Drug	Consumption	Room
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Could the provision of a drug consumption room bring significant benefit in reducing drug related deaths and other community harms in Bristol

Authors – Jody Clark and Josh Torrance September 2018

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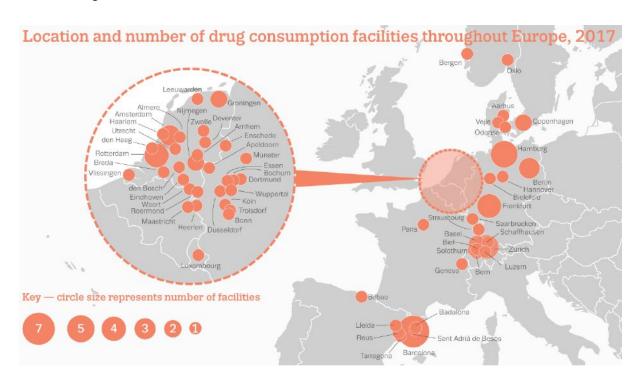
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### **Brief**

Consider the potential benefits a drug consumption room could bring to reduce drug related deaths and other community harms in Bristol.

# **Background and history**

Facilities for the consumption of illicit drugs under medical supervision – or Drug Consumption Rooms (DCRs) – have been operating in European countries for the last 3 decades and there are currently around 80 DCRs operating in 35 cities in 10 countries around the world. Several other cities are actively considering opening DCRs including in Ireland, Belgium, Ukraine and Slovenia.



DCRs are protected places used for the hygienic consumption of pre-obtained drugs in a non-judgemental environment and under the supervision of trained staff. They constitute a highly specialised drugs service within a wider network of services for people who use drugs,

embedded in comprehensive local strategies to reach and fulfil a diverse range of individual and community needs that arise from drug use.

The facilities aim to reduce the risk of disease transmission through unhygienic injection, prevent drug-related overdose deaths and connect high-risk drug users with treatment and other health & social care services. They also seek to support a reduction in public drug use and discarded injecting equipment and other related problems linked with open drug scenes (i.e. drug use outside of residential settings).

This approach was first proposed by policy makers in Western Europe as a response to the burgeoning HIV epidemic of the 1980s; the existence of open drug scenes in many metropolitan areas; increases in drug-related deaths and a realisation that criminal justice based, abstinence only approaches alone would not reduce the harm of drugs (particularly heroin) for individuals or wider communities.

Switzerland, Germany and the Netherlands were the first countries to experiment with this approach, although at the time DCRs were not included in national legislation. People who use drugs, harm reduction services and outreach workers were the driving force behind their introduction, alongside local authorities and criminal justice agencies. Since their inception DCRs have been designed to reduce the harm of drug use on the people who use them and the wider public.

### **Evidence of effectiveness**

### Introduction

There is a substantial amount of analysis discussing the impact of DCRs around the world. There are currently 78 official DCRs operating in eight European countries - 31 in the Netherlands, 24 in Germany, 13 in Spain, 12 in Switzerland, 5 in Denmark, 2 in both France and Norway and one in Luxembourg (EMCDDA, 2018). Only two DCRs (Insite, Vancouver, Canada and MSIC, Sydney, Australia) are based outside Europe. Insite supervised more than 3.6 million injections between 2003 and 2018 (Vancouver Coastal Health, 2017) and MSIC supervised almost a million injections between 2001 and 2015 (Alcohol & Drug Foundation, 2018). Millions more have been supervised throughout Europe. Despite this huge number, no one has ever died in a DCR anywhere in the world (Transform, 2017). The Canadian Supreme Court said that Insite has been "proven to save lives..." (The Globe and Mail, 2011).

The following evidence review is broken down into two broad sections: impact upon people who inject drugs (PWIDs), and impact upon wider society. While around 85% of the published literature evaluating DCRs is based on the activities of either Insite or MSIC (Potier et al. 2014) evidence from studies on European DCRs is included where available.

# Impact upon People Who Inject Drugs

### 1. DCRs reduce overdose deaths

Many Injecting Drug Users (PWIDs) place themselves at high risk of accidental overdose on a regular basis. Most overdose incidents can be managed effectively if quick medical intervention is available. With medical professionals, naloxone and oxygen on hand it is clear how a DCR might effectively manage overdose incidents that would otherwise result in fatalities. Saving the lives of PWIDs is a major aim of all DCRs. In this regard Kennedy et al. (2017) conducted a systematic review, concluding that DCRs mitigate overdose-related harms and Poiter et al. found that DCRs increase PWIDs access to primary health care, reducing overdose frequency (2014). Belackova & Salmon (2017) also describe how the literature clearly shows the "significant" impact DCRs have on managing overdose incidents and reducing overdose mortality.

According to Health Canada (2008), Insite staff intervened in 336 overdose events over the course of two years. Their mathematical modelling indicates that this saves approximately one life per year. Milloy et al. (2008) recorded over 1,000 overdose events at Insite over a four year period, 453 of which matched the definition of potentially fatal. They go further than Health Canada, in claiming that these incidents would have caused between 2 and 13 overdose deaths per year had they occurred outside the facility. In a separate assessment Andresen & Boyd (2010) estimated that Insite saves almost three lives per year.

Insite sits in the Downtown East Side in Vancouver, Canada. Around 5,000 PWIDs reside in the area (Wood, 2004). Between 2001 and 2005, one third of all overdose deaths in Vancouver occurred there. After the facility opened its doors in 2003, overdose rates in the Downtown East Side fell by 35%. This was accompanied by a 9% fall elsewhere in the city, meaning Insite had a statistically significant localised impact (Marshall et al. 2011). Wood et al. observed that Insite had a tendency to attract the PWIDs at greatest risk of overdose (2006). Furthermore, there was a 67% fall in overdose-related ambulance call-outs in the area around the DCR (Ng et al. 2017). Kerr et al. (2007) demonstrated that the DCR was responsible for a considerable reduction in overdose-related harms.

MSIC in Sydney managed more than 2,000 overdose incidents over a six-year period between 2001 and 2007, at a rate of 5.4 overdoses for every 1,000 visits. One in five of these incidents required naloxone administration (NCHECR, 2007). The MSIC Evaluation Committee (2003) estimated that MSIC saved 4 lives annually. The Australian National Centre in HIV Epidemiology and Clinical Research found that since the establishment of the facility, there had been an 80% reduction in opioid-specific ambulance call-outs in the local area. Using a Poisson regression, they found a statistically significant difference between the fall in overdoses across the Kings Cross area of Sydney and the fall across the city more widely – demonstrating the DCR had a clear localised positive impact (NCHECR, 2007).

There are similar figures available from Hamburg, Hanover, Saarbruken and Frankfurt; all experienced a fall in drug-related deaths after the opening of DCRs (Bundeskriminalamt, 2002). One German province, North Rhine-Westphalia, saw 1.2 million supervised injections occur between 2001 and 2009. During this period, DCR staff responded to 3,271 overdose incidents, performing 710 CPRs (Bundeskriminalamt, 2002). This evidence clearly demonstrates that DCRs across the world have a proven ability to effectively manage overdose incidents and reduce deaths. DCRs have also been shown to have a localised impact on drug overdose rates.

### 2. DCRs are actively used by PWIDs, including those at higher risk of harm

DCRs have certainly proved themselves to be popular with PWIDs once they are established. Health Canada (2008) reported that although Insite received over 600 visits per day, the need of the local PWIDs greatly outweighed the coverage offered by the DCR. In a study of 760 local PWIDs Stoltz et al. (2007) found that 57% of them reported they used Insite for some or most of their injections. In Sydney, MSIC handled an average of 106 visits per day (MSIC Evaluation Committee, 2003) but the demand for using the MSIC outweighed provision (Kimber et al. 2008).

They also found that two-thirds of local injecting drug users had visited the facility, with the majority of them registered at the time of study (Kimber et al. 2008). In Frankfurt the DCR admitted between 500 and 600 different visitors every week, with service users visiting the service an average of five times per week (Happel 2000; Springer, 2003). This amounts to an approximate total of 2,650 supervised injections weekly. Poschadel et al. (2003) studied 18 DCRs across Germany, finding that 51% of service users reported they used the facilities on a daily basis (2003).

A number of studies have found that DCRs attract the PWIDs that are at highest risk of harm. Potier et al. (2014) systematically reviewed seventy-five studies, finding that DCR service users tended to be the more marginalised PWIDs. Belackova et al. came to the same conclusion in a separate literature review (2017). Wood et al. (2005) found that 39% of Insite's service users had been involved in the sex industry at some point in time.

The MSIC Evaluation Committee (2003) found a positive correlation between frequent attendance to the Sydney DCR with being an 'at-risk' youth, being homeless or being involved in sex work. In Madrid and Barcelona service users were often more highly marginalised than the PWIDs who did not use the DCR (Bravo et al. 2009). From these studies, it is clear that demand for DCRs across the board is very high, and that they have a tendency to attract the PWIDs at highest risk of harm.

