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European Harm
Reduction Network

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Drug consumption rooms

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Acronyms

AIDS	Acquired immunodeficiency syndrome
C-EHRN	Correlation – European Harm Reduction Network
CDC	Centers for Disease Control and Prevention [USA]
COVID	Coronavirus Disease
DCR	Drug consumption room
DRD	Drug-related death
DRID	Drug-related infectious diseases
ECDC	European Centre for Disease Prevention and Control
EHRA	Eurasian Harm Reduction Association
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ESCAPE	European Syringe Collection and Analysis Project Enterprise
EU	European Union
FEANTSA	Fédération Européenne des Associations Nationales Travaillant avec les Sans-Abri [European Federation of National Organisations working with the Homeless]
FT-IR	Fourier transform infrared [[infrared spectroscopy]
GHB	Gamma hydroxybutyrate
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HF	Housing First
HIV	Human immunodeficiency virus
INDCR	International Network of Drug Consumption Rooms
MAP	Managed alcohol programme
MSIC	Medically Supervised Injecting Centre
NIDA	National Institute on Drug Abuse [USA]
OAT	Opioid Agonist Treatment
RCT	Randomised controlled trial
SCS	Safer consumption space
SIF	Safer injection facilities
SICAD	Serviço de Intervenção nos Comportamentos Aditivos e nas Dependências [Intervention Service in Addictive Behaviours and Dependencies]
SIS	Supervised Injection Service
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

Executive summary

Drug consumption rooms (DCRs) are fixed or mobile spaces in which people who use drugs are provided with sterile drug use equipment and can use illicit drugs under the supervision of trained staff.

They exist in several European countries, Australia, Canada, Mexico and the USA, and are usually located in areas where there is an open drug scene and injecting in public places is common. Their primary goal is to reduce morbidity and mortality by providing a safer environment for drug use and training clients in safer forms of drug use. Other explicit objectives may be providing a conduit to other care services and reducing public nuisance.

A main aim of this report is to inform discussions on DCRs by examining the available evidence, as well as reviewing the various models being adopted and their characteristics.

Two operational models are typically used in Europe:

- (1) integrated DCRs, operating within low-threshold facilities, where the supervision of drug use is just one of several services offered; and
- (2) specialised DCRs, which provide a narrower range of services directly related to supervised consumption.

Services typically available within DCRs include: provision of a supervised environment for drug use; clean drug use equipment, including sterile syringes; and rapid interventions if overdose occurs. In addition, DCRs may offer counselling services; primary medical care; training for clients in safer forms of drug use, overdose awareness and the use of naloxone; and referral to social, healthcare and treatment services.

Access to consumption facilities may be restricted to registered service users, and often certain conditions have to be met, for example minimum age and local residency. Typically, drugs used in these facilities must be obtained prior to entry. Drug dealing and drug sharing are not allowed within the facilities (staff may be required to call in the police if necessary), and staff can advise but do not directly assist clients in administering their drugs.

As frontline, low-threshold services, drug consumption rooms are often among the first places where insights can be gained into new drug use patterns, and, thus, they also can have a role to play in the early identification of new and emerging trends among high-risk populations using their services. The operation and functioning of DCRs has adapted to changes in the profiles and needs of their target groups, and to new patterns of use, as well as to new types of drugs emerging on the market. DCRs may also therefore be well placed to identify and inform strategies to mitigate harms related to developments in the illicit drug market that present new health challenges.

In Europe as a whole, the injection of heroin has been on the decline for a number of years and in some countries has been superseded by the misuse of synthetic opioids and/or stimulants. Within this dynamic context, many drug services, including DCRs, have had to adapt their services to the needs of local populations and the marketplace, often this implies addressing a broad range of practices and harms. This has included, in some countries, providing spaces for non-injecting routes of administration, most commonly smoking, and allowing the consumption of a wider range of substances within the facility.

As services, DCRs are particularly challenging to evaluate due in part to the considerable differences in the operational models that exist. This is further exacerbated by the differences in definitions used in by reviews of the topic and the heterogeneity of outcomes measures adopted by different research studies. This means generalising from the research evidence that exist in this area is challenging.

Currently available evidence does suggest that DCRs may have a beneficial impact on the level of access to healthcare and harm reduction services among hard-to-reach target groups; do not increase crime in the surrounding area; and may contribute to decreasing drug use in public spaces as well as reducing overall public nuisance. There is also some evidence indicating that drug consumption rooms can reduce drug-related deaths ⁽¹⁾. In addition, an expert panel concluded that DCRs may contribute to reducing injecting-related risk behaviour and therefore potentially contribute to efforts to reduce the transmission of viral infections among people who inject drugs (ECDC and EMCDDA, 2023).

Despite the difficulties of conducting research in this setting, more studies are needed to improve the evidence on the extent to which DCRs may contribute to reducing both individual and community harms, in terms of outcomes associated with both drug injecting and non-injecting routes of administration.

(1) The quality of the evidence is low because of the methodological limitations in assessing this specific outcome in the study designs that can actually be implemented in this setting. However, analysis of proxy outcomes (e.g., access to treatment, reduction in risk behaviours, etc.) are all suggestive of their beneficial effect in reducing deaths.

Introduction

Drug consumption rooms (DCRs) are health facilities that offer spaces for the supervised consumption of illicit substances. They are a local response to local problems and needs. DCRs primarily aim to prevent drug-related overdose deaths, reduce the acute risks of disease transmission through unhygienic injecting, and connect people who use drugs with addiction treatment and other health and social services. They also seek to contribute to a reduction in drug use in public places, in the process minimising littering involving discarded used injecting equipment and addressing other related public order problems linked with open drug scenes. As frontline, low-threshold services, drug consumption rooms are also often among the first sites where insights into new drug use patterns can be gained, and they therefore have the potential to play an important role in the early identification of new and emerging trends among the high-risk populations using their services.

In some countries, DCRs are a well-established and integrated component in regional or local service responses to drug-related problems. Whether and how to implement this specific harm-reduction response is very much a topic of policy interest and debate in Europe. Among other measures to reduce cases of fatal and non-fatal overdose, the European Drugs Action Plan 2021-2025 ⁽²⁾ calls for DCRs to be introduced, maintained or enhanced *where appropriate and in accordance with national legislation* – a possible sign that this sort of intervention is becoming less controversial. Nevertheless, in some countries DCRs are not currently permitted.

One of the main aims of this report is to contribute to an informed discussion about DCRs, by examining the available evidence, or lack of it, as well as reviewing the various models being adopted and their characteristics.

This report is based on a mixed-methods approach, including a review of documents published by EMCDDA and C-EHRN up to 2020, together with a structured literature search for new peer-reviewed (MEDLINE) and grey publications, including relevant health and public-order outcomes of drug consumption rooms and covering the most recent years (2020

⁽²⁾ European Drugs Action Plan 2021-2025, Priority Area 7.2. Prevent overdoses and drug-related deaths. Action 46: 'Continue to reduce drug-related deaths and non-fatal overdoses (including the role played by poly substance use), by introducing, maintaining and where needed enhancing measures to reduce fatal and non-fatal overdoses, and other risk and harm reduction and policy measures, where appropriate and in accordance with national legislation, including: (i) opioid agonist treatment, including take-home naloxone programmes; (ii) supervised drug consumption facilities; (iii) innovative approaches including digital health for people who use stimulant drugs and for young people in nightlife settings, such as peer-led outreach work, online street work in user fora or drug checking.' Source: EU Drugs Action Plan 2021-2025 (2021/C 272/02), Official Journal of the European Union. EUR-LEX – [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021XG0708\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021XG0708(01)).

and 2021). These results have been supplemented with a qualitative assessment of presentations in the session 'Implementation of drug consumption facilities in urban environments. What can be learned from existing experiences: target groups, neighbourhood, policy collaboration', held during the 5th European Harm Reduction Conference on 10-12 November 2021 in Prague (Czechia), and by several (online) events (Charvet, 2019; Drug Science 2021; C-EHRN 2020b).

The report is divided into five chapters that together provide a comprehensive overview of drug consumption rooms as a health and social response to drug-related problems in Europe. The first three chapters define what DCRs are (Chapter 1), map the legal and operational frameworks that enable their implementation (Chapter 2) and describe their functioning (Chapter 3). Chapter 4 synthesises and discusses the retrieved evidence on the effectiveness of DCRs and their impact on different outcomes, and considers the challenges of conducting rigorous research in such settings. Chapter 5 offers concluding remarks on a number of emerging and future challenges for DCRs.

1. What are drug consumption rooms?

Drug consumption rooms have been defined as professionally supervised healthcare facilities where people who use drugs can do so in safer and more hygienic conditions (Hedrich et al., 2010). Importantly, they aim to offer hygienic conditions, often supervision by medically trained staff, and a safe environment where people can use drugs without fear of arrest or legal repercussions. DCRs are intended to complement existing prevention, harm reduction and treatment interventions, and are known by various names (see Box 1). DCRs may differ significantly across, and even within, jurisdictions as they are adapted to local needs and regulatory frameworks. This is also an intervention area that is rapidly changing both in terms of approach and models of service delivery. It is important to note that both the diversity in programme design and the dynamic nature of service development in this area means that generalisations need to be made with caution.

To date there are more than 140 legally-sanctioned DCRs operating in a number of cities in 11 European countries, as well as in Australia, Canada, Mexico and the USA.

Box 1 Terminology

DCRs are and have been referred to by different names over time and in different jurisdictions. Typically, the terminology employed denotes the primary purpose of the DCR, for example: '*medically supervised injection centre*' in Australia; '*safer injecting facility*' or '*supervised drug consumption facility*' or '*safer consumption space in Canada*'; '*programa de consumo vigiado*' (supervised consumption programme) in Portugal; '*salle de consommation à moindre risque*' (low-risk consumption room) in France; or '*gebruikersruimte*' (user-rooms) in the Netherlands. In Canada, where a large number of similar facilities were set up as a crisis response to the opioid overdose epidemic, the name '*overdose prevention site*' was coined; and in Seattle (Washington, USA), the term '*community health engagement location*' has recently been suggested in order to keep the debate factual. To date, the term '*drug consumption facility*' can be found in European Union (EU) legal documents, such as the EU Drugs Action Plan. In practice, however, the facilities are mostly known to their clients, staff and community members by the actual name of the health centre, low-threshold agency, drop-in or shelter of which the DCR is a part.

