Drug partnerships 2020). Finally, there is (relatively limited) literature available associated with policy changes, and implementation of new regulations and laws in response to Covid 19 as it concerns drug treatment in Scottish prisons during the pandemic (MacNeill 2020; Parallel Parliament 2021; SCOTPHO 2021; MacNeill 2021).

The information gathered is relatively limited in relation to drawing definitive conclusions. However, one of the more high profile impacts on drug treatment in Scottish prisons over the pandemic period relates to the fast roll-out of Buprenorphine in May of 2020 by the Scottish Government and Scottish Prison Service. This occurred despite the constraints of social distancing and other Covid-19 measures and the consequent intensive strain placed on prison staff and prison health services to deliver daily OST therapies in prison in Scotland (MacNeill 2020; Parallel Parliament 2021; SCOTPHO 2021; MacNeill 2021). In more recent months, this pilot study has been extended to the wider community, and the initial monitoring of outcomes appears to be largely positive for drug users in prison settings (MacNeill 2021). However, much more data is required.

We also note, building on the previous section, that the reasons for drug use that include boredom and isolation, are intensified during the pandemic and increase the urgency for attention to this issue.

ONE OF THE MORE HIGH PROFILE CHANGES TO DRUG TREATMENT IN SCOTTISH PRISONS OVER THE PANDEMIC PERIOD RELATES TO THE FAST ROLL-OUT OF BUPRENORPHINE IN MAY OF 2020



CONCLUSIONS

A number of limitations were observed in relation to conducting this literature review. Primarily there was a lack of up-to-date and systematic statistical data and information in relation to drug related behaviours or changing patterns of drug use in prison settings during the period 2020-2021. Many of the systems designed to monitor prevalence, and patterns of drug use in prison settings do not appear to have been updated/maintained or published during the pandemic. There also appears to be limited research on how the Covid 19 pandemic has impacted on the delivery of drug treatment in secure settings. Whilst there have been attempts at adaptation of drug policies by the Scottish Government, during the pandemic, evidenced by the roll out by the Scottish prison and prison health services of Buvidal (MacNeill 2020; 2021) and extended more recently to include exiting people in prison resuming life in Scottish communities, as an alternative to more traditional OST treatment interventions, there is only limited monitoring information currently available. Longer term impacts are consequently difficult to establish from the data. Consequently, it is very difficult to establish concrete conclusions based on the current evidence due to reduced monitoring and inadequate access to up-to-date information for research purposes.

In conclusion, whilst there is a strong evidence base to suggest a general picture of the prevalence and patterns of drug use in Scottish prisons, utilising current monitoring systems, there are a number of barriers to establishing a more nuanced picture, particularly when dealing with emerging patterns of drug use such as NPS (Prime et al. 2015; User Voice 2016; Ford and

Berg 2018; Philip 2019; Ralphs et al. 2017; Norman et al. 2020; McAuley et al. 2015; Norman et al. 2021; Duke 2020; Corazza et al. 2020; Norman et al. 2020; Antonides et al. 2021), patterns of anti-epileptic drug use and patterns of use and diversion of non-prescribed legal drugs (Deeb et al. 2020; Tompkins et al. 2009; May et al. 2019; Higgins et al. 2019; Gov. UK 2021). Furthermore, the literature suggests more robust communication and coordination networks are required i.e. between prison and health services, Police Scotland and wider community-based NHS services (Hard and Fryer 2019; HMIPS 2019). The lack of a joined up approach hinders effective analysis that can feed into policy change and act as a catalyst for new initiatives, tailored to the requirements of emerging patterns of drug use in Scottish prisons.

In relation to addressing drug treatment and harm reduction services offered in Scottish Prisons, it is evident that there are a wide range of services currently available. These are centred largely around OST therapies (Low et al. 2016; Guyoncourt 2021; MacNeill 2021; BBC News 2021; Alam et al. 2019; Zurhold and Stover 2015), and harm reduction services such as the National Naloxone programme, aimed at reducing the drug related deaths associated with fatal overdoses (NHS Scotland 2018; McAuley et al. 2016; Horsburgh and McAuley 2018; Bird and McAuley 2019; Bird et al. 2015). However, in relation to the treatment and harm reduction needs of people in prison, there are a number of areas that require urgent attention, namely, interventions tailored for gender (Tweed et al. 2020; Praxis Women 2019; Prison Reform Trust 2019); age (Cooper et al. 2017; Audit Scotland 2019) and related individual differences that take account of co-morbidity factors such as dual diagnosis of a mental

health illness, alongside drug or alcohol problem use issues (Young et al. 2017; Hard and Fryer 2019). There is also an urgent need for more research, specifically qualitative work on drug use in Scottish prisons and on prison-based interventions. The need for close monitoring of the longer term outcomes for people in prison who have switched to Buprenorphine during the pandemic represents an important opportunity to benchmark the efficacy of this initiative, as an effective harm reduction strategy in the secure prison setting.