#### 3. DCRs reduce behaviours that cause BBV infection.

PWIDs often take risks that expose them to BBV infection. One of the most common risks is the sharing of equipment such as syringes, needles, filters and spoons. There is good evidence to show that DCRs reduce these behaviours:

- Belackova & Salmon (2017) list a number of studies that show DCRs have a positive impact upon risk behaviours among PWID.
- Kerr et al. (2005) concluded that users of Insite, when using outside of the facility, were 70% less likely to share needles than those who do not use the facility at all (2005). HIV positive users of Insite reported zero instances of sharing needles, in or outside of the facility (Wood et al., 2005).
- Bravo et al. also found that service users in Madrid and Barcelona were less likely to share needles if injecting outside of the DCR (2009).
- Three-quarters of DCR service users in Copenhagen reported a reduction in their injection risk behaviours (Kinnard et al., 2014).
- Three separate cross-sectional surveys conducted on DCR service users in Berne, Switzerland (1990, 1995 and 2001) found that the rates and perceived acceptability of sharing injecting equipment among PWIDs fell considerably (Hedrich, 2004).

While HCV and HIV infection rates from 1998 to 2002 rose across Sydney as a whole, new infection rates in the area surrounding the DCR remained stable (MSIC Evaluation Committee, 2003). Bayoumi & Zaric (2008) estimated that Insite would prevent between 1191 and 1517 HIV infections over the following 10 year period. Andresen & Boyd estimated

that Insite prevented 35 new HIV infections annually (2010). There is a lack of similar estimates made in regards to Hepatitis C. Pinkerton (2010) concluded that if Insite were to close, HIV infections among PWIDs in Vancouver would rise from 179 to 263 per year, an increase of 68%.

These forecasts should be treated with a degree of caution; both Hedrich and Kimber warn that it is difficult to establish the causal effects of DCRs upon BBV transmission rates among PWIDs (EMCDDA, 2010). With this said, it is acknowledged in the literature that DCRs have a tendency to attract the PWIDs who at greatest risk of BBV infection (Wood, 2006). In addition, many DCRs offer BBV screening services to PWIDs and make referrals to treatment services for service users found to be infected.

### 4. DCRs reduce unsafe injection practices

With no medical training, unsafe injecting practice is a huge problem among PWIDs across the globe. Improper injecting practices occur because of a variety of factors such as homelessness, injecting in public places, policing, a lack of education or lack of easily available injecting equipment. They put PWIDs at much greater risk of injuries, abscesses and infections. These can be debilitating, painful, lethal and expensive for public services. There is good evidence to show that DCRs reduce unsafe injection practices:

- Belackova & Salmon refer to six studies that show the effectiveness of DCRs in improving the injecting practise of their service users (2017).
- When using outside of Insite, service users were found to be three times more likely
  to use sterile water, 2.8 times more likely to clean their injection site before using,
  more than twice as likely to safely dispose of their used needles and 2.8 times more
  likely not to rush the injection process when compared to those who did not use the
  DCR (Stoltz et al., 2007).
- Petrar et al. (2007) surveyed 1,082 Insite service users, discovering that 75% of them claimed their injecting behaviour had changed as a result of using the DCR.
- Wood (2008) discovered that 48% of respondents at Insite reported receiving safer injection education and advice. This was particularly helpful for those who rely on others to inject.
- Fast (2008) analysed Insite, concluding that:

"The overall environment at the facility encouraged them to adopt safer practices and to make a habit of using them both within and outside the facility".

Over a six year period, injection and vein care advice was given out approximately 20,000 times by MSIC staff (NCHECR 2007). 41% of service users reported making changes to their injecting practice since coming into contact with the DCR (MSIC Evaluation Committee 2003). Lloyd-Smith et al. (2009) and Small et al. (2008; 2009) found that contact with DCRs resulted in direct improvements in service user hygiene and injecting practice. In the Netherlands, service users based in the Arnhem DCR reported that the safer injection education had increased their knowledge, and that they were taking less risks as a result (Hedrich, 2004).

Service users in Rotterdam reported overwhelmingly positive changes in their injecting hygiene and cleanliness since receiving education from their DCR (Hedrich, 2004). Stoever (2002) also identified a strong link between the use of German DCRs and a reduction in risk behaviours, with one fifth of respondents saying their injection practice had changed as a result of information they had received at their DCR. 26 German DCRs have reported their clients experience less abscesses and less drug-related health problems in general (Schatz & Nougier, 2012). Many of the harms relating to injecting drug use (abscess, injury or infection) can be minimised or avoided when better injection practices are used.

DCRs have the ability to act as an effective source of harm reduction information for PWID, and it is clear that service users heed the advice they are being given, and that this changes their behaviour when injecting outside of the facilities.

#### 5. DCRs increase use of detox and other addiction treatment services

DCRs do not appear to encourage drug use, increase relapse rates, prevent PWIDs from seeking treatment or encourage non-PWIDs to initiate into injecting drug use (Kerr et al., 2007; Stoltz et al., 2007; Kerr et al., 2005; 2006, Wood et al., 2005). Belackova & Salmon (2017) are careful to note that all of this research emanates from Canada. However, research from MSIC Sydney (MSIC Evaluation Committee, 2003; NCHECR, 2007) and Europe (Ronco et al., 1996; Poschadel et al., 2003; Benninghoff et al., 2003; Kinnard et al, 2014) demonstrate the same result. DCRs make an effort to act as a funnel into treatment, and commonly work in close collaboration with local services. DCRs offer treatment

providers regular interaction with PWIDs who would otherwise not be coming into contact with drugs professionals.

Over the course of 2017, 18,443 clients visited Onsite, the adjoining treatment facility to Insite, (Vancouver Coastal Health, 2017). Insite's opening was associated with a 30% rise in the use of detoxification services, and an increase in the use of long-term addiction treatment (Wood et al., 2007). In fact, DeBeck et al. (2011) found that regular use of Insite was independently associated with a cessation of drug use for a period of at least six months.

1 in 41 visits to MSIC resulted in a referral to another agency (MSIC Evaluation Committee 2003). Three-quarters of those registering with the facility had never been in any form of drug treatment before (Kimber et al. 2003). As of 2015, MSIC had made more than 10,380 referrals to drug services, roughly half of them to addiction treatment. In Germany, 54% of surveyed service users reported they had been referred by DCR staff to a treatment agency. 23% of these referrals were to detox services (Poschadel et al. 2003). Woods (2014) surveyed 39 European DCRs; nearly 90% of them stated they had referred service users to treatment services. Overall, there is very strong evidence that DCRs can be a way of directing to treatment agencies a large number of PWIDs who were previously not in contact. Newly opened DCRs are associated with an increase of treatment referrals, and regular usage of DCRs is strongly linked with a higher likelihood of entering treatment.

# Impact upon Society

#### 1. DCRs are cost-effective

Kennedy et al. (2014) concluded from their systematic review that DCRs are cost-effective. In 2007, each visit to Insite on average cost \$14, at an annual cost of \$3m (Health Canada, 2008; Pinkerton, 2010). Health Canada calculated that for every dollar spent on Insite that year, the facility returned benefits worth between \$1.5 and \$4.02. Against a \$3m spend, this gives between \$4.5m and \$12m in benefits. After considering the outcomes of an increase in safer injection practices, a decrease in needle sharing and an increase in referrals to methadone treatment, Bayoumi & Zaric (2008) assessed the net health care savings made by Insite to be more than \$18m every year. They were keen to stress that this was a conservative estimate. Andresen & Boyd (2010) used the number of deaths and HIV infections prevented annually to estimate that Insite provided a societal yearly net benefit of

\$6m, with a cost-benefit ratio of 5:1 and Pinkerton (2010) calculated that Insite saves health care services \$17.6m yearly by preventing new BBV infections.

MSIC saves at least \$658,000 per annum in healthcare outcomes (KPMG, 2010; Saha International, 2008). The highest estimate scenario put the overall savings made by MSIC at \$3,278,000 per annum and it would only need to save 0.8 of a life every year in order to be cost-neutral (Saha International, 2008) although there are a number of intangible costs that did not enter their calculation. A survey of 15 Dutch, German and Swiss DCRs found that DCR overdose incidents were ten times less likely to result in a hospital admission than incidents that took place outside of the facility. Those that did go to hospital from the DCR were ten times less likely to stay in hospital overnight (Kimber, 2005).

Research from Frankfurt indicates that hospitalised service users were ten times less likely to require an overnight stay compared to those who overdosed outside of the DCR (NCHECR, 2007). Cost-benefit analyses in Baltimore and Ottawa concluded that if DCRs were to be set up in those cities they would be an efficient and effective use of public resources (Jozaghi et al., 2014; Irwin et al., 2017). DCRs have a cost-benefit ratio that far outstrips conventional drug treatment, and the evidence shows that health services local to DCRs also save substantial sums of money.