Objectives of DCRs

DCRs are generally established with the aim of addressing a mix of individual health, public health and public order objectives. These services typically aim to reach out to and maintain contact with the most marginalised populations of people who use drugs — those experiencing high barriers to accessing medical and social support — and to provide a gateway through which these groups can connect with a broader range of health and social support services. DCRs further seek to reduce overdose-related morbidity and mortality, and prevent the spread of infectious diseases by offering access to sterile equipment, safer use advice and emergency interventions. By giving people who use drugs the opportunity to consume in a calm, hygienic and supervised environment DCRs also aim to reduce harms resulting from the broader 'risk environment' that socially marginalised or excluded groups may be exposed to as a consequence of multiple interacting physical, social, economic and policy factors (Rhodes, 2002).

In addition, DCRs aim to play a role in combating stigma by treating people who use drugs with dignity and supporting them in multiple aspects of social integration, such as finding employment and housing.

DCRs are usually set up in areas near urban drug markets that are characterised by high rates of public drug use. By providing a space for safe consumption that is sheltered from public view they may also have the objective of reducing drug use in public and to improve public amenities (e.g., through fewer improperly discarded syringes and less drug-use-related waste in general). In this respect DCRs can be characterised as a response to public order and safety concerns regarding drug scenes while creating an improved environment for local residents (see, e.g., Hedrich et al., 2010; Potier et al., 2014; Schäffer et al., 2014; EMCDDA, 2018).

The specific goals and objectives of DCRs can vary between cities and may change over time. The first DCRs, established in the 1980s and early 1990s in Swiss, Dutch and German cities, emerged as a local component of HIV prevention and focused on bringing populations of street-based heroin injectors closer to care. Three decades later, the most prominent argument for supporting the scaling up of DCRs in North America relates to their role as part of a comprehensive response to the opioid/fentanyl overdose crisis and the need to curb extremely high levels of opioid-related morbidity and mortality in this region.

Box 2 History and background

Offering spaces for the consumption of drugs at health facilities was among a range of new measures introduced in some parts of Europe in the late 1980s and early 1990s geared towards reducing the harms ⁽³⁾ associated with heroin epidemics. In particular, the emergence and rapid spread of the human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and rising numbers of overdose deaths among people who used heroin were drivers for the adoption of 'harm reduction' as a new approach which, furthermore, included interventions such as outreach, peer education, health promotion, the provision of sterile syringes and other clean drug-use equipment, and the scaling up of opioid agonist treatment (Hartnoll and Hedrich, 1996).

Before the introduction of DCRs, unions of people who use drugs, community-led organisations, and some health and drug facilities had established ongoing sterile needle and syringe distribution programmes. However, there remained no designated place to use drugs, resulting in drug use taking place in public spaces, particularly on the street. In this context, the introduction of DCRs was not only a response to urgent health problems but was also aimed at addressing public order issues linked to open drug use scenes around local drug markets.

DCRs represented a 'local' response, closely linked to policy choices made by local stakeholders, based on an evaluation of local need, driven by local actors and determined by the available municipal or regional options (Hedrich, 2004). While other interventions, such as needle and syringe programmes and opioid agonist treatment were widely adopted and scaled up during the 1990s, DCRs did not spread at the same pace. To date, officially endorsed DCRs exist in 15 countries worldwide (see below for more details about their locations).

Target groups

The primary target group for DCR services are people who engage in risky drug use. Facilities for supervised drug consumption tend to be located in areas that are experiencing problems in terms of public use, including communities with open drug scenes, and are targeted at people who use drugs with limited opportunities for hygienic injection (e.g.,

⁽³⁾ Drug-related harm refers both to individual consequences, such as dependence, overdose or infectious diseases contracted through the sharing of contaminated drug-use equipment, and to social, economic and public health harms to the community (public nuisance, crime, healthcare costs and the high prevalence of blood-borne infections).

people experiencing homelessness, including those living in insecure accommodation or shelters). They provide an alternative for people who would otherwise use in an environment where the risk of harm is high due to factors such as the need to administer drugs rapidly, using drugs alone, and sharing or reusing injecting equipment.

DCRs are often embedded in a health or drugs facility, a drop-in centre or a shelter, and most supervised consumption facilities admit people who inject as well as those who smoke or inhale drugs (Speed et al., 2020). A limited number of facilities provide specialised support to women who use drugs or have developed tailored activities and interventions to meet the needs of migrants or gender-diverse people (see also Chapter 5).

The international context

The geographical distribution of DCRs is uneven, both at the international and regional levels. As of 2023, more than one hundred DCRs are in operation globally, with services in Belgium, Denmark, France, Germany, Greece, Luxembourg, the Netherlands, Norway, Portugal and Spain, as well as Switzerland, Australia, Canada, Mexico and the USA. Table 1 shows the number of DCRs operating per country in the EU and Norway in 2022 and the cities where they are based. Figure 1 provides an overview of the geographical location of DCRs across the EU and Norway.

TABLE 1
Location and number of drug consumption facilities throughout Europe

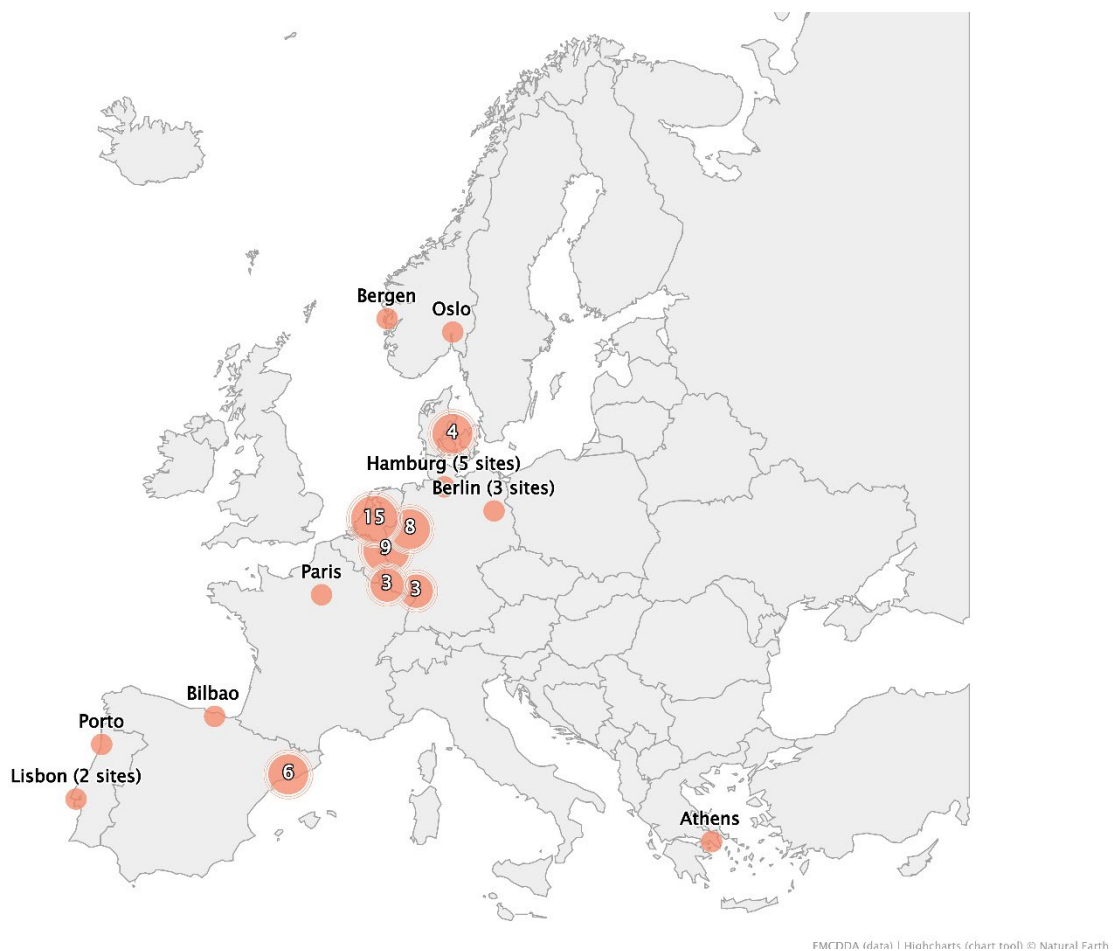
Country	City	Number of facilities
Belgium	Brussels	1
	Liège	1
Denmark	Aarhus	1
	Copenhagen	2
	Odense	1
	Vejle	1
France	Paris	1
	Strasbourg	1
Germany	Berlin	3
	Bielefeld	1
	Bochum	1
	Bonn	1
	Dortmund	1
	Düsseldorf	1

Country	City	Number of facilities
	Essen	1
	Frankfurt	4
	Hamburg	5
	Hannover	1
	Karlsruhe	1
	Köln	1
	Münster	1
	Saarbrücken	1
	Troisdorf	1
	Wuppertal	1
Greece	Athens	1
Luxembourg	Esch-sur-Alzette	1
	Luxembourg	1
Netherlands	Almere	1
	Amsterdam	3
	Apeldoorn	1
	Arnhem	1
	Deventer	1
	Enschede	1
	Haarlem	1
	Heerlen	1
	Leeuwarden	1
	Leiden	1
	Maastricht	1
	Nijmegen	2
	Roermond	1
	Rotterdam	4
	s-Hertogenbosch	1
	Tilburg	1
	Utrecht	1
Vlissingen	1	
Zwolle	1	
Norway	Bergen	1
	Oslo	1

Country	City	Number of facilities
Portugal	Porto	1
	Lisbon	2
Spain	Badalona	1
	Barcelona	9
	Bilbao	1
	Lleida	1
	Reus	2
	Sant Adrià de Besòs	1
	Tarragona	1

Sources: European Network of Drug Consumption Rooms (ENDCR) and Correlation – European Harm Reduction Network (C-EHRN).