THERE ARE A NUMBER OF AREAS THAT REQUIRE URGENT ATTENTION, NAMELY, INTERVENTIONS TAILORED FOR GENDER, AGE AND RELATED INDIVIDUAL DIFFERENCES.

THERE IS ALSO AN URGENT NEED FOR MORE RESEARCH, ESPECIALLY SO QUALITATIVE WORK, ON PRISON-BASED INTERVENTIONS.

REFERENCES

- Asher, H.** (2013). Methadone prescribing in local prisons in England. *Drugs and Alcohol Today*.
- Amsterdam, J.V., Brink, W.V., & Pierce, M.** (2021). Explaining the Differences in Opioid Overdose Deaths between Scotland and England/Wales: Implications for European Opioid Policies. *European addiction research*, 1-14 .
- Alam, F., Wright, N., Roberts, P., Dhadley, S., Townley, J., & Webster, R.** (2019). Optimising opioid substitution therapy in the prison environment. *International Journal of Prisoner Health*, 15, 293 - 307.
- Antonides, L.H., Cannaert, A., Norman, C., NicDáeid, N., Sutcliffe, O.B., Stove, C.P. and McKenzie, C.** (2021) Shape matters: The application of activity-based in vitro bioassays and chiral profiling to the pharmacological evaluation of synthetic cannabinoid receptor agonists in drug-infused papers seized in prisons. *Drug Testing and Analysis; Drug Test Anal*, 13 (3), pp. 628-643.
- Audit Scotland** (2019) Drug and alcohol services: An update.
- BBC News** (2021) Methadone alternative rolled out after Scottish prisons trial.
- Bebbington, E., Lawson, J., Nafees, S., Robinson, C. and Poole, R.** (2021) Evaluation of a framework for safe and appropriate prescribing of psychoactive medications in a UK prison. *Criminal Behaviour and Mental Health; Crim Behav Ment Health*, 31 (2), pp. 131-142.
- Bird, S., McAuley, A., Perry, S., & Hunter, C.** (2016). Effectiveness of Scotland's National Naloxone Programme for reducing opioid-related deaths: a before (2006–10) versus after (2011–13) comparison. *Addiction (Abingdon, England)*, 111, 883 - 891.
- Bird, A.G., Gore, S.M., Hutchinson, S.J., Lewis, S.C., Cameron, S. and Burns, S.** (1997) Harm reduction measures and injecting inside prison versus mandatory drugs testing: results of a cross sectional anonymous questionnaire survey. *Bmj; Bmj*, 315 (7099), pp. 21-24.
- Bird, S.M. and Hutchinson, S.J.** (2003) Male drugs-related deaths in the fortnight after release from prison: Scotland, 1996-99. *Addiction (Abingdon, England); Addiction*, 98 (2), pp. 185-190.
- Bourgois, P.** (2000) Disciplining addictions: The biopolitics of methadone and heroin in the United States. *Culture, medicine and psychiatry*, 24(2), pp.165-195.
- Boyce, S.H., Stevenson, J., Jamieson, I.S. and Campbell, S.** (2003) Impact of a newly opened prison on an accident and emergency department. *Emergency Medicine Journal : EMJ; Emerg Med J*, 20 (1), pp. 48-51.
- Burns, J., & Beeston, C.** (2020). Monitoring and evaluation framework for 'Rights, Respect and Recovery: Scotland's strategy to improve health by preventing and reducing alcohol and drug use, harm and related deaths'.
- Carnie, J., and Broderick, R.** (2019) Scottish Prison Survey: Prisoner Survey, 2019. 17th series; Research Strategy and Stakeholder Engagement.
- Clone, S. and DeHart, D.** (2014) Social Support Networks of Incarcerated Women: Types of Support, Sources of Support, and Implications for Reentry. *Journal of Offender Rehabilitation*, 53 (7), pp. 503-521.
- Cooper, A., Lowden, T., Will, R., Emmambux, A., Sharma, T., & Li, S.** (2017). Secure setting statistics from the National Drug Treatment Monitoring System (NDTMS) 1 April 2017 to 31 March 2018.
- Corazza, O., Coloccini, S., Marrinan, S., Vigar, M., Watkins, C., Zene, C., Negri, A., Aresti, A., Darke, S., Rinaldi, R., Metastasio, A. and Bersani, G.** (2020) Novel Psychoactive Substances in Custodial Settings: A Mixed Method Investigation on the Experiences of People in Prison and Professionals Working With Them. *Frontiers in Psychiatry*, 11, pp. 460-460.