#### 2. DCRs reduce public drug use

Injecting drugs in public is a highly anti-social activity, and can be considered a major public nuisance. Witnessing injecting drug use disturbs members of the public. If public injecting is a common occurrence in an area, it may normalise what is an extremely harmful activity. Various local authorities have dedicated teams for picking up discarded drug injection paraphernalia (syringes, needles, filters, spoons). Public injection also places PWIDs at greater risk of physical harm, as they are typically injecting in unsterile, adverse conditions (for example rain or darkness) and are in constant danger of being caught. This leads to a rushed and imprecise process, leaving users at greater risk of missed veins, abscesses, infections and more. A significant proportion of PWID are street-homeless, and struggle to find a secure place indoors where they can inject drugs without these pressures. As demonstrated earlier, DCRs have a tendency to attract street-homeless PWIDs.

In systematic reviews, Potier et al. (2014) and Belackova & Salmon (2017) concluded that DCRs reduced public drug use. Both Stoltz (2007) and Kerr (2007) found that DCRs decreased the need for PWIDs to rush their injection process. Before Insite opened its doors, Wood et al. (2004) observed an average of 4.3 public injections per day. After Insite

opened, this average observed public injection rate fell to 2.4. It should be noted that the total number of public injections across Vancouver would be far, far higher than this observed total. Regardless, Wood measured a significant improvement in public order. 71% of service users reported that using Insite had caused them to inject less frequently in public (Petrar, 2007). In Rotterdam, 80% of service users reported that they were injecting in public less frequently after registering with the DCR (Van der Poel, 2003). Informal observations suggest similar trends occurred in Sydney and other European DCRs (Health Canada, 2008). 78% of service users in Sydney stated that public injecting was their main alternative to the DCR, with 49% claiming that, had the DCR not been available, they would have injected in public that day.

Between 2001 and 2007 an estimated total of 191,673 public injections were averted by MSIC (NCHECR, 2007). Poschadel (2003) studied 18 different DCRs in Germany. When surveyed, 38% of service users admitted to injecting in public in the last 24 hours. Half of them claimed they did so because the DCR had been closed. A further one-third claimed they had done so because the DCR had been too busy at the time. The evidence shows that DCRs are effective in reducing rates of public drug use. As a result, they have the potential to reduce the public nuisance caused by public injecting drug use, as well as the associated health costs. In order to make sure these potential benefits are maximised, it would be essential that any implemented DCR has appropriate operating capacity, is located in a high-demand area and has reasonable opening hours.

### 3. DCRs reduce injection-related litter

Improper disposal of injection equipment represents both a social nuisance and a health hazard to the public. Many local authorities in the UK have dedicated teams to collect and dispose of discarded drugs litter (syringes, needles, filters and spoons), at significant expense to the public purse. In their systematic review, Potier et al. (2014) noted that DCRs reduced the number of dropped needles. Wood et al. (2005) concluded that Insite had a tendency to attract PWIDs who were more likely to dispose of needles improperly. Before Insite, the daily mean count of injection-related litter was 601. This fell to 310 after Insite opened. Petrar (2007) surveyed 1,082 of Insite's service users; 56% of them reported reducing their unsafe syringe disposal.

In Sydney, the level of publicly discarded needles reduced by 50% after MSIC's opening (NCHECR, 2007). However, because the opening of MSIC was accompanied by an unrelated fall in the supply of heroin, this is not conclusive proof that MSIC had a positive

impact in this regard (Hedrich, 2004). Over half of surveyed DCR service users in Copenhagen reported changing from not always disposing safely to always disposing safely after the DCR opened (Kinnard et al., 2014). In Venlo, the Netherlands, local residents noticed a drop in the amount of injection-related litter (Hedrich, 2004).

#### 4. Other issues considered in the literature

With any policy proposal, it is essential to consider all of the possible externalities and unintended negative consequences. There are concerns that a DCR could create a 'honey pot', encouraging a concentration of drug-dealing, acquisitive crime or prostitution in the local area. Local residents are often worried that the facilities will create loitering in the area. Kennedy et al. (2014) conducted a systematic review, associating DCRs with improvements in public order without increasing drug-related crime. In another review, Potier et al. (2014) did not find increases in crime or drug dealing in areas local to DCRs.

Boyd et al. (2008) analysed police dispatch data, finding no increase in drug crime, violent crime or property crime following Insite's opening (2008). Wood et al. (2006) came to a similar conclusion, with no notable increase in local drug-related crime after Insite opened – in fact vehicle break-ins and vehicle thefts decreased significantly. The Canadian Supreme Court voted unanimously to keep Insite open in 2011, effectively making an exception to Canadian drug laws. Their statement acknowledged that there had been no discernible negative impact on public safety as a result of Insite (Canadian Supreme Court Judgements, 2011).

The MSIC Evaluation Committee concluded that the DCR had not led to an increase in drug-related problems or public loitering (2003). Crime data covering 1999 – 2002 did not show an increase in robbery or theft in the local area after MSIC was opened, nor any drug-related 'loitering' outside of the facility (Freeman, 2005). Fitzgerald et al. (2010) found that robbery and property crime had actually fallen in Kings Cross since 2001. Drug related offences remained stable in the area - aside from a rise in cocaine possession that took place across the entire Sydney area. Police data from several localised areas in Geneva also found no increase in the level of crime after the DCR was established (Benninghoff et al., 2003). Hedrich (2004) concluded that there was no evidence that DCRs increase public order problems, increase local drug scenes or attract drug dealers or drug users from other areas.

Public opinion and perception are essential components to the implementation of any programme or policy. Belackova and Salmon note three studies that analysed public opinion.

Residents reported a significant decrease in public injecting and injection-related litter in the local area after Insite opened (Belackova & Salmon, 2017). A telephone survey of residents and business operators near MSIC produced the same conclusion. A different telephone survey also found that public support in Sydney had shifted from 68% to 78% since the had facility opened, as the benefits became apparent (Belackova & Salmon, 2017). In their review of the evidence, Potier et al. note two studies that took public opinion into account. One random sample analysis in Sydney found that 70% of residents and 58% of local businesses supported the DCR, and another revealed that the public felt the DCR had reduced public drug use (Potier et al.,2014).

# Summary of the evidence

There is substantial evidence to show that DCRs have a positive impact on every theme in this review. It remains clear that DCRs have:

- Saved a significant number of lives,
- Been effective in attracting the PWIDs at greatest risk of harm,
- Prevented BBV infections, improved injection practise among PWIDs,
- Acted as a funnel into treatment,
- Reduced public drug use and injection-related litter.
- Saved health services considerable sums of money.
- Not caused localised increases in crime or public disorder.

The weight of this evidence examines the DCRs in Vancouver and Sydney, however there is sufficient analysis to show these impacts have been replicated across Europe. DCRs have been shown to be more cost effective in reducing harms to PWIDs and the wider public than most other drug strategies. They also appear to improve access to treatment for PWIDs. Common reservations held by community stakeholders about DCRs appear to be unfounded, and local support is high in areas that have implemented such facilities.

The evidence does <u>not</u> suggest that a DCR:

- Increases drug use or frequency of injecting in the surrounding environment
- Increases drug dealing, drug trafficking or drug-related crime in the surrounding environment

# Need

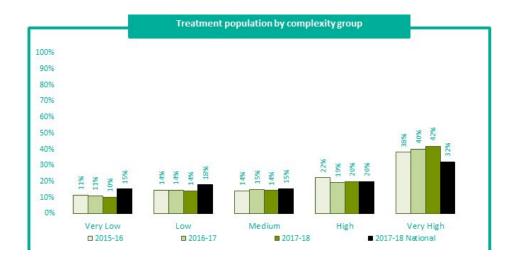
Bristol has one of the largest populations of people who use opiates and/or crack in England. Public Health England report that in 2014/15 Bristol had an estimated 4709 people using opiates and/or crack cocaine, a rate of 15.4 per 1000 population and is ranked the 145<sup>th</sup> highest out of 151 Counties & Unitary Authorities. Of this population, 4116 residents are estimated to use opiates and 3710 people use crack. There is a large cross over of these groups with 76% of people who use opiates also using crack.

Approximately 1800 opiate users are in Opioid Substitution Treatment (OST) at any one time. This indicates that there are an estimated 2909 people using opiates who are not accessing treatment and so not benefiting from the protective factors this confers.

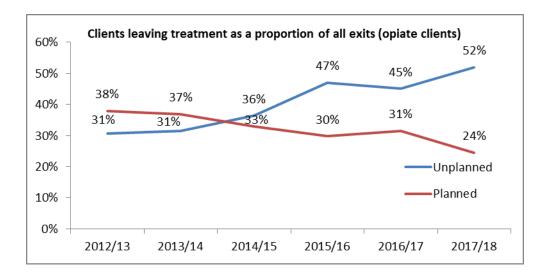
In line with the national trends, Bristol's opiate using population is an aging cohort with increasing complexities impacting on their ability to recover. A significant number of people have coexisting physical health problems. A snapshot of OST clients carried out in 2016 showed that hepatitis C (HCV) affected 14.1% of clients, respiratory problems 13.9%; mobility issues 7.1%; and ulcers/abscesses 5.5%.