FIGURE 1
Location and number of drug consumption facilities throughout Europe



2. Considerations for implementation

Legal and operational frameworks

DCRs either operate as a unit within a public healthcare facility (health centre, hospital) or — more commonly — are run by a non-governmental organisation. As with other harm reduction interventions, their primary source of funding is usually local government.

Depending on the host country, official endorsement of the provision of DCRs may be based on a number of different regulatory frameworks or legal approaches, for example:

- Legal expert opinion (Schultz, 1989 for Switzerland; Körner, 1993 for Germany), guidelines from the attorney-general (College van Procureur-generaal 1996, for the Netherlands);
- Specific provisions or exemptions in national drug laws (amendment to BtMG (§10a) in Germany, specific 2004 'injection room' Bill by the parliament in Norway, Law 30/2000 in Portugal, section 360 of the Drug Misuse and Trafficking Act (1985) in Australia); or
- Existing local public health regulations (Spain).

In some countries, including Belgium, France and Norway, DCRs were introduced as pilot programmes, which gave them temporary permission to operate based on a legal exemption. In addition to enabling operational frameworks, formal or informal agreements with local police may be needed for them to exercise their powers with discretion and not arrest potential service users who have drugs in their possession while approaching the facility.

The Norwegian DCR pilot programmes in Oslo and Bergen initially only admitted people who injected heroin, but in 2017, the 'Injection Act' was amended by Parliament, expanding access to include a wider range of substances (and later also to non-injecting routes of administration).

DCRs have sparked controversy in some locations, and public debate over the introduction of these facilities has often lasted for years: in Portugal, the legal basis for DCRs was established in 2001 but the first facility opened its doors 18 years later; in France, six years elapsed between the publication of an official expert report in favour of the introduction of these facilities and the start of the pilot scheme (Bello et al., 2010; Jauffret-Roustide et al., 2013; Jauffret-Roustide and Cailbault, 2018;{Roux, 2023 #365}{Lalanne, 2023 #749}). In the USA, the first two official sites were opened in New York in January 2022, although an

unsanctioned site is reported to have operated in California since 2014 in an undisclosed location.

In Ireland, the government approved the implementation of DCRs in 2016 and relevant legislation (Misuse of Drugs (Amendment) Bill 2015) was adopted in 2017. In spite of this, lack of consensus about the siting of the facilities has delayed their establishment. However, planning permission for the pilot medically supervised injecting facility in Dublin was granted at the end of December 2022 (Board Direction BD-011543-22/ ABP-31268-22) and the provider is working with various stakeholders to open the service as soon as possible.

Elsewhere, no major changes in legislation were needed to open DCRs. In Belgium, the 2018 opening of the consumption room in Liège was based on a local consensus and took place without amendment to the existing law that explicitly penalises the supply of premises for facilitating drug use (Smith et al., 2019; Vander Laenen et al., 2018).

Debates about the introduction of DCRs have been documented in other European countries, including Austria (Pötsch, 2019), Finland (Unlu et al., 2021), Slovenia (Cimerman, 2017) and Sweden (Ungdom, 2016), as well as in various other American cities (Boston, Seattle, Philadelphia and Baltimore) and at state level (e.g., New Mexico and Illinois have both introduced bills to legalise supervised consumption and legislation for a two-year pilot programme was adopted in Rhode Island in July 2021).

Box 3 The International and European Networks of Drug Consumption Rooms

The **International Network of Drug Consumption Rooms (INDCR)** is coordinated by **Correlation – European Harm Reduction Network** and was set up in 2011 as a platform to bring together knowledge and experience regarding the supervised consumption of drugs. The Network's goal is to increase access to DCRs and improve the quality of their work, building on existing scientific evidence and on the experience and knowledge of professional service providers and people who use drugs. More specifically, INDCR aims to provide guidance and training and to foster mutual support among organisations operating a DCR or planning to offer such a service. It facilitates exchange between service providers, people who use drugs and policymakers; contributes to, and supports research looking at, increased access to DCRs as well as issues relating to quality; and monitors current developments and policies to support advocacy at the local, national, European and international level. Through its website, the network provides access to synthesised information regarding the aims and goals of DCRs and the available scientific evidence, as well as links to resources and key documents. The Network management engages in

enabling the exchange of practice-related experience between DCR managers through online meetings and events, and has supported scientific research, including two global surveys, on the organisation and functioning of DCRs, as well as the collection of examples of good practice.

To address the specific needs and challenges encountered in Europe a separate **European Network of Drug Consumption Rooms (ENDCR)** was established in 2023. The ENDCR is a membership-based civil-society platform uniting organisations operating or planning to implement a drug consumption room in Europe. Its goal is to enhance the availability, accessibility and quality of these services. Hosted and coordinated by Correlation – European Harm Reduction Network, the ENDCR is governed by a Core Group and channels its activities through various thematic Work Groups. ENDCR activities aim to enhance the availability, accessibility and quality of DCRs in Europe, by supporting and organising networking, research, capacity-building, knowledge exchange and advocacy activities in cooperation with relevant European networks, organisation and institutions.

Local partnerships and community engagement

DCRs are mostly set up in urban settings that are experiencing problems related to public drug use and overdose. As with other drug services, investment in consulting and reaching a consensus with key local actors will be a critical element necessary for minimising any potential community resistance or counter-productive police responses. In addition, developing a common understanding of the current drug situation is important both for building a consensus on the health and social needs of people who use drugs, and for effectively addressing issues of concern for the local community and instructional stakeholders.

Multi-agency local partnerships or neighbourhood committees have also been identified as important ingredients in successfully setting up and running a DCR. These typically take the form of local 'round-tables' of actors drawn from health and law enforcement, which are chaired by the city administration and work alongside the facility to ensure good communication is established between all the stakeholders and that coherent messages are relayed to the media (see Figure 2). The roles of these committees may include monitoring the quality of life in the neighbourhood, mediating when problems occur that involve the DCR or its service users, and sometimes implementing a broader action plan for the local community as part of an urban policy concept.

DCR staff members also play an active role in neighbourhood committees, facilitating communication with people living or working in the vicinity of the DCR and helping to address public concerns (see Box 4). Ongoing communication between stakeholders and active cooperation between the municipality, local police and health and social service providers will play an important role for the successful implementation of DCRs. There is evidence to suggest that when neighbours are kept informed, their resistance is reduced and may even dissipate over time (e.g., Jauffret-Roustide and Cailbault, 2018).

FIGURE 2
Composition of a DCR neighbourhood committee



Box 4 Setting up DCRs in Lisbon, Portugal

Learning from the experience of other locations, preparations for the establishment of DCRs in Lisbon involved the careful coordination of all public communications through a multi-stakeholder committee chaired by the municipality (Curado et al., 2021). Preparatory epidemiological studies as well as meetings in the different neighbourhoods where DCRs were to be established sensitised the city administration, health authorities, police and non-governmental organisations (NGOs) to the issues involved and enhanced mutual understanding and trust (Taylor et al., 2019).

Repeated epidemiological studies conducted by the national drug coordination body and Lisbon health authorities had documented open drug scenes in various locations across the city and a need to establish supervised drug consumption sites, to complement the already

existing network of services (DICAD/ARSLVT, 2015, 2019). During meetings with residents, discussions focused on the wider needs of the neighbourhood and not only on the establishment of the DCR. Subsequently, city authorities agreed to additional and continued investments in the generic needs of the neighbourhoods, mediated by the multi-stakeholder committee, which arguably resulted in the setting up and operation of the facilities with little public resistance.

Staff and peer engagement

In their 2016 online census (see Box 6), Belackova and colleagues document that a majority of DCRs employ nurses (80 %) and social workers (78 %). Medical doctors are engaged by about half of the surveyed facilities (46 %) and one-third (35 %) employ health educators — who are often peers. One-in-three facilities have dedicated security staff (for more detail, see Belackova et al., 2018b, pp. 16-17).

Depending on the DCR, the staff's tasks may include: the reception of service users; visual inspection of the substances to be consumed (or in some cases drug checking); and the overall evaluation of the service user. DCRs provide sterile syringes and other clean drug use equipment as required; answer questions about substances and safe consumption practices; provide education on safer drug use practices; monitor service users for potential overdose; and, if necessary, intervene in the case of adverse events.

Typically, nurses and other staff are not permitted to administer injections but provide education on safer injecting that includes *in situ* demonstrations of safer injecting techniques. Staff may be allowed to help service users to find a vein for safer injecting but would not handle any drugs they bring into the facility. After consumption, staff continue to monitor service users for signs of distress.

According to a study conducted among DCR staff in Denmark, the ability to establish relationships and build trust with DCR service users in a rather hectic environment is central to the effective functioning of the service. Once staff have gained the trust of the service user, they can focus on encouraging them to seek support and assistance beyond the DCR (Kappel et al., 2016).

Typically, staff responsible for welcoming and registering service users collect specific pre-defined data, such as basic personal information and attribute a unique identification (ID) number or code to each individual, but may also collect additional data regarding each visit, such as the time of day and the drug used. In some facilities, staff engage in data collection

within the framework of cross-sectional surveys to document trends in the well-being of individual service users, namely gathering information on health and health-related behaviour, as well as on access to, and use of, drug rehabilitation programmes and primary and secondary healthcare facilities.

The duties of staff in response to drug-related emergencies are usually defined in site-specific operational protocols. Staff are trained to administer naloxone (in response to an opioid overdose) and directed to contact emergency services in the event that a service user experiences an overdose. However, their role in overdose prevention may be much broader. An observational study in Denmark describes how DCR staff employ both informational and interventionist strategies to prevent overdoses: during the supervision of consumption, this is informed by collecting information about the strength of the drugs in circulation. This enables them to inform those who intend to consume such drugs about the potential risks. Staff also evaluate those who enter the premises and assess their current levels of risk. As all service users are registered, staff can base this evaluation on their knowledge of the person, in addition to their current interaction and observations (Kappel et al., 2016). Staff are trained in first aid and equipped to deal with overdoses if they occur, employing positive pressure ventilation (rescue breathing) using a bag valve mask (Ambu bag), giving oxygen, or administering naloxone to those who have taken an opioid and are not breathing, in addition to calling an ambulance.