- Davies** (2017) SPICe Briefing: Drug misuse.
- Deeb, S., Wylie, F.M., Torrance, H.J. and Scott, K.S.** (2020) An Insight into Gabapentin and Pregabalin in Scottish People in prison. *Journal of Analytical Toxicology*; *J Anal Toxicol*, 44 (5), pp. 504-513.
- Dolan, K., Moazen, B., Noori, A., Rahimzadeh, S., Farzadfar, F. and Hariga, F.** (2015) People who inject drugs in prison: HIV prevalence, transmission and prevention. *The International Journal of Drug Policy; Int J Drug Policy*, 26, pp. S12-S15.
- Duke, K.** (2020) Producing the 'problem' of new psychoactive substances (NPS) in English prisons. *The International Journal of Drug Policy; Int J Drug Policy*, 80, pp. 102479-102479.
- Dundee Drugs Commission** (2019) Responding to Drug Use with Kindness, Compassion and Hope A report from the Dundee Drugs Commission.
- EMCDDA** (2003) Drug demand reduction: global evidence for local actions. *Drugs in focus*, Briefing of the European Monitoring Centre for Drugs and Drug Addiction.
- Ford, L.T. and Berg, J.D.** (2018) Analytical evidence to show letters impregnated with novel psychoactive substances are a means of getting drugs to inmates within the UK prison service. *Annals of Clinical Biochemistry*, 55 (6), pp. 673.
- Forth Valley Alcohol and Drug partnerships** (2020) Forth Valley Alcohol & Drug Partnerships' Treatment & Recovery Service Directory 2020/2021.
- Friedman, S.R., Tempalski, B., Brady, J.E., West, B.S., Pouget, E.R., Williams, L.D., Des Jarlais, D.C. and Cooper, H.L.F.** (2015) Income inequality, drug-related arrests, and the health of people who inject drugs: Reflections on seventeen years of research. *International Journal of Drug Policy*, 32, pp. 11-16.
- Glasgow City Alcohol and Drug Partnership** (2020) Glasgow City Alcohol and Drug Strategy 2020-2023.
- Gov UK** (2021) Research and analysis United Kingdom drug situation 2019: Focal Point annual report Updated 31 March 2021.
- Guyoncourt** (2021) Drug used to treat heroin addiction in prison pilot scheme to go Scotland-wide.
- Hard, J. and Fryar, C.** (2019) Medicine in secure environments.
- Higgins, K., Kelly, G., O'Neill, N., O'Hara, L., & Campbell, A.** (2019). The Use of Prescription Medication in Prisons in Northern Ireland.
- HMIPS** (2019) HM Chief Inspector of Prisons for Scotland: Annual Report 2018-19.
- HM Prison & Probation Service** (2019) Prison Drugs Strategy.
- Holloway, A., Guthrie, V., Waller, G., Smith, J., Boyd, J., Mercado, S., Smith, P., Stenhouse, R., Sheikh, A., Parker, R.A., Stoddart, A., Conaglen, P., Coulton, S., Stadler, G., Hunt, K., Bray, J., Ferguson, J., Sondhi, A., Lynch, K., Rees, J. and Newbury-Birch, D.** (2021) A two-arm parallel-group individually randomised prison pilot study of a male remand alcohol intervention for self-efficacy enhancement: the APPRAISE study protocol. *BMJ Open; BMJ Open*, 11 (4), pp. e040636-e040636.
- Horsburgh, K. and McAuley, A.** (2018) Scotland's national naloxone program: The prison experience: Scotland's national naloxone program. *Drug and Alcohol Review*, 37 (4), pp. 454-456.
- Jamin, D., Vanderplassen, W., Sys, O., Jauffret-Roustide, M., Michel, L., Trouiller, P., Neisa, A., Homen, M., Mendes, V. and Stöver, H.** (2021) "My first 48 hours out": drug users' perspectives on challenges and strategies upon release from prison. *Harm Reduction Journal; Harm Reduct J*, 18 (1), pp. 32-32.