6.5% (n=99) of the clients considered within the snapshot were known to have needs around pain management; 4.1% (n=63) had been admitted to hospital in the last 3 months; 3.8% (n=58) had visited A&E; 5.2% (n=79) were considered to be at risk of hospital admission due to their current physical health.

People who come into contact with Bristol's drug treatment system are identified as having very high complexity with 42% being categorised as Very High against the national rate of 32%.



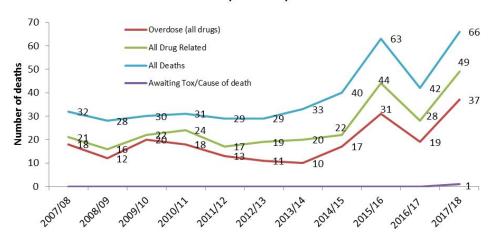
Whilst opiate treatment remains accessible across the city there are fewer people leaving treatment successfully each year as a proportion of all exits. A growing number of people are leaving treatment in an unplanned way, indicating that the system is not able to meet the complex needs of this population. This results in an increased number of people with elevated complexity returning to illicit drug use to manage their dependency.



# **Drug related deaths**

Bristol has experienced a significant increase in drug-related deaths since 2013/14, in particular from overdose. In 2013/14 Bristol experienced 20 drug related deaths with 10 being identified as overdoses. This rose to 49 drug related deaths in 2017/18 (an increase of 145%), with 37 being identified as overdoses (an increase of 260%). This is the highest number of drug related deaths, and the highest number of overdose deaths, ever recorded by Bristol City Council.

#### Cause of death 2007/08 - 2017/18

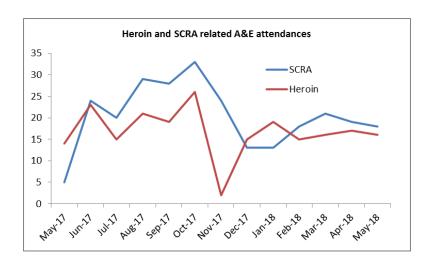


Opioids accounted for 26 of the 37 overdose deaths, the joint highest amount of opioid-related deaths on record. The majority of these deaths were of people known to treatment (84%) but the majority, 52%, were not in treatment at the time of death and had left treatment relatively recently (average of 1.58yrs ago).

Thirty deaths have been reported since April 2018 that are being investigated to ascertain whether they are drug related. By the same point in 2017/18 there had been 29 deaths reported indicating that 2018/19 is likely to meet, or possibly exceed, the levels of deaths experienced last year, the highest number of drug related deaths on record.

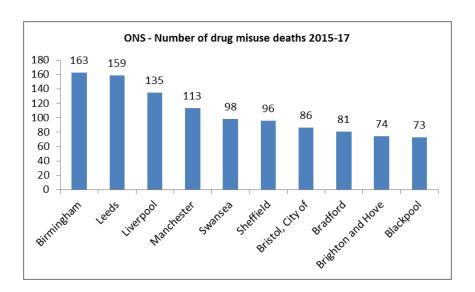
The use of synthetic cannabinoid receptor agonists (SCRAs), collectively known as Spice, has further complicated the situation with the seeming ability of people who use heroin to use SCRAs interchangeably without experiencing adverse withdrawal events. This results in a raised risk of overdose due to fluctuations in peoples' opioid tolerance as tolerance can drop-off after only a few days not using opioids leaving people susceptible to overdose if they return to using a similar amount as before.

The use of SCRAs in Bristol has increased dramatically over the last 12-18 months, particularly amongst the homeless and visible street drug-using community. SCRAs are the number one reason for drug related attendances to the BRI A&E department with 20% of all drug related presentations being due to the substance. Whilst this is higher than the 16% due to heroin there is a correlation between the two substances' presentations to A&E indicating that the harms caused by the two are somehow connected and/or affecting the same population.



SCRAs were only identified in two of the deaths in 17/18 despite being reported to have been used prior to death in at least 12 of the overdoses. With SCRA being an umbrella term for ~300 individual compounds it is not known whether post-mortem drug screens are able to detect all types in circulation.

The ONS annual report on drug related deaths in local authorities reported that Bristol had the 7<sup>th</sup> highest number of drug related deaths registered by Coroners in cities in England and Wales in 2015-2017. The rate of deaths in Bristol of 6.7 per 100,000 was significantly higher than the England average of 4.3



Non-fatal overdoses are a common occurrence amongst people who inject heroin and previous non-fatal ODs are a predictive factor for future fatalities. The Unlinked Anonymous Monitoring Survey of PWID has reported a significant rise in the number of people reporting to have experienced an overdose in the previous year – from 14.8% in 2013 to 23% in 2016.

Analysis of naloxone supply in 2017 showed that a significant proportion (11.8%) of all doses supplied were to replace doses that had been used for the purpose of saving a life. This equates to an additional 96 potential fatalities being averted due to the presence of naloxone in the community. However, with 65% of overdose fatalities occurring for individuals who were using alone (and in five of these cases naloxone having already been supplied) naloxone supply is not the solution to the majority of overdose deaths as no one would have been able to administer the drug.

Avon and Somerset Police reports on drugs seized have shown that the purity of street heroin and crack have significantly increased in the last two years. Whilst the average purity of heroin was stable at ~20% in 2015/16 there is now a regular supply of higher quality heroin available in the city with average purity being 50%, with street-deals as high as 66% being seized in recent months.

The possibility of fentanyls entering the heroin supply chain is being a treated as a real threat by UK law enforcement agencies. If this was to occur then it would result in a large increase in fatalities due to the potency and toxicity of the drugs as has been the case in the USA and Canada.

# Injecting drug use

Injecting drug use is a significant risk behaviour amongst people who use drugs, particularly heroin and crack cocaine, in Bristol. The stigma attached to this behaviour makes estimating the size of the population difficult and reliant on academic estimates. Two estimates exist for the size of the population of people who inject drugs in Bristol. In 2014 Public Heath England estimated there to be 1,499 PWIDs in Bristol in 2011/12 (CI 1,226-1,757). More recent research in 2016 by the University of Bristol into injecting drug use (Jones et al 2016) estimated that there were 2,770 (CI 2570-3110) people who inject drugs (PWIDs) in 2011.

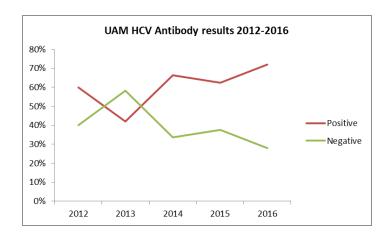
PHE estimates for opiate and crack use for this time period estimated an overall population of 5,364 Bristol residents using these substances indicating that 27.9% - 51.6% (CI 22.8% - 57.9%) of the opiate and crack using population engaged in injecting drug use.

Needle and syringe programmes in Bristol are spread across a variety of locations. Twenty-four community pharmacies participate in the NSP scheme and accounted for 55.6% of needles supplied in Bristol in 2017/18 (n=489,500). BDP run a specialist NSP service from Brunswick Square and operate a mobile harm reduction service from a number of

community locations with high prevalence of injecting drug use and supply 44.4% of all needles (n=391,145) making them the largest single provider of injecting equipment in Bristol.

### Injecting related harm

Hepatitis C (HCV) is the most common risk to PWIDs in Bristol and the number of people testing positive for HCV antibodies has been increasing over recent years. In 2013 42% of PWIDs tested as part of PHE's Unlinked Anonymous Monitoring survey were positive for HCV antibodies, increasing to 72% in 2016 (a 71.42% increase). The average HCV rate for PWIDs in England in 2016 was 54% indicating that Bristol has significantly above average needs in relation to HCV but, despite highly accessible OST and NSP being available in the city, lacks the ability to effectively reduce the transmission of the disease.



The PHE 'Commissioning template for estimating HCV prevalence by DAT and numbers eligible for treatment' estimates there are 1875 people living with RNA+ HCV. Of those, 1125 have a diagnosis and of these, 465 have already been treated. 734 of the diagnosed individuals remain untreated and 131 new diagnoses occur each year. The report calculates an annual drug cost (i.e. not including staffing or service costs) of £901,000 for treating new diagnoses and a total drug cost of £5,037,000 to treat the backlog of all current infections.

One hundred and forty five patients were seen by the BRI Drug Liaison Team in 2017/18 due to being admitted for injecting related injuries and infections or overdose, resulting in a total of 1386 days spent in hospital and an estimated cost to the BRI of at least £753,144. This is a conservative estimate based on £400 per bed day (data.gov) and £147 A&E costs

(New Economy Database) – 99% of admitted patients are routed through the emergency department.