As many drug consumption rooms allow the use of stimulants, staff monitor service users for symptoms of stimulant toxicity and are usually trained to manage those who experience stimulant overdose. In the event that a service user experiences stimulant toxicity or acute mental distress, staff will seek emergency help.

Entering into dialogue with people who use drugs and the promotion of peer involvement are among the principles underlying a harm-reduction approach (ECDC and EMCDDA, 2011). It is also generally accepted that the participation of people who use drugs in service design and delivery can have positive effects on the quality of the process and its outcomes.

The level of involvement of DCR visitors in the elaboration of goals, service offers or house rules was assessed in an organisational overview, based on reports from the managers of 63 DCRs (Woods, 2014). In about one-third of the facilities, service users were involved in defining goals and services (e.g., through client surveys) and a quarter of DCRs employed (former) people who used drugs as members of staff. Differences exist regarding the involvement of service users in defining house rules: while 40 % of Dutch facilities involved them, this was only the case in 6 % of facilities in other countries.

3. How drug consumption rooms operate

Models of service delivery

Two operational models are typically employed in Europe:

- (1) integrated DCRs, operating within low-threshold facilities, where the supervision of drug use is just one of several services offered; and
- (2) specialised DCRs, which provide a relatively narrow range of services directly related to supervised consumption.

DCRs may also be located within a fixed site or provided as a mobile service. There is not therefore one single operational model, with variations apparent in organisation, staffing and service delivery reflecting both resource availability and the needs of the community where the DCRs are situated.

Two surveys of DCRs in Europe (see Box 6) (Woods, 2014; Belackova et al., 2018b) report the availability of a wide variety of support services offered alongside supervised consumption, particularly with respect to DCRs based on the integrated model. These support services may include information and training offered by DCR staff targeting the reduction of risk behaviours, morbidity and mortality among people who use drugs, alongside the facilitation of access to services. Health education and promotion, often delivered by peers (including people with lived experience) ⁽⁴⁾, is aimed at reducing behaviours such as sharing syringes and other equipment that put people who use drugs at risk of contracting infectious diseases, for example HIV and hepatitis C (Taylor et al., 2019; Woods, 2014; Belackova et al., 2018a). Safer use training seeks to empower people who use drugs to consume them more safely, outside as well as inside the facility. Some DCRs also offer drug-checking services.

There is a high prevalence of blood-borne infections such as HIV, HBV and HCV among people who inject drugs, and DCRs can provide an opportunity to reach an important population of untested and untreated individuals (Belackova et al., 2018b). By offering infection prevention and on-site treatment to this group, DCRs can therefore potentially contribute to reaching global health goals in the HIV/AIDS and HCV areas.

⁽⁴⁾ Person(s) with lived experience are regarded as 'experts by experience' through their first-hand experience of a diagnosis or health condition, such as substance use and dependence. The personal knowledge gained through this direct, first-hand involvement can contribute to significantly improved outcomes in the care and treatment of others with the same condition. See for example Cheng and Smith (2009).

Emergency interventions and the take-home naloxone programmes provided at DCRs aim to lower rates of overdose-related morbidity and mortality among service users. These are intended both to prevent premature deaths and to reduce the strain on ambulance services, and to contribute to a reduction in long-term adverse health consequences and costs.

Furthermore, where DCRs promote voluntary access to other types of support, including housing, social, economic and legal services, they can serve as a conduit for accessing evidence-based detoxification and drug treatment services.

Finally, DCRs can potentially provide valuable 'real-time' drug market monitoring data that can be used to help alert people who use drugs, harm-reduction service providers, public health professionals, researchers and law enforcement agents about highly potent or adulterated batches of drugs circulating in the community (Chapter 5).

Integrated services

The most common set-up for a DCR is as a physically co-located service, integrated within a healthcare facility such as a community-based harm reduction centre and functioning as part of its broader service portfolio, or as an adjunct service to an overnight shelter or other housing service. Here, the supervision of drug consumption is one of several harm-reduction and survival-oriented services offered within the same premises, which may include: drop-in services with the provision of food, showers and clothing; shelter; a social room; psychosocial care; a drug-checking service; medical care, including wound care and voluntary testing for infections; advice, counselling and referral to treatment for substance use; and, in some cases, access to employment programmes.

Specialised services

Where large capacity is required, supervised drug consumption services may operate in the form of specialised stand-alone facilities. While they still function as part of a local network through which their clients can access further health and social services, they are physically separated. This type of provision typically offers a narrower range of services, directly related to supervised consumption, which includes providing hygienic drug use equipment and materials, advice on health and safer drug use, intervention in the case of emergencies and a space where people who use drugs can remain under observation after the consumption of a drug.

Core services directly related to supervised consumption may include:

- Education on the harms of drug use, safer consumption practices and safer sex;
- The provision of sterile syringes, pipes and other drug use equipment and materials;
- Supervision during, and observation following, drug use;

- Safe disposal of used equipment;
- Emergency medical care in the case of overdose or other adverse reactions; and,
- Basic health services, for example wound care.

In a few locations, supervised consumption spaces are provided via outreach vehicles, in particular in neighbourhoods where strong resistance from local residents has prevented fixed premises from being established; where funding is limited; or where several small, dispersed local drug scenes exist. Mobile DCRs consist of specially fitted vans or buses with typically one to three injection booths. They have the advantages of being less costly to set up and more flexible in terms of service delivery, i.e., services can be provided to clients in more than one location. However, mobile DCRs are subject to limitations, for example with regard to the type of drug consumption that can be accommodated, which is usually restricted to injecting as supervision of drug smoking requires a separate compartment within the mobile unit equipped with an exhaust system. Their operation can also be severely affected by the weather. Similar to specialised DCRs at fixed locations, mobile facilities usually work as part of a wider local network of services, and staff refer (and sometimes accompany) clients to other service providers, as required.

What typically happens at a drug consumption room?

DCR service users bring their own pre-obtained drugs and consume them in the presence of trained staff. Depending on the site, drugs are injected, snorted/sniffed, inhaled/smoked or consumed orally. Trained staff are available to give advice on safer injection practices, giving recommendations on the selection of injection site and techniques, as well as information on less risky practices. During and after the consumption process, staff monitor service users for signs of overdose or other adverse events so that they can provide assistance if required. Staff will intervene if there is an accidental overdose or if service users experience physical or mental distress for any other reasons (e.g., cardiac arrest or an allergic reaction).

The space where drug consumption takes place is physically separated from other parts of the facility and access to it is controlled. Before entering, staff assess what substance the potential service user is planning to use, give out hygienic drug equipment and provide advice on safer use as required. After consumption, the service user remains under observation (some DCRs also have a recovery area that service users can move to after consumption).

BOX 5 Adjusting to COVID-19-pandemic-related challenges

Like other health interventions providing face-to-face services, DCRs were deeply affected by the COVID-19 pandemic, which led to several weeks of lock-down of public life and services in most countries from mid-March 2020. However, drug services reported rapid adaptation, innovation and increased service flexibility ⁽⁵⁾ (C-EHRN, 2020b; EMCDDA, 2021a). For example, most DCRs remained operational throughout the lockdowns, focusing on maintaining an essential portfolio of services, including syringe distribution and supervised consumption, although at reduced capacity, or introducing changes in implementation schemes. Following a short initial period of paralysis, harm reduction facilities quickly adapted to the changed situation and returned to operation, with some even starting to play a key role in offering frontline COVID support services for a wider clientele during the crisis; for example, as DCRs can represent a major link to wider services for marginalised groups, their functioning has been argued to be crucial for people experiencing homelessness and other issues (C-EHRN, EHRA and Drug Reporter, 2021). In response to the impact of COVID on drug markets, it is also reported that some DCRs introduced or scaled up existing drug-checking services and that there was greater collaboration with services for the homeless and new strategies were introduced to provide safe spaces for drug use, as well as to communicate health information and facilitate access to ancillary services (such as food distribution or emergency accommodation in hotels) and drug treatment (e.g., low-threshold opioid agonist treatment) (Oberzil and Schatz 2020; EMCDDA, 2021a; Roxburgh et al., 2021).

Capacity

The capacity of a DCR will depend on several issues, including opening hours, setting and funding. In the 63 facilities studied by Woods, some offered up to 13 places for injecting use (average: 7.4) and up to 14 smoking places (average: 6.7), while seven facilities did not admit smoking as a route of administration (Woods, 2014). The number of daily visitors

⁽⁵⁾ C-EHRN and EMCDDA both have dedicated websites providing a range of information resources regarding COVID and drug use: <https://www.correlation-net.org/covid-19-resource-centre/> and https://www.emcdda.europa.eu/topics/covid-19_en, respectively. Specific resources feature an EMCDDA synthesis of 'Health and social responses to drug problems during the Covid-19 pandemic' available at https://www.emcdda.europa.eu/spotlights/health-and-social-responses-drug-problems-during-covid-19-pandemic_en and the C-EHRN webinar *COVID19 & Drug Consumption Rooms*, held on 28 May 2020, a recording of which can be found at <https://soundcloud.com/robert-perez-gayo/covid19-drug-consumption-rooms-webinar-28th-may-2020>.

varied between 24 and 400. In the 2016 census, the mean number of consumption places in the participating facilities was 11, of which on average six were for injecting and the remainder were for smoking or snorting drugs. The lowest number of slots per facility was reported in Switzerland (6) and the Netherlands (5), while facilities in Germany provided an average of 15 consumption booths. The average number of daily visits was 108 (varying from three to 550), with the majority of them (65 %) for the purpose of injecting (Belackova et al., 2018a).

Box 6 Surveys on DCRs service provision

In 2013 and 2016 surveys on the functioning of DCRs and the characteristics of their clientele were conducted with the support of the International Network of Drug Consumption Rooms (INDCR) (see Box 3). A report based on a study of DCRs in six European countries ⁽⁶⁾ and Switzerland, carried out in 2013 on behalf of the European Harm Reduction Network, combined with the results from an earlier survey among Dutch DCRs, provides an organisational overview of 63 DCRs (out of a total of 95 DCRs approached by the researchers) (Woods, 2014). It includes information about the characteristics of DCRs, target client groups, admission criteria, services offered, house rules and staff composition.