Kolind, T. and Duke, K. (2016) Drugs in prisons: Exploring use, control, treatment and policy. *Drugs : Education, Prevention & Policy*, 23 (2), pp. 89-92.

Lloyd, C., Page, G., McKeganey, N. and Russell, C. (2019) Capital depreciation: The lack of recovery capital and post-release support for people in prison leaving the Drug Recovery Wings in England and Wales. *The International Journal of Drug Policy; Int J Drug Policy*, 70, pp. 107-116.

Lines, R., Howells, O., Webb, D. (2020) Drugs, Prisons and 'Unintended Consequences' – Does drug interdiction drive drug-related harms?

Low, A.J., Mburu, G., Welton, N.J., May, M.T., Davies, C.F., French, C., Turner, K.M., Looker, K.J., Christensen, H., McLean, S., Rhodes, T., Platt, L., Hickman, M., Guise, A. and Vickerman, P. (2016) Impact of Opioid Substitution Therapy on Antiretroviral Therapy Outcomes: A Systematic Review and Meta-Analysis. *Clinical Infectious Diseases; Clin Infect Dis*, 63 (8), pp. 1094-1104.

Marshall, T., Simpson, S., Stevens, A. (2000) Health Care in Prisons: A Health Care Needs Assessment. *Journal of Public Health Medicine*, 23(3), pp. 198-204.

MacNeill, I.A. (2020) Rapid Internal Process Evaluation of Covid-19 Contingency Planning - Opioid Substitution Treatment (OST) in Prisons. *Health and Social Care Analysis COVID Public Health Directorate*.

MacNeill, I.A. (2021) Coronavirus (COVID-19) opioid substitution treatment in prisons - evaluation: patient experience follow-up report *Health and Social Care Analysis COVID Public Health Directorate*.

May, T., Holloway, K., Buhociu, M. and Huggett, M. (2019) A Qualitative Study of the Misuse and Diversion of Prescription Only and Over-the-Counter Medication.

McAuley, A., Hecht, G., Barnsdale, L., Thomson, C.S., Graham, L., Priyadarshi, S. and Robertson, J.R. (2015) Mortality related to novel psychoactive substances in Scotland, 2012: An exploratory study. *The International Journal of Drug Policy; Int J Drug Policy*, 26 (5), pp. 461-467.

McAuley, A., Munro, A., Bird, S.M., Hutchinson, S.J., Goldberg, D.J. and Taylor, A. (2016) Engagement in a National Naloxone Programme among people who inject drugs. *Drug and Alcohol Dependence; Drug Alcohol Depend*, 162, pp. 236-240.

Metternich, S., Zörntlein, S., Schönberger, T. and Huhn, C. (2019) Ion mobility spectrometry as a fast screening tool for synthetic cannabinoids to uncover drug trafficking in jail via herbal mixtures, paper, food, and cosmetics. *Drug Testing and Analysis; Drug Test Anal*, 11 (6), pp. 833-846.

Montanari, M. (2019) Case study: Drug related problems in prison settings, *European Journal of Public Health*, Volume 29, Issue Supplement_4.

Morrison, G., Bradford, L. and Spence, K (2020) Subject: Orkney Alcohol and Drugs Partnership Strategy 2021-31.

NHS Scotland (2018) National Naloxone programme Scotland Monitoring report 2017/18.

Norman, C., Halter, S., Haschimi, B., Acreman, D., Smith, J., Krotulski, A.J., Mohr, A.L.A., Logan, B.K., NicDaéid, N., Auwärter, V. and McKenzie, C. (2021) A transnational perspective on the evolution of the synthetic cannabinoid receptor agonists market: Comparing prison and general populations. *Drug Testing and Analysis; Drug Test Anal*, 13 (4), pp. 841-852.