When including wider admitting conditions (including respiratory, circulatory and neurological conditions) for people who inject drugs 297 people were seen by the BRI Drug Liaison Team in 2017/18 with a total length of stay in hospital of 2729 days. Using the above figures this results in an estimated health care cost of £1,135,259 the BRI.

These estimates do not account for the cost of the actual treatment patients received and the real costs could be significantly higher. Treatment for MRSA is estimated by the CCG to result in an average 6 week hospital stay at a cost of £10,000 per week. 19 PWIDs were admitted in 2017/18 for injecting-related cases of MRSA meaning that they alone could have accounted for £1.14million in health care costs to the BRI.

### **Public Injecting**

In a survey of people using BDP's NSP in June and July 2018 a significant proportion reported to inject their drugs in public places. 151 clients accessing the service were asked whether they ever inject in public spaces. 67.5% of respondents stated they currently injected in public places and 2% stated that this was something they had previously done. The rate was even higher for clients accessing NSP sites in Central Bristol, with 74.6% of clients reporting they inject in public places.

In this survey, 56% of respondents reported to injecting in public at least once per day, 30% at least once per week, and 6% at least once per month. 5% reported to injecting in public occasionally and 3% did not disclose the frequency.

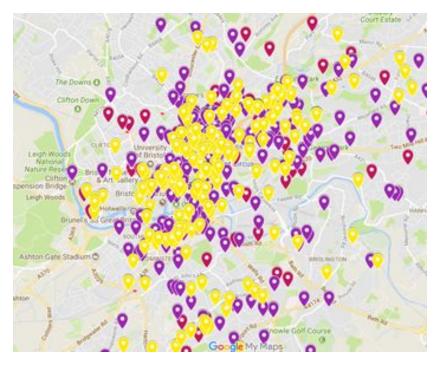
With an estimated population of between 1499 and 2770 (CI 1266-3110) PWIDs in Bristol this could indicate there to be a population of 1012 and 1870 people who inject drugs in public. However this does not take into account the number of people in opioid substitution treatment for whom injecting behaviour is likely to be reduced or ceased altogether.

A more realistic estimate might be reached through applying these proportions to the population accessing needle exchange services. Based on the findings of the survey, of the 569 people who inject heroin attending BDPs NSP in 2017/18, 384 are estimated as publically injecting, with 215 doing so on a daily basis.

The number of individuals accessing pharmacy needle exchange services is not reported but 55% of all needles supplied are through pharmacy based services. If it is assumed a similar (or greater) number of people access pharmacies as do BDP then it is possible that there is a total of 650 people who inject publically in Bristol with up to 430 people who do so on a daily basis.

# **Needle Litter**

Needle litter is a common issue affecting nearly all areas of the city. Analysis of reports to Bristol Waste of publically discarded needles show the problem occurs in most of the city's Wards, with central areas badly affected



Needle litter 2015 (red flag), 2016 (Purple) and -2017(yellow)

A total of 1100 reports of needle litter were made to Bristol waste in 2015-17, with reports accounting for multiple needle, syringes and other injecting paraphernalia. These reports tend to be in locations accessed by the public and it is highly likely that these only represent a fraction of the actual needle litter present in the city. Needles are routinely disposed of by community street cleaning officers and members of the public. BDP regularly remove needles from known injecting spots and countless others will go undetected due to being in out of the way locations.

# **Models**

Broadly, there are three different models of operation being used by DCRs around the globe – the integrated model, the specialised model and the mobile model.

The Integrated model is the most common, with facilities based within drug treatment services. These usually offer a broader range of services including counselling, drop-ins, NSP, testing for BBVs, clinical services (e.g. wound care) and access to wider health & social care programmes (e.g. housing and employment).

The Specialised model, while still part of a broader drug treatment system, is a standalone clinical space where individuals can attend to consume drugs under medical supervision. Access to allied services and interventions is still facilitated, with access to these being located at a different site.

Mobile DCRs have been developed in three European cities where either there isn't a large public drug scene and instead the smaller, dispersed scenes are established with the DCR operating over multiple locations, or where a fixed-site Integrated or Specialised model are not feasible and the DCR operates in a fixed location.

### **Finances**

The cost of establishing a DCR is dependent on the chosen model, the facilities opening times and the number of booths available for injections to take place. Staffing is the main cost for providing such a service and the longer the opening hours and the more booths available for individuals, the higher the staffing levels needed. Based on existing DCRs the operating costs for a Bristol-based facility could be as follows:

A standalone Specialised model could cost £800,000 – £1m (based on the proposed Glasgow model). This could provide a 12 injecting booth and 5 smoking booth facility, 12 hours a day, 365 days per year. Whilst similar to an integrated model, this would necessitate a staffing structure that operates independently from the broader drug service provision so would not benefit from shared resources.

An Integrated model could cost in the region of £650,000 - £800,000. Dependent on the location and provider, this would include the involvement of existing drug and alcohol staff and so would cost less than a standalone Specialised model.

A mobile unit could cost in the region of £250,000 - £350,000 per annum (based on Copenhagen model). This would provide a 3-4 booth mobile unit open 5.5 hours per day, 365 days per year.

These costs would include a precautionary approach to staffing levels. Staffing could be reduced once experience is developed and risks better known.

# Legality

As the law currently stands there is no specific legislation that prohibits the establishment of a DCR. However due to the activities that take place within these facilities there could be medico-legal risks to those involved in the provision of the service. Queen Mary University's report "Setting up a Drug Consumption Room – legal issues" (Rudi Forston 2017) outlines the possible exemptions to the Misuse of Drugs Act to support the provision of a DCR in the UK.

Exemptions to the Misuse of Drugs Act are permissible and are possible through agreement of Parliament, usually through Secondary Legislation (i.e. laws created by ministers or other bodies under powers given to them by an Act of Parliament) without the need for additional Primary Legislation. Exemptions have been made within the Act for the full range of injecting paraphernalia given out by needle and syringe programmes throughout the UK. Arguably this is a natural extension in reducing the harms caused by injecting drug use by not only providing the equipment to facilitate an injection but also providing a safe place to administer one.

Due to the benefits provided by the service there may be a strong public interest argument in not actively policing the possible possession offences that may be committed within a DCR (although supply offences would be actively enforced). However, it would be preferable to have explicit legislation/exemptions in place to ensure that the providers of facilities are fully protected from any medico-legal risks.

The Government response to the ACMD report "Reducing Opioid-Related Deaths in the UK" (ACMD, 2016) stated that "Drug consumption rooms were considered as part of the Home Office led International Comparators Study in 2014. This concluded that there was:

"Some evidence for the effectiveness of drug consumption rooms in addressing the problems of public nuisance associated with open drug scenes, and in reducing health risks for drug users. Drug consumption rooms overseas have been

controversial and legally problematic, and have been most successful where they have been a locally-led initiative to local problems.

"The Government has no plans to introduce drug consumption rooms.

"It is for local areas in the UK to consider, with those responsible for law enforcement, how best to deliver services to meet their local population needs."

Glasgow City Council and the Scottish Government have publically called for the appropriate changes to legislation to allow for a facility to be opened in the city to respond to the rise in the HIV incidence rate and drug related deaths. It is highly likely that unless other Local Authorities and law enforcement agencies join in advocating for the permission to operate DCRs, or at the very least pilot the approach, then the Government will retain the status quo position, with no impetus to change their position.

# **Summary**

Drug consumption rooms are not innovative and have been provided for the last 3 decades. There are currently around 80 facilities established in 35 cities in 10 countries and several other States are in the process of opening DCRs.

It is clear from the evidence that where DCRs have been established they are effective at reducing the impact of drug use on the individuals using them and the wider communities affected. Research into their effectiveness has demonstrated a range of positive impacts across a range of indicators:

- Saved a significant number of lives
- Been effective in attracting the PWIDs at greatest risk of harm
- Acted as a funnel into treatment
- Prevented BBV infections, improved injection practise among PWIDs
- Reduced public drug use and injection-related litter
- Saved health services considerable sums of money
- Not caused localised increases in crime or public disorder

Bristol has high levels of the drug related harms. The evidence suggests could be reduced through the provision of a DCR. Reductions in funding for drug and alcohol services, the sustained availability of high purity heroin, the rise in the use of synthetic cannabinoid receptor agonists and the risk of fentanyls entering the supply chain all point to the fact that it

is highly unlikely drug related deaths will reduce any time soon unless additional measures are taken to address this.

We have a particularly high rate of heroin and crack use and of injecting drug use, with the population becoming more complex and less amenable to the current treatment offer. Twice as many people are leaving treatment in an unplanned way than those who successfully complete their treatment episodes compared to the reverse situation only four years ago.

DCRs have been shown to have the ability to attract those at the highest risk of overdose and be effective at intervening in overdose situations. Establishing one in Bristol would increase the ability to prevent drug related deaths from occurring and improved access to treatment for the most at-risk would be enabled through the provision of accessible and acceptable services. Millions of injections have taken place in DCRs over the past 30 years and not a single drug related death has ever occurred within a facility. Overdose death rates have been shown to drop in their local vicinity.