An online census launched in September 2016 among all 92 DCRs in operation globally yielded responses from 51 facilities based in all 10 countries ⁽⁷⁾ where DCRs were established at that time (Belackova et al., 2018a). Besides reassessing certain aspects of the organisation and functioning of the facilities from the earlier survey by Woods, the census focused on identifying factors associated with enhanced viral hepatitis C (HCV) service provision at DCRs (Belackova et al., 2018b).

The opening hours of drug consumption rooms can constitute a barrier to access. Over half of the 63 facilities surveyed by Woods (2014) operated on a daily basis and were open on average eight hours a day. In a study carried out in a DCR in Barcelona, profiles of service users, types of drugs and patterns of use as well as the number of non-fatal overdose episodes were compared between the periods when the DCR had a 15-hour opening time and when it was open around the clock. While adding nine (mainly night-time) opening hours (an increase of 60 %) resulted in reaching only 12 % more service users, the prolonged

⁽⁶⁾ Denmark, Germany, Greece, Luxembourg, Norway and Spain.

⁽⁷⁾ Eight European countries (Denmark, France, Germany, Luxembourg, the Netherlands, Norway, Spain and Switzerland), Australia and Canada.

night-time opening period was reported to have attracted a higher proportion of women, people who inject stimulants and service users experiencing homelessness.

Admission criteria and house rules

The 2016 online census among DCRs (Belackova and Salmon, 2017; Belackova et al., 2018a) documents eligibility criteria and house rules based on data from 45 DCRs (see Tables 2 and 3). This exercise reported that access to DCRs is typically restricted to registered service users, and entry regulations sometimes exclude people under 18 years of age, pregnant women and those who have never previously injected drugs. Some DCRs offer their services only to local residents. Before the first use of the facility, individual interviews or registration surveys have to be completed in the majority of DCRs.

TABLE 2
Eligibility criteria for the use of DCRs (selection) N = 45 DCRs

	N	%
Must be a certain age	39	87
Must be drug dependent/an established drug user	30	67
Must undergo an entry interview	28	62
Required to complete a 'registration survey'	25	56
Must sign a 'terms of use' document	25	56
Clients must not be intoxicated on arrival	11	24

Source: Belackova et al. (2018a).

Twelve of 45 DCRs limited their services to local residents and nine did not allow non-injecting routes of administration, while a further two facilities only admitted people who use drugs and experience homelessness. Pregnant women who use drugs were not eligible to use the services of three DCRs.

Internal rules typically forbid violence and drug selling (see Table 3). Moreover, many DCRs prohibit drug sharing or helping other service users with drug injection, as well as alcohol and tobacco use inside the premises. Just under a third of DCRs have a rule limiting the areas of the body a person is allowed to inject.

Twenty-six DCRs stipulated a maximum duration per visit. However, repeated visits on the same day were possible in almost all facilities (42/45).

TABLE 3
House rules to be followed at DCRs (selection) N = 45 DCRs

	N	%
Do not sell drugs onsite	43	96
Do not use alcohol onsite	34	76
Do not inject other people	29	64
Do not share drugs onsite	27	60
Do not use tobacco onsite	22	49
Do not inject in certain areas of the body	13	29

Source: Belackova et al. (2018a).

House rules were reported to be generally formulated in an unambiguous and simple way, and signs with short messages such as ‘No sharing, no dealing or buying’, ‘No violence’, ‘Know your risk’ or ‘Clean up after yourself’ are common. Important aspects that determine the smooth functioning of DCRs from the perspective of staff ⁽⁸⁾ are safety (feeling/being safe), hygiene (access to clean materials) and a stress-free environment.

⁽⁸⁾ Cedric Charvet, ‘Presentation of the Drug Consumption Rooms Worldwide with Focus on Amsterdam, the Netherlands’, Experts Meeting in Vilnius on 22 November 2019 on Introduction and Promotion of New Harm Reduction Approaches in CEECA Region. Recording of the training event: <https://youtu.be/2kP8VLkVEUI>

4. Impact, acceptability and evidence of effectiveness

The analysis presented in this chapter is based on a review of documents by EMCDDA and C-EHRN up to 2020. The review aimed to synthesise and evaluate existing evidence for the effectiveness and impact of drug consumption rooms. The review was supplemented by a structured literature search for new peer-reviewed (MEDLINE) and grey publications covering the years 2020 and 2021 (see Box 7). Some additional grey literature was also reviewed. All articles describing relevant health and public order outcomes of drug consumption rooms were selected and a narrative summary of all retrieved evidence is provided in this chapter, including a methodological discussion of the findings.

Box 7 – Objectives and expected outcomes domains

The targeted structured literature review was conducted to complement findings from the reviewed reports and sections, and to assess the evidence in the context of the objectives in which DCRs can be considered to focus on: individual health, public health and public order (see the Table below). These objectives have been summarised into expected outcomes domains in the table below. However, these objectives are challenging to evaluate due to the heterogeneity of outcomes, definitions and measures addressed by different studies. Generalisation in this area is also complicated because of the different operational models reviewed.

Objectives and expected outcomes of drug consumption rooms

Objectives		
Improve the health of people who use drugs	Improve public health	Respond to public order and safety concerns
Expected outcomes		
Provision of adequate drug equipment and a clean environment to enhance health behaviours, improve injecting practices, enable safer drug use and reduce the transmission of infections.	Reduced transmission of infectious diseases through early diagnosis and treatment of those infected, avoiding related long-term healthcare costs.	Improved public amenities in areas near to drug markets; less public use; less litter.
Timely emergency intervention in the case of overdose to reduce overdose-induced morbidity and mortality.	Reduced burden of overdose attendance on ambulance services and hospital emergency rooms.	Reduced risks of infection transmission by ensuring safe disposal of used drug equipment.
Increased access of people who use drugs to medical services, in particular (on-site)	Improved social integration of people who use drugs by promoting access to health	Improving the situation for local residents by providing

primary healthcare and mental health treatment including evidence-based drug treatment programmes.	and social services, including housing and social and economic support services.	mediation services to address concerns and problems.
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Summary of the available evidence from published reviews

Four systematic reviews published between June 2014 and November 2021, evaluating different outcomes of DCRs were identified (Potier, Lapr votte et al. 2014, Pardo, Caulkins et al. 2018, Levensgood, Yoon et al. 2021, Tran, Reid et al. 2021), in addition to a systematic assessment of methodologies (Belackova et al., 2019) and a review of reviews (Kimber et al. 2010). Table 4 summarises the study characteristics and findings of these studies.

The systematic analysis of methodologies used to evaluate DCRs (Belackova et al., 2019), identifies that it is most commonly cross-sectional and cohort study designs that have been employed to assess different outcomes related to DCRs. In addition, ecological study designs (comparing locations with DCRs with those without; or comparing information available in a local before and after a centre has been established) have been used to assess the impact on overdose, public nuisance and crime. There are also a small number of studies that have developed models to try and estimate the potential impact of DCRs on blood-borne disease transmission, number of overdose deaths prevented, and costs. Finally, some reports have reviewed service records to explore the level of individual service ‘exposure’ and have been used to compare those individuals who made intensive use of DCRs with those who used the services less or not at all (Belackova et al., 2019).

The systematic reviews focusing on outcome evaluation indicate that only a few DCRs have been the subject of well-funded long-term research projects and evaluations, and that the published scientific literature shows an important geographical imbalance. While the majority of DCRs operate in Europe, research carried out in Australia and Canada represents 80 % to 85 % of retrieved publications. Generalising from different geographical locations needs to be done with caution because of the range of contextual factors that can impact on the interpretation of results. This finding does underline the need however for more methodologically robust evaluation exercises within Europe on this topic.

In part however this finding may be explained by the fact that both the Medically Supervised Injecting Centre (MSIC) in Sydney, Australia, and the supervised injecting facility Insite in Vancouver, Canada, were initially set up as scientific pilot studies and incorporated research components with relatively rigorous methodological designs (see Box 8). These research

studies are responsible to a large extent for a significant share of the scientific publications included in this review and their work represents a major contribution to the current body of evidence in this area.

Box 8 MSIC Sydney and Insite Vancouver research designs

The **MSIC Sydney** evaluation used an observational design (MSIC Evaluation Committee, 2003). The facility database provided data for process evaluation, including service utilisation, referrals, overdoses and the attitudes of both service users and staff. Serial cross-sectional studies were conducted to determine the impact on individual health outcomes. Using ecological data, notifications of new infections and ambulance attendance at opioid-related overdose events were compared between the DCR locality and control locations.

The **Insite Vancouver** evaluation used a prospective cohort design (Wood et al., 2004). A randomly selected cohort of 1 000 users of the facility were monitored on a range of health indicators and potential impacts, including risk behaviour surveys, venous blood samples to assess HIV and HCV incidence, overdose events and health-service use. A strength of the Vancouver evaluation was the existence of a community-recruited cohort of over 1 500 injectors, initially launched in 1996–97 as part of the Vancouver Injection Drug Users Study. This cohort consisted of individuals who did, and did not, use the safer injecting facility and, therefore, allowed for control-based comparisons as well as before and after analyses. As with the Sydney evaluation, the Vancouver design also included a facility database to enable the tracking of key service events (referrals, overdoses, drugs used), and data from both cohort studies were linked to a range of external databases (detoxification programme databases, hospital databases).

Both the Sydney and Vancouver research projects incorporated local resident surveys and qualitative interviews with service users, staff and key stakeholders, in addition to standardised evaluations of public order changes (discarded syringes, perceived nuisance and crime data) (Hedrich et al., 2010, p. 310).

Narrative reviews published in the early 2000s provided the first descriptive analyses of the historical background, operational framework and outcome definitions of DCRs (e.g., Dolan et al., 2000; Kimber et al., 2003; Hedrich, 2004; Zobel and Dubois-Arber, 2004). Since 2007, a number of systematic reviews have been published, including: Kerr and colleagues (2007) addressing the role of DCRs and HIV/AIDS; Potier et al. (2014) focusing on health and public order outcomes {McNeil, 2014 #763} on the experiences and perceptions of people

who inject drugs of DCRs; Clua García (2015) on outcomes of DCRs in Spain; and Kennedy et al. (2017) assessing DCR public health and public order outcomes. More recently, a review by Pardo et al. (2018) assessed the evidence on supervised drug consumption sites with a view to their introduction in the USA; Tran et al. (2021) reviewed longer-term (five-year) impacts on community and service users using systematic review methods; and Levensgood and colleagues (2021) re-inspected DCR studies for their suitability with regard to study design and quality of execution.