Norman, C., McKirdy, B., Walker, G., Dugard, P., NicDaéid, N. and McKenzie, C. (2021) Large-scale evaluation of ion mobility spectrometry for the rapid detection of synthetic cannabinoid receptor agonists in infused papers in prisons. *Drug Testing and Analysis; Drug Test Anal*, 13 (3), pp. 644-663.

Norman, C., Walker, G., McKirdy, B., McDonald, C., Fletcher, D., Antonides, L.H., Sutcliffe, O.B., Nic Daéid, N. and McKenzie, C. (2020) Detection and quantitation of synthetic cannabinoid receptor agonists in infused papers from prisons in a constantly evolving illicit market. *Drug Testing and Analysis; Drug Test Anal*, 12 (4), pp. 538-554.

Palmateer, N.E., Goldberg, D.J., Munro, A., Taylor, A., Yeung, A., Wallace, L.A., Mitchell, A., Shepherd, S.J., Gunson, R.N., Aitken, C. and Hutchinson, S.J. (2018) Association between universal hepatitis B prison vaccination, vaccine uptake and hepatitis B infection among people who inject drugs. *Addiction (Abingdon, England)*; *Addiction*, 113 (1), pp. 80-90.

Palmateer, N.E., Hutchinson, S.J., Innes, H., Schnier, C., Wu, O., Goldberg, D.J. and Hickman, M. (2012) Review and meta-analysis of the association between self-reported sharing of needles/syringes and hepatitis C virus prevalence and incidence among people who inject drugs in Europe. *The International Journal of Drug Policy; Int J Drug Policy*, 24 (2), pp. 85-100.

Palmateer, N.E., McAuley, A., Dillon, J.F., McDonald, S., Yeung, A., Smith, S., Barclay, S., Hayes, P., Shepherd, S.J., Gunson, R.N., Goldberg, D.J., Hickman, M. and Hutchinson, S.J. (2021) Reduction in the population prevalence of hepatitis C virus viraemia among people who inject drugs associated with scale-up of direct-acting anti-viral therapy in community drug services: real-world data. *Addiction (Abingdon, England)*; *Addiction*.

Parallel Parliament (2021) Questions to home office (find ref).

Parkes, T., MacAskill, S., Brooks, O., Jepson, R., Atherton, I., Doi, L., McGhee, S. and Eadie, D. Prison health needs assessment for alcohol problems.

Philip (2019) Scots jail guard reveals prison drug crisis 'masked' by hidden Spice epidemic.

Praxis Women (2019) Invisible Women & Drug Use in Scotland.

Prime, R., Ranns, H., Pearce, M., Engelen, S. and Roberts, P. (2015) Changing Patterns of substance misuse in adult prisons and service responses: A thematic review by HM Inspectorate of Prisons.

Prison Reform Trust (2019) Why focus on reducing women's imprisonment? Scotland Fact Sheet.

Public Health England (2014) Health and Justice Health Needs Assessment Template: Adult Prisons.

Prison Service Journal (2019) Special Issue: Recovery in Prison, (March) No 242.

Ralphs, R., Williams, L., Askew, R. and Norton, A. (2016) Adding Spice to the Porridge : The development of a synthetic cannabinoid market in an English prison. *The International Journal of Drug Policy; Int J Drug Policy*, 40, pp. 57-69.

Rotily, M., Weildant, C., Bird, S.M., Kall, K., Van Haastrecht, HJA, Iandolo, E. and Rousseau, S. (2001) Surveillance of HIV infection and related risk behaviour in European prisons : a multicentre pilot study. *European Journal of Public Health; Eur J Public Health*, 11 (3), pp. 243-250.

SDDT (2020) Medication Assisted Treatment (MAT) Standards for Scotland Access, Choice, Support Consultation on the standards & Implementation.

ScotPHO (2021) Addiction prevalence testing (APT) Figures are from 2018/19 SPS Addiction prevalence testing stats final.

ScotPHO (2021) Covid 19 Wider Impacts.

ScotPHO (2020) Drug Seizures and Offender Characteristics 2017/18.

Scottish Prison Service (2017a) The number of people in prison at HMP Perth who have been caught with illegal drugs and mobile phones inside the building from January 2017 to Present, FOI Request Ref. HQ 17161 (06/11/2017).