Hepatitis C among PWIDs is at the highest level recorded. Injecting related harm is resulting in an increasing amount of preventable hospital admissions to the BRI which cost the hospital a significant amount of time and money. DCRs have been shown to have a positive effect on injecting behaviours associated with harm and would offer an opportunity to considerably reduce the incidence rate of HCV infections and perceived acceptability of sharing injecting equipment for those accessing the service. By targeting and engaging with the most marginalised clients that are at highest risk of harm (e.g. those that are homeless, sex-working, etc.) a DCR in Bristol would offer an opportunity to reduce high-risk behaviours and engage into treatment those furthest from it.

Public injecting is a common and regular feature in Bristol. An estimated 650 people inject in public, 430 on a daily basis. Making available a facility that allows PWIDs to inject drugs is highly likely to reduce the prevalence of public injecting in the local vicinity. The review of pre-existing DCRs in Australia, Canada and Europe show strong evidence of a reduction in public injecting by providing an alternative option for people for who injecting outside is standard practice. If a similar proportion of PWIDS were to use a local DCR in Bristol for some or all of their injections as do in Canada (57%) and Germany (51%) then it could be expected that between 219 and 245 people accessthe service.

Needle litter affects nearly all parts of the city with the Central area most affected. If a DCR were open in an area of high-density needle litter it would likely result in a reduction in publically discarded needle litter. As well as engaging those most likely to create needle litter

and improve the rate at which needles are properly disposed, the evidence suggests that where DCRs have been established there is no associated "honey-pot" effect, and that crime and antisocial behaviour do not increase around the facility.

Despite acknowledging the likely benefits DCRs would bring, the Government had stated that they have no plans to introduce DCRs. However they also acknowledge that it is for local areas in the UK to consider, with those responsible for law enforcement, how best to deliver drug services to meet the needs of their local population. Unless Local Authorities and law enforcement agencies advocate for the provision of these facilities, or at the very least ask permission to allow pilots to be carried out, then it is likely that the Government will continue with the status quo.

### Recommendations

- That Safer Bristol Partnership advocate for Central Government to allow the piloting of Drug Consumption Rooms to evaluate the provision of facilities within the UK context.
- 2. Safer Bristol Partnership to support the development of a draft business case to fully scope the provision of a drug consumption room for Bristol. This should include:
  - Full costings
  - Location
  - Staffing
  - Clinical governance
  - Funding options
  - Procurement options

### References

- 1. Alcohol & Drug Foundation. (2017). Medically supervised injecting centres. [online] Available at: <a href="https://adf.org.au/insights/medically-supervised-injecting-centres/">https://adf.org.au/insights/medically-supervised-injecting-centres/</a> [Accessed 9 Sep. 2018].
- 2. Andresen, M. and Boyd, N. (2010). A cost-benefit and cost-effectiveness analysis of Vancouver's supervised injection facility. International Journal of Drug Policy, [online] 21(1), pp.70-76. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/19423324">https://www.ncbi.nlm.nih.gov/pubmed/19423324</a> [Accessed 9 Sep. 2018].
- 3. Bayoumi, A. and Zaric, G. (2008). The cost-effectiveness of Vancouver's supervised injection facility. Canadian Medical Association Journal, [online] 179(11), pp.1143-1151. Available at: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582765">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582765</a> [Accessed 9 Sep. 2018].
- 4. BBC (2018). Heroin addicts to get drug use clinic in Middlesbrough. [online] Available at: <a href="https://www.bbc.com/news/uk-england-tees-45393692">https://www.bbc.com/news/uk-england-tees-45393692</a> [Accessed 9 Sep. 2018].
- 5. Belackova, V. and Salmon, A. (2017). Overview of international literature supervised injecting facilities & drug consumption rooms. [online] Sydney: Uniting Medically Supervised Injecting Centre. Available at: <a href="https://www.researchgate.net/publication/323445212/download">https://www.researchgate.net/publication/323445212/download</a> [Accessed 9 Sep. 2018].
- 6. Benninghoff, F., Solai, S., Huissoud, T. and Dubois-Arber, F. (2003). Evaluation De Quai 9. [online] Lausanne: Raison De Sante. Available at: <a href="https://www.iumsp.ch/Publications/pdf/rds103">https://www.iumsp.ch/Publications/pdf/rds103</a> fr.pdf [Accessed 9 Sep. 2018].
- 7. Boyd, N., Kinney, B., McLean, C., Heidt, J. and Otter, I. (2008). Public Order and Supervised Injection Facilities: Vancouver's SIS Final Report. [online] Vancouver: Centre for Addictions Research.

#### Available at:

https://books.google.co.uk/books/about/Public Order and Supervised Injection Fa.html?id=k4sKjwE ACAAJ&redir esc=y [Accessed 9 Sep. 2018].

- 8. Bravo, M., Royuela, L., De la Fuente, L., Brugal, M., Barrio, G. and Domingo-Salvany, A. (2009). Use of supervised injection facilities and injection risk behaviours among young drug injectors. Addiction, [online] 104(4), pp.614-619. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/19215603">https://www.ncbi.nlm.nih.gov/pubmed/19215603</a> [Accessed 9 Sep. 2018].
- 9. Bundeskriminalamt (2002). Rauschgiftjahresbericht Bundesrepublik Deutschland. [online] Bundeskriminalamt. Available at:

  <a href="https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiJrdvMka7dAhUIJMAKHbunAOIQFjAAegQICRAC&url=https%3A%2F%2Fwww.bka.de%2FSharedDocs%2FDownloads%2FDE%2FPublikationen%2FJahresberichteUndLagebilder%2FRauschgiftkriminalitaet%2F2002

  RauschgiftJahresbericht.pdf%3F\_\_blob%3DpublicationFile%26v%3D3&usg=AOvVaw0YMQpJhzk90

  DUzzpUxWEOH [Accessed 9 Sep. 2018].</a>
- 10. Canadian Supreme Court Judgements. (2011). Scc-csc.lexum.com. [online] Available at: <a href="https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/7960/index.do">https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/7960/index.do</a> [Accessed 9 Sep. 2018].
- 11. DeBeck, K., Kerr, T., Bird, L., Zhang, R., Marsh, D., Tyndall, M., Montaner, J. and Wood, E. (2011). Injection drug use cessation and use of North America's first medically supervised safer injecting facility. Drug and Alcohol Dependence, [online] 113(2-3), pp.172-176. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/20800976">https://www.ncbi.nlm.nih.gov/pubmed/20800976</a> [Accessed 9 Sep. 2018].
- 12. Easton, M. (2017). Are UK drug consumption rooms likely?. BBC. [online] Available at: <a href="https://www.bbc.co.uk/news/uk-41596222">https://www.bbc.co.uk/news/uk-41596222</a> [Accessed 9 Sep. 2018].
- 13. EMCDDA (2010). Harm Reduction: evidence, impacts and challenges. [online] Lisbon: EMCDDA. Available at: <a href="http://www.emcdda.europa.eu/attachements.cfm/att\_101257\_EN\_EMCDDA-monograph10-harm%20reduction\_final.pdf">http://www.emcdda.europa.eu/attachements.cfm/att\_101257\_EN\_EMCDDA-monograph10-harm%20reduction\_final.pdf</a> [Accessed 9 Sep. 2018].
- 14. EMCDDA (2014). Drug consumption rooms: an overview of provision and evidence. [online] Lisbon: EMCDDA. Available at: <a href="http://www.emcdda.europa.eu/system/files/publications/2734/POD">http://www.emcdda.europa.eu/system/files/publications/2734/POD</a> Drug%20consumption%20rooms. <a href="pdf">pdf</a> [Accessed 9 Sep. 2018].
- 15. Fast, D., Small, W., Wood, E. and Kerr, T. (2008). The perspectives of injection drug users regarding safer injecting education delivered through a supervised injecting facility. Harm Reduction

- Journal, [online] 5(1), p.32. Available at: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2605439/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2605439/</a> [Accessed 9 Sep. 2018].
- 16. Fitzgerald, J., Burgess, M. and Snowball, L. (2010). Trends in Property and Illicit Drug Crime around the Supervised Injecting Facility in Kings Cross: An Update. [online] NSW Bureau of Crime Statistics and Research. Available at: <a href="http://www.bocsar.nsw.gov.au/Documents/BB/bb51.pdf">http://www.bocsar.nsw.gov.au/Documents/BB/bb51.pdf</a> [Accessed 9 Sep. 2018].
- 17. Freeman, K., Jones, C., Weatherburn, D., Rutter, S., Spooner, C. and Donnelly, N. (2005). The impact of the Sydney Medically Supervised Injecting Centre (MSIC) on crime. Drug and Alcohol Review, [online] 24(2), pp.173-184. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/16076587">https://www.ncbi.nlm.nih.gov/pubmed/16076587</a> [Accessed 9 Sep. 2018].
- 18. Happel, V. (2000). Konsumräume eine effektive Massnahme zur Schadensminimierung bei DrogengebraucherInnen und BürgerInnen. Akzeptanz Zeitschrift für akzeptierende Drogenarbeit und humane Drogenpolitik, Vol. 8, No. 1.
- 19. Health Canada (2008). Vancouver's INSITE Service and Other Supervised Injection Sites: What Has Been Learned from Research?. [online] Vancouver: Health Canada. Available at: <a href="https://www.canada.ca/en/health-canada/corporate/about-health-canada/reports-publications/vancouver-insite-service-other-supervised-injection-sites-what-been-learned-research.html">https://www.canada.ca/en/health-canada/corporate/about-health-canada/reports-publications/vancouver-insite-service-other-supervised-injection-sites-what-been-learned-research.html</a> [Accessed 9 Sep. 2018].
- 20. Hedrich, D. (2014). European Report on Drug Consumption Rooms. [online] EMCDDA. Available at:

  <a href="http://www.emcdda.europa.eu/attachements.cfm/att\_2944\_EN\_consumption\_rooms\_report.pdf">http://www.emcdda.europa.eu/attachements.cfm/att\_2944\_EN\_consumption\_rooms\_report.pdf</a>
  [Accessed 9 Sep. 2018].
- 21. Irwin, A., Jozaghi, E., Weir, B., Allen, S., Lindsay, A. and Sherman, S. (2017). Mitigating the heroin crisis in Baltimore, MD, USA: a cost-benefit analysis of a hypothetical supervised injection facility. Harm Reduction Journal, [online] 14(1). Available at: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5441005/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5441005/</a> [Accessed 9 Sep. 2018].
- 22. Joseph Rowntree Foundation (2006). Drug Consumption Rooms Summary report of the Independent Working Group. [online] London: Joseph Rowntree Foundation. Available at: <a href="https://www.jrf.org.uk/report/drug-consumption-rooms-summary-report-independent-working-group">https://www.jrf.org.uk/report/drug-consumption-rooms-summary-report-independent-working-group</a> [Accessed 9 Sep. 2018].
- 23. Jozaghi, E., Reid, A., Andresen, M. and Juneau, A. (2014). A cost-benefit/cost-effectiveness analysis of proposed supervised injection facilities in Ottawa, Canada. Substance Abuse Treatment,

Prevention, and Policy, [online] 9(1), p.31. Available at: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4123501/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4123501/</a> [Accessed 9 Sep. 2018].

- 24. Kennedy, M., Karamouzian, M. and Kerr, T. (2017). Public Health and Public Order Outcomes Associated with Supervised Drug Consumption Facilities: a Systematic Review. Current HIV/AIDS Reports, [online] 14(5), pp.161-183. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/28875422">https://www.ncbi.nlm.nih.gov/pubmed/28875422</a> [Accessed 9 Sep. 2018].
- 25. Kerr, T., Tyndall, M., Li, K., Montaner, J. and Wood, E. (2005). Safer injection facility use and syringe sharing in injection drug users. The Lancet, [online] 366(9482), pp.316-318. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/16039335">https://www.ncbi.nlm.nih.gov/pubmed/16039335</a> [Accessed 9 Sep. 2018].
- 26. Kerr, T., Stoltz, J., Tyndall, M., Li, K., Zhang, R., Montaner, J. and Wood, E. (2006). Impact of a medically supervised safer injection facility on community drug use patterns: a before and after study. BMJ, [online] 332(7535), pp.220-222. Available at: <a href="https://www.bmj.com/content/332/7535/220.full.pdf">https://www.bmj.com/content/332/7535/220.full.pdf</a> [Accessed 9 Sep. 2018].
- 27. Kerr, T., Small, W., Moore, D. and Wood, E. (2007). A micro-environmental intervention to reduce the harms associated with drug-related overdose: Evidence from the evaluation of Vancouver's safer injection facility. International Journal of Drug Policy, [online] 18(1), pp.37-45. Available at: <a href="https://www.ijdp.org/article/S0955-3959(06)00256-8/fulltext">https://www.ijdp.org/article/S0955-3959(06)00256-8/fulltext</a> [Accessed 9 Sep. 2018].
- 28. Kimber, J., Dolan, K. and Wodak, A. (2005). Survey of drug consumption rooms: service delivery and perceived public health and amenity impact. Drug and Alcohol Review, [online] 24(1), pp.21-24. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/16191717">https://www.ncbi.nlm.nih.gov/pubmed/16191717</a> [Accessed 9 Sep. 2018].
- 29. Kimber, J., Hickman, M., Degenhardt, L., Coulson, T. and van Beek, I. (2008). Estimating the size and dynamics of an injecting drug user population and implications for health service coverage: comparison of indirect prevalence estimation methods. Addiction, [online] 103(10), pp.1604-1613. Available at: <a href="https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1360-0443.2008.02276.x">https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1360-0443.2008.02276.x</a> [Accessed 9 Sep. 2018].
- 30. Kinnard, E., Howe, C., Kerr, T., Skjødt Hass, V. and Marshall, B. (2014). Self-reported changes in drug use behaviors and syringe disposal methods following the opening of a supervised injecting facility in Copenhagen, Denmark. Harm Reduction Journal, [online] 11(1), p.29. Available at: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226898/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226898/</a> [Accessed 9 Sep. 2018].
- 31. KPMG (2010). Further evaluation of the Medically Supervised Injecting Centre during its extended Trial period. [online] Sydney: KPMG. Available at: <a href="https://www.health.nsw.gov.au/mentalhealth/programs/da/Documents/msic-kpmg.pdf">https://www.health.nsw.gov.au/mentalhealth/programs/da/Documents/msic-kpmg.pdf</a> [Accessed 9 Sep. 2018].

- 32. Lloyd-Smith, E., Wood, E., Zhang, R., Tyndall, M., Montaner, J. and Kerr, T. (2009). Determinants of Cutaneous Injection-Related Infection Care at a Supervised Injecting Facility. Annals of Epidemiology, [online] 19(6), pp.404-409. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/19364660">https://www.ncbi.nlm.nih.gov/pubmed/19364660</a> [Accessed 9 Sep. 2018].
- 33. Marshall, B., Milloy, M., Wood, E., Montaner, J. and Kerr, T. (2011). Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. The Lancet, [online] 377(9775), pp.1429-1437. Available at: <a href="https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(10)62353-7.pdf">https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(10)62353-7.pdf</a> [Accessed 9 Sep. 2018].
- 34. Milloy, M., Kerr, T., Tyndall, M., Montaner, J. and Wood, E. (2008). Estimated Drug Overdose Deaths Averted by North America's First Medically-Supervised Safer Injection Facility. PLoS ONE, [online] 3(10), p.e3351. Available at: <a href="https://www.hri.global/files/2010/08/23/Millroy">https://www.hri.global/files/2010/08/23/Millroy</a> Estimated Drug OD Deaths.pdf [Accessed 9 Sep. 2018].
- 35. MSIC Evaluation Commitee (2003). Final Report of the Evaluation of the Sydney Medically Supervised Injection Centre. [online] Sydney: MSIC Evaluation Commitee. Available at: <a href="https://www.drugsandalcohol.ie/5706/1/MSIC\_final\_evaluation\_report.pdf">https://www.drugsandalcohol.ie/5706/1/MSIC\_final\_evaluation\_report.pdf</a> [Accessed 9 Sep. 2018].
- 36. National Centre in HIV Epidemiology and Clinical Research (2007). Sydney Medically Supervised Injecting Centre Evaluation Report No. 4. [online] Sydney: National Centre in HIV Epidemiology and Clinical Research. Available at: <a href="https://kirby.unsw.edu.au/sites/default/files/kirby/report/EvalRep4SMSIC.pdf">https://kirby.unsw.edu.au/sites/default/files/kirby/report/EvalRep4SMSIC.pdf</a> [Accessed 9 Sep. 2018].
- 37. Ng, J., Sutherland, C. and Kolber, M. (2017). Does evidence support supervised injection sites?. OFficial Publication of the College of Family Physicians of Canada, [online] 63(11). Available at: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5685449">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5685449</a> [Accessed 9 Sep. 2018].
- 38. Petrar, S., Kerr, T., Tyndall, M., Zhang, R., Montaner, J. and Wood, E. (2007). Injection drug users' perceptions regarding use of a medically supervised safer injecting facility. Addictive Behaviors, [online] 32(5), pp.1088-1093. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/16930849">https://www.ncbi.nlm.nih.gov/pubmed/16930849</a> [Accessed 9 Sep. 2018].
- 39. Pinkerton, S. (2010). Is Vancouver Canada's supervised injection facility cost-saving?. Addiction, [online] 105(8), pp.1429-1436. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/20653622">https://www.ncbi.nlm.nih.gov/pubmed/20653622</a> [Accessed 9 Sep. 2018].
- 40. Poschadel, S., Hoeger, R., Schnitzler, J. and Shreckenberg, D. (2003). Evaluation der Arbeit der Drogenkonsumräume in der Bundesrepublik Deutschland. [ebook] Nomos Verlagsgesellschaft. Available at:

- https://www.researchgate.net/publication/237065287\_Evaluation\_der\_Arbeit\_der\_Drogenkonsumraume\_in\_der\_Bundesrepublik\_Deutschland [Accessed 9 Sep. 2018].
- 41. Potier, C., Laprévote, V., Dubois-Arber, F., Cottencin, O. and Rolland, B. (2014). Supervised injection services: What has been demonstrated? A systematic literature review. Drug and Alcohol Dependence, [online] 145, pp.48-68. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/25456324">https://www.ncbi.nlm.nih.gov/pubmed/25456324</a> [Accessed 9 Sep. 2018].
- 42. Ronco, C., Spuhler, G. and Kaiser, R. (1996). Evaluation of a stay and care center for drug addicts in Lucerne. [online] Lucerne: Soz PraventivMed. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/8693816">https://www.ncbi.nlm.nih.gov/pubmed/8693816</a> [Accessed 9 Sep. 2018].
- 43. Saha International (2008). Economic Evaluation of the Medically Supervised Injection Centre at Kings Cross. [online] Sydney: Saha International. Available at: <a href="https://uniting.org/\_\_data/assets/pdf\_file/0008/136439/MSIC-Final-Report-26-9-08-Saha.pdf">https://uniting.org/\_\_data/assets/pdf\_file/0008/136439/MSIC-Final-Report-26-9-08-Saha.pdf</a> [Accessed 9 Sep. 2018].
- 44. Schatz, E. and Nougier, M. (2012). Drug Consumption Rooms: Evidence and Practice. [online] International Drug Policy Consortium. Available at: <a href="https://www.drugsandalcohol.ie/17898/1/IDPC-Briefing-Paper\_Drug-consumption-rooms.pdf">https://www.drugsandalcohol.ie/17898/1/IDPC-Briefing-Paper\_Drug-consumption-rooms.pdf</a> [Accessed 9 Sep. 2018].
- 45. Small, W., Wood, E., Lloyd-Smith, E., Tyndall, M. and Kerr, T. (2008). Accessing care for injection-related infections through a medically supervised injecting facility: A qualitative study. Drug and Alcohol Dependence, [online] 98(1-2), pp.159-162. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/18650034">https://www.ncbi.nlm.nih.gov/pubmed/18650034</a> [Accessed 9 Sep. 2018].
- 46. Small, W., Van Borek, N., Fairburn, N., Wood, E. and Kerr, T. (2009). Access to health and social services for IDU: The impact of a medically supervised injection facility. Drug and Alcohol Review, [online] 28(4), pp.341-346. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/19594786">https://www.ncbi.nlm.nih.gov/pubmed/19594786</a> [Accessed 9 Sep. 2018].
- 47. Springer, A. (2003). Konsumraume. [ebook] Vienna: Anton-Proksch Insitut. Available at: <a href="https://www.indro-online.de/dat/springer.pdf">https://www.indro-online.de/dat/springer.pdf</a> [Accessed 9 Sep. 2018].
- 48. Stoever, H. (2002). Consumption Rooms A Middle Ground between Health and Public Order Concerns. Journal of Drug Issues, [online] 32(2), pp.597-606. Available at: <a href="http://journals.sagepub.com/doi/abs/10.1177/002204260203200217">http://journals.sagepub.com/doi/abs/10.1177/002204260203200217</a> [Accessed 9 Sep. 2018].
- 49. Stoltz, J., Wood, E., Small, W., Li, K., Tyndall, M., Montaner, J. and Kerr, T. (2007). Changes in injecting practices associated with the use of a medically supervised safer injection facility. Journal

- of Public Health, [online] 29(1), pp.35-39. Available at: https://academic.oup.com/jpubhealth/article/29/1/35/1584957 [Accessed 9 Sep. 2018].
- 50. The Globe and Mail (2011). Supreme Court ruling opens doors to drug injection clinics across Canada. [online] Available at: <a href="https://www.theglobeandmail.com/news/british-columbia/supreme-court-ruling-opens-doors-to-drug-injection-clinics-across-canada/article4182250/">https://www.theglobeandmail.com/news/british-columbia/supreme-court-ruling-opens-doors-to-drug-injection-clinics-across-canada/article4182250/</a> [Accessed 9 Sep. 2018].
- 51. Transform (2017). Drug Consumption Rooms: Saving lives, making communities safer. [online] Bristol, UK: Transform Drug Policy Foundation. Available at: <a href="http://tdpf.org.uk/resources/publications/supervised-injection-facilities-saving-lives-making-communities-s-safer">http://tdpf.org.uk/resources/publications/supervised-injection-facilities-saving-lives-making-communities-s-safer</a> [Accessed 9 Sep. 2018].
- Van der Poel, A., Barendregt, C. and van de Mheen, D. (2003). Drug Consumption Rooms in Rotterdam: An Explorative Description. European Addiction Research, [online] 9(2), pp.94-100. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/12644736">https://www.ncbi.nlm.nih.gov/pubmed/12644736</a> [Accessed 9 Sep. 2018].
- 53. Vancouver Coastal Health (2017). Insite user statistics. [online] Available at: <a href="http://www.vch.ca/public-health/harm-reduction/supervised-consumption-sites/insite-user-statistics">http://www.vch.ca/public-health/harm-reduction/supervised-consumption-sites/insite-user-statistics</a> [Accessed 9 Sep. 2018].
- 54. Wood, E., Kerr, T., Small, W., Li, K., Marsh, D., Montaner, J. and Tyndall, M. (2004). Changes in public order after the opening of a medically supervised safer injecting facility for illicit injection drug users. Canadian Medical Association Journal, [online] 171(7), pp.731-734. Available at: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC517857/pdf/20040928s00024p731.pdf">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC517857/pdf/20040928s00024p731.pdf</a> [Accessed 9 Sep. 2018].
- 55. Wood, E., Tyndall, M., Li, K., Lloyd-Smith, E., Small, W., Montaner, J. and Kerr, T. (2005). Do Supervised Injecting Facilities Attract Higher-Risk Injection Drug Users?. American Journal of Preventive Medicine, [online] 29(2), pp.126-130. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/16005809">https://www.ncbi.nlm.nih.gov/pubmed/16005809</a> [Accessed 9 Sep. 2018].
- Wood, E., Tyndall, M., Qui, Z., Zhang, R., Montaner, J. and Kerr, T. (2006). Service Uptake and Characteristics of Injection Drug Users Utilizing North America's First Medically Supervised Safer Injecting Facility. American Journal of Public Health, [online] 96(5), pp.770-773. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/16571703">https://www.ncbi.nlm.nih.gov/pubmed/16571703</a> [Accessed 9 Sep. 2018].
- 57. Wood, E., Tyndall, M., Zhang, R., Montaner, J. and Kerr, T. (2007). Rate of detoxification service use and its impact among a cohort of supervised injecting facility users. Addiction, [online] 102(6), pp.916-919. Available at: <a href="https://www.ncbi.nlm.nih.gov/pubmed/17523986">https://www.ncbi.nlm.nih.gov/pubmed/17523986</a> [Accessed 9 Sep. 2018].

58. Wood, R., Wood, E., Lai, C., Tyndall, M., Montaner, J. and Kerr, T. (2008). Nurse-delivered safer injection education among a cohort of injection drug users: Evidence from the evaluation of Vancouver's supervised injection facility. International Journal of Drug Policy, [online] 19(3), pp.183-188. Available at:

https://www.academia.edu/7662901/Nurse-delivered\_safer\_injection\_education\_among\_a\_cohort\_of\_injection\_drug\_users\_Evidence\_from\_the\_evaluation\_of\_Vancouvers\_supervised\_injection\_facility?e\_nds\_sutd\_reg\_path=true\_

- 59. Woods, S. (2014). Drug Consumption Rooms in Europe. [online] European Harm Reduction Network. Available at:
- http://www.drugconsumptionroom-international.org/images/pdf/dcr\_in\_europe.pdf [Accessed 9 Sep. 2018].
- 60. Forston. R, (2017). Setting Up a Drug Consumption Room Legal Issues Available at: <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3061235">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3061235</a> [accessed 21 Sep. 2018]
- 61. HM Govt (2017). Drug misuse and dependency: government responses to ACMD reports, Ministerial responses to Advisory Council on the Misuse of Drugs (ACMD) reports on drug misuse and dependency.

https://www.gov.uk/government/publications/drug-misuse-and-dependency-government-responses-to-acmd-reports [accessed 21 Sep. 2018]

62. PHE, (2016). Reducing Opioid-Related Deaths in the UK. <a href="https://www.gov.uk/government/publications/reducing-opioid-related-deaths-in-the-uk">https://www.gov.uk/government/publications/reducing-opioid-related-deaths-in-the-uk</a> [accessed 20 Sep. 2018].