The reviews by Potier et al. (2014) and Pardo et al. (2018) are of particular note as they address a wide range of DCR outcomes. Both review teams used the same structured search strategy, but applied significantly different criteria when selecting the studies to include in their analyses, resulting in a more inclusive selection of studies in the Potier et al. (2014) study and a more limited selection in the Pardo et al. (2018) review, and consequently different assessments of the available evidence.

Potier et al. (2014) systematically collected, assessed and synthesised the available evidence regarding the benefits and harms associated with Supervised Injection Services (SISs) ⁽⁹⁾, covering a broad range of outcomes. This systematic review included 75 articles reporting original data on DCRs in their analysis and provided a narrative synthesis of findings, grouping them by outcome:

1. The description of DCR service users, to determine whether they were successful in reaching their target populations (14 articles reported outcomes);
2. Overdose-induced mortality and morbidity (seven articles reported outcomes);
3. Injection behaviours and their consequences (eight articles reported outcomes);
4. Impact on reducing drug-related harms (six articles reported outcomes);
5. Adherence to care of people who use drugs (five articles reported outcomes);
6. Nuisances induced by drug use in public spaces (six articles reported outcomes);
7. Local drug-related crime, violence and trafficking (four articles reported outcomes);
8. Prevalence of local people who inject drugs (two articles reported outcomes);
9. Medico-economic assessment (four articles reported outcomes);
10. Impact on opinion of local PWID (15 articles reported outcomes);

⁽⁹⁾ The original term used by the researchers, Supervised Injection Services (SIS), is retained when discussing this particular review.

11. Impact on opinion of local residents and police (seven articles reported outcomes)
(¹⁰).

Potier et al. concluded that all studies ‘... converged to find that DCRs were efficacious in attracting the most marginalised people who inject drugs, promoting safer injection conditions, enhancing access to primary healthcare, and reducing the overdose frequency’. Furthermore, ‘DCRs were not found to increase drug injecting, drug trafficking or crime in the surrounding environments. DCRs were found to be associated with reduced levels of public drug injections and dropped syringes.’ Finally, the researchers came to the overall conclusion that DCRs, ‘... have largely fulfilled their initial objectives without enhancing drug use or drug trafficking’, and that, ‘[t]he implementation of new SISs in places with high rates of injection drug use and associated harms appears to be supported by evidence’ (Potier et al., 2014, p. 48) (see also Table 4 below).

The RAND working paper by Pardo et al. (2018) was commissioned in the context of the North American opioid overdose epidemic and its aim was to help US policymakers decide on whether or not to implement safer consumption spaces (SCSs) (¹¹) as a response to this crisis. Replicating the search strategy developed by Potier’s team, and updating the review to cover articles published up to 17 January 2018, Pardo and colleagues retrieved 65 original studies reporting on previously defined outcomes. For their evidence assessment, which is focused on causal effects of DCRs at population level, they limited the selection to, ‘... studies whose design supported causal inference about population-level effect sizes (i.e., natural experiments) and simulations that translate population-level effects into aggregate benefits that can be compared to costs’ (Caulkins et al., 2019, p. 1). Discarding studies that did not meet these eligibility criteria, Pardo and colleagues identified nine studies of natural experiments (before-and-after studies) assessing population-level outcomes and eight modelling studies assessing the cost-benefits of SCSs. For reasons described above, reports from research carried out at the MSIC Sydney and Insite Vancouver again dominate this selection and lead Pardo et al. to arrive at three conclusions:

1. *Overall, the scientific evidence on the effectiveness of SCSs is limited in quality and number of locations evaluated ...*
2. *Estimating the overall effect of SCSs on fatal and non-fatal overdoses is difficult ...*

(¹⁰) In addition, Potier and colleagues (2014) extracted and synthesised the results of studies that addressed the impact of SISs on the number of local PWID; the medico-economic assessment of SISs; the opinion of PWID on SISs; and the impact of SISs on the opinions of local residents and local police. These additional results are not presented in Table 2.

(¹¹) The original term used by the researchers (SCS) is retained when discussing this particular review.

3. *For drug consumption that is supervised, SCSs reduce the risk of disease transmission and other harms associated with unhygienic drug use practices; however, there is uncertainty about the size of the overall effect. (Pardo et al., 2018, pp. vi-vii)*

While the RAND researchers find minimal causal evidence for favourable outcomes, they do not find evidence for negative effects, and note that *'During an emergency such as the present opioid crisis in the U.S., the absence of a large down-side risk for a program that has strong face validity may be sufficient for some decision makers to proceed, rather than waiting for high-quality evidence of the net effects from multiple sites demonstrating positive effects'* (Pardo et al., 2018, p. viii).

The search strategy developed by Potier and colleagues has also been applied to literature searches for systematic reviews conducted more recently by teams of researchers based in Australia (Tran et al., 2021) and in the USA (Levengood et al., 2021).

The Australian group searched the MEDLINE and Embase databases for original articles reporting client or community outcomes over five or more years and published up to June 2020 (Tran et al., 2021). Their selection resulted in four additional eligible studies (from New South Wales and Sydney, and from Vancouver) to assess the longer-term impacts of safer injection facilities. Of the five outcomes assessed by Tran et al.'s review, longer-term data were only given for the following four categories: (i) drug-related harms; (ii) access to substance use treatment and other health services; (iii) impact on the local people who inject drugs; and (iv) impact on public drug use, drug-related crime and violence. The researchers suggest that, *'long-term evidence on DCRs/SIFs is consistent with established short-term research demonstrating the benefits of these facilities'* (Tran et al., 2021, p. 4639).

A team of researchers funded by the US National Institute on Drug Abuse (NIDA) prolonged the time covered by Potier's original search until September 2019 but narrowed the focus to quantitative effectiveness studies with suitable study designs and adequate quality of execution (Levengood et al., 2021). The research group used systematic review methods developed by the US Centers for Disease Control and Prevention (CDC) and acknowledged in the US context as *'the gold standard for evidence-based public health'* (The Task Force on Community Preventive Services et al., 2005). Their review retrieved a selection of 22 studies and found that, *'For people who inject drugs, supervised injection facilities may reduce the risk of overdose morbidity and mortality and improve access to care while not increasing crime or public nuisance to the surrounding community'* (see Table 4).

As services, DCRs are particularly challenging to evaluate. As discussed in more depth in the next section, this is not helped by the low number of studies found using similar designs.

Assessment in this area is hampered by the different definitions used by reviews, or in the research questions addressed, as well as the heterogeneity of outcomes measures adopted. Collectively this hinders the pooling of results from original studies and prevent systematic reviews from producing strong evidence statements. Lack of evidence, or a body of low-quality evidence, does not necessarily mean that an intervention is ineffective. It merely shows that the intervention has not yet been adequately studied and that a high degree of uncertainty remains when interpreting the results retrieved by studies with low-level evidence and a possible high risk of bias. Taking into consideration the evidence reviews presented here, alongside the general principles of evidence-based science and decision-making outlined above, existing evidence is suggestive of a beneficial effect for DCRs on a number of outcomes, including: improving hard-to-reach target populations' access to healthcare and harm-reduction services; reducing drug-related deaths; and reducing injecting risk behaviours. In addition, a recent expert panel review supports the provision of supervised injecting facilities to reduce injecting risk behaviour among people who inject drugs, which could as a consequence contribute to the prevention of HCV and HIV transmission (ECDC and EMCDDA, 2023). There is also some evidence to suggest that DCRs have not been found to increase crime in the surrounding area, and may contribute to reducing drug use in public spaces and alleviating overall public nuisance in areas in which high levels of public drug use occur.

TABLE 4
Summary of findings: systematic reviews

Study Author, country (year)		Belackova et al., (2019)	Kimber et al. and EMCDDA (2010)	Pardo et al., USA (2018)	Potier et al., FR (2014)	Levengood et al., USA (2021)	Tran et al., AU (2021)
Study design		Systematic review	Review of reviews	Systematic review	Systematic review	Mixed methods with systematic review update of Potier et al.	Systematic review
Study aim		To synthesise and evaluate the available evidence for the impact of DCRs	To synthesise and evaluate the available evidence for the impact of DCRs	To assesses the evidence base for DCRs.	To synthesise available evidence for DCR-related benefits and harms	To determine the effectiveness of DCRs	To assess the long-term impacts of DCRs.
Outcomes reported on DRD		Insufficient evidence to support or discount effect on reduction of ODs at the community level, some possible signs at city level. Process data show no ODs occurred in DCRs, suggesting probable effectiveness	Non-coherent effect estimates of two included studies: (1) significant reduction in fatal ODs. (2) No reduction in ODs, but significant decrease in opioid- related emergency department calls.	Efficacious in reducing OD frequency	Significant reductions in opioid OD morbidity and mortality	
	... DRID or injecting risk behaviour		Insufficient evidence to support or discount effect on HIV or HCV prevalence/incidence. Tentative evidence for reduced injecting risk behaviour and improvements in injecting practices and hygiene	Reduces risk of DRID transmission and other harms associated with unhygienic drug use (overall effect size uncertain)	Efficacious in promoting safer injection conditions	Significant improvements in injection behaviours and harm reduction	DCRs helped reduce injecting-related harms.
	... acceptability and public nuisance				Associated with reduced levels of public drug injections and dropped syringes	No effect on crime and public nuisance (no increase)	Local residents and business owners reported less public drug use and public syringe disposal following the opening of a DCR
	... other assessments of impact	Research on DCR evaluation has used ecological, modelling and cross-sectional and cohort study designs		Scientific evidence on effectiveness of DCRs limited in terms of the quality and number of locations evaluated	Efficacious in attracting the most marginalised PWID and enhancing access to primary healthcare. Does not increase drug injecting, trafficking or crime	Significant improvements in access to addiction treatment programmes	DCRs facilitate drug treatment, access to health services and cessation of drug injecting
Study limitations		Descriptive results only	Publication has not been updated. No effect measures provided	No effect measures provided	No effect measures provided. Terminology: efficacious vs effectiveness	No effect measures provided	No effect measures provided

Limitations and strengths of retrieved evidence

Many systematic reviews in this area note the geographic imbalances in peer-reviewed research studies and the potentially limited transferability of results, which may reduce the generalisability and utility of the findings. Potier and colleagues highlighted the discrepancy that almost all the studies they identified for their review had been performed in Canada or Australia, whereas the majority of DCRs are located in Europe (Potier et al., 2014). However, research projects related to the facilities in Sydney (MSIC) and Vancouver (Insite) have now mostly been completed and, after a final peak around 2017-2019, publication activity has decreased. Overall, there is still a significant lack of investment in scientific research on DCRs and other harm-reduction interventions in Europe, but some evaluation studies are underway (see Box 8).