Scottish Prison Service (2017b) The number of people in prison at HMP Perth who have been caught with illegal drugs and mobile phones inside the building from January 2017 to present – further requested breakdowns, FOI Request Ref. HQ 17161 (15/12/2017).

Scottish Prison Service (2018) How many substances seized in Scottish prisons have been identified by the Scottish Prison Service as New Psychoactive Substances (NPS, otherwise known as legal highs) since 2013, FOI Request Ref: HQ HQ18235 (06/11/2018).

Seaman, S.R., Brettle, R.P. and Gore, S.M. (1998) Mortality from overdose among injecting drug users recently released from prison: database linkage study. *Bmj*; *Bmj*, 316 (7129), pp. 426-428.
Shilson-Thomas, A. (2020) The prison system – priorities for investment, Policy Report, London: Reform.

Smith, S., Day, M. and Maddalena, N (2017). A review of New Psychoactive Substances in Secure Mental Health Settings.

Stone, J., Fraser, H., Lim, A.G., Walker, J.G., Ward, Z., MacGregor, L., Trickey, A., Abbott, S., Strathdee, S.A., Abramovitz, D., Maher, L., Iversen, J., Bruneau, J., Zang, G., Garfein, R.S., Yen, Y., Azim, T., Mehta, S.H., Milloy, M., Hellard, M.E., Sacks-Davis, R., Dietze, P.M., Aitken, C., Aladashvili, M., Tsertsvadze, T., Mravčik, V., Alary, M., Roy, E., Smyrnov, P., Sazonova, Y., Young, A.M., Havens, J.R., Hope, V.D., Desai, M., Heinsbroek, E., Hutchinson, S.J., Palmateer, N.E., McAuley, A., Platt, L., Martin, N.K., Altice, F.L., Hickman, M. and Vickerman, P. (2018) Incarceration history and risk of HIV and hepatitis C virus acquisition among people who inject drugs: a systematic review and meta-analysis. *The Lancet Infectious Diseases; Lancet Infect Dis*, 18 (12), pp. 1397-1409.

Stone, J., Martin, N.K., Hickman, M., Hutchinson, S.J., Aspinall, E., Taylor, A., Munro, A., Dunleavy, K., Peters, E., Bramley, P., Hayes, P.C., Goldberg, D.J. and Vickerman, P. (2017) Modelling the impact of incarceration and prison-based hepatitis C virus (HCV) treatment on HCV transmission among people who inject drugs in Scotland. *Addiction (Abingdon, England); Addiction*, 112 (7), pp. 1302-1314.

Tomlinson, J., Dalziel, L., Murfet, F., Wells, L., McArthur, P. and Hooke, A. (2020) Ayrshire and Arran NHS Board. Drug Related Deaths: emerging threat

Tompkins, C.N.E., Wright, N.M.J., Sheard, L. and Waterman, M.G. (2009) Exploring prison buprenorphine misuse in the United Kingdom: A qualitative study of former people in prison. *International Journal of Prisoner Health*, 5 (2), pp. 71.

Tweed, E.J., Miller, R.G., Schofield, J., Barnsdale, L. and Matheson, C. (2020) Why are drug-related deaths among women increasing in Scotland? A mixed-methods analysis of possible explanations. *Drugs : Education, Prevention & Policy*, ahead-of-print (-), pp. 1-14.

User Voice (2016) SPICE: THE BIRD KILLER What people in prison think about the use of spice and other legal highs in prison.

Wishart, P., Brock, D., Duguid, D., Gaffney, H., Killen, G., Lamont, J., Masterton, P.M., Rowley, D., Sheppard, T., Stone, J., Thomson, R.J., Jardine, C., and McPhee, I. (2019). House of Commons Scottish Affairs Committee: Problem Drug Use in Scotland: First Report of Session 2019: Report, together with formal minutes relating to the report.f

Young, S., González, R.,A., Wolff, K., Mutch, L., Malet-Lambert, I. and Gudjonsson, G.H. (2017) Transitions and Motivations for Substance Misuse in Prison Inmates With ADHD and Conduct Disorder: Validation of a New Instrument. *Journal of Dual Diagnosis; J Dual Diagn*, 13 (2), pp. 91-100.

Zurhold, H. and Stöver, H. (2016). Provision of harm reduction and drug treatment services in custodial settings – Findings from the European ACCESS study. *Drugs: Education, Prevention and Policy*, 23, 127 - 134.