The most frequently applied study designs in this field have inherent limitations that do not allow for generalising results or analysing the directionality of a measured effect, nor do they control adequately for confounding factors. The wide heterogeneity in definitions and reported outcome measures, as well as in the terminology and methods used, compromises comparability. Also requiring attention are the limitations that hinder the pooling of results from original studies and prevent available systematic reviews from supporting strong evidence statements. Moving forward, reaching agreement on which definitions, methodological approaches and outcome measures are to be utilised will be crucial if the evidence base in this area is to become more robust.

There are also obvious ethical challenges to conducting research on this topic. Different approaches to overcoming such challenges have proved to be useful in other fields when determining the effectiveness of interventions, and a variety of methodological solutions are being explored by new research projects. For example, in France a prospective multi-site cohort study in four different cities was initiated in 2016 and its results were recently published (see Box 9). In addition, a qualitative assessment of the impact of DCRs in French-speaking DCRs is currently ongoing, and a DCR in Sydney, Australia has been exploring new indirect indicators or proxies to measure the effectiveness of DCRs on health outcomes (e.g., using the reduction in ambulance attendances involving naloxone in the vicinity of a DCR as a proxy for a decrease in severe or complicated overdoses).

Box 9 COSINUS Study

To assess the impact of DCRs on health-related complications, a prospective multi-site cohort study was conducted, the COSINUS study. It started in June 2016 and, overall, 665 people who inject drugs in four French cities (Bordeaux, Marseilles, Paris and Strasbourg) were enrolled and followed up for 12 months through face-to-face structured interviews administered by trained staff at baseline (M0), 3-month (M3), 6-month (M6) and 12-month (M12) follow-up visits. Data were collected on socio-demographic characteristics, past and current drug and alcohol consumption, drug-use related practices, access to care and social services, experience of violence (as victims), offences, other psychosocial issues, and perceptions of and needs for harm reduction interventions and services. In a first publication, data from the COSINUS cohort were used to analyse the impact of exposure to a DCR on the following three outcomes: (i) non-fatal overdoses, (ii) abscesses, and (iii) emergency room visits (Auriacombe et al., 2019). A logistic regression was performed, adjusting for significant confounding factors and non-randomisation bias. Regression models found that DCR-exposed participants were less likely to report the three outcomes (aCoeff = -0.47; 95 %CI = [-0.88;-0.07], aCoeff = -0.74; 95 %CI = [-1.11;-0.37], and aCoeff = -0.74; 95%CI = [-1.27;-0.20], respectively). This is the first study showing an association between DCRs and a reduction in the occurrence of abscesses and emergency room visits, as well as confirming their effectiveness in reducing overdoses. These findings are consistent with results from previous research, and add to the growing body of evidence on the effectiveness of DCRs in improving health-related outcomes.

In spite of the difficulties of conducting research in this area, more studies are needed to improve the body of evidence on the effectiveness of DCRs in reducing individual and community harms, as well as in improving outcomes associated with both drug injecting and non-injecting routes of administration, and those related to public nuisance or medical costs. To improve the utility of future DCR research, Pardo and colleagues suggest applying designs that involve the systematic inclusion of a control group of people who are eligible but do not access DCRs (as with existing quasi-experimental studies), or, as a way of partly overcoming ethical concerns with RCTs, conducting a cluster randomised controlled trial, randomising groups or clusters of individuals rather than individuals themselves (Pardo et al., 2018).

Evaluations of interventions applying experimental study designs in randomised controlled trials would be best suited to analysing the effectiveness of DCRs for the different outcomes under examination. It should be noted however that it can be extremely practically, ethically

and methodological challenging to evaluate some complex social interventions. As pointed out by Lisa Maher and Allison Salmon in 2007: *'The scientific, practical and ethical issues involved in applying this methodology to evaluating complex public health interventions such as DCRs mean that the likelihood of obtaining this level of evidence is negligible'* (Maher and Salmon, 2007, pp. 351-352).

However, this applies not only to DCRs. As previously mentioned, lack of evidence, or a body of low-quality evidence, does not necessarily mean that an intervention is not effective. It is instead an indication that the intervention has been insufficiently researched, and that there remains a good deal of uncertainty about interpreting the findings, as well as a risk of bias. In this particular case, the detected effectiveness of DCRs and their impact on different health outcomes are not always based on high level evidence and therefore provide only a limited certainty that the measured effect is not due to an unknown confounding factor (see the EMCDDA [Spotlight on... Understanding and using evidence](#)). In many situations, however, the evidence to support an intervention is limited due to a lack of robust analysis, or because the available evidence has not been pooled and synthesised in a way that facilitates a structured evaluation (i.e., no systematic reviews or meta-analyses of the evidence have been conducted), and additional research could improve the situation.

An opinion piece by the RAND team reflects on the complexity and difficulties of evaluating DCRs, which — they point out — emerged as a bottom-up response to particular crises. Here, the researchers frame their conclusions on the evidence with regard to the type of decision to be made and discuss them from three intellectual perspectives, labelled as those of the academic, the advocate and the allocator of scarce resources. As the researchers explain later, their *'central message is that the sufficiency of evidence ... depends on the type of decision being made and the perspective of the decision maker ...'* (Caulkins et al., 2020, p. 785). Considering that there are limitations in terms of methods and the number of sites studied, they suggest *'... that from some perspectives, such as that of a politician deciding whether to support or oppose the opening of a SCS, the existing evidence justifies moving forward'* (Caulkins et al., 2019, p. 5).

In other words, an evidence-informed approach to decision-making consists of adopting the best approaches for better health, avoiding harm and making more effective use of scarce resources. Assessment of the scientific evidence alone is not necessarily sufficient to make a decision, although it is always an important part of supporting the decision-making process. In order to inform future decisions, scientific evidence must be integrated with a balancing of possible benefits, costs and harms, considering the opinion of experts and professionals working in the field, as well as the values and preferences of the targeted population, community, frontline workers and policymakers.

5. Looking to the future

Over recent decades, the operation and functioning of DCRs can be seen to have adapted to changes in the profiles and needs of their target groups and to alterations in patterns of use, as well as to new types of drugs emerging on the market. Some DCRs have also sought to develop approaches to increase consumer protection and reduce the harms related to illicit drug markets.

As frontline, low-threshold services, drug consumption rooms are often among the first to gain insights into unfamiliar drug use patterns and, therefore, can also have a role to play in the early identification of new and emerging trends among high-risk populations using their services.

Adapting to changing patterns of drug use

Expanding to other routes of administration and addressing challenging substances

When DCRs were first established in Europe, they targeted marginalised populations who injected heroin, and most facilities initially catered only for people who injected drugs. In order to accommodate people who do not inject, and to promote a transition away from injecting to routes of administration with lower risks, supervised consumption was later expanded in some locations to include non-injection routes of consumption. Admitting those who smoke or inhale heated drugs meant that specific areas of a facility had to be separated and equipped with smoke extraction devices, which involved creating adequate architectural conditions. Currently, the majority of DCRs allow both forms of drug-taking (Speed et al., 2020).

As rates of injected opioid use in some countries decrease, consideration has been given to using DCRs to address the harms associated with smoked/inhaled use of other substances, such as crack cocaine, GHB (gamma hydroxybutyrate) and methamphetamine. This implies some changes in the aims of this response, and more research and evaluation will be necessary to assess the potential benefits of this approach with non-injecting populations.

An increase in the use of GHB among existing and new service users at DCRs has been reported from the Netherlands in a recent overview of harm reduction services in the country (van der Gouwe et al., 2022). GHB is a central nervous system depressant that is associated with a high risk of overdose and its use is not permitted in most DCRs in the Netherlands. However, some facilities now allow its use with the aim of preventing overdose risk as compared to consumption alone or in public spaces. This has prompted a discussion on

whether GHB should remain prohibited in DCRs, and how services can be extended to care for those who use this drug, as well as an identified need for training staff in how to respond to GHB.

Furthermore, the same Dutch report identified an increase in the number of DCR clients using, or being dependent on, pain medication. This is not limited to the 'traditional' group of those with opioid-use disorders but includes an increasing number of people who have become dependent on prescription opioids that they received from a healthcare professional (van der Gouwe et al., 2022).

The concept of supervised consumption has also expanded into other areas, and some DCRs in the Netherlands have now been reallocated to function as so-called managed alcohol programmes or MAPs. The arguments made for MAPs is that they may provide help to individuals with severe alcohol use disorders who are unable to stabilise within existing care systems, without requiring abstinence. MAPs dispense alcohol directly to these individuals in a monitored environment. MAPs are argued to represent a response to address the needs of those with alcohol dependence who are not ready for, are not interested in, or have previously failed, with traditional abstinence-based treatments. Except in Canada, where these programmes are gaining momentum, MAPs are still rare, but are reported to exist in Australia and a few European countries. During the COVID-19 pandemic, MAP pilots were also reported to have been implemented in the USA to aid adherence to isolation- and quarantine-setting guidelines (Ristau et al., 2021).

Drug-checking services provided by DCR

Drug-checking services enable people who use drugs to have their drugs chemically analysed, and provide information on the content of the samples as well as advice, and, in some cases, counselling or brief interventions. Service aims vary, ranging from information collection to harm reduction through informing and warning users, based on the samples analysed, about the composition of drugs that may be available on the drug market (Brunt, 2017) ⁽¹²⁾.

Drug-checking provision may be particularly relevant in settings where highly potent synthetic opioids are in circulation. To date, it constitutes a regular service offer at the

⁽¹²⁾ See also, [EMCDDA topic overview](https://www.emcdda.europa.eu/topics/drug-checking_en) on drug checking: https://www.emcdda.europa.eu/topics/drug-checking_en (accessed 24 March 2022).

majority of DCRs in Canada ⁽¹³⁾. The relevance of these services was studied at the Insite DCR in Vancouver during 2016/17. Service users were offered an opportunity to check their drugs for fentanyl using a test strip designed to test urine for the presence of this substance. Over a period of 50 weeks, 1 411 samples were checked (1 % of visitors used the opportunity to test their drugs) and nearly 80 % tested positive for fentanyl. One in three people who had received positive confirmation of fentanyl reported an intention to reduce their drug use, which was associated with significantly lower odds of overdose among this group in the 50-week period (Karamouzian et al., 2018).

From February 2017 to March 2018, the SKYEN DCR in Copenhagen conducted a pilot project to gain experience in running an anonymous drug-checking service (Gosmer, 2018). The main goal of the project was to acquire inside knowledge about the drug market in the vicinity of the DCR in order to strengthen the relational and harm-reduction work of the staff with users. Over a period of 10 months, the project analysed 306 samples – submitted by 122 unique users – using a Bruker Alpha FT-IR system ⁽¹⁴⁾. Most of the samples (73 %) were cocaine and the majority of these (77 %) were of very high purity with no additives detected in them. The project identified the presence of the carcinogenic and nephrotoxic substance phenacetin as a cutting agent in 17 % of the cocaine samples, which had not previously been known to staff. The project was regarded as providing value to the service and drug checking has become a regular offer for service users at SKYEN.

More recently, a number of pilot projects have been implemented in DCRs in Europe using drug-checking technologies, some using rapid and non-destructive results.

The needs of particular groups

The characteristics of people who use the services of DCRs are disparate, with various groups facing different challenges and having particular needs, as is the case with people who experience homelessness, migrants, and women and gender-diverse people. DCRs may thus need to adjust their services to the changing profiles of their clients.

Studies on changes in the profiles of people using DCRs are scarce. However, an inventory of harm-reduction services in the Netherlands, based on interviews with staff, highlights that

⁽¹³⁾ See authorised services in supervised consumption sites in Canada on the interactive map provided by Health Canada, <https://health.canada.ca/en/health-canada/services/drugs-medication/opioids/responding-canada-opioid-crisis/map.html>; as of 24 March 2022, 29 of the 38 Canadian DCRs provided drug-checking services.

⁽¹⁴⁾ A Bruker Alpha FT-IR system is an instrument to carry out photothermal infrared spectroscopy. This drug-checking methodology has the advantage that it does not require the dissolving of any part of the substance as it uses laser technology to classify drugs based on their physical and chemical properties.

there might be increasing demand to provide services for those below the age of 35 (who may also be new migrants or seeking asylum), and barriers may also exist to help-seeking for these groups. Some municipalities work in close cooperation with DCRs and other care institutions to ensure that these individuals can receive the help they need (van der Gouwe et al., 2022).

Box 10 Improved housing offer was associated with a reduced demand for DCRs in the Netherlands

Reducing the nuisance caused by people consuming drugs in the streets was one of the main reasons for setting up the first public DCR in the Netherlands in 1994. Public DCRs are accessible to anyone who uses drugs, with only simple registration required. Up to 2010, the number of facilities had increased to 37, but since then it has dropped to 17 (in 2021). This does not include private DCRs in care facilities or half-way houses, access to which is reserved for people who use drugs and who also access other care or services provided at these facilities (van der Gouwe et al., 2022).

It has been suggested that a main reason that helps explain this decrease is the reduced demand for public DCR services in the context of new initiatives in the field of housing being developed for people who use drugs and experience homelessness, such as hostels and 'around-the-clock' (24/7) shelters where consumption is allowed and to which people who use drugs have relatively simplified access. Due to the availability of affordable housing and Housing First (HF) projects, the number of people who use drugs experiencing homelessness in the country is estimated to have decreased. The latest Dutch harm-reduction inventories (de Gee et al., 2018; van der Gouwe et al., 2022) document that some DCRs were closed due to lack of demand, while others switched their target group from drug to alcohol users and implemented managed alcohol programmes in their facilities, or changed their status from public to private. In 2020, the total number of individuals using DCRs in the Netherlands ⁽¹⁵⁾ was estimated to be around 600 (van der Gouwe et al., 2022). With the changing profiles of service users (a large proportion of which are now ageing people who use drugs with somatic health problems), the current priorities of Dutch DCRs also appear to be more focused towards providing care than preventing drug-related nuisance.

⁽¹⁵⁾ In their 2021 survey, van der Gouwe and colleagues (2022) collected qualitative data by means of interviews and questionnaires from employees of 17 DCRs.

People who use drugs and experience homelessness often face significant barriers to accessing healthcare, drug treatment and social services. Typically, they use generic low-threshold homelessness and drug services, including DCRs, where they may comprise a relatively large proportion of all service users (Magwood et al., 2020).

Women and gender non-conforming people who use drugs can face unique barriers to accessing harm-reduction services. Some specialised DCRs are now introducing approaches intended to addressing the structural barriers faced by women who use drugs when accessing such services. Examples are the DCR of Metzineres in Barcelona, the facility of Ragazza in Hamburg (see Box 11) or Sisterspace in Vancouver.

Box 11 Ragazza – a women-specific drug-consumption facility in Hamburg, Germany

Ragazza is a low-threshold contact point and shelter for women located in Hamburg's St Georg district. It offers the services of a contact and counselling centre and acts as a meeting place and day shelter for women engaging in sex work who use drugs. A cafeteria arranged like a small living room is the first point of contact and a place where women can meet, rest and provide themselves with essentials, or just talk. Fundamental survival-oriented services are offered, including food and drinks, sterile syringes and other supplies for safer drug use, condoms and lubricants, as well as confidential advice, including information on various issues surrounding drug use, harm reduction, safer sex, social benefits and insurance, housing and planning of further life perspectives. Women can take a shower, use the washing machine, or take advantage of the supervised drug use facilities where they can smoke or inject drugs under hygienic and safer conditions in the presence of a professionally qualified member of staff. Ragazza also offers medication and medical advice, including acute treatment for wounds and injuries, the treatment of infections, vaccinations and primary gynaecological care. The all-female multi-professional team at Ragazza consists of social workers, nurses, a service manager, an administrator, housekeeping staff and students employed as educational assistants. A female physician is available for consultation two days a week. As homelessness is a typical feature of life for many women involved in drug-related sex work, during opening hours Ragazza offers up to four emergency beds in safe surroundings for women who need to recover from street life.

(See also: <http://ragazza-hamburg.de/about-us/ragazza-e-v>)

Toleration of micro-dealing

The concept of toleration of micro-dealing refers to allowing, with the cooperation of the police and local law enforcement entities, the discreet buying and selling of small quantities of drugs in places close to DCRs, as long as this does not disturb the local population.

In Switzerland, a 2018 study on street-dealing in the cities of Bern and Zürich identified a number of 'tolerance areas' for micro-dealing. In both cities, such areas existed near DCRs, or as in the case of Bern, inside the DCR (in the courtyard) and in some housing facilities, while at the same time clear, it was reported that strict rules, counterbalanced this approach for dealing outside of the area of tolerance.

Allowing micro-dealing has been described as a pragmatic law enforcement strategy based on new forms of cooperation between DCRs/health services and law enforcement in pursuit of the common goal of reducing the amount of dealing around the facility and preventing public drug use in other areas of the city (Esseiva et al., 2019; Eurasian Harm Reduction Association, 2020).

Opportunities for monitoring and research

In recent years, some DCRs have played a role in monitoring local drug markets and emerging health concerns. Service records, for instance, provide individual-level data that may provide insights into possible changes in safer injecting practices and the uptake of health and social services among various groups of individuals. Additionally, as a setting where illicit substances are consumed, DCRs may allow for 'real-time' insights to be gained into local drug markets and some understanding of trends in substance content through analysis of the residue left behind after drug consumption or of samples provided by clients for testing.

Knowledge of what substances are being injected in a specific location is important to guide prevention strategies and to plan the provision of treatment, as well as providing information to law enforcement agencies (EMCDDA, 2021b). Three European DCRs, in the Netherlands and Norway, are currently participating in a multi-city syringe study conducted by the EMCDDA that investigates the substances used by people who inject drugs by chemically analysing the content of used syringes. The European Syringe Collection and Analysis Project Enterprise (ESCAPE) seeks to complement existing data on substances injected by people who use drugs. This analysis may help to identify dangerous substances and variations in purity that can increase overdose risks (Gjerde et al., 2020; Lefrancois et al., 2020). Furthermore, identifying associated risk factors, such as the use of multiple substances and/or the reuse of injecting material, is useful in assessing and improving harm-

reduction interventions. As DCRs are located close to markets and their service users consume substances they have recently acquired, analysing residues facilitates the detection of new substances and timely alerts to other people who use drugs.

Data from drug-checking services have provided a valuable contribution to early warning systems and the monitoring of drug availability in the European Union. To date, drug checking is still not a regular service offer at most DCRs, apart from those in Canada ⁽¹⁶⁾, but an increasing number of services are exploring the options of offering this service, and the resulting data may in the future contribute to the monitoring of trends in drug consumption patterns among those using these services.

DCRs may also offer a setting to study the implementation of evidence-based interventions related to high-risk drug use. Their capacity to reach otherwise hidden groups of people who use drugs, their closeness to the consumption processes itself, as well as their local character and strong links to the community, provide opportunities for research with this group. For example, safer-use messages, harm-reduction strategies and treatments tailored to the individual needs of DCR clients can be developed and tested, while being directly validated by practice, and provide evidence to support decision-making processes and future research.

⁽¹⁶⁾ See authorised services in supervised consumption sites in Canada in the interactive map provided by Health Canada, <https://health.canada.ca/en/health-canada/services/drugs-medication/opioids/responding-canada-opioid-crisis/map.html>; as of 24 March 2022, 29 of the 38 Canadian DCRs provided drug checking.

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